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Implementation of an electronic nursing care plan in a training and research hospital: qualitative examination of nurses' experiences and opinions

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ABSTRACT

Aims: The aim of this study was to qualitatively examine how the electronic nursing care plan system, which was recently implemented in a training and research hospital, was evaluated by nurses, the difficulties encountered during the integration process of the system and the solution suggestions for these difficulties.

Methods: The study was conducted with a qualitative research design and was conducted with 16 nurses using the electronic nursing care plan in a 350-bed training and research hospital in the Marmara region. Data were collected between December 2022 and February 2023 using a semi-structured interview form. Interviews were audio recorded and continued until data saturation was reached. Data were analysed using content analysis.

Results: The findings of the study were categorized under three main themes: the benefits of electronic nursing care plans, problems experienced in their implementation, and suggestions for improvement. Nurses stated that electronic care plans provide safe and effective record management, time saving and efficiency, and improve the quality of patient care. However, they stated that they faced various difficulties such as technological and systemic problems (e.g., lack of nursing diagnoses, insufficient computers and slow system) and work process problems (e.g., lack of training and the need to print out care plans). Suggestions for improvement included increasing the number of nursing diagnoses and interventions in the system, increasing the number of computers, and providing periodic trainings.

Conclusion: The results of this study show that electronic nursing care plans provide significant advantages in nursing practice, but there are some technological and systemic challenges and business process problems. Nurses made various suggestions for improvement in order to use these systems more effectively and efficiently. The study fills an important gap in the literature in this field by addressing the dynamics of electronic nursing care plans in the initial phase and the adaptation process of nurses. As a result, solving the problems experienced in the integration process of electronic nursing care plans will both improve the quality of patient care and reduce the workload of nurses. These findings have important implications for healthcare managers and policy makers in strategic planning and implementation processes.

Keywords: Electronic care plan, nursing, nursing care

INTRODUCTION

Nursing care practices play a critical role in the provision of health services. Nursing diagnoses and practices used by nurses in the care services they provide to patients are of great importance in determining the scope and quality of nursing services. Nursing diagnoses have emerged with the necessity of creating a standardized language to define patients' health problems, express their current conditions, and prevent or solve possible health problems (Mendi, 2016). These diagnoses are the basic component of nursing care plans created within the framework of standards set by national and international quality and accreditation organizations. Nursing care plans are an application based on written records to identify the health-related needs of individuals and to meet these needs, aiming to provide self-care (Eriş, 2016; Öztürk et al., 2022).

Factors such as globally increasing disease burden, increasing demand for health services, and the intensity of routine work and treatments make it difficult to implement nursing care plans (Şanlı & Platin, 2015). Electronic medical records are used as an important tool to overcome these difficulties and to realize modern healthcare delivery. Electronic care plans increase quality and efficiency in healthcare services by enabling the creation, sharing and tracking of information

and data (Buçan Kırkbir & Kurt, 2020). Nurses' recording their practices electronically ensures that records are securely protected, stationery and workload are reduced, and costs are reduced (Escalada Hernandez et al., 2015; Öngün & Eyi, 2020). In addition, electronic care plans facilitate clinical decision-making processes by preventing errors and data loss that may occur in manual writing (Lee & Lee, 2021).

Electronic nursing care plans are reliable documents in legal processes thanks to the records created with digital signatures (Bilgiç & Şendir, 2014). These plans create a valuable database for research by systematically accumulating patient records. In addition, it increases patient safety by making warnings and reminders to nurses by defining patient-specific characteristics into the system. These positive effects significantly improve the quality of nursing care (Yılmaz, 2014). In a study conducted in the literature, 59.4% to 86% of nurses stated that electronic care plans contribute positively to the quality of patient care, emphasizing the importance of these systems (Tsai et al., 2020).

Although there are various studies in the literature on the implementation of electronic nursing care plans (Aleandri et al., 2022; Demiray & Babaoğlu, 2021; Russell & McNeill, 2023; Yurtsever & Karagözoğlu, 2020), there are no studies examining the effects of these systems in hospitals where these systems have just been implemented. In the process where the electronic care plan system has just started to be used, there is an important opportunity to understand the first impressions of the nurses about the system, the difficulties they face and the integration process of this new application. In the literature, there is limited information about the problems experienced in the early stages of the newly implemented electronic care plans and the solution suggestions for these problems. Generally, studies examining long-term use do not adequately reflect the dynamics and the adaptation process of nurses in the initial phase of the system. Understanding how electronic care plans are evaluated by nurses in the initial phase is critical for developing strategies to improve the effectiveness of the system. This study aims to analyze nurses' early feedback and provide recommendations for more efficient and effective implementation of electronic care plans.

In this context, it is thought that the findings of the study will provide important implications for both health institution managers and policy makers. It will contribute to improving the quality and safety of healthcare services by revealing the problems experienced in the integration process of electronic nursing care plans and solution suggestions for these problems. In addition to filling the gap in the literature, this study may provide practical information for faster and more effective adaptation of new applications.

METHODS

Ethical Aspects of the Research

Ethics committee approval was obtained from a public Bandırma Onyedi Eylül University Health Sciences Non-interventional Researches Ethics Committee (Date: 16.11.2022, Decision No: 2022-158) and institutional permission was obtained from the institution where the research was conducted at the meeting dated 19.01.23. Written informed consent was obtained from all participants who agreed to participate in the study by reading the voluntary participant information form. All procedures were carried out in accordance with the ethical rules and the principles of the Declaration of Helsinki.

Research Design

The research was conducted with qualitative research method.

Working Group

This study was conducted in a 350-bed training and research hospital providing outpatient and inpatient services in Marmara region. There are 345 nurses working in the hospital. The hospital has started to use the electronic nursing care plan system since October 2022. While determining the participants of the study, maximum diversity sampling method, which is one of the purposive sampling methods, was used in order to provide maximum diversity among nurses working in various units and in different positions.

The inclusion criteria were as follows: working as a nurse in the hospital included in the study for at least one year, actively using the electronic care plan since October 2022, being open to communication and cooperation, consenting to audio recording, and being voluntary and willing to participate in the study. Interviews continued until data saturation was reached. Semi-structured qualitative interviews were conducted with 16 nurses. Descriptive characteristics of the participants are given in Table 1.

It was observed that 75% of the participants were undergraduate graduates, with an average age of 30.81±4.92 years (23-38), a total working period of 8.43±4.58 years (1-16) and a total working period of 6.3±3.02 years (1-10) in the institution. The study group consisted of 16 nurses, 75% of whom were female and 25% were male. It was determined that 4 of the nurses worked as service unit managers, while 12 were clinic nurses. The nurses worked in various services, including intensive care (n=6), internal medicine (n=5), cardiology (n=1), pediatrics (n=3), and urology (n=1). Additionally, 37.5% of the nurses participating in the study were first assigned to this hospital, while 62.5% had previously worked in other hospitals (Table 1).

Data Collection Tool

Introductory Information Form: This form was designed to collect basic demographic and professional information about the nurses participating in the study. The form includes basic information such as age, gender, education level, current position, professional and institutional experience, and the unit they work in. This information was used to assess the demographic and occupational diversity of the participants during the analysis.

Semi-Structured Interview Form: This form, which was used to examine the experiences and opinions of nurses regarding the implementation of the electronic care plan in depth, was prepared based on previous studies in the literature and the opinions of two experts (Demiray & Babaoğlu, 2021; Holmberg et al., 2010). One of these experts is specialized in qualitative research, and the other is an experienced nurse in the clinical field. The form consists of 6 questions that thoroughly inquires in detail about nurses' experiences with the use of electronic care plans, the difficulties they face and how they benefit from this system.

Table 1. Descriptive characteristics of the participants (n=16)

Participant no	Gender	Age	Location in unit	Education	Worked service	Professional experience	Organization experience
1	Male	27	Staff nurse	License	Child service	3	3
2	Female	23	Staff nurse	License	Internal medicine service	1	1
3	Male	29	Staff nurse	License	Child service	6	1
4	Female	33	Unit manager	License	Urology service	10	5
5	Female	24	Staff nurse	License	Internal medicine service	4	4
6	Female	27	Staff nurse	License	Internal medicine service	5	1
7	Female	34	Staff nurse	License	Internal medicine service	10	2
8	Female	27	Staff nurse	Postgraduate	Intensive care service	4	3
9	Female	30	Unit manager	Postgraduate	Intensive care service	10	10
10	Female	34	Unit manager	Postgraduate	Child service	14	8
11	Male	38	Unit manager	Postgraduate	Intensive care service	16	4
12	Female	37	Staff nurse	License	Intensive care service	15	3
13	Male	29	Staff nurse	License	Intensive care service	8	8
14	Female	37	Staff nurse	License	Intensive care service	13	8
15	Female	37	Staff nurse	License	Cardiology service	10	1
16	Female	27	Staff nurse	License	Internal medicine service	5	1

The form consists of 6 questions that thoroughly inquire about nurses' experiences with using electronic care plans, the challenges they encounter, and how they benefit from this system.

Data collection: The data were collected between December 2022 and February 2023, two months after the system was introduced. Before starting the data collection process, a pilot study was conducted with three nurses to test the effectiveness of the in-depth interview questions. This preliminary study was important to assess the clarity and scope of the questions. The pilot study was not included in the study. Interviews with nurses who agreed to participate in the study were conducted at their convenience and in appropriate settings (e.g., nurses' rest rooms in clinics and the meeting room of the hospital). Interviews were conducted face-to-face and individually, and each interview was recorded with a voice recorder. Interviews were continued until data saturation was reached, and after a total of 16 interviews, 3 additional interviews were conducted to increase the reliability of the data as themes and sub-themes started to recur. In this way, it was decided that data saturation was reached and the interviews were terminated. The interview durations were conducted without any time limitations for the participants, and the durations varied between 15 and 35 minutes.

The first author of this study is a female researcher with a PhD degree in Nursing Management and experienced in qualitative research. The second author is a PhD student in Nursing Management and an active nurse working in the hospital where the research was conducted. During the research process, the second author was responsible for conducting the interviews and transferring them to the computer.

Statistical Analysis

The recorded audio data were transferred to the computer environment and written using Microsoft Word. Content analysis method was used to evaluate the data. The data were read many times by the researchers and themes were created from each word, sentence and paragraph. The analysis of the data was carried out with the level coding system using the manual method and themes were created. Level coding was applied as open coding (first level), selective coding (second level), and themes (third level) (Toker, 2022). After this stage, the relevant codes were classified, and themes and sub-themes were formed. As a result of this thematic analysis, 3 main themes and 8 sub-themes were identified. The findings related to the main themes and sub-themes were coded by giving numbers to the participants and presented in the research report by indicating them at the end of the sentence.

Validity and reliability: The reliability and validity of the data were supported by methodological rigor. The validity of the interview questions was pre-evaluated and approved by two experts in terms of face validity. During the data collection process, trusting relationships were established with the participants. In addition, participants were asked for clarification for unclear statements during the interviews, and it was ensured that the data were recorded as they were without any bias on the part of the researchers. Data saturation was recognized when the repetition of themes and sub-themes was observed and additional interviews were conducted to increase the reliability of the data.

RESULTS

At the end of the interviews with the nurses, 3 main themes were identified. These themes are:

- Benefits of an electronic nursing care plan
- Problems experienced in electronic nursing care plan implementation
- They are suggestions for improving the electronic nursing care plan.

Main Theme 1. Benefits of an Electronic Nursing Care Plan

Three sub-themes were formed in the opinions of the nurses working in the hospital where the research was conducted regarding the benefits of electronic care plans. These were safe and effective record management, time management and efficiency, quality and holistic patient care (Table 2).

Table 2. Themes and sub-themes of the benefits of electronic nursing care plan

Themes	Sub-themes	Description from interviewees
Secure and effective records management	Secure, systematic and accessible archiving	"...it ensures that what we do is securely recorded...because it is recorded, I can say "I did this" and this is evidence. Who did it, what they did, everything is written in the records (p: 1)". "We see the past records. When we open the system, for example, when we create a care plan for infection, it is safe to see the options of what to check... (p: 13)".
	Reduce the risk of loss and damage to records	"...For example, papers can burn when there is a fire in the hospital. Therefore, being in electronic environment ensures that it is under a guarantee... (p: 7)". "...there was a risk of losing our forms. However, since everything is registered on the system, even if that paper disappears, we find it in the system (p: 9)".
	Elimination of problems such as misspellings and illegibility	"... some of our friends have bad handwriting, so it is not legible. It can be very difficult to read and since the same people do not always work here, we cannot ask them and evaluate what they have written... (p: 4)".
	Ensuring accuracy and security in judicial processes	"Will be able to prevent nurses from incorrect or incomplete practice. Because not all of us have good writing, it may not be readable. Or we may find it difficult to write and write it briefly. Later, when there is a judicial process or any situation, these can be a problem for us... (p: 11)"
Time management and productivity	Saving time	"We get rid of the trouble of writing. It saves time (p: 1)". "It is both convenience, time saving and practical (p: 2)". "... Because before, when you wrote by hand, it took a very long time. This way, we can do it faster when it is electronic (p: 4)". "...it is more effective, it is easier because we see the options, so there is no waste of time, it saves time (p: 13)".
	Workload reduction	"...I think it facilitates our work, in terms of time, workload, paper and documents...in these respects it is better than the manual system... (p: 9)" "...Writing the maintenance plan one by one every day beforehand increases the workload for me... (p: 13)"
Quality and holistic patient care	Providing ease and variety in accessing nursing diagnoses	"...Boxes appear. Diagnoses appear, we choose the diagnoses. We get rid of the trouble of writing (p: 1)". "...otherwise, we could not always think of another diagnosis. We were going back and forth on the same diagnoses most of the time. So, it offered us options in terms of diagnosis (p: 5)".
	Increased patient time	"...It can allow us to spend more time with patients because it saves time (p: 6)". "...Since the diagnoses are directly ready, we can pass by putting a tick. It takes more time to write a long text. For example, I can pay more attention to the patient when I would otherwise waste time writing the diagnosis (p: 15)". "...marking the diagnoses in a selected way gives us an advantage in terms of time (p: 7)".
	Ensuring quality care	"Since it saves time, more time will definitely be allocated to care, and nurses will be used effectively and efficiently. In this sense, the quality of care will increase... (p: 11)".
	Ensure holistic assessment of patients	"...Since I will be able to make a care plan more quickly in patient care, I will be able to evaluate the patient more holistically and my one-to-one communication with the patient will increase... I will be able to see the patient more holistically in hospital nursing services rather than trying to write for a long time... (p: 10)".

Main Theme 2. Problems in the Implementation of the Electronic Nursing Care Plan

Two sub-themes were formed in the opinions of the nurses working in the hospital where the research was conducted regarding the problems experienced in the electronic care plan. These are technological and systemic problems and user and work process problems (Table 3).

Main Theme 3. Suggestions for Improving the Electronic Nursing Care Plan

Three subthemes were created in the opinions of nurses working in the hospital where the research was conducted regarding suggestions for improving the electronic care plan. These are the development of the electronic maintenance plan system, development of application conditions, user support and training (Table 4).

DISCUSSION

Theme 1. Benefits of an Electronic Nursing Care Plan

The nurses stated that the electronic nursing care plan provides a safe, systematic and accessible archiving. This finding is also supported in the literature. For example, Birol (2014) and Escalada-Hernández et al. (2015) emphasized that electronic care plans provide safe and effective record management. Nurses also stated that electronic records reduce the risk of loss and damage, eliminate problems such as misspellings and illegibility, and provide accuracy and security in forensic processes. De Veer and Francke (2010) found that electronic care plans provide safer and better-quality care. This literature supports the findings of our study.

