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RESEARCH ARTICLE

The Effect of In-Services Educational Program for Nurses about Communication Skills in General Hospitals at Port-Said Governorate.

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Abstract

Communication of the nurse with the patients is particularly known as the main core of care. Despite the importance of providing communication, one of the main sources of stress in nurses of different wards is communication with the patients. **Aim:** The effect of implementing in-services educational program about communication skills for nurses working in general hospitals. **Subjects and method:** A quasi-experimental research design was conducted in this study. The sample comprised of 100 nurses and 120 patients. Data were collected using pre/post/follow-up self-administrated questionnaire for staff nurses to measure their knowledge level. An observational checklist was used to assess staff nurses' communication skills and measure their opinionnaire of patient before applying the educational program to staff nurses. **Result:** the majority of the studied staff nurses (86%) had unsatisfactory knowledge in communication. A statistically significant positive correlation among staff nurses' knowledge and practice of the skills related to communication, there was no association between staff nurses' age and their observational checklist total scores except at post-test that was negative associated and there is no significant correlation between staff nurses' resident and years of experience and their knowledge test and observational checklist total scores there was an improvement on the patients' opinion at the post-test and follow-up measurements comparing to the pre-test measurement. **Conclusion:** The present study findings, assessment of staff nurses' knowledge about communication has revealed high deficiency and unsatisfactory at pre-test phase and improvement knowledge and skills after application of the in-services educational program. Also, a statistically positive correlation between staff nurses knowledge and their practice of skills regarding communication and also Patients' opinion unsatisfactory. **Recommendation:** This study was recommended to study the outcomes of effective communication between staff nurses and patients to improve their condition, psychological status, length of stay and outcomes of communication skills training on staff nursing as increased their satisfaction, decrease burnout, increase their productivity.

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INTRODUCTION

Communication is a vital element in nursing in all areas of activity and in all its interventions such as prevention, treatment, rehabilitation, education and health promotion (1). It can define the exchange of information, thoughts

and feelings among people using speech or other means (2). Communication is greatly rooted in human behaviors and the context of society that difficult to imagine social or behavioral transactions without it. For this reason, communication is fundamental to all nursing and interpersonal relationships that help nurses' foster trust and comfort not only in clients and their families, but also in colleagues and other professional and nonprofessional people with whom nurses interact. In addition it's critical to establishing and maintaining quality working relationship in organizations (3). To achieve a positive health outcome, health care professionals and other stakeholders must be able to communicate with the people and populations they serve about disease prevention, treatment plans, risks and benefits, medication instructions, and other topics related to effective health care. National organizations have identified health care communication as an essential element of public health and a core component of the health care system (4). The Joint Commission on Accreditation of Health Care Organizations, the National Committee for Quality Assurance (NCQA) and others have developed standards that require health care organizations to recognize individuals' right to and their need for effective communication(5). Finally, the National Quality Forum (NQF) has listed communication as a practice for improving patient safety as well as a national priority for health care quality measurement and reporting (6).

Communication in the workplace is critical to establishing and maintaining quality working relationships in organization (7). On the other hand, Effective communication between patients and their health care providers has been shown to improve the quality of health care. It is a strong predictor of overall patient satisfaction and associated with improved health outcomes. Patients who can successfully communicate with their providers are more likely to elicit an empathetic response from providers, have a better understanding of their diagnoses and treatment options, and better participate in shared decision-making (8). Moreover, Effective communication skills are necessary to establish interpersonal relationships with physicians and other staff, clients, and their families; these relationships are essential in today's fast paced, information-driven society and health care arena. The benefits of effective communication include good working relationships and increased patient satisfaction. In addition to increasing patient understanding of treatment, improve compliance and, in some cases, lead to improved health (9). There is an increasing awareness of the need to teach communication in health care, in the climate of greater emphasis on quality, and against a background of research, which shows both deficits in skills of health workers and effective methods for improvement (8). While ineffective communication has negative effects on patient care and causes stress when nurses interact with each other, with medical colleagues, with patients and their relatives (1).

Good communication is the basis of good nursing and proper teamwork. It is the core of all element of management. Additionally, communication is a central part of nursing practice, it is important in delivery of effective and appropriate nursing care. It seems evident that current nursing philosophy assumes that communication and Negotiation are pivotal concepts to the provision of high quality care. Therefore, it is essential for nurses to develop and maintain competent communication and interpersonal skills continuously that are required to facilitate therapeutic interactions, assess clients' needs, and implement interventions that promote an optimal level of functioning (10). So this study will be conducted to implement in serves training program to improve knowledge and skills of nurses regarding communication in different hospitals at port-said Governorate, Egypt.

