



Nurses' Views on Distance in-service Trainings

Hemşirelerin Uzaktan Hizmet İçi Eğitimlere İlişkin Görüşleri

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ABSTRACT

Objective: The in-service training aims to maintain nurses' individual and professional development, update their existing knowledge and skills, ensure their adaptation to new tasks, develop their professional identity, develop their creativity, increase the quality/quality of the care they provide, improve individual and institutional productivity, and prevent work accidents and errors. The research aimed to discover nurses' views about in-service distance training.

Methods: The study used a qualitative research design. The research was conducted with 45 nurses who volunteered to participate. The data were collected using the information form and semi-structured individual interview form. In the analysis of qualitative data, "content analysis technique" was used.

Results: The results of the research were collected under six main themes: In-service distance training's contributions to professional development, in-service distance training's strengths, in-service distance training's weaknesses, in-service distance training's problems, solutions to these problems, and preferred in-service training environment. Nurses indicated that they preferred blended training the most.

Conclusion: Determining nurses' views about distance education may provide clues about the structuring of distance in-service training and the effective use of resources. Therefore, it can also improve the quality of nursing care.

Keywords: Continuing education, distance in-service training, in-service training, nurse

ÖZ

Amaç: Hizmet içi eğitim, hemşirelerin bireysel ve mesleki gelişimlerini sürdürmeyi, mevcut bilgi ve becerilerini güncellemeyi, yeni görevlerine uyumlarını sağlamayı, mesleki kimliklerini geliştirmeyi, yaratıcılıklarını geliştirmeyi, verdikleri bakımın niteliğini/kalitesini artırmayı, iş kazalarını ve hatalarını önlemeyi amaçlamaktadır. Araştırma, hemşirelerin hizmet içi uzaktan eğitime ilişkin görüşlerini ortaya koymayı amaçlamıştır.

Gereç ve Yöntem: Çalışma nitel araştırma desenindedir. Araştırma, araştırmaya katılmaya gönüllü olan 45 hemşire ile yürütülmüştür. Veriler bilgi formu ve yarı yapılandırılmış bireysel görüşme formu kullanılarak toplanmıştır. Nitel verilerin analizinde "içerik analizi tekniği" kullanılmıştır.

Bulgular: Araştırma sonuçları altı ana tema altında toplanmıştır: Hizmet içi uzaktan eğitimin mesleki gelişime katkıları, hizmet içi uzaktan eğitimin güçlü yönleri, hizmet içi uzaktan eğitimin zayıf yönleri, hizmet içi uzaktan eğitimin sorunları, bu sorunlara yönelik çözüm önerileri ve tercih edilen hizmet içi eğitim ortamı. Hemşireler en çok karma eğitimi tercih ettiklerini belirtmişlerdir.

Sonuç: Hemşirelerin uzaktan eğitime ilişkin görüşlerinin belirlenmesi, uzaktan hizmet içi eğitimin yapılandırılması ve kaynakların etkin kullanımı konusunda ipuçları verebilir. Böylece hemşirelik bakımının kalitesi de artırılabilir.

Anahtar Kelimeler: Sürekli eğitim, uzaktan hizmet içi eğitim, hizmet içi eğitimi, hemşire

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INTRODUCTION

Today, rapid and significant changes and developments in scientific knowledge and technology and health services have occurred. This situation requires nurses to update their knowledge and skills throughout their professional life and acquire up-to-date knowledge and skills. This requires continuous education and training for nurses as lifelong learners (1,2). In-service nursing training is an educational activity designed to ensure that nurses acquire and maintain the competencies they need to perform the tasks and responsibilities that employers expect (3).