Electronic nursing care plans have enabled nurses to save time and reduce their workload. In the literature, studies such as Büyükyılmaz and Kaya (2016) and Öztürk et al. (2022) show that electronic care plans offer significant advantages in terms of time management and efficiency. For example, nurses reported that they saved time by avoiding the hassle of writing and thus were able to spend more time with patients. Tsai et al. (2020) found that computerized records reduced the paperwork burden and increased the time devoted to direct patient care. This enables nurses to use their workforce and time more effectively and efficiently (Demiray & Babaoğlu, 2021).

Nurses stated that electronic care plans provide ease and variety in accessing nursing diagnoses and thus increase the time allocated to the patient. This finding is also supported in the study conducted by Çakırlar and Mendi (2016); in the study, 59.4% of the nurses stated that electronic patient records positively affected the quality of patient care and 57.5% stated that they increased patient safety. Electronic nursing care plans enable nurses to create care plans more quickly and efficiently, which allows for more holistic evaluation of patients (Öztürk et al., 2022).

The findings of our study are consistent with and supported by the existing literature. For example, De Veer and Francke (2010) reported that electronic nursing care plans provide safe and quality care and that computerized records are more easily and timely accessible. In a study by Ausserhofer et al. (2021), 69.42% of care workers reported that electronic care plans allow for safe care and treatment. Laukvik et al. (2024) explained that electronic care plans contribute to continuity of care and patient safety. These results support

the findings of our study and show that electronic nursing care plans provide important advantages in nursing practice. Our findings reinforce the existing information in the literature and reveal that electronic care plans are effective in both improving the quality of patient care and reducing the workload of nurses. More widespread use and continuous development of electronic care plans will improve the quality and efficiency of nursing care.

Table 3. Themes and sub-themes of problems experienced in electronic nursing care plan

Themes	Sub-themes	Description from interviewees
Technological and systemic problems	Lack of nursing diagnoses	"...for example, I am in the pediatric ward and there are no ward-appropriate diagnoses. There are only a few. Fever, lack of information. There is also dehydration. None of the rest are appropriate for the child (p: 1)". "...I see that my patient is not diagnosed with an appropriate care plan." I have to write the things I want to add in the description section, and this is not exactly the care plan I want to do, and I can write a description in a certain character in the description section (p: 10)".
	Lack of nursing interventions to be implemented	"...the fact that only specific things are registered in units such as bleeding risk or infection risk where we will intervene in diagnoses, and that we cannot add them, is a problem for us (p: 4)". "...even if there is a diagnosis, the interventions are wrong and incomplete (p: 8)".
	Lack of diagnosis and description fields to be added	"I have to write the things I want to add in the description section, and this is not exactly the care plan I want to do and I can only write a certain number of characters in the description section (p: 10)". "...In the maintenance plans, if I cannot find the diagnosis, there is no segment where I can write extra or make an explanation, there is a systemic deficit (p: 11)".
	Power outages	"...when there is a power outage, if you do not save it directly to the system, the part up to the point where we logged in at that moment is deleted, and when the power comes back on, we have to start all over again and make new entries (p:2)". "...I cannot enter maintenance plans when the power goes out on weekends, this is a problem (p:15)".
	Lack of computers and waiting times	"...there are two computers in the ward...so we sometimes have problems in implementing electronic care plans due to lack of computers (p: 2)". "...one of the major problems in creating a care plan is the lack of a computer accessible to every nurse... (p: 11)". (p: 7): "... there is only one computer in the ward, and we all have to wait for that computer one by one (p: 7)". "... we have difficulty finding a computer because there are two computers in the ward, one of them is used by the ward secretary. I actively use the computer inside as the responsible person and it can be a problem in terms of time for our other friends to use it (p: 4)".
	Slow system	"...of course, the biggest problem is that the system is heavy right now... (p: 1)" "...You know, there is a problem caused by the slowness of the computer. Let's say I did the maintenance plan, the system freezes, it doesn't save, I have to do it again (p: 3)".
Business process issues	Lack of education	"...Actually, we were not informed by the training unit and quality in the first place, and then we had problems with this issue. We didn't know how to do it; we were back to square one again (p: 4)".
	Printing and filing process	"…but you print out the care plan. You have to put it back in the file on a daily basis. This way, we give back the time you saved…(p: 1)". "...because why do we print and file what we have already recorded electronically? If only there was no filing process, it would be a waste of time for us… (p: 8)".

Table 4. Themes and sub-themes of suggestions for improving the electronic nursing care plan

Themes	Sub-themes	Description from interviewees
Development of electronic maintenance planning system	Increasing diagnoses in the system	"...Their diagnoses need to be increased. Then for the diagnosis, for example, it says result... (p: 1)". "... I think it would be better if we had the opportunity to add a new diagnostic intervention, it would make it easier for us." it would be better (p: 4)".
	Adding customization and description fields	"...Especially NANDA diagnoses, which are missing in the electronic care plan we use, should be added appropriately. The evaluation section and interventions section should be added appropriately. In addition, in cases where we perform extra interventions, there should be a separate button where we can write those interventions (p: 8)". "... a segment to systematically explain nursing care practices needs to be developed (p: 11)".
Improving terms of reference	Elimination of computer deficiencies	"...first of all, the number of computers in clinics and wards should be increased. When we enter daily care, we should wait for our other friend to enter, and computers should be increased to prevent the loss of time there (p: 7)". "...It would be good to increase the number of computers and to work with more computers so that we can plan electronic maintenance (p: 15)".
	Preventing paper waste by not printing	"...for me, it makes more sense if it stays on the computer rather than as a printout. Because it would reduce paper waste, I don't think we should print (p: 14)". "...electronic maintenance plans are already saved electronically; I think there is no need to wastepaper by taking it again (p: 15)".
User support and training	Providing periodic trainings for the clinic and the individual	"...in some places, when there is a change of unit or new recruits to the hospital, it would be easier for both the incoming person and his/her service colleagues if the training unit or the quality unit provides this training in the first place (p: 4)". "... electronic care plan training should be given to everyone. First of all, our friends who start working... They should definitely be given a training. As a result of this training, they should be made to practice (p: 7)".
	Increasing and encouraging nurse involvement	"...While preparing care plans, support should be obtained especially from the nurses actively working in that unit, and studies should be conducted on this (p: 9)". "I think I should be appreciated rather than criticized for using the electronic nursing care system.... I think there should be a certain appreciation mechanism especially for nurses who actively use the electronic nursing care plan (p: 10)".

Theme 2. Problems Experienced in Electronic Nursing Care Plan

Öztürk et al. (2022), it was reported that 16.6% of nurses considered the lack of interventions to be applied and 23.5% considered the inadequacy of diagnoses and interventions as an important problem. In addition, in the study by Ausserhofer et al. (2021), 46.61% of care workers stated that there were not enough computers in their units to allow timely documentation. These findings support the results of our study and show that problems in the implementation of electronic nursing care plans are common.

Participants stated that nursing diagnoses were incomplete and therefore they had difficulty in finding appropriate diagnoses for the patient profile. In addition, the lack of interventions to be applied in existing diagnoses was also stated as an important problem. For example, nurses stated that inadequate diagnoses and lack of interventions negatively affected the effectiveness of care plans. In the study by Öztürk et al. (2022), it was reported that 23.5% of nurses considered insufficient diagnoses and interventions as an important problem.

The nurses stated that the lack of additional diagnosis and explanation fields in the electronic care plan prevented them from customizing their care plans as needed. This problem makes it difficult to customize care plans for patients. Participants stated that these deficiencies reduce the accuracy and effectiveness of care plans. This finding is in line with Erdoğan (2003) who stated that each patient's nursing care plan is individual and has different time periods.

Power outages and lack of computers prevent nurses from using electronic care plans effectively. Loss of data during power outages and the need for re-entry cause loss of time. In addition, the insufficient number of computers and their slow operation disrupt nurses' work processes and make it difficult to complete care plans on time. In the study by Ausserhofer et al. (2021), less than half of the nursing staff (46.61%) stated that there were enough computers in their units to enable timely documentation, which supports this finding.

Theme 3. Suggestions for Improving the Electronic Nursing Care Plan

In our study, nurses made various suggestions for improving the electronic nursing care plan. The participants stated that the nursing diagnoses in the current system are insufficient and that these diagnoses should be increased. Increasing the diagnoses will allow nurses to create more accurate and effective care plans. This will enable nurses to better tailor care plans to the individual needs of patients. In the study of Hayrinen et al. (2010), it was emphasized that the deficiencies in nursing diagnoses in the system should be eliminated for effective and quality nursing care. In addition, Demiray and Babaoğlu (2021) stated in their study that the nursing diagnoses in the system were insufficient, and arrangements should be made for manual interventions. These findings support the results of our study and show that electronic nursing care plans need to be improved.

Participants stated that there were not enough computers in the clinics and wards and this situation made it difficult to implement care plans. Increasing the number of computers will allow nurses to make care plans more quickly and efficiently. In the study by Ausserhofer et al. (2021), less than half of the nursing staff stated that there were enough computers in their units to allow timely documentation, which supports this finding. Nurses stated that printing out electronic care plans caused paper waste and additional workload. Keeping records electronically and not printing them out will both save time and be environmentally beneficial.

Nurses emphasized that periodic trainings should be provided on the use of the electronic care plan system. Providing regular trainings for both new nurses and existing nurses will ensure more effective use of the system. Darmer et al. (2004) and Müller-Staub et al. (2004) emphasized the positive effects of training on the implementation of electronic nursing care.

Nurses stated that nurses who are active in the preparation of care plans should be more involved in the process and nurses who actively use electronic care plans should be encouraged. Increasing and encouraging the participation of nurses will increase the effectiveness and acceptance of care plans. Adereti and Olaugun (2019) found that training on the use of electronic care plans improved the quality of documentation.

Limitations

The results of this study are based on qualitative research methodology and a limited sample group conducted in a specific hospital. This limits the generalizability of the findings. In addition, the research was conducted over a specific time period (December 2022 - February 2023), and specific events or conditions that occurred during this period may affect the results.

CONCLUSION

In this study, the effects of electronic nursing care plans on nursing practices and the opinions of nurses on the improvement of these systems were examined. Our findings show that electronic nursing care plans provide significant advantages in improving the quality of nursing care, but some technological and systemic problems and business process problems are also present. Electronic nursing care plans offer great benefits for nurses in terms of safe and effective record management, time management and efficiency, and providing quality and holistic patient care. However, nurses face various problems such as inadequacy of nursing diagnoses in the current system, lack of nursing interventions to be applied, lack of diagnosis and explanation fields to be added, power outages, computer inadequacy and slow operation of the system. In addition, lack of training and work process problems such as printing and filing of care plans were also cited as important challenges.

In the light of these findings, some suggestions are made for more effective and efficient use of electronic nursing care plans in nursing practices. First of all, nursing diagnoses and interventions in the system should be expanded and updated. Customization and explanation fields should be added so that nurses can adapt care plans according to the individual needs of patients. A sufficient number of computers should be available in clinics and wards and these computers should be updated regularly. The electronic care plan system should be ensured to work quickly and smoothly and slowdowns in the system should be eliminated. Safe backup systems and generators should be used to prevent data loss due to power

outages. Regular and periodic training programs should be organized for both new nurses and existing employees, and these trainings should enable nurses to use the electronic care plan system effectively. Nurses who use electronic care plans effectively should be encouraged and nurses who are successful in this regard should be rewarded. Finally, printing out the data recorded electronically causes unnecessary waste of paper and time; therefore, it should be ensured that they remain in the electronic environment as much as possible and the printing process should be minimized.

These recommendations were developed to increase the effectiveness of electronic nursing care plans and to facilitate the work processes of nurses. More widespread use and continuous development of electronic nursing care plans will increase the quality and efficiency of nursing care. In order to improve the quality of nursing care and reduce workload, both technological infrastructures should be improved, and user support should be provided. In this context, continuous improvement and development studies should be carried out to increase the quality and efficiency of nursing care.

The findings of this study suggest that continuous education and technological support are needed to enable nurses to be more effective in the use of electronic nursing care plans. By using electronic systems effectively, nurses can spend more time on patient care and improve the accuracy of records. The time savings and workload reduction of electronic care plans will increase nurses' professional satisfaction and quality of patient care. In addition, improving the customization and explanation fields of the system will make it easier for nurses to tailor care plans to the individual needs of patients.

Nurse managers should organize periodic training programs and take nurses' feedback into account to encourage the use of electronic care plans and increase efficiency. Adequate and fast computers should be available in the clinic and precautions should be taken against power outages. Paper waste should be prevented by minimizing the printing of electronic records. In addition, rewarding and recognizing nurses who use electronic care plans effectively will increase motivation. These strategies will make significant contributions to improving the quality and efficiency of nursing care.

ETHICAL DECLARATIONS

Ethics Committee Approval

The study was carried out with the permission of Bandırma Onyedi Eylül University Health Sciences Non-interventional Researches Ethics Committee (Date: 16.11.2022, Decision No: 2022-158).

Informed Consent

All patients signed and free and informed consent form.

Referee Evaluation Process

Externally peer-reviewed.

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

Financial Disclosure

The authors declared that this study has received no financial support.

Author Contributions

All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version.

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Evaluation of the knowledge, attitudes and behaviors of elderly people living within the borders of Lapta Municipality in the northern part of Cyprus regarding drug use

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ABSTRACT

Aims: Since problems with medication use lead to increased mortality and morbidity, elderly individuals should use their medications correctly. This study was conducted to determine the drug use behaviors of elderly patients and the factors affecting these behaviors.

Methods: The study was conducted with 250 elderly individuals who were registered at the Lapta Health Center and who used medication in the villages of Lapta Municipality. A questionnaire form created by the researcher and the elderly medication use behaviors scale were used to collect the data.

Results: It was determined that 49.2% of the elderly people who participated in our study were between 65-69 years of age, 50.04% were male, 38.0% used 2-3 medicines a day, 84.0% knew the name of the medicine they used, 90% knew the purpose of the medicine they used, 95.6% paid attention to the use of the medicine, but 65.2% forgot to take the medicine and 50.9% took the medicine when they thought of it. It was also concluded that 80.8% of the elderly paid attention to the expiration date of the medication, 90.4% did not recommend the medication to others, 92.8% did not use the medication recommended by others, 83.6% did not take medication without asking the doctor, 74.4% did not take medication without a prescription and if they had to use it, it was painkillers. The average score for behavior regarding drug use was found to be 39.61±7.91 (min=19, max=76).

Conclusion: It was found that those who had university education or higher, who had education, who had social security, who went to check-ups at the time recommended by the doctor, who received education about the disease, who knew the name and purpose of the drug used and who paid attention to its use had positive behaviors towards drug use. It was determined that the participants showed positive behavior towards drug use according to the score they received from the scale. The importance of providing drug education to elderly individuals and preparing this education by paying attention to characteristics such as the educational status and social security status of the individual was determined.

Keywords: Elderly, drug use, knowledge, attitude and behavior, nursing

INTRODUCTION

Aging, which is a natural process, is universal and causes a decrease in functions in all living things. Although old age is accepted as 65 years of age or older, the structural and functional changes that occur over time from the molecular to the systems level of the organism and are irreversible are defined as aging. This is the period that occurs with age. With aging, emotional, physiological, biological and functional changes are experienced, and as a result of these changes, individuals realize that they are aging and that they can no longer use many of their functions as they used to, and they call it old age (Kuvvetlioğlu, 2011; Tereci et al., 2016). It is seen that the world population has been aging rapidly for the last 50 years due to the decrease in the birth rate and the increase in life expectancy. According to the estimates made by the World Health Organization (WHO) as a result of the data collected, the elderly population, which was 600 million in the 2000s, will reach 1.2 billion in 2025. Health problems are also increasing in parallel with the increasing elderly population in the world. For these reasons, societies all over the world have to re-examine their increasing health expenditures (WHO, 2002).