SUBJECT AND METHODS

AIM OF THE STUDY

This study aims to investigate the effect of implementing in-services educational about communication program for nurses in general hospitals at port-said.

Research design

A quasi experimental research design, one group, with pre-test, post-test and follow-up assessments was used in conducting in this study.

Setting

The study was conducted randomly at three different outpatient hospitals in Port- Said city, namely Al Amery Hospital, Al Naser Hospital and Al Zehor Hospital.

Sample size

Non-probability, convenience sample was used to select the study subjects. The study included two different sample groups; staff nurses and patients.

Group I: convince sample of 100 staff (all nurses in three outpatient hospital) nurses was recruited from the all general hospitals that have been mentioned before; 35 from the Al Naser hospital, 45 from the Al Amery, and 20 from the Al Zehor hospital. The study included the staff nurses with bachelor degree who have at least one year of experience working in the outpatient and also staff nurses with diploma degree and technical institute where at least two years of experience working at the outpatient and accept to participate in the study.

Group II: randomly sample of 120 patients were chosen at each data collection point from the previous mentioned at the three different outpatient hospitals that have direct contact with the study's subjects and were during the period of data collection. Patients were chosen according to the following inclusion criteria: Fully conscious, adult.

Group II of 120 patients was consecutively recruited to collect data at one phase of the study (pre-test) to measure their opinionnaire before applying the educational program to staff nurses about communication skills.

Data Collection Tools

Three different tools of data collection were used in the present study:

(a) Knowledge test (K), (b) observational checklist (OC), and (c) patient interviewing opinion

Tool I: Self - administered knowledge questionnaire sheet (K) (pre, post, follow-up)

Part I: Consisted of items related to demographic characteristics of the study subjects as personal and educational characteristics of the participants.

Part II: Comprised 39 questions related to communication skills. These questions were classified under the following eight main areas: Definition and importance of communication five questions, verbal and non-verbal communication thirteen questions, organizational communication three questions, principles of communication four questions, Levels of communication four questions, elements of communication, four questions, communication barriers two questions and listening skills four questions. This tool was applied three different times; first time was administered before supplementing staff nurses with self-learning package about communication, second time was done after distributing self-learning package about communication (knowledge (K) and skill (S)) to staff nurses in order to assess the effect of the package in staff nurses' knowledge about communication, third time was administered three months after supplementing learning package to evaluate staff nurses knowledge that have been learned through the learning package.

Scoring of knowledge test.

Each question was granted one point for the correct answer, and zero for the wrong one. The total score for all questions was 39. All scores were expressed as percentage of the upper limit scores. If the score was 60% or more, it was considered satisfactory and unsatisfactory if less than 60% as designed by the statistical analyst.

Tool II: Observational checklist (pre, post, follow-up)

The observational checklist consisted of 43 items divided into two main parts:

Part I: Included items related to types of communication skills to staff nurses with health team members (doctors, colleagues, supervisors, and co-workers). The total number of this part was twenty two items.

Part II: consisted of items related to types of communication skills of staff nurses with their patients. The number of this part was twenty-one items.

Scoring of the observational checklist.

Each question was assigned a score of (1) if the action was "done" and "zero" (0) if it is "not done". The score of each staff nurse was converted into a percentage score. A maximum percentage score was 100%. The researcher made three observations of staff nurse performance and scored each item as a "yes" if 2 of the 3 incidences met the criteria and as a "no" if no or only once incident occurred.

Tool III: Patient interviewing opinionnaire was developed and constructed by researcher. The researcher collected the data during the patient in outpatient hospital period. It consisted of sixty questions about the use of the communication skills by staff nurses through the following: Nurses' skills in dealing with patient five questions, Hospital admission eight questions, providing nursing care (intervention) eighteen questions, patient investigation five questions, health teaching for patient eleven questions, medication administration eight questions and patient nutrition, five questions. This tool was applied to measure their patient opinionnaire before applying the serves training program to staff nurses (pre- test).

Scoring of the Patient Interviewing Opinionnaire.

