

Effect of a Caring-Based Training Program on Caring Behaviors of Indonesian Nurses as Perceived by Patients

Abstract

Background: A caring education program is proven effective in improving nurses' behavior in several countries. This study aimed to assess the effect of the Caring-Based Training Program (CBTP) on nurses' caring behaviors of Indonesian nurses as perceived by patients. **Materials and Methods:** This non-equivalent control group post-test-only design was conducted on 74 patients from a public hospital in Malang district, Indonesia, in 2019. The patients who only met the inclusion criteria were recruited through convenience sampling. The Caring Behaviors Inventory-24 (CBI-24) items were utilized to measure nurses' caring behaviors as perceived by patients. Data were analyzed using frequency, mean, standard deviation, t-test, and ANOVA test at 0.05 levels of significance. **Results:** The overall mean score of CBI-24 for the experimental group was higher than the control group (5.48 and 5.04, respectively). According to the patient's perception, these findings indicated that the caring behavior of nurses in the experimental group was better than that in the control group. The independent t-test showed a significant difference in the nurses' caring behaviors between the experimental and control groups (p -value = 0.001). **Conclusions:** The study demonstrated that a CBTP could improve nurses' caring behaviors. Therefore, the developed program is essential and required by Indonesian nurses to increase their caring behaviors.

Keywords: Behaviors, hospitals, Indonesian, nurses, patients, perception, public

Introduction

The caring behaviors of nurses have been extensively studied in recent years in many countries. Generally, the studies focused on the nurses' or nursing students' and patients' perceptions of caring behaviors because caring has been understood differently in various countries.^[1-6] Some studies investigated a correlation between patients' satisfaction and nurses' caring behaviors. Caring behaviors enacted by nurses determine a consistent proportion of patient satisfaction.^[7] The caring behaviors of nurses can also improve patients' satisfaction.^[8] Therefore, efforts to enhance nurses' caring behaviors are significant to maintain patient satisfaction with health services. Currently, nurses' caring behaviors in Indonesia are in the spotlight. Some studies in certain hospitals in Indonesia indicated that nurses did not manifest caring behaviors that might affect patients' satisfaction. The survey in West Sumatra province showed that

46.4% of nurses did not manifest caring behaviors, and 59.5% of patients were not satisfied with nurses' caring behaviors.^[9] Similarly, the study in Lampung Province showed that 56.3% of nurses did not manifest caring behaviors, leading to 49% of patients not being satisfied with nurses' caring behaviors.^[10] Moreover, the nurses working in private and government hospitals in Indonesia also did not manifest caring behaviors in terms of compassion.^[11] However, there have been no efforts to improve nurses' caring behaviors through caring education or training from interested parties in Indonesia.

One of the efforts to improve nurses' caring behavior, caring theory-based education programs have been carried out in some countries. Two studies in Taiwan^[12,13] and one study in Iran^[14] showed that care workshops effectively improve the nurses' caring behavior according to nurses' perceptions. Meanwhile, a study in Jordan showed that a workshop on caring

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is also practical for improving the caring behavior of midwives.^[15]

In previous studies, nurses' caring behavior was measured based on the nurse's perception, but no one has measured it based on the patient's perception. It is vital to measure the caring behavior of nurses on the patient's side, which is much more objective than the nurses themselves. This study aims to determine the effect of a Caring-Based Training Program (CBTP) on the caring behavior of Indonesian nurses as perceived by the patients.

Materials and Methods

This current study was a non-equivalent control group post-test-only design conducted in Indonesia from October 1 to November 30, 2019. The design requires the researcher to select a control group after implementing the intervention and provide a post-test to both the experimental and control groups.^[16] The samples were drawn by convenience sampling. The sample size was computed utilizing the 95% confidence interval and 80% statistical power with $z_1 = 1.96$ and $z_2 = 0.84$. Hence, 74 patients were obtained as the sample. The sample was then divided into 37 patients in each group (37 for intervention and 37 for control). All patients admitted to the medical-surgical ward of Lawang Public Hospital were included in this study. The inclusion criteria were as follows: patients were admitted for at least three days, adults, literate, and willing to participate in the study. The exclusion criteria were any patients with conditions limiting their participation in this study, such as loss of consciousness or mental disorders.

The intervention is a 4-week training program based on Watson's theory of human caring, especially the 10 Caritas processes wherein participants have three sessions every week. The program was developed in a training syllabus consisting of seven elements: specific objectives, content, training strategies, time frame, resources needed, a person in charge, and learning outcomes. Before being implemented in training, the program had been reviewed by experts for suggestions and input. Next, the training is referred to as the CBTP. The training for the nurses was carried out after obtaining permission from the hospital's head.

A total of 48 nurses in the surgical medical room participated in this program. Eight nurses were unable to continue training due to personal reasons so the nurses who participated in the training until it was completed were 40 nurses. The majority of the nurses were in the age range of 24–34 years, female, and had been in the job for 4–9 years. After completion of the training, data was taken from the patients.