In-service nursing training is an educational activity designed to ensure that nurses acquire and maintain the competencies required to perform the tasks and responsibilities that employers expect. The in-service training that is conducted to achieve these goals is mainly face-to-face. These in-service trainings aim to maintain nurses' individual and professional development, update their existing knowledge and skills, ensure their adaptation to new tasks, develop their professional identity, develop their creativity, increase the quality/quality of the care they provide, improve individual and institutional productivity, and prevent work accidents and errors (4). However, there are problems with most face-to-face in-service trainings, such as ignoring the needs of departments where nurses work as well as the training needs, training consisting mainly of theoretical knowledge with little or no application, failure to use different teaching methods and techniques, inadequate scheduling of training, inadequate physical and technical equipment, and lack of experts among educators (4,5). Due to a large number of nurses working in the health sector and the difficulty of providing on-site training, in-service distance training (ISDT) is preferred as it enables nurses to train wherever and whenever they want, overcome time and geographical barriers, and access distance education to ensure equity in training, enable more nurses to train at a lower cost, allow nurses to continue their education while working without interrupting their professional and personal commitments, provide opportunities to benefit from experts/lecturers in different locations, and provide individual learning opportunities (2,5).

Reviewing the literature, a limited number of international and national studies have shown the views and experiences of nurses with ISDT and the effectiveness of these trainings (1,2). In this context, this study is important to get an idea of nurses' inclination toward distance education, find out nurses' views on the strengths and weaknesses of ISDT, structure ISDT according to these views, and give indications

on the effective use of resources. This shows that the current research can meet a need and makes the research valuable. This study reports on a study that sought to answer the following research questions:

1. What is the contribution of ISDT to nurses' professional development?
2. What are the strengths of ISDT?
3. What are the weaknesses of ISDT?
4. What problems do nurses encounter with ISDTs? What suggestions do nurses have for solving these problems?
5. Which environment do nurses prefer for in-service training? And why?

METHODS

Aim

This study discovered nurses' views about ISDT.

Design

The study has a qualitative research design.

Participants and Sampling

The study population consisted of all nurses (n=1313) working in a training and research hospital in İstanbul, affiliated with the Ministry of Health. This hospital, where the study was conducted, was selected because part of the in-service training for nurses is conducted face-to-face and another part is conducted via distance training. The maximum variation sampling method was used to determine the sample for the study. Care was taken to select nurses who work in different departments and positions, have diverse professional experiences, and have participated in both face-to-face and ISDT. The study was conducted with 45 nurses who volunteered to participate in the study.

Instruments

The data were collected using the information form and semi-structured individual interview form.

Information Form: Developed by the researchers following the literature (1,4). The form contained eight questions to identify the sociodemographic (age, gender, marital status, education level, etc.) and occupational characteristics of the nurses (length of service as a nurse, task, unit worked, etc.).

Semi-Structured Individual Interview Form: Developed by researchers from the literature (1,6). The semi-structured individual interview form contained five open-ended questions to elicit the nurses' individuals, in-depth, and detailed views about ISDT.

Data Collection

Data were collected through one-on-one interviews following the questions in the information form and semi-structured individual interview form at the hospital between October 15 and December 15, 2020. A suitable room was arranged for the interviews. The opinions of the participants were recorded using the semi-structured individual interview form.

Interviews with the nurses lasted approximately 25-30 minutes. During the interviews, care was taken not to disturb the nurses' views so as not to deviate from the aim of the questions and to obtain rich and in-depth views. During the interview, in addition to the questions in the semi-structured individual interview form, sub-questions were asked as needed, and the discussion was terminated when data saturation was reached (6-8).

The questions in the semi-structured individual interview form were subjected to the evaluation of three experts, two faculty members from the field of nursing and one faculty member from the field of education, in terms of their suitability and comprehensibility for the research purpose and theoretical framework. Improvements were made as a result of the evaluations. In addition, a pilot application was conducted with three nurses, and the questions in the opinion form were rearranged according to the feedback received during the pilot application. The three nurses who participated in the pilot study were excluded from the sample.