If the patient answered "yes" to a question, the item was assigned a score of "one" and a score of "zero" was given if the answer was "no". Therefore, the maximum possible score was sixty. This score was also converted to a percentage and thus the total possible percentage score on the Patient Interviewing Opinionnaire was 100%.

Content validity of the tool was checked by a panel of five experts from the Community, Medical and Obstetric Health Nursing specialty and modifications were done based on their opinions.

A pilot study was carried out on 10% of the studied sample in order to test clarity and applicability of the tool. The pilot study was also used to estimate the time needed for each subject to fill in the questions. Modifications were done based on the results of the pilot study. Those who shared in the pilot study were excluded from the main study sample.

After returning all completed questionnaires data were entered the statistical package for social science (SPSS) software, version 17. Descriptive statistical including numbers, percentage, mean, Standard Deviation (SD) were used and followed by comparing difference between study groups using Chi-square and ANOVA test. All these tests were used as tests of significance at $P < 0.05$.

Results

Table 1. Socio-demographic Characteristics of Staff Nurses in the Study Sample (n = 100)

Items	Frequency (n = 100)	Percent
-Age (years):		
≤30	67	67%
>30	33	33%
Mean ± SD	28.9 ± 5.29	
-Nursing qualification:		
Bachelor degree	24	24.0
Technical institute	24	24.0
Nursing school diploma	52	52.0
-Residence		
Urban	57	57.0
Rural	43	43.0
-Experience years:		
-<3	23	23.0
- ≥ 3	77	77.0
-Attend Workshop Related to communication skills		
Yes	16	16.0
No	84	84.0
-Outpatient Clinic		
Medical Clinic	20	20.0
Pediatric Clinic	16	16.0
Obstetric Clinic	18	18.0
Orthopedic Clinic	9	9.0
Dermatology Clinic	7	7.0
Cardiology Clinic	10	10.0
Dentist Clinic	10	10.0

Surgical Clinic	10	10.0
-Hospital		
Al Amery Hospital	45	45.0
Al naser Hospital	35	35.0
Al Zehor Hospital	20	20.0

Table (1): As shown in this table, the highest percentage of staff nurses (67%) had their age equal or less than 30 years old and the mean $\pm$ SD age was 28.9 ± 5.29 . The highest percentage of staff nurses (52 %) had a nursing diploma qualification. Regarding years of experience, the majority of staff nurses in the study sample (77%) were expertise nurse who had three years of experience or more. As regard to place of residence, more than half of the staff nurses in the study sample (57%) were from urban area. Meanwhile, the highest percentage of the studied staff nurses (84%) did not attend any workshop about communication and only (16%) of the study sample did. High percentage of the study sample (45%) was from Al Amery hospital. Moreover, the highest percentage of the study subjects (20%) was working at Family unit.

Table (2): Staff Nurses' Knowledge (K) and communication Skills (S) Before Introducing The Serves Training Program about Communication (n = 100)

Items	No.	%
Knowledge		
-Satisfactory (60% +)	14	14.0
-Unsatisfactory (< 60%)	86	86.0
Skills		
-Good communicator (60% +)	20	20.0
-Poor communicator (< 60%)	80	80.0

The table (2): Illustrates that, the majority of the studied staff nurses (86%) had unsatisfactory knowledge in communication. Meanwhile, the great majority of studied staff nurses (80%) had poor communication skills.

Table (3): Mean & SD of Staff Nurses' K Total Score Pre, Post, Follow-Up (n = 100)

Knowledge	Pre (n=100)	Post (n=100)	Follow-up (n=100)	Paired t-test	p-value
Mean $\pm$ SD	18.97 $\pm$ 3.72	33.97 $\pm$ 2.11	27.99 $\pm$ 1.66	51.07* 26.65** 40.49***	<0.001 <0.001 <0.001

* Between Pre and Post

** Between Pre and Follow-up

*** Between Post and Follow-up

Mean values of staff nurses' knowledge (K) total score pre, post, follow-up are compared in the table (3). As noticed from the table, there was an improvement in studied staff nurses' knowledge at post-test (33.97 $\pm$ 2.11) than pre-test (18.97 $\pm$ 3.72). Whereas, there was a slight declines in the follow-up scores (27.99 $\pm$ 1.66) but they didn't reach to the pre-test level. The differences between pre-test results, from one side, and the post-test and follow-up test, from other sides, were statistically significance by which ($P < 0.001$)

