Original Article

Evaluation of the Efficiency of Care Plan Training
Given to Nurses

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Abstract

Background: It is important to consider the needs of nurses in in-service training programs to be prepared for nurses, to conduct training on these issues, and to review their needs at regular intervals.

Purposes: The aim of this study is to evaluate the effectiveness of the care plan training given to nurses.

Methods: The research was carried out in a descriptive design and the sample of the research consisted of 305 nurses who participated in the training and survey application. Questionnaires, which were prepared by the researchers in line with the literature, included some introductory features of the participants, their views on the planning and implementation of the training, the outcomes of the training, and the questions about the whole training that were applied to the participants.

Results: It was determined of the participants 39.30% stated that education contributes positively to professional development, 41.60% stated that education contributes positively to personal development, 39.70% stated that education provides new knowledge and skills, 33.80% stated that education increases motivation, 38.70% states that education contributes positively to professional development. It has been seen that 38.00% of them evaluate the situation of gaining new knowledge and skills that they can apply in my educational institution, the situation of increasing their interest in the subject of education, and 49.20% the general evaluation of education as good.

Conclusions: It is thought that the effectiveness of the training, which is planned in line with the needs of the employee and the institution and whose duration, material used, content, and training method is planned in line with the expectations of the participants, will increase, so the training will contribute more to the clinical practice and both the professional and personal development of the participants.

Keywords: *care plan, education, nurse, in-service*

Introduction

As a result of globalization, an environment of privatization and competition has emerged in the health sector as well as in all service areas. As a result of this competition, health institutions aimed to increase the quality and efficiency of the service provided by catching scientific and technological developments and reflecting them on the service. For health institutions to service training this goal, it is necessary and even obligatory to give more importance to in-service training offered as per institutional policies (Tiryaki Sen et al. 2019, Celen et al. 2007).

The training of professional members who can adapt to change and development is possible with the continuity of education in that field (Atay et al. 2009, Gocmen 2004). Although there are many different definitions of in-service training, it can be defined as continuous training programs that cover the subjects, they need to follow the developments related to their profession for each employee who has just started a job in an institution and continues to work in that institution during the training process (Kaya 2002, Yorgun 2002). In-service training includes a comprehensive study such as determining the in-service training needs of the personnel, developing programs suitable

for these needs, and planning, implementing, and evaluating these programs (Atay et al. 2009). In-service training is an important factor in ensuring the adaptation of the employees in units that are complex in terms of technical tools, equipment, and operation, and that require special knowledge and skills, and in the adaptation of nurses to the changing working conditions (Gocmen 2004). Reasons such as increasing the existing performance of the institution and the job satisfaction of the employees, finding solutions to corporate problems, developing suggestions for the opinions and expectations of the employees, ensuring the self-development of the employees and realizing the deficiencies in themselves, reviving the internal competition, creating satisfaction and ensuring innovation; It reveals the requirements of in-service training (Ozdemir 2021). Achieving the purpose of in-service training can be evaluated by the high rate of benefiting from the training by the trainees. It is an indisputable fact that effective planning and organization play a large part in the efficiency and success of education. In addition, eliminating the deficiencies highlighted in light of the information gathered through the evaluations of previous training may contribute to the improvement of the quality of the training (Maillot et al.2019).

It is important to determine the continuity and effectiveness of the training, to consider the needs of nurses in the in-service training programs to be prepared, to conduct the training on these issues, and to review their needs at regular intervals (Aytug Kanber and Gurlek 2011, Kol et al. 2017). In this direction, in-service training for nursing practices is organized at certain intervals in the institution where the study is carried out for the nurses working in this direction. This study; A retrospective, descriptive study was conducted to evaluate the opinions of the nurses working in the clinic about the care plan training carried out, to determine the problems, expectations, and suggestions they experienced regarding the training, which affect the training both positively and negatively.