Ethical Considerations

Ethics Committee approval was obtained from University of Health Sciences Türkiye, Bakırköy Dr. Sadi Konuk Training and Research Hospital Clinical Research Ethics Committee (decision no: 2019-17-17, date: 02.09.2019). Institutional approval (date: 02.10.2019, number: 5) was obtained from the institution where the research would be conducted. Verbal and written informed consent was obtained from the nurses who agreed to participate in the study at the beginning of the interview.

Statistical Analysis

Forty-five nurses were included in the study, and their opinions were analyzed. The researchers analyzed the opinions obtained using the content analysis method, a qualitative data analysis technique. While the analysis was conducted, the opinions obtained with semi-structured interviews were first conceptualized, and then the main themes, which were logically ordered according to the emerging concepts and explained the data accordingly, were determined. To analyze and compare the different meanings

of the themes, sub-themes were created according to the nurses' responses to the research questions related to the purpose of the study. Thus, an attempt was made to obtain more detailed and in-depth information from qualitative analyses (8). The themes obtained were grouped under six main themes and 47 sub-themes related to nurses' views on ISDT. The qualitative data obtained from the themes and sub-themes that emerged from the analysis were digitized for research purposes and presented with quotes from the nurses' views. Age (A), gender (F/M), and roles of the nurses whose views were quoted [operating room nurse (ORN), training nurse (TN), intensive care nurse (ICN), outpatient clinic nurse (OCN), service nurse (SN), and charge nurse (CN)] are indicated in brackets at the end of the quotes.

RESULTS

The mean age of the nurses was 30.49 ± 8.42 (minimum: 21, maximum: 57 years), and nine nurses worked in internal departments, nine in intensive care, and nine in the emergency department. The nurses' demographic information is presented in Table 1.

Data obtained from nurses' views on ISDT were collected under six main themes (Table 2).

Theme 1: The contribution of ISDT to professional development.

This theme is defined as an adaptation to the institution/profession (n=29), acquisition of new knowledge and skills (n=28), development/updating of knowledge and skills (n=23), delivery of skilled nursing care (n=22), opportunity to use technology (n=21), raise awareness of technological changes and developments (n=21), sharing knowledge and skills among nurses (n=13), prevention of occupational accidents (n=7), acquisition of communication skills (n=6), no professional contribution (n=4) under ten sub-themes (Table 2).

"Information and technology are fundamental elements of health care. Moreover, they are changing rapidly and continuously. As members of the profession, we must adapt to these changes, keep up with innovations, and keep up with developments. Only then can we improve the quality of care we provide." (37, F, SN)

"... From time to time, I feel that I am inadequate. The behaviors of the students I professionally supervise, their communication skills, and their approach to events can change depending on the time and conditions. I also need to attend in-service trainings to keep up with this situation and communicate better with new generations." (26, F, SN)

"I have not been able to improve in any of the in-service trainings I have attended so far. I think most trainings do not aim to improve/update the knowledge we have; they contain information based on memorization and are made to be done." (24, F, SN)

Theme 2: ISDT's strengths

This theme is defined as allowing for participation in training outside of working hours (n=39), offering flexibility in time and space (n=33), allowing for individualized learning (n=27), giving responsibility for learning (n=26), allows for independent learning (n=26), provides an opportunity

Table 1. Sociodemographic and occupational characteristics of nurses (n=45)