Table (4): Comparison between Mean and SD of OC Subscale Score (pre, post, follow-up) (n = 100)

Items	Pre-test (n=100)	Post-test (n=100)	Follow-up test (n=100)	Paired t-test	p-value
		Mean $\pm$ SD	Mean $\pm$ SD		
Verbal skill	7.77 $\pm$ 1.51	13.59 $\pm$ 1.06	11.22 $\pm$ 1.05	36.57* 22.69** 35.03***	<0.001 <0.001 <0.001

Non-verbal skill	9.96 ± 1.95	16.35 ± 1.37	13.71 ± 1.22	33.33* 20.71** 24.71***	<0.001 <0.001 <0.001
Listening skill	1.98 ± 0.91	5.02 ± 0.62	3.86 ± 0.71	33.85* 20.34** 17.93***	<0.001 <0.001 <0.001

* Between Pre and Post

** Between Pre and Follow-up

*** Between Post and Follow-up

Table (4): Demonstrates comparison between mean and SD of OC subscale score (pre, post, and follow-up). As noticed from the table, all items related to verbal, non-verbal, and listening skills were improved or progressed in the post-test (5.02 ± 0.62) and also in the follow-up test (3.86 ± 0.71) in comparing to pre-test scores. The differences in scores between pre- to post-test, pre- to follow-up test, and post- and follow-up test were statistically significance in these OC subscales; verbal, non-verbal, and listening skills at $p < 0.001$.

Table (5): Comparison between Staff Nurses' K Total Score (Pre, Post, Follow-Up) according to their Socio-demographic Characteristics (n = 100)

Items K total score	Pre-test Mean ± SD	Post-test Mean ± SD	Follow-up test Mean ± SD
Age group ->30years(n=33) -≤30 years(n=67)	17.58 ± 3.18 19.66 ± 3.79	33.3 ± 1.91 34.29 ± 2.14	27.48 ± 1.35 28.24 ± 1.75
t-test P –value	2.72 < 0.05	2.26 < 0.05	2.18 < 0.05
Level of education Bachelor degree(n=24)) Technical institution (n=24) Nursing school diploma(n= 52)	23.00 ± 1.5 19.08 ± 3.9 17.06 ± 2.75	35.67 ± 1.52 34.08 ± 2.12 33.13 ± 1.87	28.96 ± 1.78 28.00 ± 1.59 27.54 ± 1.46
f-test p-value	35.77 P<0.001*	15.29 P<0.05*	6.69 P<0.05*
Residence Urban(n=43) Rural(n=57)	19.67 ± 3.71 18.44 ± 3.66	34.39 ± 1.84 33.65 ± 2.26	28.16 ± 1.54 27.86 ± 1.75
f-test p-value	1.66 > 0.05	1.77 > 0.05	0.90 > 0.05
Experience years Novice <3(n=23) Experienced ≥ 3(n=77)	19.35 ± 3.76 18.86 ± 3.72	34.26 ± 2.05 33.88 ± 2.13	28.3 ± 1.99 27.89 ± 1.55
f-test p-value	0.55 > 0.05	0.75 > 0.05	1.04 > 0.05
-Attend Workshop Yes(n=16) No(n=84)	22.56 ± 1.71 18.29 ± 3.6	35.94 ± 0.93 33.59 ± 2.07	29.05 ± 1.29 27.79 ± 1.65
f-test p-value	4.64 < 0.001	4.44 < 0.001	2.92 < 0.001

Table (5): Shows **comparison between staff nurses' K total score (Pre, Post, and Follow-Up) according to their socio-demographic characteristics**. As indicated from the table, the analysis of the demographic variables of age, level of education and attend workshop confirms that there was a statistical significant difference between staff nurses in the study sample .While , there was no statistical significant between residence and experience by their age divided into groups on K total score at pre-, post-, follow-up measurements.