Method

The research is of descriptive type. While all nurses working in S.C.U Health Services Application and Research Hospital constitute the universe the nurses who participated in the care plan training of the universe constitute the sample. Due to the system change in SCU hospital, an in-service training program was organized in 2019. In this program, it was decided to fill in the nursing care plan records, which were in the form of filling out preprinted forms, in the computer environment in accordance with the changing institutional policies. After this decision, before starting the application, the institution planned an in-service training for the care plans to introduce the practice to the nurses working and to minimize the problems to be experienced in the application, and after the training, the participants were asked to fill out the training evaluation form prepared by the trainers. This training for the preparation of maintenance plans in the computer environment was planned and conducted in two stages theoretical and case discussion. The training lasted for 4 hours (2 hours theory, 2 hours case discussion). Participants were asked to fill in the evaluation form prepared by the trainers at the end of the training to evaluate the effectiveness of the training and to contribute to the next maintenance plan training. The training was held once a week in March and April 2019. The training was carried out by four nurses assigned by the hospital administration.

Application of Data Collection Tools: Data were collected using the information in the evaluation form filled out at the end of the care plan training. In this form, there are questions to evaluate the trainer, the training time, the content of the training, the training, and the training content. In addition, a field in the form where the participants wrote their thoughts and suggestions about education with their expressions was also included in the form. Permission for the study was obtained from the institution. Consent for the use of the data was obtained from the educators and the participants who could be reached. In addition, during the consent process, the participants were informed that it is aimed to ensure that other trainings be made more effective thanks to the results of this study and that it will contribute to the completion of the maintenance plans through automation in the institution more effectively and in a shorter time.

Evaluation of Data: Quantitative data obtained were analyzed using the Statistical Package for Social Science (SPSS) 22.0 statistical package program. The normality of the data was checked with the Kolmogorov-Smirnov test. If parametric conditions were met in the data, they were analyzed by independent sample t-test for two independent groups and by F-test (ANOVA) for more than two groups. While ANOVA was used for comparisons with more than two groups, Tukey tests were used for those who provided the homogeneity assumption, and Tamhane's T2 tests were used for those who did not provide the homogeneity assumption to determine which group was different from the others. If one or all of the assumptions were not met, the Mann-Whitney U test was used for two independent groups, and the Kruskal-Wallis test was used for more than two independent groups. The error level was taken as 0.05.

Limitations of the Research: Since the research was conducted in a single center, the data obtained as a result of the research is limited to the hospital where the study was carried out in terms of the results and inferences reached, and the generalization of the results may be misleading. It was assumed that the participant nurses sincerely answered the questions asked within the scope of the research.

Ethical Aspect of Research: Approval was obtained from the Sivas Cumhuriyet University Non-Interventional Clinical Research Ethics Committee with the decision number 2022-12/21 dated 14.12.2022. In addition, permission was obtained from the institution where the study was carried out and from the nurses who attended the training but did not leave the institution.

Results

A total of 339 people attended the training. Since 34 people did not fill out the questionnaire, the study was conducted with 305 nurses. The distribution of the participants according to some introductory characteristics is given in Table 1. Of the participants 75.80% in the study are women, 81.40% are between the ages of 25-40, 55.70% are undergraduate graduates, 79.70% have 0-15 working years, 39.70% are in internal clinics and 63.30% of them are permanent staff. The distribution of the views of the participants on the planning and implementation of the training is shown in Table 2. It was determined that 47.90% of the participants evaluated the duration of the training and 42.60% the date (timing) of the training as good. Again, 40.30% of the participants stated that the content of the training is suitable and sufficient for the training, 44.90% of them the training method and technique, the understanding of the subject, the adequacy of the training materials (tool/equipment/document) of 42.00% and the adequacy of the training place to the training of 58.40%. rated the eligibility status as very good. The distribution of the participants' views on the end-of-training achievements is given in Table 3. 39.30% of the participants evaluated the positive contribution of education to professional development, 41.60% evaluated the positive contribution of education to personal development, 39.70% evaluated the status of education to provide new knowledge and skills, and 33.80% evaluated the status of education to increase motivation as good. Again, it was seen that 38.70% of them evaluate the situation of gaining new knowledge and skills that they can apply in my educational institution, 38.00% of them evaluate the situation of increasing their interest in the subject of education and 49.20% of them evaluate the general evaluation of education as good. The distribution of the participants' suggestions regarding education is presented in Table 4. 28.00% of the participants made suggestions about practical interactive training, 25.30% of them making the care plan in a more useful format, and 10.70% of them giving lectures as booklets to the listeners. The average score distribution of the education evaluation form according to some introductory characteristics of the participants is presented in Table 5. No statistically significant result was found between the descriptive characteristics of the participants and the mean score of the education evaluation form.