| Sociodemographic characteristics | | n | % |
|----------------------------------|---|------------|------|
| Age | Minimum: 21 maximum: 57 | 30.49±8.42 | |
| Gender | Female | 39 | 86.7 |
| | Male | 6 | 13.3 |
| Marital status | Single | 26 | 57.8 |
| | Married | 19 | 42.2 |
| Educational background | Vocational high school of health services | 2 | 4.4 |
| | Associate degree | 4 | 8.9 |
| | Bachelor's degree | 32 | 71.1 |
| | Graduate (master, doctorate) | 7 | 15.6 |
| Nursing experience | 0-5 years | 21 | 46.6 |
| | 6-10 years | 7 | 15.6 |
| | 11-15 years | 7 | 15.6 |
| | 16-20 years | 4 | 8.9 |
| | 21 years and above | 6 | 13.3 |
| Tenure in the workplace | 0-5 years | 14 | 31.1 |
| | 6-10 years | 12 | 26.7 |
| | 11-15 years | 9 | 20.0 |
| | 16-20 years | 5 | 11.1 |
| | 21 years and above | 5 | 11.1 |
| Position | Service nurse | 16 | 35.6 |
| | Charge nurse | 13 | 28.9 |
| | Executive nurse | 5 | 11.1 |
| | Training nurse | 2 | 4.4 |
| | Other | 9 | 20.0 |
| Department | Internal departments | 9 | 20.0 |
| | Intensive care | 9 | 20.0 |
| | Emergency | 9 | 20.0 |
| | Surgical unit | 7 | 15.5 |
| | Operating room | 5 | 13.3 |
| | Administration | 2 | 4.4 |
| | Training | 2 | 4.4 |
| | Outpatient clinic | 2 | 4.4 |

for repetition (n=25), provides an enriched educational environment with diverse learning materials (n=21), provides standards in academic programs (n=18), facilitates mass education (n=17), enables more people to benefit from experts (n=15), facilitates easy access to training materials (n=6) under 11 sub-themes (Table 3).

"In distance education, the subject taught by a single expert is offered to nurses working in facilities in different locations. Thus, training becomes standard. Also, the fact that the training is not tied to a specific period makes it easier for us to receive the training in the setting and at the time we want." (43, F, CN)

"...It is an advantage that we have the opportunity to replay the incomprehensible topics, hear them often." (41, F, ICN)

"...the lack of a time limit in class, the fact that the topics are not just lectures and that they are presented with different teaching materials attract our attention, and I think that eliminates the monotony of teaching..." (46, F, CN)

"...It ensures that many more people in different places and at different times can benefit from the same training content... Also, we do not have to come to the facility for training on our days off..." (33, F, SN)

"Face-to-face training is usually conducted with lectures and slide presentations. Distance training, on the other hand, creates a learning environment enriched with up-to-date information, striking images, and, when necessary, audio commentary and video." (25, F, SN)

Theme 3: ISDT's weaknesses

This theme is defined as limited/absent interaction between teachers and learners (n=38), the need to attend training on days off (n=28), lack of skill-based behaviors (n=27), the theoretical focus of training (n=24), no feedback to nurses at the end of the training (n=18), and the requirement for skills in using technology (n=11) under six sub-themes (Table 3).

"During distance learning, I cannot ask the questions I want to ask, and I cannot find immediate answers to my questions. This is because communication and interaction are either nonexistent or very weak. Therefore, I find it boring and insincere." (27, F, SN)

"The content was good, but it becomes monotonous; you think you have to finish the training as soon as possible." (35, M, SN)

"...the applications require some computer skills and some infrastructure, so I could not follow it at home, but only in my free time at work..." (46, F, ORN)

"... I had to sacrifice my private work, my free time, and me days off to attend the trainings." (34, M, SN)

"... The content of the training is mainly based on theoretical knowledge. Theoretical information is also taught in too much detail. Unfortunately, training aimed at skill acquisition and practice is never provided..." (45, F, SN)

Theme 4: ISDT's problems

This theme is defined as not being in line with nurses' interests/wants and needs (n=27). Training is not aligned with their work (n=26), lack of/limited interaction between instructor and nurse during training (n=25), the theoretical focus of training (n=21), no support for training through different teaching methods and materials (n=19), instructors are not well equipped and are not experts in their field (n=18), long training duration (n=14), No feedback to nurses at the end of training (n=12), insufficient number of training (n=10) under nine sub-themes (Table 4).