Table (6): Comparison between Staff Nurses' OC Subscale Score (Pre, Post, Follow-Up) according to their Socio-demographic Characteristics (n = 100)

Items	Pre-test Mean $\pm$ SD	Post-test Mean $\pm$ SD	Follow-up test Mean $\pm$ SD
Age group ->30years (n=33) -≤30 years (n=67)	19.87 $\pm$ 3.25 19.39 $\pm$ 2.06	35.43 $\pm$ 1.96 34.0 $\pm$ 1.77	28.97 $\pm$ 1.71 28.42 $\pm$ 1.23
t-test P –value	0.76 > 0.05	3.54 < 0.001	1.63 > 0.05
Level of education Bachelor degree(n=24)) Technical institution (n=24) Nursing school diploma (n= 52)	22.63 $\pm$ 1.88 19.21 $\pm$ 2.59 18.59 $\pm$ 2.53	37.08 $\pm$ 1.38 35.141 $\pm$ 1.41 33.92 $\pm$ 1.69	29.92 $\pm$ 1.25 28.67 $\pm$ 1.74 28.33 $\pm$ 1.41
f-test p-value	23.68 P>0.05	33.89 P<0.001	9.86 P>0.05
Residence Urban (n=43) Rural (n=57)	20.33 $\pm$ 2.74 19.25 $\pm$ 2.97	35.05 $\pm$ 2.16 34.89 $\pm$ 1.91	28.86 $\pm$ 1.78 28.74 $\pm$ 1.43
f-test p-value	1.86 > 0.05	0.37 > 0.05	0.39 > 0.05
Experience years Novice <3 (n=23) Experienced $\geq$ 3 (n=77)	19.74 $\pm$ 3.45 19.7 $\pm$ 2.75	35.43 $\pm$ 2.29 34.82 $\pm$ 1.91	28.83 $\pm$ 2.12 28.78 $\pm$ 1.4
f-test p-value	0.05 > 0.05	1.29 > 0.05	0.12 > 0.05
-Attend Workshop Yes (n=16) No (n=84)	21.5 $\pm$ 2.31 19.37 $\pm$ 2.89	36.63 $\pm$ 0.81 34.64 $\pm$ 2.02	30.13 $\pm$ 1.15 28.54 $\pm$ 1.53
f-test p-value	2.78 < 0.05	3.86 < 0.001	3.94 < 0.001

Staff nurses' OC total scores (pre-, post-, and follow-up) according to their socio-demographic characteristics are compared in table (6). As indicated in the table, staff nurses whose age were 30 years or less had a slightly higher mean OC post-test score than those more than 30 years old. However, this difference in mean was not evidence by the time of pre- and follow-up test. Additionally, independent t- test indicates a statistically significant difference on the OC total score only at the post-test measure by age group with the younger nurses had a slight higher post-test OC total score. The analysis of the demographic variables of level of education and attend workshop confirms that there was a statistical significant difference between staff nurses in the study sample .While, there was no, statistical significant in residence and experience between staff nurses in the study sample.

Table (7): Socio-Demographic Data of Studied Patient Sample (n= 120)

Items	Frequency (n= 120)	Percent
Hospital		

Al Naser Hospital	47	39.2
Al Amery Hospital	53	44.2
Al Zehor Institute	20	16.7
- Outpatient Clinic		
Medical Clinic	22	10.8
Pediatric Clinic	20	9.8
Obstetric Clinic	30	14.7
Orthopedic Clinic	10	4.9
Dermatology Clinic	12	5.9
Cardiology Clinic	6	2.9
Dentist Clinic	10	4.9
Surgical Clinic	10	4.9

Illustrates the description of studied patient sample. As noticed from the table 8, the majority of the studied sample (44.2%) was from Al Amery hospital. Moreover, the highest percentage of them was from obstetric clinic.

Table (8): Comparison between Mean Value of Patients' Opinion Total Score at Time (Pretest Regarding Staff Nurses' Communication Skills When Dealing With them (n =120))

Items patient opinionaire	Pre-test (n=120)	p-value
	Mean $\pm$ SD	
Skills when dealing with patients	1.69 $\pm$ 0.66	>0.001
Hospital admission	3.14 $\pm$ 0.89	>0.001
Providing nursing care	9.14 $\pm$ 1.06	>0.001
Performing investigation	2.51 $\pm$ 0.64	>0.001
Health teaching	5.35 $\pm$ 1.3	>0.001
Medication administration	2.89 $\pm$ 1.29	>0.001

Patient nutrition	2.01 ± 0.72	>0.001
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Comparison between mean value of patient opinionaire subscale is presented in the table (9). As illustrated in this table, there were a non-statistically significant different between the opinion of patients in the studied sample regarding different **staff nurses' communication skills when dealing with them** (pre - test)