Table 1. Distribution of Participants by Some Introductory Characteristics

Characteristics	n	%
Gender		
Female	257	75.80
Male	82	24.20
Age (X=36.85±7.51)		
25-40	276	81.40
41-60	63	18.60
EducationStatus		
Health vocational high School	64	21.00
Associate Degree	66	21.60
Licence	170	55.70
Degree	5	1.60
Working Year		
0-15 years	243	79.70
16-36 years	62	20.03
Department of Study		
Internal Clinic	121	39.70
Surgery Clinic (Operating Room.)	92	30.02
Intensive care	49	16.10
Special Units (Administrative Task. Employee Health. VIP. Sterilization. Sleep Lab. Gastro Endoscopy. EKG. Blood Collection)	43	14.10
Squad Status		
Regular	193	63.30
Contractual	112	36.70

Table 2. Distribution of Participants' Views on Planning and Implementation

	n	%
Duration of training		
Not good at all	7	2.3
Not good	33	10.8
Middle	117	38.4
Good	146	47.9
Very good	2	0.7
The date (timing) of the training		
Not good at all	17	5.6
Not good	15	4.9
Middle	33	10.8

Good	110	36.1
Very good	130	42.6
The content of the training is appropriate and sufficient for the training.		
Not good at all	5	1.6
Not good	6	2.0
Middle	37	12.1
Good	123	40.3
Very good	134	43.9
Training method and technique understanding of the subject		
Not good at all	3	1.0
Not good	5	1.6
Middle	44	14.4
Good	116	38.0
Very good	137	44.9
Training materials (tools/equipment/document) adequacy		
Not good at all	8	2.6
Not good	14	4.6
Middle	44	14.4
Good	111	36.4
Very good	128	42.0
Educational venue's suitability for education		
Not good at all	3	1.0
Not good	3	1.0
Middle	17	5.6
Good	104	34.1
Very good	178	58.4

Table 3. Distribution of Participants' Views on End-of-Training Achievements

	n	%
Positive contribution to educational professional development		
Not good at all	9	3.0
Not good	12	3.9
Middle	44	14.4
Good	120	39.3
Very good	120	39.3
Positive contribution to education personal development		
Not good at all	11	3.6
Not good	9	3.0
Middle	49	16.1
Good	127	41.6
Very good	109	35.7
Education. the state of acquiring new knowledge and skills		

Not good at all	14	4.6
Not good	15	4.9
Middle	54	17.7
Good	121	39.7
Very good	101	33.1
The state of education to increase motivation		
Not good at all	21	6.9
Not good	22	7.2
Middle	66	21.6
Good	103	33.8
Very good	93	30.5
The situation of acquiring new knowledge and skills that can be applied in the educational institution		
Not good at all	17	5.6
Not good	18	5.9
Middle	59	19.3
Good	118	38.7
Very good	93	30.5
The state of education to increase the interest in the subject		
Not good at all	16	5.2
Not good	15	4.9
Middle	61	20.0
Good	116	38.0
Very good	97	31.8
General evaluation of education		
Not good at all	11	3.6
Not good	1	.3
Middle	65	21.3
Good	150	49.2
Very good	78	25.6

Table 4. Distribution of Participants' Recommendations Regarding Education

Suggestions	n	%
The training time is the winter period.	3	4.0
The maintenance plan is in a more convenient format.	19	25.3
Training early in the day.	11	14.7
Applied can be interactive trainings.	21	28.0
Let's not have to answer surveys while listening to the presentations.	5	6.7
There is little writing in the presentations. More images would be nice.	7	9.3
Giving the topics covered to the audience as a booklet.	8	10.7
Light background music could be given between lessons.	1	1.3

Table 5. Distribution of Education Evaluation Form Scores According to Some Descriptive Characteristics of the Participants