While the increase in the elderly population has led to an increase in chronic diseases, it has also caused people to use more medications and multiple medications. When we look at the reasons for polypharmacy in the elderly population, we can count the following: going to more than one doctor and

getting different prescriptions, having many drugs written in prescriptions, doctors' willingness to prescribe too many drugs, and patients' willingness to use drugs according to the symptoms they carry. However, it should be kept in mind that polypharmacy has many side effects. For this reason, mortality and morbidity rates are high due to medications (Özdemir et al. 2005; Ünüvar, 2019).

As in every age group, correct drug use is extremely important in the elderly patient group. For this reason, nurses serving elderly patients aged 65 years and over should be trained on this issue and educate their patients correctly about the use, dosage, effect, time and side effects of medications. While trying to raise awareness on the harms that may be caused by polypharmacy and the picture that may arise if it is not prevented, it is known that serious behavioral problems arise in individuals regarding drug consumption. It is understood that individuals buy and use medicines without being prescribed by a doctor, that they buy and use medicines on the advice of a neighbor or close friend without consulting a doctor, and that medicines that do not work for these reasons are changed or added on, leading to polypharmacy (Öztürk & Uğraş, 2017; Lunghi et all, 2022).

While nurses aim to protect and improve the health of individuals in every period of their lives, they also have an important role in maintaining their health. They have an important role in guiding individuals, families and societies in protecting, maintaining and improving their health and changing harmful habits. For all these reasons, it is also among their duties to provide accurate information about the correct use of medication (Zeybek, 2018). Therefore, nurses have important duties in this regard.

In this study, it was aimed to evaluate the knowledge, attitudes and behaviors of elderly people aged 65 years and over living within the borders of Lapta Municipality in the Northern part of Cyprus regarding polypharmacy. There are no studies in the field where similar comparisons have been made, especially in the north of Cyprus. This makes the study original. It is thought that this study will shed light on all healthcare professionals working in all private and public hospitals in the TRNC, guide how to inform these patients and review and evaluate the service provided to them. In this context, this study was conducted to determine the knowledge, attitudes and behaviors of elderly individuals living within the borders of Lapta Municipality regarding drug use in order to contribute to the literature.

Questions of the Study

- What is the average score of the elderly on their behaviors related to medication use?
- Do the socio-demographic characteristics of the elderly affect the score they receive on the scale of behaviors related to medication use?

METHODS

Ethical Aspects of the Research

The study was conducted in accordance with ethical rules. Before the study, the elderly individuals participating in the study were informed and their written informed consent was obtained. The necessary ethics committee approval was obtained from the Ministry of Health for the implementation of the research (2021/52-21) and approval was obtained from the Cyprus Science University Postgraduate Training and Research Institute Ethics Committee (Date: 17.06.2021, Decision No: 2021/35). All procedures were carried out in accordance with the ethical rules and the principles of the Declaration of Helsinki.

Type of Research

This study, which was carried out with the aim of evaluating the knowledge, attitudes and behaviors of the elderly living within the borders of Lapta Municipality in the Northern part of Cyprus, was based on quantitative data and was organized in accordance with the descriptive-cross-sectional research design.

Place and Time of the Study

The study was conducted at Lapta Health Center between June and September 2021. Lapta Health Center, which serves the people living in Lapta and Alsancak Municipality borders, provides vaccination, emergency, 112 speed, pediatric, gynecology and dental polyclinic services between 08.00-16.00. At the same time, Lapta Health Center is open 24 hours a day, every day of the week, and 2 nurses and a driver are on call for possible emergencies in the region.

Population and Sample of the Study

The study was planned to include individuals aged 65 years and over who came to Lapta Health Center between June and September 2021, and 250 elderly individuals (women, men) registered at Lapta Health Center and taking medication were included. Inclusion criteria were being registered at Lapta Health Center, being 65 years of age or older, and having regular medication use.

Data Collection Tools

The "socio-demographic questionnaire form" consisting of 33 questions and the Scale of Medication Use Behaviors of the Elderly, which was obtained by the researcher by reviewing the literature, were used to collect the data. Data were collected by interviewing each participant one-on-one and using the questionnaire method. It took an average of 20 minutes for each individual to complete the questionnaires.

Socio-Demographic Questionnaire Form

This questionnaire form was developed by the researcher after reviewing the relevant literature and receiving expert opinion. The questionnaire includes 33 questions, including 8 questions about socio-demographic characteristics, 3 questions about medication use characteristics, 3 questions about sources of support in medication use, 4 questions about health status characteristics, and 15 questions about the level of knowledge about medication use (Demirbağ & Temur, 2012; Bulakçı, 2013).

Medication Use Behaviors of the Elderly Scale

This scale was developed by Arpacı in 2008 to measure the medication use behaviors of the elderly. The scale, which consists of 17 questions in total, is a five-point Likert-type scale with positive (1, 3-6, 13, 16, 17) and negative (2, 7-12, 14, 15) statements. In negative statements, the answer "never" receives 1 point, while in positive statements, the answer

"always" receives 1 point. The scale is not evaluated on a total score; the scores obtained from each item are calculated separately. Each item constituting the scale is scored between 1-5; the scale score can vary between 17-85; a decrease in the score indicates positive behavior towards drug use (Arpacı et al. 2008). In the present study, the cronbach alpha's value of the scale was found to be 0.60.

Statistical Analysis

The data were transferred to the computer environment with the SPSS 26 package program and the data were evaluated using the same statistical program. Frequency, percentage and mean were used in the descriptive analysis of independent variables in the evaluation of the data. Since it was determined that the data obtained from the behaviors of the elderly regarding the use of medication scale used in the study did not show normal distribution (Kolmogorov-Smirnov z=.097 p=0.000) as a result of the normality test performed to determine the significant difference analysis with independent data, it was evaluated with nonparametric Mann-Whitney U and Kruskal-Wallis tests. The significance level was taken as $p<0.05$ in statistical analyses used to determine significant differences.

RESULTS

When we look at the findings obtained according to the socio-demographic characteristics of the participants in Table 1; it was determined that 49.2% of the participants were between the ages of 65-69, 49.6% were female. It was found that 65.6% of the elderly individuals who were mostly (40%) primary school graduates were retired, 84% were married and 58.4% lived with their spouses. It was determined that 79.2% of the elderly individuals participating in the study had health insurance and 51.6% had a moderate-income level (Table 1).

Looking at the data obtained regarding the health status of the participants, it was determined that all of the participants had a chronic disease. It was determined that 44.2% of the participants had circulatory system. It was stated that 53.2% of the elderly individuals went for follow-up visits as recommended by their doctor. While 57.6% stated that they did not receive education about the disease, 42.4% stated that they received education (Table 2).

When the situation regarding the participants' knowledge about the use of medication was analyzed, 38% of the participants stated that they took 2-3, 30.8% 4-5, 26.8% 6 or more, and 4.4% 1 medication per day. Among the questions aimed at determining the level of drug knowledge of the participants; 84% knew the name of the drug, 90% knew the purpose of the drug, 95.6% paid attention to the use of the drug, 95.2% did not overdose, 92.4% did not change the dose status of the drug, 55.6% had information about the interaction of the drug with food and beverages, 65.2% forgot to take the drug, 49.1% did not take the drug when they forgot to take the drug, 50.9% took the drug when they thought of it, 80, 8% pay attention to the expiry dates, 90.4% do not recommend the medication to others, 92.8% do not use the medication recommended by others, 83.6% do not take medication without asking the doctor, 42.8% develop complications when taking medication, 57.2% state that there are no complications, and 32.8% of the participants go to the doctor in case of complications (Table 3).

Table 1. Socio-demographic characteristics of the participants

		n	%
Age	Between 65-69	123	49.2
	Between 70-74	54	21.6
	Between 75-79	34	13.6
	80 and above	39	15.6
Gender	Famele	124	49.6
	Male	126	50.4
Education status	Literate	39	15.6
	Primary school	100	40.0
	Middle school	41	16.4
	Graduated from high school or equivalent	42	16.8
	University and above	28	11.2
Profession	Retired	164	65.6
	Unemployed	10	4.0
	Housewife	68	27.2
	Officer	4	1.6
	Worker	4	1.6
Marital status	Married	210	84.0
	Single	40	16.0
Health assurance	Yes	198	79.2
	No	52	20.8
Income status	Income more than expenditure	23	9.2
	Good	44	17.6
	Middle	129	51.6
	Bad	25	10.0
	Income less than expenditure	29	11.6
Who she lives with	With my wife	146	58.4
	Alone	40	16.0
	My wife and children	47	18.8
	My children	17	6.8

Table 2. Characteristics of participants' health status

		n	%
Chronic disease status	Yes	250	100
	No	0	0
Chronic disease*	Circulatory system	186	44.2
	Gastrointestinal system	28	6.7
	Respiratory system	42	10.0
	Nervous system	20	4.8
	Musculoskeletal system	29	6.9
	Cancer	7	1.7
	Endocrine system	98	23.3
	Urinary system	11	2.6
Check-ups due to illness	I'm going in the time recommended by the doctor	133	53.2
	I'm not leaving	13	5.2
	I'm leaving as long as there are complaints	104	41.6
Receiving education about the disease	Yes	106	42.4
	No	144	57.6

Table 3. Information status regarding drug use

		n	%
Number of medicines used	1	11	4.4
	2-3	95	38.0
	4-5	77	30.8
	6 and above	67	26.8
Knowing the name of the medicine used	Yes	210	84.0
	No	40	16
Knowing the purpose of the medicine used	Yes	225	90
	No	25	10
Paying attention to the use of medication	Yes	239	95.6
	No	11	4.4
Overdose	Yes	12	4.8
	No	238	95.2
Changing dose form	Yes	19	7.6
	No	231	92.4
Knowledge of interaction with food and beverage	Yes	139	55.6
	No	111	44.4
Forgetting to take the medicine	Yes	163	65.2
	No	87	34.8
Made when it comes to mind	I don't take the medicine	80	49.1
	I'll get it when I think of it	83	50.9
Attention to expiration dates	Yes	202	80.8
	No	48	19.2
Suggesting to another person	Yes	24	9.6
	No	226	90.4
Taking medicine prescribed by someone else	Yes	18	7.2
	No	232	92.8
Don't take medicine without asking a doctor	Yes	41	16.4
	No	209	83.6
Complication development status	Yes	107	42.8
	No	143	57.2
What to do in case of complications (n=107)	I quit the medicine	10	4.0
	I went to the doctor	82	32.8
	I did not do anything	6	2.4
	I consulted the nurse	9	3.6

Regarding the drug use characteristics of the participants, 74.4% stated that they did not take over-the-counter medication, and those who took over-the-counter medication stated that they mostly used painkillers (55.6%). 93.2% of the elderly individuals stated that they took their medication prescribed by the doctor on time (Table 4).

In the findings obtained regarding the sources of support in medication use, most of the participants (77.6%) stated that they had information about medication use, and 59.9% stated that they obtained the information mostly from their doctors. Regarding the use of medication, 68% stated that there was no one who helped them in this regard (Table 5).

In the results of Mann-Whitney U test and Kruskal-Wallis test performed to determine the relationship between the socio-demographic characteristics of the participants and the scores they received from the behaviors related to drug use scale; no difference was found between the variables of age, gender, occupation, marital status and who they lived with at home (p>0.05).

Table 4. Characteristics of drug use

		n	%
Taking medication without a prescription	Yes	186	74.4
	No	70	25.6
Which medicines to take*	Antibiotics	17	6.8
	Vitamin	90	36.0
	Painkillers	139	55.6
	Other	4	1.6
Taking prescribed medicines on time	Yes	233	93.2
	No	17	6.8

*Multiple options are checked

Table 5. Characteristics of support sources in medication use

		n	%
Information on the use of medicines	Yes	194	77.6
	No	20	8.0
	Not enough	36	14.4
From whom*	Family	13	4.6
	Nurse	40	14.2
	Doctor	169	59.9
	Pharmacy	60	21.3
Someone helpful	Yes	80	32.0
	No	170	68.0

*Multiple options are checked

There was a correlation between educational status and the scores obtained from the behaviors related to drug use scale (p<0.05). As a result of the post hoc test to determine the difference between the groups, it was determined that individuals with university and above, secondary school and primary school graduates had positive behaviors towards drug use compared to literate individuals.

There was a relationship between health insurance and the scores obtained from the behaviors related to drug use scale (p<0.05). It was determined that those with health insurance had positive behaviors towards drug use compared to those without health insurance.

There was a relationship between their income status and the scores they received from the scale of behaviors related to drug use (p<0.05). As a result of the post hoc test conducted to determine the difference between the groups, it was determined that those whose income was more than their expenses had positive behaviors towards drug use compared to those whose income was less than their expenses (Table 6).

According to the results of Mann-Whitney U and Kruskall-Wallis tests conducted to determine the relationship between the health status characteristics of the participants and the scores they received from the behaviors related to drug use scale, a relationship was found between the scores of those who went for control due to their illness and those who received education about the disease and the scores they received from the behaviors related to drug use scale (p<0.05). It was determined that those who went to the doctor's recommended time had more positive behaviors towards drug use than those who did not go and those who went when there was a complaint. Those who received education

about the disease were also found to have positive behaviors towards drug use (Table 7).

Table 6. The relationship between the socio-demographic characteristics of the participants and their scores on the behaviors related to drug use scale

		X	SD	p	Difference
Age	Between 65-69	39.9431	7.88368	χ^2=.310 p=.958	
	Between 70-74	39.8889	8.84386		
	Between 75-79	39.2647	7.23338		
	80 and above	38.5128	7.41574		
Gender	Woman	39.2742	7.43573	U=7.954.5 p=.803	
	Male	39.9524	8.38270		
Education status	Literate (a)	42.0256	7.24564	χ^2=10.552 p=.032	e-a, c-a, b-a
	Primary school (b)	39.4500	9.02340		
	Middle school (c)	38.9756	7.63704		
	High school graduate (d)	39.5952	7.32873		
	University and above (e)	37.8214	5.04097		
Profession	Retired	39.2073	7.69469	χ^2=3.155 p=.532	
	Unemployed	40.5000	11.04788		
	Housewife	40.3676	7.54866		
	Officer	35.7500	10.65755		
	Worker	45.2500	12.17580		
Marital status	Married	39.4333	7.65824	U=4.455.5 p=.542	
	Single	40.5750	9.21506		
Health assurance	Yes	39.1364	7.91751	U=6.123 p=.035	
	No	41.4423	7.72674		
Income status	Income more than expenditure (a)	36.1304	6.90391	χ^2=10.189 p=.037	a-e
	Good (b)	39.4318	8.28391		
	Middle (c)	39.3256	7.75923		
	Bad (d)	42.4000	9.81495		
	Income less than expenditure (e)	41.5517	5.97965		
Who she lives with age	With my wife	39.5822	7.84660	χ^2=2.238 p=.497	
	Alone	41.4750	9.29844		
	My wife and children	38.2979	6.68195		
	My children	39.1765	8.04857		

X: Mean, SD: Standard deviation

Table 7. The relationship between the health status characteristics of the participants and the scale of their behaviors regarding drug use

		X	SD	p	Difference
Going to check-ups due to illness	I go within the time recommended by the doctor (a)	38.1880	7.41635	χ^2=12.177 p=.002	a-c, a-b
	Not going (b)	43.0000	6.74537		
	I go when there is a complaint (c)	41.0192	8.35032		
Receiving education about the disease	Yes	37.1509	5.64977	U=9.893.5 p=.000	
	No	41.4306	8.82753		

X: Mean, SD: Standard deviation

According to the results of Mann-Whitney U and Kruskall-Wallis tests conducted to determine the relationship between the scores obtained from the scale of drug use characteristics and behaviors related to drug use; it was determined that there was a significant difference between the status of taking over-the-counter medication and taking prescribed medication on time and behaviors related to drug use ($p<0.05$) and that individuals who did not take over-the-counter medication and those who took prescribed medication on time had positive behaviors towards drug use (Table 8).