Discussion

According to the present study findings, assessment of staff nurses' knowledge about communication has revealed high deficiency at pre-test phase. This means that high majority of staff nurses had unsatisfactory knowledge in the pre-intervention phase. The result of this study revealed that the nurses had a poor knowledge about communication before implementing the program. Additionally, the finding of the present study is in agreement with many previous studies (12),(5), (6) ,(1) & (4) This might be explained by fact that the knowledge could be forgotten easily if it is not used frequently in the practice. On the other hand, the great majority of the study subjects had never attended previous training courses related to this subject. They are overloaded with their work rather than to update their knowledge or continue their education. Regarding knowledge about communication among studied sample through the post-intervention and follow-up phases, the present study findings revealed a statistical significant improvement after application of the serves training program. These results are in agreement with (13) who has also indicated that there was a significant increase in the knowledge about communication of nurses' score at post -test with a slight decrease in the follow-up score. Similarly, (24) have claimed that the knowledge acquired may be retained for a large time if the learner applies this knowledge to the real situation. Additionally, these findings are in agreement with a number of previous studies that have demonstrated a positive effect and high improvement of subject's knowledge after training programs (12) ,(14),(15),(16) & (17) . The present study has revealed that staff nurses in younger age categories had more satisfactory knowledge at pre-, post-, and follow-up phases of the study and this results find a weak negative statistically significant relation between staff nurses' knowledge score and their mean age 28.97 ± 1.71 . This means that the younger staff nurses achieved more satisfactory knowledge about communication than older nurses in each measurement time. (18) mentioned that younger head nurses were more motivated to acquire knowledge and achieve technical skills when investigate the effects of leadership training program on head nurses work performance

Regarding the relation between knowledge and staff nurses' qualification, the present study results have shown that staff nurses with bachelor degree had a satisfactory knowledge throughout the study phases, compared to those with technical institute or diploma school nursing. Additionally, staff nurses who graduated from technical institute had a satisfactory knowledge than those with diploma school nursing. In this respect,(12) have claimed that when teaching licensed personnel and assistance personnel, one might find a wider range in educational level. Thus, there is an expected variation between diploma and bachelor nurses. Moreover, staff nurses with bachelor degree or technical institute have some previous knowledge about communication through the undergraduate curriculum of the faculty of nursing or technical institute of nursing.

Regarding residence of staff nurses, the present study findings revealed that staff nurses from urban area had a slight increase in knowledge score at pre-, post-, follow-up intervention compared to those of counterparts, with no statistical significant differences. This means that the implementation of the serves training program has an effect on staff nurses' knowledge about communication regardless their residence.

According to the present study findings, the results revealed that there was a negative correlation between staff nurses' knowledge and their years of experience. However, this relation wasn't statistically significant. Nonetheless, regardless of the knowledge tests variance, the application of the serves training program was able to elevate the knowledge of all staff nurses regardless of their years of experience. This result is on the same line with (18) who has suggested that younger head nurses were more motivated than experienced head nurses to achieve technical skills and acquire knowledge. Meanwhile, (19) has demonstrated that the less experience head nurses have the highest knowledge scores. The author attributed this finding to the fact that these head nurses are still keeping their background information, compared to the more experienced ones. However, this study is incongruent with (12) who

have reported that nurses with longer years of experience had better knowledge. Additionally, (20) has reported that the nurse learns knowledge through her practice and experience.

Regarding the relation between staff nurses' knowledge and their previous attendance of workshops, the present study findings revealed that staff nurses who had attended the workshop had a satisfactory knowledge score test at pre-, post-, and follow-up intervention, with statistically significant differences. In further confirmation, the inferential analysis of the data showed a positive relation between staff nurses' previous attendance of workshop and their knowledge score through the study application. This means that staff nurses who had attended workshop had a better knowledge than those who didn't. This result is only in partial agreement with (16) who indicated that nurses who had attended training course had satisfactory knowledge at pre-test, compared to those who did not attend such course. On the same line, (14) have reported that in-service educational programs have good effects on improving the nurses' knowledge and performance. They provide opportunities for technical employees to advance while continuing to focus on technical skill development.

The present study revealed that staff nurses' skills pre-test related to communication was mostly poor in all its dimensions verbal and non-verbal communication skills. Furthermore, the deficiency was most obvious in relation to listening skills. Indeed (13) has revealed the same results, this may be indicated that the majority of staff nurses hadn't attended any training program about such subject. Thus, they weren't aware how to apply these skills in effective way, especially listening skills. Hence, this might be because there was no enough attention paid to how to teach the communication skills in any of the nursing scholar years. Moreover, this result agreement with (14) who reported that many health care professionals lack communication skills because general professional training focuses on technical care. On same line (16) who reported that Chinas Nurses have considerable needs for communication skills training because of lack of education and training regarding communication in nursing and the shortage of related reference books, materials, and research findings.