"Many of the in-service trainings organized were not focused on my interests and needs; I could not focus because they were conducted top-down." (29, F, D-SN)

"I work in the children's department." There are almost no ISDTs related to my specialty. However, I need more training in the area in which I work. However, there are more general trainings offered on various topics that I do not feel are necessary..." (27, F, D-SN)

"A lot of the in-service trainings I have attended have had theoretical content. I just listened; we did not do anything. The training should be enriched with different methods so that you can practice and acquire skills." (41, F, ICN)

"Since the organized in service education was not supported with documents, I forgot what I listened to after a while. When it is supported with different documents, the permanence of the training will increase." (26, F, SN)

Table 2. Nurses' views on the contribution of in-service distance training to professional development (n=45)

| Main theme | Sub-theme | n | % |
|---|---|----|------|
| The contribution of in-service distance training to professional development | Adaptation to the institution/profession | 29 | 64.4 |
| | Acquisition of new knowledge and skills | 28 | 62.2 |
| | Development/updating of knowledge and skills | 23 | 51.1 |
| | Delivery of skilled nursing care | 22 | 48.9 |
| | Opportunity to use technology | 21 | 46.7 |
| | Raise awareness of technological changes and developments | 21 | 46.7 |
| | Sharing knowledge and skills among nurses | 13 | 28.9 |
| | Prevention of occupational accidents | 7 | 15.6 |
| | Acquisition of communication skills (other team members, patients, and relatives, etc.) | 6 | 13.3 |
| | No professional contribution | 4 | 8.9 |

Table 3. Nurses' views on the strengths and weaknesses of in-service distance training (n=45)

| Main theme | Sub-theme | n | % |
|--|---|------|------|
| In-service distance training's strengths | Possibility to participate in trainings outside working hours | 39 | 86.7 |
| | Flexibility in time and space | 33 | 73.3 |
| | Providing individual learning | 27 | 60.0 |
| | Gaining responsibility for learning | 26 | 57.8 |
| | Independent learning | 26 | 57.8 |
| | Opportunity for repetition | 25 | 55.6 |
| | An enriched educational environment with diverse learning materials | 21 | 46.7 |
| | Provision of standards in academic programs | 18 | 40.0 |
| | Facilitating mass education | 17 | 37.8 |
| | Enabling more people to benefit from experts | 15 | 33.3 |
| In-service distance training's weaknesses | Easy access to training materials | 6 | 13.3 |
| | Limited/absent interaction between teachers and learners | 38 | 84.4 |
| | Having to participate in training on days off | 28 | 62.2 |
| | Lack of acquisition of skill-oriented behaviors | 27 | 60.0 |
| | The theoretical focus of the training | 24 | 53.3 |
| | No feedback to nurses at the end of the training | 18 | 40.0 |
| Requires technological knowledge | 11 | 24.4 | |

"...When instructors become experts in their field, the training is more effective. The instructor should be able to expand my horizons on the topic, point me to various resources on the topic, and teach me how to access those resources..." (32, F, OCN)

The theme 5: Suggested solutions to the problems encountered at the ISDT

This theme is defined as taking nurses' demands and needs into consideration (n=32), focusing the training on their work area (n=29), strengthening the interaction between instructor and nurse in training (n=23), supporting training through different teaching methods and materials (n=17), selecting educators from well-equipped and knowledgeable individuals (n=15), planning training based on skill acquisition (n=14), providing feedback to nurses at the end of training (n=11), and increasing the number of trainings (n=12) under eight subthemes (Table 4).

"...Training should be planned according to the training needs of the nurses... Trainings should be scheduled accordingly. So our desire to attend the trainings will be stronger..." (33, F, CN)

"...The trainings should be organized according to the nurses' work areas in different departments and their specialties." (27, F, TN)

"...in the group face-to-face trainings, a question that does not come to your mind at that moment or that you could not ask can come to someone else's mind and be asked. For this reason, in-service distance learning should be organized to enhance the interaction between the instructor and the nurse..." (44, F, ICN)

"... Experts should select educators in their field. This will ensure that we participate willingly in the training and make the training more effective and efficient..." (37, F, CN)

"...The number of ISDTs should be increased, and nurses should be encouraged to attend these trainings..." (29, F, ORN)

Theme 6: The preferred ISDT environment

This theme is defined as face-to-face teaching (n=21), distance teaching (n=11), and blended learning (face-to-face and distance teaching together) (n=13) under three subthemes (Table 5).