Table 8. The relationship between the characteristics of drug use and the scale scores on behaviors related to drug use

Buying medicine without a prescription	Yes	40.3278	8.41907	u=5.099.5 p=.019
	No	37.7857	6.13825	
Taking prescribed medications on time	Yes	39.0987	7.22744	u=2.693.5 p=.013
	No	46.7059	12.69234	

According to the results of Mann-Whitney U and Kruskall-Wallis tests conducted to determine the relationship between the scores obtained from the scale of behaviors related to drug use and the characteristics of support resources in drug use; it was determined that those who had information about drug use and those who did not have someone to help them in drug use had positive behaviors towards drug use (Table 9).

Table 9. The relationship between the characteristics of support sources in medication use and the scale scale scores on behaviors related to medication use

Information about drug use	Yes (a)	38.2487	6.92070	χ^2=21.501 p=.000	a-b a-c
	No (b)	44.9500	7.56359		
	Not enough (c)	43.8889	10.32550		
Someone helpful	Yes	41.0390	8.81154	u=6.606.0 p=.037	
	No	38.9412	7.46012		

The mean score of the participants' behavioral scale for medication use and the cronbach's alpha value to determine the reliability level of the scale are shown in Table 6. In this context, the mean score of the participants was 39.61+7.91 (min=19, max=76). The cronbach's alpha value of .604, which is the reliability level, shows that the scale is reliable (Table 10).

Table 10. Mean scores and cronbach's alpha value of the behavior scale for medication use

	X	SD	Min	Max	Cronbach's alpha
Behavior scale for medication use	39.61	7.91	19	76	.604

X: Mean, SD: Standard deviation, Min: Minimum, Max: Maximum

DISCUSSION

In this section, the findings obtained from the study are discussed using the data obtained from similar studies.

In Kuvvetlioğlu's (2011) study, it was determined that the drugs used by the elderly differed according to age but not according to gender, education and marital status, the drug use of participants aged 70 years and over differed significantly ($p<0.05$), they had a high level of education and were married and statistically drug use had a significant effect on behaviour. In their study, Camargo et al. (2006) found that age and gender had no effect on drug use and behaviour, Ertürk (2005) found that women used more drugs than men and those with higher education level used

drugs more consciously, but those with primary school level education used wrong drugs, Topbaş et al. (2003) found that there was a positive relationship between education and drug use. In line with the results we have obtained, we can say that there is a relationship between the use of medication in the elderly and their level of education and that the elderly tend to use more medication because their level of education is low, and they are not sufficiently conscious about this issue. In addition, we can argue that the fact that the elderly who live with someone use a lot of medication is that the family friends or spouses of the people they live with do not have education about the correct and regular use of medication and that the participants have low education levels.

In Table 2, when the relationship between the health status characteristics of the participants and the scores they received from the behaviours related to drug use scale was examined, a relationship was found between the scores they received from the behaviours related to drug use scale with those who went to the control due to their illness and those who received education about the disease ($p \leq 0.05$). It was found that those who went to the doctor's recommended time (53.2%) had more positive behaviours towards drug use than those who did not go (5.2%) or those who went when there was a complaint (41.6%). In addition, it was determined that those who received education about the disease (42.4%) had positive behaviour towards drug use. Oral (2021) suggested in his study that one of the most important problems encountered in irrational drug use is the self-treatment approach of patients. It was determined that 60% of the patients tried to self-medicate, but 91.6% of them received help from a physician according to their disease status. In parallel with our study, as a result of the research conducted by Oral (2021), it was found that those who had education about the disease had more positive behaviour towards drug use. Similarly, Deniz (2019) found in his study that the participants preferred to use painkillers the most and antibiotics the least without consulting a doctor. Similar findings were found in the study of Baybek et al. (2005). According to the findings of Ekenler and Koçoğlu (2016), the finding that a high rate of 77.3% of the participants in the study stopped taking medication before the time recommended by the doctor supports our study. In addition, contrary to our findings, Ekenler and Koçoğlu (2016) found that those who were more educated about the disease had more negative characteristics in terms of rational drug use. In our study, we can say that the reason why those who go to the control within the period recommended by the doctor are more positive towards drug use is due to the awareness raised by the doctor. When our study results and research findings are examined, we see that the health status characteristics of the participants and their behaviours regarding drug use are an important problem in terms of rational drug use and that some of the participants go to the doctor depending on their complaints, while others prefer not to go to the doctor. In line with the findings we have obtained, we can suggest that insufficient studies have not been carried out on this subject and that the lack of adequate education of the participants about their diseases is a factor in their misbehaviour and in this context, individual or social studies should be carried out to enlighten the patients.

According to the findings of the study, 84% of those who knew the name of the drug used, 95.6% of those who paid attention to the use of the drug, 55.6% of those who knew the interaction with food and drink, 65.2% of those who forgot to take their medication, 50.9% of those who took it when they remembered, 80.8% of those who paid attention to the dates of use, 90.4% of those who did not recommend the drug to others, 92.8% of those who did not use the drug recommended by others, 57.2% of those who had positive behaviour towards the use of drugs without asking the doctor.

Our study findings overlap with some studies in the literature. Emik (2018) found that 31.5% of the participants did not know the names of the drugs they used. Similarly, in Güneş and Kıyak's (2017) study, 79.8% of the elderly stated that they did not know the name of the medication they used.

According to our findings, it was revealed that a high proportion (90.0%) of the participants did not know the purpose of the medication they used. At this point, our study findings show parallels with the results of Emik (2018) and Haney and Kudubeş (2017). In the study conducted by Şantaş and Demirgil (2017), which parallels the results of our study in the literature, it was determined that 24, 3% of the participants did not use the medication on time and the reason for not using the medication on time (32, 2%) was forgetting. Similarly, in the study conducted by Yılmaz et al. (2011), it was determined that 12, 5% of the participants did not use the medication on time and the reason for not using the medication on time (69%) was forgetfulness.

As a result of our findings, it was concluded that the participants paid attention to the dates of use of the drugs at a high rate (80.8%). Similarly, in the research conducted by Macit et al. (2019), it was determined that 64.2% of the participants paid attention to the expiration dates of the drugs they took. These results coincide with the work of Constructive et al. (2011). In the study conducted by Solmaz and Akın (2009), it was found that 35% of the elderly did not know the purpose of their medication, 64.4% were not aware of the side effects and 63.2% did not control the expiration date. Another study that is similar to these results is seen in the study of Eski and Pınar (2005).

The findings of our study overlap with the findings of Ekenler and Koçoğlu (2016). In their study, Ekenler and Koçoğlu (2016) found that 77.3% of the participants used medication without a physician's recommendation. In contrast to our findings, Yapıcı et al. (2011) found that 84.4% of the participants took medication at the recommended times. Similar results were found in the study of Yılmaz et al. (2011). As a result of our study, we can say that the high rate of participants who do not use the medication recommended by someone else and those who do not recommend the medication they use to others is due to the awareness of the participants on this issue. Our study results do not coincide with the study of Yousef et al. (2008). In the study of Yousef et al. (2008), it was determined that the rate of drug use according to the recommendation of friends/neighbours was high. Although this situation shows that people influence each other by consulting each other about drug use, we can think that it is contrary to the issue of rational drug use.

According to the results of our study, when the drug use characteristics of the participants were analysed, it was found that 74.4% of them did not take over-the-counter medication and those who took over-the-counter medication mostly used painkillers. According to the results we obtained, it was revealed that those who did not take over-the-counter medication and those who took the prescribed medication on time had positive behaviours towards drug use. In contrast

to the results obtained from our study, Emik (2018) found that 37.2% of the participants in his study stated that 37.2% of the participants took over-the-counter medication and when questioned about the reason, they stated that they knew the drug because they had used it before, they did not want to pay for the examination and they chose to use over-the-counter medication because they did not have time. Again, findings similar to our findings in Emik's (2018) study showed that those who used over-the-counter medication preferred painkillers, and our results overlap in this direction. Dağtekin et al. (2018) supported Emik's (2018) study and found that the majority of the participants chose to use over-the-counter medication without going to the doctor and that these medications were painkillers. Similar results were found in the studies of Mete and Üna (2017) and Güngör (2018). In addition, in Güngör's (2018) study, it was determined that the intake of over-the-counter medication decreased with increasing age. In a pilot study on rational drug use in Ankara, it was reported that 75.5% of the participants used medication without consulting a doctor (Özçelikay, 2001). According to the findings of our study, it was determined that the medicines prescribed by the doctor were also taken on time. Our study results are similar to the results of Özyurt et al. (2018).

CONCLUSION

According to our study results, we can say that income level is effective on the use of prescription or over-the-counter medication, and that the participants in our study did not prefer to use over-the-counter medication because they were mostly middle-income.

In the light of the findings we obtained, it was determined that the participants had information about the use of medication and obtained this information mostly from their doctors. It was determined that 68% of the participants did not have anyone to help them with medication use. According to the results of our study, it was determined that those who have information about drug use and those who do not have an assistant in drug use have positive behaviours towards drug use. In the study of Macit et al. (2019), it was found that the participants received information about drug use from their doctors, and our findings coincide at this point. Bilgili and Karatay (2005) reached the same results in their study. However, in the study conducted by Neslihan (2010) in Adana, it was determined that more than half of the participants (51, 9%) acted without consulting a doctor about drug use. In Ercan and Biçer's (2019) study, it was determined that individuals received information about medicines mostly from the physician and that this information was related to the method of use, duration and dose of treatment, side effects, dose and cost of the drug. Barutçu et al. (2017) found that the majority of the participants did not receive support in using medication, but read the package insert before using the medication. In line with the findings obtained, we can say that individuals do not need support because they prefer to get information from the doctor and have health awareness.

ETHICAL DECLARATIONS

Ethics Committee Approval

The study was carried out with the permission of the Cyprus Science University Postgraduate Training and Research Institute Ethics Committee (Date: 17.06.2021, Decision No: 2021/35).

Informed Consent

All patients signed and free and informed consent form.

Referee Evaluation Process

Externally peer-reviewed.

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

Financial Disclosure

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Author Contributions

All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version.

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The relationship between self-efficacy level and stress coping style in nurses living in the Turkish Republic of Northern Cyprus: descriptive research

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ABSTRACT

Aims: The aim of this study was to determine the relationship between self-efficacy level and coping styles with stress in nurses working in the Turkish Republic of Northern Cyprus.

Methods: The descriptive cross-sectional study was conducted on 350 nurses between 01-30 July 2020. The study data were collected with a descriptive questionnaire, self-efficacy scale and stress coping styles scale.

Results: According to the results of the study, 80.9% of the nurses were female, 19.1% were male, the majority were between the ages of 25-29, 51.1% were single, 48.6% had been working as a nurse for 1-5 years, and 76.6% worked as a clinical nurse. It was determined that the nurses participating in the study used 'self-confident approach, helpless approach, resorting to social support, optimistic approach and submissive approach' as coping style with stress, respectively. It was determined that the mean total score of the self-efficacy scale of the nurses was 85.83±12.68, which was at a good level, and the sub-dimensions were 'starting the behaviour, maintaining the behaviour, completing the behaviour and struggling with obstacles', respectively. In the study, it was determined that as the use of all sub-dimensions of the self-efficacy scale increased, the use of 'resorting to social support' and 'self-confident approach' as a coping style with stress increased and the use of 'helpless approach' and 'submissive approach' decreased.

Conclusion: In this study, it was determined that the use of active problem-solving orientated approaches increased and the use of passive approaches decreased in all areas of self-efficacy in coping with stress. Providing in-service trainings that will increase the self-efficacy skills of nurses will ensure the use of active problem-based methods in coping with stress.

Keywords: Nurse, self-efficacy, stress coping style

INTRODUCTION

Living beings try to cope with stress since the beginning of life and develop coping methods for this purpose. According to Connan, the feeling of stress occurs as a result of the individual's internal-natural balance being damaged by environmental and external factors. In the studies on stress, it is stated that stress causes psychological and physiological problems especially in busy professional groups and negatively affects the health of individuals and naturally their organisational success (Koç et al., 2017; Akbal et al., 2001; Çankaya&Çiftçi 2019). The importance of this concept has increased since nurses, who are often together with patients in hospitals, are exposed to stress risk factors such as intense work pace, poor working conditions, challenging tasks, role ambiguities and role conflicts, lack of regular sleep, inadequate and balanced nutrition, and shift work system (Koç et al., 2017; Çankaya&Çiftçi 2019; Akyürek et al., 2005).

Self-efficacy, which was first brought to the agenda by Albert Bandura in 1977, has become important in recent years, along with the importance of self-belief for human beings. Self-efficacy, which is one of the basic elements of Bandura's social learning theory, is one of the important phenomena affecting the behaviours of the individual (Bandura, 1978). The concept of self-efficacy is defined as 'the ability of an individual to control, organise, organise and manage the situations and events around him/her that may affect his/her life in line with his/her goals, to control, organise, organise and manage the necessary activities in order to successfully perform a task that is required or expected of him/her related to a certain task he/she undertakes or is given, to achieve a certain result, to overcome the problems that may be encountered in the future; to be able to initiate and continue a behaviour in a way that can be effective on them; to be able to provide

the necessary motivation; his/her judgements, beliefs and perceptions about himself/herself related to his/her social, cognitive, emotional and behavioural capacities, abilities, skills and awareness, and the feeling of feeling the level of his/her influence on them' (Bandura, 1982; Judge et al. 2007; Sertbaş & Sergek, 2006). Self-efficacy is generally the belief that an individual can cope with stress or difficult situations when exposed to any stress or difficult situations. Self-efficacy perception, which affects people's way of thinking and emotional reactions, affects an individual's belief in his/her ability to perform a task, his/her stress level, motivation and determination. Individuals with high self-efficacy perception show the necessary struggle to achieve their goals when faced with a failure and can control their emotions better. This situation also reveals the importance of self-efficacy belief in coping with stress (Bandura, 1982; Otacıoğlu, 2008; Schwarzer & Fuchs, 1995; Sertbaş & Sergek, 2006; Ersarı et al. 2017; Zengin, 2007).

Self-efficacy is of great importance for nurses to be psychologically resilient and contributes to the person to be professionally strong at the same time (Büyükbayram &Çam 2017). The International Council of Nurses (ICN) emphasised the importance of the concept of power in nursing with the theme of 'nurses; a vital resource for health, a force for change' for power in nursing and revealed the importance of self-efficacy for strong nurses (nurses: a force for change: improving health systems' resilience ICN 2016).

The aim of this study was to determine the relationship between self-efficacy level and coping styles with stress in nurses working in the Turkish Republic of Northern Cyprus (TRNC).

METHODS

Ethical Aspects of the Study

Before starting the study, the ethics committee approval was obtained from the Ethics Committee of Cyprus Science University Graduate Training and Research Institute (Date: 29.06.2020, Decision No: 12). With the approval of the ethics committee, an application was made to the Cyprus Turkish Midwives and Nurses Association and the necessary permission was obtained to conduct the study with the members of the association. Before starting to answer the questions from the nurses who volunteered to participate in the study, the questionnaire questions were opened after they gave their consent to the consent statement in which the purpose of the research, the voluntary participation in the research, and that the information obtained from the research would be used only for scientific purposes were explained. Each stage of the research was conducted in accordance with the Declaration of Helsinki.

Material and Method

The research was conducted in descriptive cross-sectional type. The population of the research consisted of nurses working in TRNC and members of the Turkish Cypriot Nurses and Midwives Association. The number of actively registered nurses in the said union is approximately 1100 and the sample size was determined to reach at least 285 people with a 90% confidence interval and the research was completed with 350 nurses.