Regarding staff nurses' communication skills throughout the intervention, the present study findings have revealed statistically significant improvement after applying the intervention. This was detected in both post-test and follow-up phases of intervention, comparing to pre-test. This might be attributed to the subjects' motivation and enthusiasm to know and acquire skills related to communication and to practice it successfully. Additionally, this improvement in staff nurses' skills after intervention may be attributed to the increase in the studied sample's knowledge and consequent modification of their practice. This explanation is confirmed by the results of inferential analysis of the data which revealed a positive statistical significant relation between knowledge and practice of the skills of communication. These results and interpretation are in congruence with (14) & (16). This finding is supported by (13) who showed that there was a significant improvement in staff nurses' performance regarding general communication after implementing the program. Additionally by (12)(19) they have similarly shown a statistically significant difference between performance levels at pre-, post-, and three months after program intervention.

On the other hand, the foregoing present study results was opposed to what was found by (12) who reported that verbal communication skills was practiced adequately by one third of the nurses' intern in her study sample. Whereas, concerning verbal communication skills throughout the intervention in the present study, the results revealed a statistically significant improvement both at the post-test and three months after applying the serves training program. These findings could be related to the fact that the staff nurses were interested in the training program content and have intention to improve their verbal communication skills when dealing with other health care teams, patients and their families.

The present study has also examined the relation between staff nurses' knowledge and skills regarding communication throughout the intervention phases. This finding has indicated a statistically positive correlation between staff nurses knowledge and their practice of skills regarding communication. This result is on the same line with (21) who has reported positive correlation between knowledge and performance regarding communication, indicating that when knowledge is high the level of the practice will be also high at post and follow-up program. This foregoing present study results is in congruence with (22)(23), both have asserted that knowledge and performance were strongly and positively correlated, and multiple regression analysis revealed that knowledge score was a positive statistical significant independent predicator of performance score. This finding of a positive correlation between knowledge and performance is also similar with the findings of the studies conducted by (12) (13) (24).

According to the patients' opinion the researcher observed that there were a non-statistically significant difference between the opinion of patients in the studied sample regarding different staff nurses' communication skills when dealing with them. This results agree with (13) stated that the lack of information had been identified as a major factor for hospitalized patient as the patient had great needs for information and consistently reported that their needs for information were inadequately supplied by hospital care providers. Patients' opinion unsatisfactory this may be due to the staff nurses had unsatisfactory knowledge and poor communication skills.

Conclusion

Based on the finding of current study that the nurses had deficiency and unsatisfactory knowledge and skills of communication with patients .improved after implementation of in-services educational program either immediately or later than before also the study revealed that the Patients' opinion unsatisfactory.

Recommendations

- Providing opportunities for staff nurses to attend an educational programs or workshops is crucial to keep them a beast of anything new about communication in nursing to update their knowledge and skills frequently.
- Nursing staff must be continuously motivated to provide quality nursing care through effective communication among themselves and with patients which reflect in their outcomes by giving them incentives, fair treatment, and paid educational leaves.
- Collaboration between health care institutions and academic expertise should be assured in order to help in developing the staff nurses' knowledge and experience and also could help bridge many gaps through opportunities to share perceptions and solve common problems.
- Further research is recommended to study the outcomes of effective communication between staff nurses and patients to improve their condition, psychological status, length of stay and study the outcomes of communication skills training on staff nursing to increase their satisfaction, decrease burnout, and increase their productivity.

Competing Interests:

The author(s) declare that they have no competing interests.

Authors' Contributions

GehadAbou El- Mahaty conceived the study idea, collected data, designed the program and review methodology, conducted the critical appraisal of the studies and drafted the manuscript.

Naglaa Ibrahim developed the search strategies, assisted in designing the review methodology, conducted the searches, conducted the critical appraisal of the studies and prepared the final manuscript for publication.

Maha Moussa designed the training program write reviewed the literature and search results and helped to analyze the data and modify the manuscript and finalized the manuscript.

All authors read and contributed to the interpretation of the findings and drafting of the manuscript.

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