Table 4. Nurses' views on the problems they experienced in in-service distance training (n=45)

| Main theme | Sub-theme | n | % |
|---|--|--|------|
| In-service distance training's problems | Not in line with nurses' demands and needs | 27 | 60.0 |
| | Training is not in line with their work | 26 | 57.8 |
| | Lack of/limited interaction between instructor and nurse during training | 25 | 55.6 |
| | The theoretical focus of the training | 21 | 46.7 |
| | No support of training through different teaching methods and materials | 19 | 42.2 |
| | Instructors are not well equipped and are not experts in their field | 18 | 40.0 |
| | Long training periods | 14 | 31.1 |
| | No feedback to nurses at the end of the training | 12 | 26.7 |
| | Insufficient number of trainings | 10 | 22.2 |
| | Suggested solutions to the problems encountered at in-service distance training | Consideration of nurses' interests/wants and needs | 32 |
| The trainings focused on their work | | 29 | 64.4 |
| Strengthening the interaction between educators and nurses in the trainings | | 23 | 51.1 |
| Supporting training through different teaching methods and materials | | 17 | 37.8 |
| Selecting educators who are well equipped and experts in the field | | 15 | 33.3 |
| Planning training sessions that are focused on skill acquisition | | 14 | 31.1 |
| Providing feedback to nurses at the end of the training | | 12 | 26.7 |
| Increasing the number of trainings | | 11 | 24.4 |

Table 5. Nurses' views on their preferred in-service environment (n=45)

| Main theme | Sub-theme | n | % |
|--|---|----|------|
| Preferred in-service training environment | Face-to-face education | 21 | 46.7 |
| | Distance education | 11 | 24.4 |
| | Blended learning (face-to-face and distance education together) | 13 | 28.9 |

"... I prefer face-to-face training. Because when I meet with other colleagues, communicate with them, exchange ideas, and talk about the training, the training is more effective for me..." (37, F, OCN)

"I prefer distance training (ISDT) because it is more convenient in terms of time and location. I can attend training in an environment where I feel more comfortable and whenever I want. I am not dependent on the training environment, training time, or duration. I can attend training whenever and wherever I want. I can learn me by repeating as much as I want by accessing the materials..." (33, M, CN)

"Distance learning... It allows me to update my professional knowledge while working. It also allows me to attend training outside work hours." (40, F, CN)

"It can vary depending on the topic and type of training. Distance learning can be done if the training content is only theoretical information and is mainly about updating and remembering information. The application and interactive parts, the skills, can be taught in face-to-face classes..." (27, F, TN)

DISCUSSION

The findings on the six major themes that emerged from the nurses' opinions were discussed under the headings of contributions of ISDT to professional development, strengths and weaknesses of ISDT, problems in ISDT, solutions to these problems, and preferred ISDT environment.

In the study, nurses' views on the professional contributions of ISDT were related to institutional/professional adaptation, acquisition of new knowledge and skills, and development/updating of knowledge and skills, etc. (Table 2). The literature states that ISDTs make professional contributions to nursing, such as enabling nurses to continue their individual and professional development, update their existing knowledge and skills, adapt to their new roles, develop their professional identity, increase the quality of care, strengthen communication between team members, increase individual and institutional productivity, prevent occupational accidents and errors, and increase the chance of using technology (4,9). This finding, consistent with the research findings in the literature, was taken as an indication that nurses are optimistic about ISDT and are aware of the personal and professional contributions of in-service training.