Data Collection Tools

In the study, data were collected with a 'descriptive questionnaire form', 'self-efficacy scale' and 'stress coping styles scale'. The questionnaire form and scales used in the study were made online via Google forms and collected between 01-30 July 2020. A written application was made to obtain the necessary permission from the Turkish Cypriot Nurses and Midwives Association for the conduct of the study in question, and after obtaining the permission, the survey form was shared by giving information about the research to the e-mail addresses of the nurses registered to the association due to the COVID-19 pandemic period and the social media tools that the association reached its members, and the research data were collected after obtaining consent from those who wanted to participate in the study.

Descriptive Survey Form: It was created by the researcher and consists of questions about some sociodemographic characteristics and working conditions of nurses.

Self-Efficacy Scale (SEES): The scale, developed by Sherer and his colleagues in 1982, examines the behaviours of individuals and the changes in their behaviours (Sherer & Adams, 1982). The scale was adapted into Turkish and its validity and reliability was conducted by Gözüm and Aksayan in 1999. The scale consists of 23 items and according to 5-point Likert type; 1 (does not define me at all), 2 (defines me a little), 3 (I am undecided), 4 (defines me well), 5 (defines me very well). In the scale; the scoring of items 2, 4, 5, 6, 7, 7, 10, 11, 12, 12, 14, 16, 17, 18, 20 and 22 are reversed. There are four sub-factors in the scale and the items defining the factors are as follows;

- Starting the behavior: Items 2, 11, 12, 14, 17, 18, 20, and 22
- Initiation of behaviour: Items 4, 5, 6, 7, 10, 16, and 19,
- Maintaining behaviour: Items 3, 8, 9, 15 and 23
- Overcoming obstacles: Items 1, 13, and 21

The score range of the scale is between 23-115 and a high score is considered as a high self-efficacy perception. In the study conducted by Aksayan and Gözüm (1998), Cronbach's alpha value was found to be ,81 and 82 in this study (Gözüm &Aksayan 1998).

Stress Coping Styles Scale (SCSS): Developed in 1980 by Folkman and Lazarus, this scale is a scale whose validity is accepted in stressful situations. Şahin and Durak (1995) transformed the original 66-item scale into a 30-item scale and performed its Turkish validity and reliability.

In the scoring of the scale, each item is scored separately and some items (9 and 1) are reverse scored and the total score is calculated. The sub-dimensions of the scale are;

- Approach to apply for social support: 1, 9, 29, and 30
- Self-confident approach: 8, 10, 14, 16, 20, 23, and 26
- Optimistic approach: 2, 4, 12, 18, and 28
- Helpless approach: 3, 7, 11, 19, 22, 25, and 27
- Submissive approach: 5, 13, 15, 17, 21, and 24

Cronbach alpha reliability coefficients were determined between 0.47 - 0.45 for 'resorting to social support', between 0.62-0.80 for 'self-confident approach', between 0.68-0.49 for 'optimistic approach', between 0.64-0.73 for 'helpless approach' and between 0.47-0.72 for 'submissive approach'

by Durak and Şahin. In the present study, it was determined as .36 in the 'resorting to social support' approach, .88 in the 'self-confident approach', .78 in the 'optimistic approach', .72 in the 'helpless approach' and .72 in the 'submissive approach' (Şahin & Durak 1995).

Statistical Analysis

In this study, the data were analysed with version 25.0 (demo) of the Statistical Package for Social Sciences (SPSS) programme. In the evaluation, numbers and percentages were used and Kolmogorov Smirnov test was performed for the conformity of the scale scores to normal distribution. Since the scale scores did not conform to the standard normal distribution, Mann Whitney U test was used for pairwise group comparisons and Kruskal Wallis test was used for comparisons between more than two groups. Spearman's rho correlation analysis was used in correlational screening analyses. All analyses were performed at 95% confidence interval.

RESULTS

Table 1 shows the descriptive characteristics of the participants in the study. It was determined that 34% of the nurses were between the ages of 25-29, 80.9% were 'female', 51.1% were 'single', 52.9% had a bachelor's degree, 59.7% had no children, 68.6 % no smoking, 65.7% no alcohol and 82% had no chronic health problems.

Table 1. Descriptive characteristics of nurses (n=350)

Descriptive feature		Number (n)	Percent (%)
Age	20-24 years old	60	17.1
	25-29 years old	119	34.0
	30-34 years old	67	19.1
	35- 39 years old	53	15.1
	40 age and over	51	14.6
Gender	Male	67	19.1
	Famele	283	80.9
Marital status	Married	157	44.9
	Single	193	55.1
Education status	Health vocational high school	29	8.3
	Associate degree	53	15.1
	Licence	185	52.9
	Postgraduate	83	23.7
Smoking	Yes	110	
	No	240	31.4
Alcohol	Yes	120	68.6
	No	230	34.3
Having health problems	Yes	63	65.7
Status	No	287	18.0

SCSS : Nurses' Stress Coping Styles Scale, SSE: Self-efficacy scale, Min: Minimum, Max: Maximum, SD: Standard deviation

Some professional characteristics of the nurses are given in Table 2. It is seen that 48.6% of the nurses worked between 1-5 years, 78.6% chose the nursing profession willingly, 22.6% worked in the 'emergency department' and 76.6% worked as 'clinic nurse'. When the distribution of the working patterns of the nurses was analysed, it was seen that 57.7% worked in shifts, 33.7% worked continuously during the day and 8.6% worked continuously at night.

Table 2. Some professional characteristics of nurses (n=350)

Some professional characteristics		n	Percent %
The status of choosing the nursing profession willingly	Yes	275	78.6
	No	75	21.4
Working time	1-5 years	170	48.5
	6-10 years	63	18.0
	11-15 years	52	14.9
	16-20 years	30	8.6
	21 years and over	35	10.0
Department	Internal units	57	16.3
	Surgical units	19	5.4
	Intensive care	44	12.6
	Emergency service	79	22.6
	Operating theatre	18	5.1
	Polyclinic	69	19.7
	Other	64	18.3
Mission	Clinic nurse	268	76.6
	Service responsible nurse	50	14.3
	Other	32	9.1
Term of office	Less than 1 year	82	23.4
	1-5 years	183	52.3
	6-10 years	46	13.1
	11-15 years	19	5.4
	16 years and over	20	5.8
Mode of operation	Continuous daytime	118	33.7
	Continuous night	30	8.6
	Shift change	202	57.7

Table 3 shows the mean scores of the nurses in the sub-dimensions of the SSE and the total mean scores of the SCSS.

Table 3. SCSS and SSE mean scores

Scales		Min	Max	X±SD
SCSS sub-dimensions	Applying for social support	8.00	16.00	12.83±1.75
	Confident approach	11.00	28.00	20.46±4.34
	Optimistic approach	6.00	20.00	12.44±2.44
	The desperate approach	7.00	25.00	14.30±3.8
	Submissive approach	6.00	20.00	11.40±3.33
Self-efficacy scale	Scale total score	57.00	108.00	85.83±12.68
SSE sub-dimensions	Starting behaviour	15.00	37.00	30.09±4.91
	Maintaining behaviour'	13.00	35.00	26.66±5.62
	Initiation of behaviour	6.00	25.00	18.88±4.58
	Sustaining behaviour	5.00	15.00	10.19±2.09

SCSS : Nurses' Stress Coping Styles Scale, SSE: Self-Efficacy Scale, Min: Minimum, Max: Maximum, X: Mean, SD: Standard deviation

It was found that the mean scores of the nurses in the sub-dimensions of the SSE were confident approach 20.46±4.34, The desperate approach 14.3±3.8, applying for social support 12.83±1.75, optimistic approach 12.44±2.44, and Submissive approach 11.4±3.33 . It was found that the mean total score

of the nurses was 85.83±12.68 and the mean scores related to the sub-dimensions were 'starting behaviour' 30.09±4.91, 'maintaining behaviour' 26.66±5.62, 'completing behaviour' 18.88±4.58, and 'struggling with obstacles' 10.19±2.09, respectively.

In Table 4, the mean scores of the nurses who participated in the study were compared according to the descriptive characteristics of the nurses who participated in the study. Accordingly, according to the gender of the nurses who participated in the study, 'self-confident approach' (p: 0.001), 'optimistic approach' (p: 0.001) and 'helpless approach' (p: 0.01); according to age, 'self-confident approach' (p: 0. 001) and 'optimistic approach' (p: 0.001) according to age, 'submissive approach' (p: 0.098) according to marital status, and only 'submissive approach' (p: 0.045) according to alcohol use (p<0.05). In terms of the total scores of the nurses participating in the study, only the difference between the mean scores according to age and marital status was found to be significant (p<0.05).

Table 5 comparison of the mean scores of the nurses according to education and some professional characteristics of the nurses according to the subgroups of the SCSS and self-reported total scores.

Accordingly, the difference between the mean scores of 'resorting tor social support' was found to be significant (p: 0.092), 'self-confident approach' (p: 0.001) and 'submissive approach' (p: 0.007), and no difference was found between the mean scores of 'optimistic approach' (p: 0.044) and 'helpless approach' (p: 0.63) (p<0.05). There was no statistical difference between the mean scores of 'resorting to social support' (p: 0.001), 'self-confident approach' (p: 0.014), 'optimistic approach' (p: 0.029) and 'submissive approach' (p: 0.01) (p<0.05), and a significant difference was found between the mean scores of 'self-confident approach' (p: 0.011), 'optimistic approach' (p: 0.001) and 'submissive approach' (p: 0.041) according to the position in the department (p<0.05). A statistically significant difference was found between the mean scores of 'applying for social support' (p: 0.014), 'self-confident approach' (p: 0.001), 'optimistic approach' (p: 0.001) and 'submissive approach' (p: 0.002) according to the working year (p<0.05), and a significant difference was found between the mean scores of 'optimistic approach' (p: 0.016) and 'helpless approach' (p: 0.04) according to the working style of the nurses (p<0.05).

It was found that there was a statistically significant difference between the mean total score of the nurses and their graduation status, and in the further statistical analysis, it was detected that the difference was between the groups with associate's degree-bachelor's degree and associate's degree-graduate degree, and the mean self-efficacy score of the nurses with associate's degree was higher than the nurses with bachelor's degree and lower than the nurses with graduate degree (p<0.05). According to the department in which they work. When the mean total score of self-efficacy was compared, it was determined that the difference was statistically significant (p<0.05), and with further statistical analysis, it was determined that the difference was between the

Table 4. Comparison of SCSS sub-dimension and SSE mean scores according to the descriptive characteristics of nurses

Feature/scale	SCSS											
	Applying for social support		Confident approach		Optimistic approach		Helpless approach		Submissive approach		SSE total score	
	X±SD	Test value p	X±SD	Test value p	X±SD	Test value p	X±SD	Test value p	X±SD	Test value p	X±SD	Test value p
Gender												
Famele	12.77±1.72	8.416 0.147	20.07±4.30	7.005 0.001	12.25±2.47	7.087 0.001	14.52±3.87	11.213 0.001	11.28±3.33	8.425 0.154	85.57±12.27	8.686 0.286
Male	13.06±1.87		22.10±4.11		13.24±2.17		13.34±3.34		11.91±3.29		86.90±14.30	
Age												
20-24 years	12.50±1.82	7.861 0.097	18.37±4.63	24.429 0.001	11.40±2.51	35.417 0.001	14.93±3.84	3.943 0.414	12.07±3.15	8.501 0.075	81.23±12.35	33.592 0.001
25-29 years	12.65±1.88		20.41±4.36		12.38±2.33		14.10±3.98		11.08±3.12		85.03±12.05	
30-34 years	13.12±1.71		20.37±4.52		12.34±2.65		14.45±4.62		11.67±4.19		83.76±14.18	
35-39 years	13.02±1.57		21.40±3.47		13.75±1.83		14.08±2.69		11.85±2.82		87.45±12.89	
40 and above	13.06±1.48		22.16±3.53		12.59±2.36		14.04±3.12		10.57±3.09		94.14±7.40	
Marital status												
Married	12.92±1.66	14.322 0.372	20.94±3.75	13.218 0.004	12.68±2.27	13.349 0.053	14.05±3.83	16.568 0.130	11.17±3.52	16.701 0.098	87.85±12.24	13.061 0.026
Single	12.75±1.81		20.07±4.74		12.25±2.57		14.50±3.78		11.60±3.17		84.19±12.82	
Smoking												
Smokes cigarettes	12.68±1.72	13.855 0.449	21.06±4.29	11.615 0.07	12.65±2.03	11.555 0.058	14.25±3.26	13.164 0.967	11.64±3.02	11.987 0.165	86.32±12.47	12720 .585
Does not smoke	12.9±1.76		20.18±4.34		12.35±2.61		14.32±4.03		11.3±3.46		85.60±12.79	
Alcohol use												
Drinking alcohol	12.68±1.7	14.655 0.334	20.05±4.4	14.883 0.227	12.4±2.54	14.100 0.736	13.87±3.59	14.712 0.300	10.9±3.04	15.593 0.045	85.97±13.56	13.518 0.753
Does not drink alcohol	12.9±1.77		20.67±4.3		12.47±2.39		14.52±3.9		11.67±3.45		85.76±12.22	
Chronic health problem												
No	12.9±1.74	10213 0.102	20.37±4.48	8.233 0.265	12.43±2.56	8591 0.532	14.24±4.02	8112.5 0.200	11.47±3.45	9.452 0.569	87.05±12.70	8.314 0.317
Yes	12.49±1.76		20.87±3.64		12.52±1.84		14.54±2.59		11.08±2.73		85.56±12.68	

SCSS: Stress coping styles scale, SSE: Self-efficacy scale, X: Mean, SD: Standard deviation

Table 5. Comparison of SCSS and SSE total score averages of nurses according to education and some professional characteristics

	SCSS											
	Referring to social support		Secure approach		Optimistic approach		Helpless approach		Submissive approach		SSE score	
Characteristic	X±SD	Test value p	X±SD	Test value p	X±SD	Test value p	X±SD	Test value p	X±SD	Test value p	X±SD	Test value p
Graduation status												
Health vocational high school	12.93±1.39		20.79±5.22		13.55±3.01		16.14±4.25		13.66±4.58		81.17±14.05	
Associate degree	12.7±1.74	6.433 0.092	21.79±4.28	17.626 0.001	12.85±2.59	8.117 0.044	14.45±3.86	7.296 0.063	12±3.86	12.113 0.007	87.09±13.82	18.370 0.001
Licence	12.67±1.82		19.58±4.31		12.14±2.45		13.92±3.91		11.25±2.91		84.21±12.56	
Postgraduate	13.23±1.66		21.45±3.68		12.48±1.96		14.39±3.17		10.57±2.97		90.25±10.35	
Place of duty												
Internal units	11.68±1.73		19.4±4.55		12.04±2.73		14.7±4.04		11.95±3.55		80.37±12.13	
Surgical units	12.79±0.79		17.42±3.49		11.32±2.26		12.74±3.60		10.84±2.61		82.00±14.30	
Intensive care	13.41±2.02		20.77±4.42		12.95±2.45		13.86±3.33		12.09±2.71		84.91±14.05	
Emergency service	13.08±1.84	30.354 0.001	21.00±4.44	15.988 0.014	12.77±2.4	14.085 0.029	15.24±3.97	7.518 0.276	12.20±3.83	16.892 0.010	85.52±13.13	24.050 0.001
Operating theatre	13.11±0.76		20.78±2.6		13.22±1.35		13.78±1.86		10.89±2.49		92.67±11.57	
Polyclinic	12.81±1.46		20.23±4.16		12.28±2.25		13.77±3.59		10.32±2.49		86.33±11.20	
Other	13.09±1.75		21.56±4.31		12.34±2.59		14.25±4.17		10.94±3.69		90.38±10.70	
Mission												
Clinic nurse	12.76±1.77		20.06±4.24		12.2±2.35		14.13±3.71		11.20±3.11		86.09±12.38	
Service responsible	13.28±1.41	3.928 0.140	21.88±4.40	9.082 0.011	13.66±2.68	14.527 0.001	15.28±4.00	3.170 0.205	12.68±3.91	6.393 0.041	82.46±13.56	5.611 0.060
Other	12.72±1.97		21.59±4.54		12.56±2.27		14.13±4.11		11.13±3.79		88.94±13.00	
Year of operation												
1-5 years	12.75±1.85		19.62±4.4		11.87±2.31		14.38±3.95		11.46±3.37		84.19±12.63	
6-10 years	12.65±1.75		20.59±4.49		12.84±2.6		13.78±3.77		10.98±2.85		83.02±13.67	
11-15 years	13.48±1.48	12.491 0.014	21.06±4.65	18.663 0.001	13.12±2.59	20.442 0.001	15.04±4.34	4.668 0.323	13.00±3.92	17.371 0.020	84.98±13.04	33.460 0.001
16-20 years	12.93±1.91		21.33±1.88		13.27±1.6		13.13±2.06		11±2.73		91.40±7.59	
21 years and over	12.46±1.24		22.63±3.9		12.8±2.61		14.74±3.2		9.86±2.52		95.34±7.85	
Mode of operation												
Continuous daytime	12.95±1.55		20.76±4.15		12.77±2.41		14.78±3.85		11.84±3.78		86.73±12.86	
Continuous night	12.8±1.63	1.115 0.573	20.53±6.31	0.430 0.807	13.2±3.59	8.286 0.016	12.87±2.87	6.438 0.040	11.53±3.10	2.260 0.323	84.27±17.98	0.480 0.780
Shifts	12.76±1.87		20.27±4.09		12.14±2.21		14.23±3.85		11.13±3.06		85.53±11.63	

Kruskal-Wallis test, SCSSS: Stress coping styles scale, SSE: Self-efficacy scale, X: Mean, SD: Standard deviation

surgical units-emergency service and surgical units-intensive care groups and that the mean total score of self-efficacy was lower in those working in surgical units ($p<0.05$). According to the working time, the difference between the mean total scores of self-efficacy was statistically significant ($p<0.05$); the difference was not statistically significant according to the duty and working time of the nurses ($p>0.05$).