Characteristics	Education Evaluation Form Score Average
Gender	x̄±SD
Female	4.05±0.77
Male	4.05±0.67
Test Statistics	t=0.002 p=0.499
Age (X=36.85±7.51)	
25-40	4.05±0.76
41-60	4.04±0.74
Test Statistics	t=0.155 p=0.821
Education Status	
Health vocational high School	3.93±0.17
Associate Degree	2.69±0.10
Licence	4.05±0.11
Degree	4.25±0.04
Test Statistics	F=1.838 p=0.140
Working Year	
0-15 years	4.02±0.36
16-36 years	4.07±0.24
Test Statistics	t=0.175 p=0.723
Department of Study	
Internal Clinic	4.05±0.72
Surgery Clinic (Operating Room.)	4.01±0.86
Intensive care	4.05±0.84
Special Units (Administrative Task. Employee Health. VIP. Sterilization. Sleep Lab. Gastro Endoscopy. EKG. Blood Collection)	4.14±0.97
Test Statistics	F=0.301 p=0.825
Squad Status	
Regular	4.04±0.73
Contractual	4.05±0.78
Test Statistics	t=0.119 p=0.974

Discussion

Health services are increasingly focusing on the development of non-technical skills (Omura et al. 2017). Training is a fundamental approach to the development of these skills. In this study, the effectiveness of the training provided to eliminate the lack of knowledge of the nurses working in the clinic due to the system change was examined and it was concluded that the training time and training environment were suitable for the majority of the employees, the content of the training and the materials used were sufficient, the training method and

the intelligibility of the subject were sufficient.

When the demographic data of the nurses participating in the training were examined; 81.40% of the participants were under the age of 40. Considering the average age of the participants, it can be said that the nurse group is young. It was determined that the majority of the nurses had a bachelor's degree and the rate of those with a master's degree was 1.6% (Table 1). When the literature on the subject of education is examined, the education levels of the participating nurses in the training in health institutions vary. Ozkul Ozel et al., (2012) reported that 49.4% of the nurses who participated in the study conducted to evaluate the effect of the "Basic Nursing Practices" in-service training of nurses working in a training and research hospital on the level of knowledge were high school graduates. In the study conducted by Celen et al., (2007) with the participation of 102 intensive care nurses working in the Training Hospital Intensive Care Units, it was determined that 2.2% of the participants were high school graduates. In light of these data, it is possible to say that the education level of the hospital we conducted the research is high. It is thought that this height may be related to the year of the studies. The increase in the number of nurses with undergraduate degrees may have caused this result because new universities were opened in the country where the study was conducted in recent years compared to previous years and universities accepted more students. As in our study, it is possible to come across studies in which the majority of the participants have a bachelor's degree. The study by Bugdayli and Akyurek (2017) which the views of nurses working in a university hospital regarding in-service training activities are one of them. Considering the year in which this study was conducted, it is noteworthy that it was conducted at a time closer to our study year.

It was determined that an average of 76% of the nurses participating in the study were women and the majority of them worked in internal units (Table 1). In the study of Bugdayli and Akyurek, the majority of the participants were women. The fact that the majority of the participants are women is thought to be a result of the fact that the nursing profession is still predominantly female. In terms of working years, it was seen that the majority of the participants (79.70%) were under 15 years. During the training period, a total of 419 nurses were working in the institution where the study was conducted. It has been determined that 339 of the working nurses, that is, approximately 81%, have participated in the training. It is seen that the rate of participation in education is high. In the study conducted by Ozturk & Savaskan (2008) to determine the expectations, problems, and suggestions of nurses working in Trabzon state hospitals about in-service training, 67% of the participants stated that the training given should be usable in practice to increase participation in training (Ozturk & Savaskan 2008). In this study, it is possible to attribute the high rate of participation in education to the fact that an application that will be used in the institution is being trained and the subject of education is a subject that the participants need. In their study, Bugdayli & Akyurek (2017) talk about the necessity that the scope of education should include need-oriented and current topics for education to be effective and efficient. By examining the studies on nursing homes, Bern Klug & Cordes, (2021) made a similar conclusion to our study and concluded that since the training subjects needed may differ from institution to institution, determining their own training needs can ensure high participation and interest in education.