The study found that nurses perceived the strengths of ISDT to be the opportunity to participate in ISDT outside working hours, flexibility of time and place, individual learning, and a learning environment enriched with various teaching

materials, etc. (Table 3). In the research of Tavares et al. (10) and Sari and Nayır (11) the strengths of ISDT are seen in the fact that they allow employees to attend in-service training whenever and wherever they want, without reducing their work pace, performance, and productivity, that they can listen to and re-watch training when they feel it is necessary, and that they enable adults to plan and take responsibility for their learning. In the studies of Tekin (6) and Tavares et al. (10), the richness and quality of learning and teaching resources and materials are important factors that influence the quality of ISDT. This finding, consistent with the results of this study in the literature, indicates that nurses are aware of the strengths of distance education. This finding also shows that nurses cannot effectively and efficiently benefit from in-service training because of their heavy workload during working hours. For this reason, we believe that they would prefer ISDTs more because they offer the opportunity to participate in trainings outside working hours, are flexible in terms of time and location, and offer individual responsibility for learning.

The study identified nurses' views on the weaknesses of ISDT as limited/absent interaction between teachers and learners, having to participate in training on days off, lack of acquisition of competency-based behaviors, and theoretical nature of training (Table 3). In the studies conducted by Tekin (6) and Cheng and Chau (12), one of the weaknesses of distance education is the limited communication and interaction between the instructor and the learner. In the studies conducted by Buğdaylı and Akyürek (9), Öztürk et al. (13), it is found that nurses who have to attend in-service trainings outside their working hours have problems with being reluctant or not attending the trainings, not being able to ask questions, not being able to interact, and not collaborating during the training. This finding, consistent with the results of this study in the literature, indicates that nurses are aware of the weaknesses of distance education.

In the research, the opinions of the nurses about the problems they experienced in ISDT are that it is not conducted following the interests/wants and needs of the nurses, the training is not focused on the areas in which they work, the interaction between the instructor and the nurse in training does not exist / limited, etc. (Table 4). The literature states that ISDTs are ineffective because they are prepared from the top down, far from the individual reality, without considering the needs of the professionals and the differences in the unit/service in which they work, and because the organized trainings are theoretical (14). In face-to-face training, teachers and learners can make eye contact, easily observe each other's behavior and body language in the learning environment, and communicate

one-on-one (12,15). However, since the instructor and the learner are not in the same place in distance learning, they can communicate online. This situation results in the teacher and learner not being able to interact and communicate appropriately because they cannot make eye contact, etc. (16-18). This result led us to believe that nurses cannot sufficiently benefit from these trainings because they do not want to attend the trainings, are reluctant to attend the trainings when they have to attend the trainings, when ISDTs are not conducted mainly by nurses' interests/requirements and needs, when there is little or no interaction between the instructor and nurse in the trainings, when the trainings are theoretical, and when the appropriate timing is not determined. Furthermore, this finding was interpreted to mean that ISDTs should be structured to address their weaknesses and problems.

In the study, nurses' views on solutions to the problems they experienced in ISDT were determined by considering nurses' wants and needs, focusing training on their working areas, increasing instructor-nurse interaction in training, and supporting training with different teaching methods and materials, etc. (Table 4). Tekin (6) and Chaghari et al. (4) recommend that to improve ISDTs, ISDTs should be conducted in small groups, the demands and needs of participants should be considered, evaluation criteria should be set, feedback should be provided, the number and quality of training should be increased, different methods should be used, instructors should be selected from qualified and experts in their field, and training should be planned based on experience. In the studies of Chaghari et al. (4), Taşlıbeyaz et al. (5), the need for in-service training should be well analyzed, realistic goals should be set, materials should be prepared according to the condition, and strategies should be developed for all these situations. This finding, consistent with the research findings in the literature, was interpreted to mean that there is a need to identify nurses' educational interests/desires and needs, organize training according to these desires and conditions, and incorporate adult learning principles in training.