Table 6 shows that all sub-dimensions of the self-efficacy scale 'initiating, maintaining, completing and struggling with obstacles' were positively correlated with 'applying for social support and self-confident approach', negatively correlated with 'helpless approach and submissive approach' and positively correlated with 'optimistic approach' in 'initiating and maintaining behaviour' ($p<0.005$).

Table 6. Relationship between nurses' SCSS and SSE sub-dimensions

Scale/subdimension	Spearman's rho	SCSS				
SSE sub-dimensions		**Referring to social support**	**Self-confident approach**	**Optimistic approach**	**Helpless approach**	**Submissive approach**
Behaviour initiation	r	.309	.297	0.098	-.402	-.469
	p	0.001	0.001	0.068	0.001	0.001
Sustaining behaviour	r	.256	.404	.142	.524	-.548
	p	0.001	0.001	0.008	0.001	0.001
	r	.327	.524	.281	-.266	-.312
	p	0.001	0.001	0.001	0.001	0.001
Completing behaviour	r	.257	.284	.069	-.310	-.346
	p	0.001	0.001	0.200	0.001	0.001

$p<0.01$ Spearman correlation coefficient (r); r (p) is given as value in statistical analysis, SCSS: Stress coping styles scale, SSE: Self-efficacy scale

DISCUSSION

In the study, it was determined that nurses preferred the 'self-confident approach' and the 'submissive approach' as a coping style with stress, and there are similar studies in the literature showing that nurses mostly use the self-confident approach (Laçin 2018; Yılmaz Koçak & Büyükyılmaz 2019; Matud 2004; Şahin & Buzlu 2017; Jose & Bhat 2013; Yüksel & Özgür 2008; Çapık Durmaz & Öztürk 2017, Kelle Dikbaş & Özkanlı 2022). The fact that the nurses participating in the study used the 'self-confident approach', which is an active problem-based approach in coping with stress, the most, means that they are aware of the importance of the problem, consider and compare the solution alternatives, and make sense to change the problem programmatically and carefully as they progress towards the result of the solution, In addition, the fact that they actively and consciously make efforts, and the fact that they use the 'submissive' approach, which is one of the passive coping styles with stress, at the least shows that the individual feels helpless and does not seek solutions from unrealistic, supernatural forces and that the nurses participating in the study are successful in coping with stress. As a result of teaching problem-based approach styles to nurses in stressful situations during the training process, it is thought that the nurses participating in the study have learnt to cope with many stress factors both in their educational life and in their professional life as a result of determining the stressors in their work life, determining what kind of activities should be done to cope with stress, approaching stress safely and coping with stress by seeking social support.

The mean self-efficacy score of the nurses was 85.83±12.68 and it was determined that the nurses generally had high self-efficacy beliefs and their self-efficacy of 'starting a behaviour' was higher and their self-efficacy of 'struggling with obstacles' was lower (Table 3). Similar to this study, there are studies in the literature that determined that nurses' self-efficacy to start behaviour is high (Türe & Akkoç 2019; Dikmen et al. 2016).

In the study, it was determined that male nurses mostly used 'self-confident and optimistic approach' and female nurses mostly used 'helpless approach' as coping style with stress (Table 4) ($p<0.001$). Gender is an important variable in determining coping styles with stress in the literature, the findings obtained in the study are consistent with the findings of other studies in the literature, and it is found that women and men perceive stress experiences differently and use different coping styles to cope with stress, and in the research conducted by Matud (2004), it was found that women used emotionally oriented and avoidance coping to cope with stress (Matud 2004; Çapık Durmaz & Öztürk 2017). It is thought that women's use of passive methods such as 'helpless approach' in coping with stress is effective in women's bringing their emotions to the forefront.

In terms of coping with stress according to the age groups of the nurses participating in the study, it was determined that the nurses in the 20-24 age group used the 'self-confident approach' less than the other age groups, while the nurses aged 40 years and over used this approach more ($p<0.001$). This result suggests that as individuals get older, they learn to use problem-based methods rather than emotion-based methods in coping with stress depending on their experience. In the study, it was determined that the self-efficacy of nurses aged 40 years and over was higher than other age groups. Similarly, Sergek and Sertbaş (2006) determined that there was a statistically significant difference between self-efficacy and age in their study conducted with nurses and that self-efficacy increased as the average age increased (Sergek & Sertbaş 2010). In Bandura's social learning theory, he explained the development of individuals in the face of the difficulties they experience with the advancement of their age and the development of their self-efficacy beliefs (Bandura 1978; Bandura 1982). It is thought that nurses' experiences increase with age and their self-efficacy beliefs increase.

According to the marital status of the study participants, a difference was determined only in the 'safe approach' sub-dimension of coping with stress and it was seen that married individuals used the safe approach more than single individuals ($p<0.001$). The marital responsibilities of married individuals suggest that they have gained experience in coping with stress and use the safe approach, which is an effective coping style in stressful situations. In terms of self-efficacy, it was determined that the self-efficacy belief of married nurses was higher than single nurses (Table 4). When examined in the literature, unlike this study, there are studies in which the self-efficacy of single individuals is higher (Çankaya & Çiftçi 2019; Ersarı et al. 2017). In the Turkish Cypriot Community, where the study was conducted, it is thought that married individuals have better self-efficacy beliefs, including issues such as decision-making, implementation and undertaking the consequences of any situation, due to reasons such as the advanced age of marriages and the high level of education of the society. In the study, according to the marital status of nurses, a difference was found only in the 'safe approach' sub-dimension in the style of coping with stress, and it was observed that married individuals used the safe approach more than singles ($p<0.001$). It is thought that married individuals have gained experience in coping with stress with the responsibilities related to marriage they carry and that they are able to cope with stress.

According to the educational status of the nurses, it was founded that nurses who graduated from postgraduate programme used 'self-confident approach' and nurses who graduated from health vocational high school used 'optimistic and submissive approach' more. The use of 'submissive approach', which is a passive approach, as a coping style with stress by nurses who graduated from high school suggests that they accept stressful situations and are affected by stressors thinking that they cannot cope with stress, while those with postgraduate education level tend to use functional methods to cope with stress, suggesting the importance of education in coping with stress. The mean total score of the nurses' SCSS was higher in nurses with associate degree education level than in nurses with bachelor's degree education level and lower in nurses with postgraduate education level ($p<0.05$). The fact that the self-efficacy of nurses with postgraduate education level is high suggests that education is successful in individuals' decision-making and taking responsibility.

According to the units in which the nurses participated in the study worked, it was observed that those working in intensive care applied to social support, those working in the operating theatre used an optimistic approach and those working in the emergency department used a submissive approach. It is stated in the literature that nurses working in the emergency department are exposed to multiple sources of stress due to the negative conditions created by the emergency department

environment such as physical conditions of the emergency department environment, inadequacy or lack of tools and equipment and consumables to be used, the number of patients coming to the emergency department is high, the number of nurses is insufficient, the workload is intense, and nurses have to do other jobs outside their professional duties and authorities (Özdaş & Kızılılkaya 2021). Considering that this study was conducted during the COVID-19 pandemic period, it is thought that the nurses working in the emergency department are inadequate to cope with excessive stress due to the restrictive and negative conditions brought by the pandemic and the high patient density, and that the nurses working in this department use the 'submissive approach' style, which is a passive coping style with stress, as shown in the findings of the study. In terms of self-efficacy, it was determined that the self-efficacy belief of nurses working in the operating room was better than those working in internal units. Self-efficacy is the belief in an individual's abilities for the successful completion of a task (Bandura 1982). The operating theatre environment is one of the environments where it is important for the health team to make correct and fast decisions together, and the nurses here should be nurses who have high levels of knowledge, have the ability to make correct and fast decisions in abnormal situations, have a high belief in completing the task they have received professionally, and know how to successfully manage stress in stressful environments such as operating theatres, so it is thought that the self-efficacy of nurses working in the operating theatre is higher than other nurses.

Among the nurses who participated in the study, it was determined that ward charge nurses used 'secure approach, optimistic approach and submissive approach' as coping with stress more than those working in other positions. In this study, it is seen that charge nurses use both active and passive stress coping styles. In the study conducted by Türe & Akkoç (2019), it was determined that the duty of nurses did not affect the use of stress coping style. Considering that those who work as ward charge nurses are exposed to many stressors both as administrative and clinical nurses, although they exhibit a safe approach and optimistic approach to stressful situations, the fact that the working conditions in hospitals in the northern part of Cyprus are inadequate, the number of patients is high due to the small number of hospitals, etc. It suggests that charge nurses are exposed to more stressors and from time to time they are inadequate in coping and adopt a submissive approach.

According to the years of employment, it is seen that the nurses who have been working between 11-15 years use 'resorting to social support and submissive approach', the nurses who have been working between 16-20 years use 'optimistic approach', and the nurses who have been working 21 years or more use 'self-confident approach' more in coping with stress. It suggests that as the working time increases, nurses generally gain experience in the face of stressful situations and as a result, they prefer to use active coping styles. In support of this, the self-efficacy of nurses working 21 and more years was also found to be high and it is thought that the increase in self-efficacy positively affects the choice of coping style with stress. According to the working style, it was determined that continuous daytime workers used the 'helpless approach' and continuous nighttime workers used the 'optimistic approach' more. It is thought that daytime workers in hospitals are helpless in the face of stress due to the high work intensity and stressful situations, while night workers are prepared for stressful situations and therefore, they are optimistic.

It was determined that as the use of all sub-dimensions of the self-efficacy scale increased in the nurses participating in the study, the use of 'resorting to social support and self-confident approach' as a coping style with stress increased and 'helpless approach and submissive approach' decreased ($p<0.05$). In the literature, it is found that those with high self-efficacy have lower stress levels and use more active and problem-oriented coping strategies such as planning, seeking social support, reevaluating the stressful situation positively and producing active solutions in case of stress (Bodys Cupak et al. 2016). Problem-oriented coping styles in the face of stressful situations are that the individual is active towards the causes of stress and uses knowledge and logical analysis to cope with stress. The basis of problem-oriented stress coping styles is the direct focus of the individual on the source that causes stress, and in this approach, individuals reduce the negative impact of stress on the individual in similar situations by receiving advice and suggestions, developing new skills and making plans to cope with stress. The problem-solving ability of nurses is very important both in working in harmony with other members of the health team and in coping with negative situations such as stress. Self-efficacy affects self-control cognition and behaviour, including the way of approaching and coping with problems. Having the belief that he/she can fight with the stressor factor allows him/her to evaluate the situation within the framework of logic (Yılmaz et al. 2017; Khaleghi & Najafabadi 2015). In his study, Redhwan (2015) found that the individual's desire to resist against stressful events, believing in himself/herself and approaching the events within the framework of logic by developing autocontol regarding the stressor factor increased the self-efficacy levels. The findings of the study are in line with the literature, and it is seen that nurses use more effective methods of coping with stress as their self-efficacy belief increases, based on the direct relationship between self-efficacy belief and problem-oriented coping (Bandura 1978; Bandura 1982). In order for nurses in the health system to develop functional coping styles in case of stress, it is thought that the use of problem-oriented active methods in coping with stress increases in nurses with high self-efficacy beliefs by strengthening self-efficacy in nursing education and working environment.

Limitations

The most important limitation of this study is that the questionnaire forms were applied online. The study is limited to nurses registered to the Turkish Cypriot Midwives and Nurses Association in the Turkish Republic of Northern Cyprus.

CONCLUSION

In the study, the self-efficacy level of nurses and the stress coping styles they use were explained. According to the findings, it was determined that nurses with high self-efficacy beliefs used problem-oriented active coping style in coping with stress. It is recommended to increase self-efficacy beliefs in nurses and to provide in-service training about problem-oriented active coping styles in coping with stress.

ETHICAL DECLARATIONS

Ethics Committee Approval

The study was carried out with the permission of the Ethics Committee of Cyprus Science University Graduate Training and Research Institute (Date: 29.06.2020, Decision No: 12).

Informed Consent

Written informed consent was obtained from all nurses included in the study.

Referee Evaluation Process

Externally peer-reviewed.

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

Financial Disclosure

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Author Contributions

All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version.

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Trauma-informed care and its use in psychiatric nursing: a review

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ABSTRACT

In recent years, the trauma-informed care (TIC) approach to healthcare has become increasingly important due to the importance of addressing these far-reaching effects of trauma. Trauma-informed care is a sensitive care approach based on recognizing and understanding the effects of trauma on individuals. This approach ensures that traumatized individuals are treated in a safe and supportive environment without being re-traumatized. Psychiatric nursing is one of the most important practice areas of trauma-informed care. The aim of this review is to provide comprehensive information about trauma-informed care and its use in psychiatric nursing. Findings from this study, which was carried out using the traditional review method shown that by adopting a TIC framework, psychiatric nurses can better understand the complexities of their patients' experiences and tailor interventions that promote recovery rather than re-traumatization. Psychiatric nurses are health professionals who work directly with traumatized individuals and meet their emotional and psychological needs. Therefore, psychiatric nurses' adoption and implementation of trauma informed care principles are of vital importance in improving the quality and effectiveness of patient care. As a result, effective implementation of trauma informed care will reduce the risk of re-traumatization of traumatized individuals, support their recovery processes and increase their overall quality of life.