When the research data is examined, the education of the majority of the participants; the time of the education, the date of the education, the place of the education, the content of the education, and the materials used are seen to be very good (Table 2).

When the answers given by the participants to the questions were examined, "Did the training contribute to your professional development?" It has been determined that 39.3% and 39.3% answers the question "good" and "very good" equally. These answers are the ones with the highest percentage. Again, it was seen that the participants gave the highest 41.6% "good" answer to the question "Did the training contribute to your personal development?". It

was determined that the majority of the participants gave "good" answers to the questions of "gaining new knowledge and skills", "increasing motivation" and "increasing their interest in the subject" (Table 3). It is thought that it can be concluded that the training given by the participants will expand the answers given to these questions. When some studies supporting this finding are examined, it is seen that the results of the studies evaluating education as good and very good are mostly studies that address the participant's more than one learning path. One of these is the training given to operating room nurses by using a simulation model based on the "Zwisch" model between 2016 and 2017 in a tertiary academic hospital published by Maillot et al., (2019). At the end of the training, Maillot et al., (2019) had students and trainers evaluate the training. As a result, they showed that 96% of the student participants and 86% of the instructors evaluated the education from "good" to "very good". Training with the simulation method is a teaching method that addresses more than one learning path of the participants.

Lin et al., (2019) volunteer nurses were included in 55 control and 55 study groups in two tertiary hospitals in China, and nurses who were included in the study group among the nurses who met the conditions of participation in the study were included in an 8-week training program. Both theoretical and practical training was applied to increase the levels of stress, emotion, and resilience. As a result of the study, it was shown that training in which different methods were used together was effective in improving the levels of stress, effect, job satisfaction, and resilience among nurses in hospital settings. The majority of the participants may have evaluated the effectiveness of the training as good, since all of the participants had to think about the topics covered in the practice part of the training and put the theory into action, since the training on the care plan, which we evaluated its effectiveness, was carried out in the form of 2 hours of theoretical lectures and 2 hours of practice (case discussion) with smaller groups. At the same time, the high number of those who say that education contributes to their

professional and personal development can be associated with the fact that education is carried out in a multidimensional way. Omura et al., (2017) included studies on assertiveness communication and focused on which training programs were more effective, similarly in their study, which included discussions and role-playing, team training, and didactic instructions reinforced with the support of leaders, face-to-face and multi-disciplinary training programs to optimize training concluded that methodical programming techniques are more appropriate approaches.

When the participants' suggestions for education are examined, it is seen that 75 people made suggestions. It has been suggested that the training should be earlier, the topics covered should be given to the participants in the form of booklets, background music should be played during the training breaks, the training should be held in the winter period, the care plan should be organized in a more useful format, practical interactive training should be provided, and visual content should be given more space as presentation material (Table 4).

The educational evaluation mean scores of the participants were compared according to their descriptive characteristics, and it was determined that there was no statistically significant difference between gender, age, the working year, the clinic they worked in, and whether they were permanent or contracted (Table 5). It was determined that there was a statistically significant difference only between the education levels of the participants. While associate degree graduates had the lowest average score, it was seen that the highest average score belonged to graduate graduates. This result is very striking. No clear data could be obtained to explain the fact that the satisfaction averages of the participants who received the longest and most comprehensive training in terms of training period were higher than the other participants. It can be suggested that different studies be conducted on the working styles of these participants, whether they are shift-day or permanent-contracted.

Conclusion and Recommendations: The nursing profession has to adapt to the developing technology, in other words, to adapt the service they offer to technological developments to increase the quality of service and save labor and time on the way to professionalization. They need to have sufficient knowledge and experience to improve the quality of care offered and to reflect innovations in care. For this reason, there is a need for training programs to overcome the lack of knowledge and experience in every period of the profession. It is thought that the effectiveness of the training, which is planned in line with the needs of the employee and the institution and whose duration, material used, content, and training method is planned in line with the expectations of the participants, will increase, so the training will contribute more to the clinical practice and both the professional and personal development of the participants.

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