Most nurses indicated that they preferred in-service training, face-to-face education, and blended education (face-to-face and distance education together) (Table 5). Similar to the research findings, in the studies by Sindiani et al. (18), Ramos-Morcillo et al. (19), and Barisone et al. (20), it is found that nurses prefer these environments because they believe that face-to-face education is more effective for skill acquisition and distance education should be used for sharing theoretical parts. Nurses who prefer distance learning prefer it because it allows participation in training outside working hours, offers flexibility in time and place,

allows individual learning, and provides the possibility of repetition. In the research conducted by Boz Yüksekdağ (21), it was found that nurses could not attend in-person training during working hours, leaving the workplace while working is a problem, the number of nurses who can be assigned to the task is insufficient, and the department manager does not give permission to the nurse. This result, consistent with the research findings in the literature, suggested that in-service training should be structured to include both face-to-face and distance learning to be more effective and efficient and achieve the desired goals.

The study focused on some nurses in one training and research hospital. Therefore, the findings should not be generalized to the entire population.

CONCLUSION

According to the research findings, ISDT helps nurses to adapt professionally to the institution/profession, acquire new knowledge and skills, develop/update knowledge and skills, and provide skilled nursing care. Nurses indicated that the strengths of ISDT are that it provides opportunities for professional development/training while working, independence of time and place, and individual learning. Nurses cited limited/absent interaction between teachers and learners, the need to attend training on days off, and the inability to acquire skill-based behaviors, etc., as weaknesses of ISDT. Nurses indicated that the problems they experienced in ISDT were that training was not delivered according to their interests/requirements and needs, training was not focused on the areas in which they worked, the interaction between instructor and nurse in training was absent/limited, training was theoretical, etc. In addition, nurses indicated that they preferred in-service training, face-to-face training, and blended training (face-to-face and distance) the most.

In line with these research findings, the following suggestions are made. The in-service training environment should be determined by the content and purpose of the topic to be taught. The distance education method can be used in in-service training for theoretical knowledge, repetition, and information. However, training that requires practice and interaction should be conducted face-to-face or blended. Before planning ISDTs, needs assessment studies should be conducted, and the need for in-service training for nurses should be identified on the basis of the findings. It should be planned, implemented, and evaluated according to the identified training needs. It should include attention-grabbing and timely topics related to developments and changes in the nurse's work areas. It should be enriched

with various teaching methods and materials that reinforce the interaction between the instructor and nurses and teach skill-based behaviors. Studies should be conducted with different sample groups to examine the persistence of the knowledge, skills, and attitudes to be acquired in ISDTs and the effectiveness of the training.

Rapid and significant changes and developments in scientific knowledge technology and health services have occurred continually. All these changes and developments require nurses' knowledge and skills throughout their professional life to acquire up-to-date knowledge and skills. Managers have a great responsibility in planning, organizing in-service trainings, and providing training to nurses at regular intervals. Determining the nurses' views about distance education may provide clues about the structuring of distance in-service training and the effective use of resources. Therefore, it can also improve the quality of nursing care.

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ETHICS

Ethics Committee Approval: Ethics Committee approval was obtained from University of Health Sciences Türkiye, Bakırköy Dr. Sadi Konuk Training and Research Hospital Clinical Research Ethics Committee (decision no: 2019-17-17, date: 02.09.2019). Institutional approval (date: 02/10/2019, number: 5) was obtained from the institution where the research would be conducted.

Informed Consent: Verbal and written informed consent was obtained from the nurses who agreed to participate in the study at the beginning of the interview.

Authorship Contributions

Surgical and Medical Practices: F.Ç., M.Ç., Concept: F.Ç., E.Ş., Design: F.Ç., E.Ş., M.Ç., Data Collection or Processing: F.Ç., M.Ç., Analysis or Interpretation: F.Ç., E.Ş., M.Ç., Literature Search: F.Ç., E.Ş., M.Ç., Writing: F.Ç., E.Ş., M.Ç.,

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