Keywords: Trauma, trauma informed care, nursing practices, psychiatric nursing

INTRODUCTION

Trauma is defined in DSM-5 TR as "A person has experienced, witnessed, or been confronted with an event of actual death or threat of death, serious injury, or a threat to the physical integrity of oneself or others". Here, the person's reactions include extreme fear, helplessness or terror (APA, 2022). Trauma can occur at any time in a person's life. Early traumatic life experiences can alter an individual's psychological and physiological development, contributing to increased risky behaviour as well as negative emotional, social, economic and health consequences. These traumas are acute or long-lasting in nature and can destabilize or damage a person's sense of safety, self, and self-efficacy, as well as impair a person's ability to control emotions and navigate interpersonal relationships(Yehudis Stokes et al., 2017). Providers may not be able to identify or predict which stimuli or environmental factors contribute to trauma symptom responses (Reeves, 2015).

Psychological consequences may develop long after the physical wounds of the traumatic experience have healed. While the majority of traumatic adults experience full recovery, a significant group continues to experience negative psychological sequelae, including post-traumatic stress disorder (PTSD) and depression. Found that more than 20% of traumatic injury survivors in the United States developed symptoms consistent with a diagnosis of PTSD 12 months after acute care inpatient hospitalization (Zatzick et al., 2008). Several risk factors appear to increase the risk of persistent PTSD after an index event such as a traumatic injury, including prior exposure to traumatic experiences, general life stress, more severe acute traumatic stress symptoms, maladaptive coping responses, and poorer social support. Emotional and psychological responses to physical injury, including PTSD symptoms, are predominant contributors to poor functional recovery and poorer health-related quality of life. The impact of PTSD symptoms on health and functional outcomes underscores the importance of understanding and addressing factors that contribute to these symptoms as part of the comprehensive medical and nursing care of the traumatic adult.

Trauma-informed care (TIC) is increasingly recognized as a critical approach in various settings, including healthcare, education, and social services. This approach is grounded in the understanding that trauma is pervasive and can significantly impact individuals' psychological, emotional,

and physical well-being. One of the key aspects of TIC is its emphasis on understanding the impact of trauma on individuals. Research indicates that trauma can lead to a range of psychological and physical health issues, including anxiety, depression, and chronic health conditions (Kokokyi et al., 2021; Reeves, 2015). TIC aims to address these issues by fostering an environment that is safe, supportive, and empowering for trauma survivors. This involves recognizing the signs and symptoms of trauma and responding in ways that avoid re-traumatization (Choi et al., 2024; Kokokyi et al., 2021). For instance, embedding trauma screening in healthcare settings can help providers identify patients who may benefit from trauma-informed interventions, thereby enhancing the overall quality of care (Bills et al., 2023; Choi et al., 2024).Therefore, trauma-informed care provides a framework for healthcare providers and institutions to help prevent persistent traumatic stress responses in traumatized patients (Bruce et al., 2018). In the light of the literature, the aim of this review is to provide comprehensive information about trauma-informed care and psychiatric nursing. It believes that the results obtained from the study will fill the gap in the national literature regarding trauma-informed care.

METHODS

In this study, which was carried out using the traditional review method, scientific texts and guidelines regarding trauma-informed care and its use in psychiatric nursing were examined. PubMed, Cochrane Library, Google Scholar and ULAKBİM electronic databases were searched using the keywords "trauma-informed care" "psychiatric nursing". The titles and abstracts of all relevant articles accessed through electronic scanning were reviewed by the researchers. Experimental studies, meta-analysis studies, systematic reviews, and the full text of experimental studies that were deemed appropriate for the subject were read. In addition, an attempt was made to create a comprehensive integrity on the subject by examining the guides written in English and Turkish languages and the websites leading to the subject.

TRAUMA-INFORMED CARE

Trauma-informed care is an approach to service delivery that focuses on understanding and responding to the impact of trauma. It promotes positive outcomes by emphasizing physical, psychological and emotional safety and enhances well-being by allowing individuals to define their needs and goals and make choices about their care and services. Trauma-informed care is a universal framework that can be applied to create a culture that recognizes and anticipates that many of the people we serve or interact with have a history of trauma and that the environment and interpersonal interactions within an organization can exacerbate physical and spiritual trauma. Trauma-informed care requires that all staff be trained to be trauma-aware and avoid processes and practices that can re-traumatize survivors (Substance Abuse and Mental Health Services Administration, 2014).

Specialized services, known as trauma-specific services, are available to care for people affected by trauma. However, individuals who have experienced trauma are often provided care through public health systems. Without specific information about the trauma and its relationship to the presenting concern, trauma is rarely assessed or addressed. A perspective based on universal trauma precautions forms the basis of trauma-informed care. The TIC philosophy is based on the premise that each person does the best they can to cope within the context of their experiences and development. TIC is designed to recognize and support the specific needs of people who have experienced trauma and is delivered in a way that is sensitive to the effects of trauma on the person, protecting the life and development of the individual while reducing the risk of re-traumatization (Yehudis Stokes et al., 2017). While a large patient population may suffer from the symptoms and sequelae of trauma, individuals affected by trauma may benefit from trauma-informed care that uses an understanding of trauma to meet their unique health care needs (Rosenberg, 2011). While TIC is not a one-size-fits-all approach to service delivery, it includes a set of principles and approaches that can shape the ways people interact within an organization, with patients, clients and other stakeholders, and with the environment (Substance Abuse and Mental Health Services Administration, 2014).

Trauma-Informed Care Model (Substance Abuse and Mental Health Services Administration-SAMSHA)

The Substance Abuse and Mental Health Services Administration (SAMSHA, 2014) has identified four assumptions, six core principles, and ten areas of practice regarding trauma-informed care. SAMHSA (2014)'s four assumptions about trauma-informed care included recognizing the widespread impact of trauma, seeking potential pathways to recovery, recognizing the signs and symptoms of trauma, and integrating information about trauma into policies, procedures, and practices and avoiding re-traumatization (Aslan, 2022).

Recognizing the widespread impact of trauma: Being aware of the effects of trauma on the mind and body, being aware of the biopsychosocial problems caused by trauma, and having information about the prevalence of trauma in society are basic requirements. As required by the criteria for trauma-informed care, emphasis is placed on helping clients with a history of trauma understand how their past affects the present and enabling them to manage their current lives more effectively (Brennan et al., 2024).

Understanding potential recovery paths: Describes the emphasis placed on guiding the client to utilize trauma-focused practices when necessary through knowledge of evidence-based practices used for trauma recovery (Muskett, 2014).

Recognizing the signs and symptoms of trauma: It involves diagnosing the symptoms of PTSD by being aware of the symptom's individuals display due to trauma. During the interview with the client, it is necessary to evaluate whether these symptoms exist, for how long they have existed, and what conditions they occur. Mental health professionals need to understand the impact of trauma symptoms on the life of the individual and their environment and be aware that environmental conditions can trigger trauma symptoms (Khadivi et al., 2004).

Integrating trauma information into policies, procedures and practices and not re-traumatizing: It involves regulating institutional procedures according to the possibility of individuals having a history of trauma and preventing individuals from being re-traumatized. In this context, safe

areas should be allocated to victims of violence and this should be disseminated (Substance Abuse and Mental Health Services Administration, 2014).

SAMHSA (2014)'s six principles on trauma-informed care; included security, reliability and transparency, peer support, collaboration and reciprocity, empowerment, voice and choice, and cultural, historical and gender issues (Substance Abuse and Mental Health Services Administration, 2014).

Security: It means that the personnel and service recipients within the institution feel physically and psychologically safe, the physical environment is safe, and interpersonal relationships provide a sense of security (Johnson, 2010).

Reliability and transparency: It refers to the transparent execution of institutional practices and decisions in order to build and maintain trust between mental health professionals, staff and service users within the institution (Muskett, 2014).

Peer support: Peer support and self-help groups are key tools for sharing stories and experiences to cultivate hope, build trust, improve collaboration, and promote healing. Peer refers to other people who have experienced trauma or family members who provide care to children with a trauma history during the healing process (Aslan, 2022; Muskett, 2014).

Cooperation and reciprocity: This principle states that improvement will occur within relationships and with the cooperation of all personnel within the institution (Aslan, 2022).

Empowerment, voice and selection: It refers to the adoption of an empowerment approach towards clients within the institution. Clients and staff are encouraged to become trauma-centred and empowered. Since the client who has been exposed to a traumatic experience has not been able to speak out in the past, he is encouraged to speak out in the current relationship, participate in decisions, make choices and set goals. In this context, the staff providing service facilitates this situation for the client (Substance Abuse and Mental Health Services Administration, 2014).

Cultural, historical and gender issues: It means taking necessary practices without any social or class discrimination, being sensitive to the cultural values of individuals and having knowledge about the possible historical roots of trauma (Muskett, 2014; Paterson et al., 2013).

SAMHSA (2014) developed 10 practice areas related to trauma-informed care.

Governance and leadership: It refers to institutional management's support and investment in the implementation and maintenance of trauma-informed care. The implementation of this approach within the organization is managed and supervised from a certain point (Reeves, 2015).

Policy: Institutions have written policies and protocols on which trauma-informed care is based.

Physical environment: The organization's physical environment fosters a sense of security and collaboration.

Commitment and participation: In recovery, trauma recipients and family members are involved at all levels in all areas of institutional operation (e.g., program design, implementation, service delivery, quality assurance, cultural competency, access to trauma-informed peer support, workforce development and evaluation) (Harris & Fallot, 2001).

Intersectoral collaboration: Cross-sector collaboration is founded on a shared understanding of trauma and the principles of trauma-informed care.

Screening, evaluation, treatment services: Practitioners are trained in and use evidence-based and scientific interventions. Trauma screening and evaluation are performed in the institution. If there are trauma-focused services within the institution, trauma-informed care practices are implemented; if not, the person receiving the service is referred to receive trauma-informed care (Rosenberg, 2011).

Education and workforce development: Continuing education on trauma and peer support is essential. The organization's human resources system incorporates trauma-informed care principles in hiring, supervision, and personnel evaluation; Procedures need to be established to support staff experiencing significant secondary traumatic stress or vicarious trauma from exposure to and working with individuals with a trauma history and/or complex trauma (Berring et al., 2024).

Progress monitoring and quality assurance: Continuous evaluation and monitoring of trauma-informed care principles and effective use of evidence-based trauma-specific screening, assessment, and treatment are required (Xia et al., 2024).

Financing, financing structures, staff training on trauma: Designed to support the development of appropriate and safe facilities, the establishment of peer support, the provision of evidence-based trauma screening, assessment, treatment and recovery supports, and the development of trauma-informed interagency collaborations (Substance Abuse and Mental Health Services Administration, 2014).

Evaluation: Measurement and evaluation designs used to evaluate service or program implementation and effectiveness reflect an understanding of trauma and appropriate trauma-focused research tools (Aslan, 2022).

TIC is a widely accepted framework characterized by mindfulness of traumatic experiences and their impact, creating safe environments, prioritizing the voice of clients to guide treatment, and flexibility. As TIC interventions expand within human service organizations, the need for frontline healthcare workers to acquire the skills, knowledge, and support necessary to meaningfully transform organizations into "trauma-informed" organizations has increased. Although the basic principles of TIC are clear, uncertainty remains about how to operationalize these principles in daily practice, resulting in an increased need for routinization, implementation and operationalization of TIC approaches (Mendez et al., 2023).

The implementation of trauma-informed care (TIC) in psychiatric nursing is crucial for addressing the complex needs of individuals who have experienced trauma. TIC is a framework that recognizes the prevalence and impact of trauma on mental health, emphasizing the importance of creating a safe and supportive environment for patients. This approach is particularly relevant in psychiatric settings, where patients often present with histories of trauma that can significantly influence their mental health and treatment outcomes. One of the primary benefits of TIC in psychiatric nursing is its potential to reduce the risk of re-traumatization. Moreover, TIC promotes a collaborative

approach to care that empowers patients. By involving patients in their treatment planning and decision-making processes, nurses can enhance patients' sense of control and agency, which is vital for recovery (O'Dwyer et al., 2021). This empowerment is supported by the principles of TIC, which advocate for transparency and mutual respect in the nurse-patient relationship (O'Dwyer et al., 2021). Studies have shown that when patients feel heard and valued, their engagement in treatment improves, leading to better outcomes (Wholeben et al., 2023).

THE USE OF TRAUMA-INFORMED CARE IN PSYCHIATRIC NURSING

Trauma-informed care (TIC) has emerged as a critical framework in psychiatric nursing, particularly within acute inpatient settings. This approach recognizes the widespread prevalence of trauma among individuals seeking mental health services and emphasizes the need for care that is sensitive to the effects of trauma. TIC is built on principles such as safety, trustworthiness, choice, collaboration, and empowerment, which are essential for fostering a therapeutic environment conducive to recovery (Isobel et al., 2021; Sweeney et al., 2018).

Trauma Informed Care and Restrictive Practices

Trauma-informed care focuses on doing no harm-that is, reducing potentially traumatic aspects of treatment-and providing care to avoid retraumatizing patients. Re-traumatization occurs secondary to a not uncommon range of coercive practices and experiences, including forced treatment adherence, isolation, restraint, verbal and physical aggression, and involuntary hospitalization (Wilson et al., 2017). It is necessary to ensure that psychiatric services are sensitive to the impact of trauma on service recipients (Palfrey et al., 2019). The restrictive nature of psychiatric services negatively impacts patients' mental health by potentially exacerbating their symptoms and can even traumatize those who have not previously been exposed to psychological trauma. This has led to increased scrutiny of trauma-informed care in the delivery of psychiatric services. Similarly, the basic principles of person-centred care, such as respecting people's values, putting the individual at the centre of care, ensuring patient safety, and including patients' preferences and needs in care planning, are also evident in TIC (Wilson et al., 2017). In studies examining the effect of TIC on restraint practices, it has been revealed that TIC reduces restraint practices and positively affects patient experiences. In a study in which a 58-month retrospective and comparative analysis was conducted to evaluate the effectiveness of certain interventions based on TIC designed to eliminate isolation and restraint in two separate psychiatric centres in the USA, it was reported that reductions in isolation and restraint were observed in both centres. It was observed that in one of the centres there was a significant reduction in personnel injuries resulting from the isolation and detection of patients, while the other centre remained stable. No increase in the use of chemical restraint was reported following implementation of the intervention. Factors thought to have contributed to the success of the initiative included: smaller size of the centre, visible leadership, regular feedback to staff, specific staff training based on TIC for alternative strategies to replace more challenging practices (Ashcraft & Anthony, 2008). Similarly, to determine the effectiveness of six basic strategies based on trauma-informed care in a child and adolescent psychiatry ward in the USA, hospital staff were given six basic skills training based on trauma-informed care. In this study, in which all isolation and restraint cases of 458 young people who were admitted to the service during the 12 months before and after the implementation of the program were retrospectively examined, it was reported that a decreasing trend was detected in the cases of isolation and restraint among young people hospitalized after the implementation of the training program. Six core skills for staff training include the use of primary prevention principles, including awareness of the patient's trauma history, use of safety plans and comfort rooms, distraction activities, and de-escalation techniques. It has been reported that investment in staff training yields positive results relatively quickly and is sustained over a long period of time (Azeem et al., 2011). In another study evaluating the effectiveness of TIC-based training given to obtain an unrestricted working environment in a hospital in the USA, a retrospective review of patient data regarding the application of both restraint and sedative-hypnotic drugs before, after and during the 3-year follow-up period was conducted. restrictions reportedly decreased from nineteen in 2001/2002 (pre-training) to nine in 2004/2005 to zero in the 2007/2008 follow-up period (post-training), and the use of sedative-hypnotic medications also showed a decrease in the same three control periods for all patients. It has also been reported that implementation of trauma-informed care principles by front-line staff enables a constraint-free environment and reduces the need for sedative-hypnotic medications to control behaviour (Barton et al., 2009). Staff training among trauma-informed care interventions implemented in a randomized controlled study conducted to determine the effectiveness of various trauma-related practices on seclusion and restraint rates at a psychiatric hospital in South Carolina, USA, over a 3.5-year period. policy and language change, environmental changes, and client participation in treatment planning. When the study was completed, it was reported that isolation and restrictions decreased by 82.3%. Unlike other interventions, changes to the physical environment have been reported to result in reductions in seclusion and detection rates regardless of time. Changes to the physical environment were rated as the most important intervention implemented by staff, and it was reported that replacing the cold and dreary environment with a more inviting and calmer environment had a positive impact on the mood of staff and clients. Patients stated that the most important intervention for them was to be included in the collaborative decision-making process regarding treatment (Borckardt et al., 2011).

Trauma Informed Care and Communication

Psychiatric and mental health nurses' interpersonal communication with patients is a powerful tool for providing care that is sensitive to the effects of trauma on patients. To integrate trauma and TIC knowledge into daily interpersonal practices, mental health nurses need to increase their awareness and knowledge of trauma and its effects on mental health and illness and increase their capacity to reflect on their interpersonal approaches and therapeutic presence within their interactions (Isobel & Delgado, 2018). Trauma survivors reported that caregivers with whom they felt knew and understood them as people and with whom they had an

ongoing relationship were the most helpful in making positive health care decisions (Roberts et al., 1999). In the literature it has stated that caregivers also need to have a strong knowledge of trauma symptoms to help patients manage distress during healthcare (Cadman et al., 2012; McGregor et al., 2010; Seng & Hassinger, 1998). Understanding trauma symptoms can enable psychiatric nurses to be prepared for how trauma may occur during healthcare interactions and to respond sensitively to patient distress (Reeves, 2015). As direct care providers working from a holistic perspective, psychiatric and mental health nurses are in a position to play an integral role in advancing TIC in healthcare (Y. Stokes et al., 2017). Integration of TIC training into psychiatric and mental health nursing curriculum and orientation programs can prevent patients from being re-traumatized by nurses providing trauma-related care by taking appropriate interventions (Bruce et al., 2018).

Attitudes Towards Trauma Informed Care

In the light of the literature, it is seen that studies on the use of TIC in the field of mental health and psychiatric nursing focus on the effects of restraint experiences and the attitudes of employees. The literature regarding knowledge of psychiatric and mental health nurses' attitudes towards TIC is limited and new. In a study examining the attitudes of 136 mental health nurses towards TIC in Malta, it was found that the participants showed positive TIC attitudes. However, despite the positive attitudes of the participants towards TIC, it has been revealed that their traumatic experiences is the clients' challenging behaviours are not considered as understandable reasons (Cilia Vincenti et al., 2022). In a qualitative study conducted in Canada to examine whether mental health nurses are a core component of nursing practice, mental health nurses stated that the staff's reaction to the challenging behaviour of clients triggered the subsequent challenging behaviour of other clients. The phenomenon of repeated triggering of more challenging behaviours has been described by the authors as a "continuous cycle of trauma" (Yehudis Stokes et al., 2017). In a study conducted to determine the relationship between PTSD, TIC and compassion fatigue in a psychiatric hospital in the United States, it was found that as the time between trauma information care information meetings and burnout increased, PTSD also increased (Jacobowitz et al., 2015).

Trauma Informed Care and Recovery

In a qualitative study evaluating the recovery experiences of patients with trauma history using TIC-based care at a psychiatric hospital in Norway, participants reported that experiences of collaboration and self-worth were important for recovery, and that positive perceptions and outcomes of care were most evident when staff were perceived as professional and caring (Borge & Fagermoen, 2008). In a qualitative study examining the views and experiences of TIC to enhance recovery in acute psychiatric wards in Northern Ireland, several key features of care, including teaching self-help strategies, were reported to be important for participants' perceptions of care and recovery. Themes obtained from the study; self-confidence, being in a relationship with staff who behave with empathy and respect, a sense of 'refuge' against the pressures of the outside world, active communication and information sharing, and participation in care decisions (Walsh & Boyle, 2009).

CONCLUSION

This review study comprehensively discussed the importance and applicability of trauma-informed care (TIC) in psychiatric nursing. Considering the complex and long-term effects of trauma on individuals, psychiatric nurses' adoption and implementation of TIC principles play a critical role in improving the quality of patient care. Future research and practice should focus on how TIC can be applied more broadly and how its effects can be increased. In this way, traumatized individuals can be ensured to benefit from health services in the best possible way and social well-being can be supported. This review provides valuable information for psychiatric nurses to understand and integrate the principles and practices of trauma-informed care into their daily practice. The adoption of Trauma-informed care in psychiatric nursing is not merely an enhancement of practice but a necessary evolution in response to the realities of trauma in mental health. By embedding TIC principles into everyday nursing practice, mental health professionals can create a more supportive and effective care environment that acknowledges and addresses the profound impact of trauma on individuals' lives. Furthermore, the integration of TIC into psychiatric nursing aligns with broader healthcare trends towards holistic and patient-centered care. As mental health services increasingly recognize the importance of addressing the social determinants of health, TIC provides a framework for understanding and responding to the complex interplay of trauma, mental health, and overall well-being (Wilson et al., 2017). This holistic perspective is essential for developing effective interventions that address not only the symptoms of mental illness but also the underlying trauma that may contribute to these conditions.

ETHICAL DECLARATIONS

Referee Evaluation Process

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Conflict of Interest Statement

The authors have no conflicts of interest to declare.

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Author Contributions

All of the authors declare that they have all participated in the design, execution, and analysis of the paper and that they have approved the final version.

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Substance use in pregnancy and nursing approach

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ABSTRACT

Substance abuse, which is increasing rapidly in Turkiye is more common in men than in women. Although it is more common in men, it has more destructive effects on women. Due to biological gender differences, many problems have been encountered during pregnancy and afterwards, which are reflected on the baby. Substance use during pregnancy is the leading cause of poor birth outcomes, maternal complications and related health expenditures. The adverse medical, psychiatric and functional consequences associated with substance use disorders are generally more severe in women. However, men and women differ in terms of substance use disorder treatment. The aim of this review is to highlight the impact of substance use on women's health and how it affects their social lives.

Keywords: Pregnancy, women's health, substance use

INTRODUCTION

Substance abuse has been a worldwide problem at all levels of society since ancient times. In the past few decades, attention has been drawn to legal and illegal substance use by pregnant women (Finnegan,1979). Substance abuse is associated with serious physical and psychological consequences. The risk of developing a substance use disorder increases during the reproductive years and substance use is common during pregnancy (Whiteford et al.,2015). Between 11-15% of pregnant women report using alcohol, tobacco, cannabis and/or illicit substances. The true prevalence may be higher, as stigma and judgment may make some pregnant women hesitant to report substance use (Silang et al., 2021). Almost all drugs are known to cross the placenta and have some effect on the fetus. The effects of prenatal smoking on the human fetus have been identified and studied since the 1960s (Bhenke and Smith, 2013). Women are the most vulnerable group to problematic substance use during the reproductive years. The first 1000 days of life from conception onwards have been identified as a critical window of time for long-term health and development. Substance use during pregnancy is associated with adverse pregnancy and child health outcomes (Louw, 2018).

Substance use among adolescents increases the risk of unplanned pregnancy, which increases the risk of fetal exposure to addictive, teratogenic substances. Specific interventions are needed to target pregnancy planning and contraception among substance users of reproductive age (Connery et al., 2014). Screening for substance use using the CRAFFT is recommended in all health care settings where adolescent patients are treated. Screening for tobacco and nicotine use is also recommended, as well as the provision of smoking cessation interventions. The use of motivational interviewing styles and strategies to engage adolescents in discussions about substance use reduction, risky sexual behaviors, and the possibility of unplanned pregnancy or late detection of pregnancy is recommended (Connery et al., 2014). Motherhood and pregnancy and the wide range of responsibilities attributed to them profoundly affect women's roles. Rights and responsibilities change according to maternal roles. In the case of substance use disorder women may be presented with different opportunities, obligations and challenges in accessing treatment when they become pregnant or have children. Bearing and raising children can bring increased interest and motivation for substance use disorder treatment, as well as increased social pressure. It also brings significant disadvantages that complicate treatment motivations, such as fear of criminal sanctions, reduced social and economic support, and potential loss of child custody (Choi at el., 2022).

Substance use during pregnancy is the leading preventable cause of poor birth outcomes, maternal complications and associated healthcare costs. Tobacco is the most commonly used substance during pregnancy and is used by approximately 12% of all pregnant women, with significantly higher rates among socioeconomically disadvantaged women, smoking is associated with numerous adverse maternal and fetal/infant health outcomes, including placental separation, placenta previa and preeclampsia, low birth weight, preterm

birth, neonatal death and sudden infant death syndrome (Hand et al., 2017). Approximately 4.7% of pregnant women reported illicit substance use in the previous month, followed by 3.4% who reported using cannabis and 0.8% who reported abusing prescription painkillers. Prescription and non-prescription (i.e. heroin) use accounted for 41% of admissions of pregnant women to substance use disorder treatment programs. Opioid-exposed births increase the risk of infants developing neonatal abstinence syndrome (NAS), a temporary and treatable condition that often requires lengthy and costly hospitalization. Annual health care costs associated with opioid-exposed births exceeded $1.5 billion (Hand et al., 2017). Risk factors associated with unplanned pregnancy included substance intoxication during sexual activity and lack of contraceptive use (Faherty et al., 2020).

Addiction is a chronic medical condition, but pregnancy is a transitional period in the life course of a woman dealing with a relapsing and recovering addictive disease (Faherty et al., 2020). The results highlight the importance of screening and interventions for all forms of substance use in early pregnancy and suggest that targeting early interventions to pregnant and reproductive-age individuals with polysubstance use should be prioritized (Sujan et al., 2023).

IMPACT OF SUBSTANCE ABUSE ON PREGNANCY

Substance use during pregnancy increases the risks for maternal and infant health and may lead to physical and mental problems. Some of the substances used and their effects in pregnancy are as follows.

Cocaine

The observed effects of cocaine in the pregnant woman and fetus are entirely related to vascular disruptive events, mainly vasoconstriction of arterial beds. These effects are mostly attributed to cocaine's ability to inhibit the norepinephrine reuptake mechanism, allowing localized concentrations of this vasoactive neurotransmitter to accumulate in nerve terminals and diffuse into the vascular spaces and hence circulate to other sites (Mark et al.,1998).

Opiates

It is created from the poppy called papaver somniferum, which contains morphine and codeine. Opioids include heroin, meperidine, fentanyl, propoxyphene and methadone etc. Narcotics can be used orally, nasally, intramuscularly and intravenously. Heroin crosses the blood brain barrier more easily than morphine (Lo et al., 2022). Unintended pregnancy rates are higher among women who use substances, especially opioid users. Among pregnant women with opioid use disorders seeking treatment, 86% of pregnancies are reported to be unplanned. Prospective self-report surveys of outpatient women in an opioid treatment program in Australia revealed that almost half (47%) had a pregnancy in adolescence, 84% of which were unplanned; almost a third of the sample had been pregnant in the year prior to entry, and 75% of these pregnancies were unplanned (Fahrety et al., 2020).

Amphetamine

Amphetamine was discovered more than 100 years ago. Since then, it has evolved from a drug that was freely available without a prescription as a panacea for a wide range of disorders to a highly restricted controlled drug with limited therapeutic applications in attention deficit hyperactivity disorder (ADHD) and narcolepsy (Heal et al., 2013). The use of amphetamines and similar drugs during pregnancy can cause heart disease, gastroschisis, biliary tract deficiency, congenital defects, cholestasis, drowsiness, limp babies and tremors; it also increases the risk of low birth weight, premature birth and stillbirth (Cimete, 2002).

POSTPARTUM EFFECTS OF SUBSTANCE USE IN PREGNANT WOMEN

Neonatal Abstinence Syndrome

Neonatal abstinence syndrome (NAS) is a postpartum withdrawal syndrome that occurs shortly after birth in infants born to women who used opioids (including heroin, the use or misuse of prescription painkillers or maternal treatment drugs such as methadone or buprenorphine) during pregnancy (Jansson and Patrick, 2019). Clinical symptoms appear within the first 48-72 hours after birth. The incidence may be delayed in infants who are breastfed after birth. If there was substance abuse during the prenatal day, the likelihood of it being seen in infants increases. Fainting, tremors and hyperactivity are the most common findings. The tremors may be fine and jitterness or more coarse and fluttering. When the development of the newborn is disrupted, such as substance exposure or inappropriate reactions of the caregiver, impairments in self-regulation and changes in developmental trajectory may occur. An opioid-exposed infant who expends excessive amounts of energy in one subsystem, such as tone in hypertonic infants, may have little energy to expend in other subsystems, such as attention/interaction. This irregular imbalance is the hallmark of infants affected by NAS (Can et al., 2010).

Breastfeeding status of substance-using mothers:

- It is contraindicated for substance-using mothers to breastfeed their babies, especially because these substances are transmitted through milk.
- Nicotine in cigarettes is passed through milk to the baby. The concentration in milk, the amount and depth of smoking affect the amount of nicotine. smoking not only in the baby's environment but also in other areas of the house is harmful for the baby.
- Substance-using mothers have a high risk of being HIV positive, and HIV transmitted from breast milk to the baby causes permanent damage. (Cimete, 2002).

SUBSTANCE ADDICTION AND NURSING APPROACH

In Turkiye, the duties of alcohol and substance abuse center nurses were defined in the nursing regulation published in the official gazette on March 8, 2010. Nurses, who are part of the health team, are also important in the prevention and treatment of substance abuse. Nurses work in many institutions that provide services such as schools, workplaces, and trsm (Karakaş and Ersöğütçü, 2016). As nurses, our first role in substance abuse is to prevent substance use, the important thing for us is that the person has never started rather than substance treatment; the second role is to take

an active role in the cessation and treatment of substance use if the person is in substance use; the third role is to create programs to prevent people who cannot get rid of substance addiction from harming themselves and then others (Terakye and Demirkıran, 2003).

Recovery from addiction is a lifelong process. In this process, quitting halfway has been observed most of the time. The follow-up periods of the majority of studies conducted among substance addicts vary between 1 and 24 months (Baysan et al., 2018). The nurse should take a good anamnesis of what type and how often the individual with substance addiction uses substances in which environment, then question whether he/she has ever attempted to quit the substance and evaluate what kind of support he/she has received or what kind of cessation methods can be successful if he/she has never thought about it. Reasons such as family, friends, work, health problems or economic etc. caused by substance abuse should be evaluated (Şimşek, 2010).

Substance addicted patients are not only patients but also individuals who are susceptible to stigmatization. In this case, nurses prepare the patient for social life in community mental health centers on issues such as adaptation to the social environment, accommodation within the family, finding a job, etc. (Ebrahimi et al., 2012). The most important factor in the treatment process of addicted individuals is effective communication between the patient and the nurse. Successful communication facilitates caregiving in the patient's treatment process (Albayrak, 2021). Medication management used in the treatment of addicted patients hospitalized in psychiatric clinics is also among the duties of the nurse. It starts with the hospitalization of the patient and ends with discharge training (Terakye and Demirkıran, 2003).

CONCLUSION

Although women are less likely to use substances than men, they are more affected by the ineffective consequences of substance use disorder. Despite the fact that women are more affected, the treatment outcome does not differ from men. In studies conducted closer to the present day, substance use by pregnant women is on the rise. The first 1000 days of life from conception onwards have been identified as a critical window of time for long-term health and development. Substance use during pregnancy is associated with adverse pregnancy and child health outcomes.

Substance use among adolescents has been shown to be associated with unplanned pregnancies and sexually transmitted diseases. Treatment of adolescent patients is very important because early detection and treatment are beneficial. As a result, efforts should be made to avoid substance use before and during pregnancy. Support should be encouraged for substance-using mothers at the end of childbirth and during motherhood. Nurses should take part in more social projects on this issue.

ETHICAL DECLARATIONS

Referee Evaluation Process

Externally peer-reviewed.

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

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Author Contributions

All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version.

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