The data gathering tools consisted of the demographic characteristic questionnaire and the Caring Behaviors Inventory-24 items (CBI-24). The researchers utilized CBI-24 to measure nurses' caring behaviors as perceived

by patients. CBI-24 is a short version of the original CBI-42 that is quite lengthy.^[17] Sentence length on some items may have contributed to the subject's failure to complete the questionnaire.^[17,18] CBI-24 is a 6-point Likert type scale (1 = never, 2 = almost never, 3 = occasionally, 4 = usually, 5 = almost always, and 6 = always) consisting of four major subscales of caring and 24 items. The higher the mean of responses, the more frequently caring is perceived.^[2] CBI-24 has internal consistency ($\alpha = 0.96$) and convergent validity ($r = 0.62$) and obtains good test-retest reliability ($r = 0.88$ for patients and $r = 0.82$ for nurses).^[17] Previous studies have indicated high internal consistency for the CBI-24 with Cronbach's alpha ranging from 0.92 to 0.96.^[19] Besides this questionnaire, this study also utilized a demographics questionnaire that contained questions about age, gender, education, length of stay, and religious affiliation.

The data was taken from patients in the two groups a week after the training for nurses was completed. The data included demographic characteristics of patients and nurses' caring behaviors as assessed by patients. The data were obtained by filling out the demographic questionnaires and CBI-24. Data were then analyzed using Statistical Package for Social Sciences (SPSS) version 17.00 (SPSS Inc. Chicago). Descriptive statistics such as frequency, mean, and standard deviation, and inferential statistics such as independent t-test and ANOVA test were used to analyze data. p value < 0.05 is considered to be statistically significant.

Ethical considerations

Ethical clearance was obtained on September 18, 2019, from the Ethics Review Committee (ERC) of St. Paul University Philippines, with approval protocol code 2019-03-PhDNS-101. All patient participants were informed of the verbal and written explanation of the purpose and importance of the study before they filled out the questionnaire. It was emphasized to all participants that participation in the study was voluntary. If the participants agreed to participate, then informed consent was obtained. However, if they want they were free to withdraw from the study at any time.

Results

The majority of the participants were in the age range of 35–60 years (47.30%), females (54.05%), grade school graduates (66.22%), had stayed between less than seven days (95.95%), and with Islam as religion (98.65%). The demographic characteristics of the participants are summarized in Table 1.

Table 2 displays the changes in the mean score of CBI-24 between the experimental group and the control group after implementing CBTP. In general, the overall mean score of CBI-24 in the experimental group was higher than the control group, namely, 5.48 and 5.04, indicating that the

Table 1: Demographic characteristics of the participants (n=74)

Variables	n (%)
Patient	
Age (in years)	
≤34	10 (13.51)
35-60	35 (47.30)
≥61	29 (39.19)
Total	74 (100.00)
Gender	
Male	34 (45.95)
Female	40 (54.15)
Total	74 (100.00)
Education	
Grade school	49 (66.22)
High school	21 (28.38)
Undergraduate school	4 (5.40)
Total	74 (100.00)
Length of stay (in days)	
≤7	71 (95.95)
>7	3 (4.05)
Total	74 (100.00)
Religious Affiliation	
Islam	73 (98.65)
Hindu	1 (1.35)
Total	74 (100.00)
Nurse	
Age (in years)	
≤23	5 (12.50)
24-34	32 (80.00)
≥35	3 (7.50)
Total	40 (100.00)
Gender	
Male	11 (27.50)
Female	29 (72.50)
Total	40 (100.00)
Job Experience (in years)	
<4	12 (30.00)
4-9	27 (67.50)
>9	1 (2.50)
Total	40 (100.00)

patient's assessment of the caring behavior of nurses in the experimental group was better than the assessment of patients in the control group. The difference in mean scores of CBI-24 between the experimental group and the control group was 0.44. A comparison of the mean score of CBI-24 as perceived by patients between the experimental group and the control group after the implementation of CBTP can be seen in Table 2.

Table 3 shows that there was no significant difference in the mean scores of CBI-24 between the two groups based on the demographic characteristics of the participants in terms of age, gender, education, and length of stay. These findings also indicate that all variables have the same

variance. Therefore, the results of this study were not affected by the demographic characteristics of the patient participants.

The difference in the mean score of CBI-24 between the experimental group and the control group was tested with an independent t-test [Table 3]. The mean score of CBI-24 for participants in the control group was 5.04, and in the experimental group was 5.48. Independent t-test shows a significant difference in patients' perception of nurses' caring behaviors between the two groups (*p*-value 0.001). The results showed that patients cared for by trained nurses rated the caring behavior of nurses better than patients cared for by nurses who were not involved in the training.

Discussion

The main finding of this study was that the mean score of CBI-24 in the experimental group was higher than in the control group. This shows that CBTP for nurses affects the patient's perception of the caring behavior of nurses.

These results support previous findings related to the effect of educational programs on nurses caring behavior. Statistically, differences were found in registered nurses' level of caring performance in Jordanian hospitals after they underwent the caring training program.^[20] Similarly, Taiwanese nurses exhibited more caring behaviors after participating in a care workshop on caring behaviors.^[12] Not only the nurses, but the patients also admitted that nurses became more caring after attending a care workshop on caring behavior.^[13]

Among caring behaviors in CBI-24, item #23, "Giving the patient's treatments and medications on time," was the item with the highest mean score in the control group. In contrast, item #15, "Treating patient information confidentially," was the item with the highest mean score in the experimental group. This finding supports the study, which stated that treating patient information confidentially and giving treatments and medications on time were highly ranked.^[21] Conversely, item #4, "spending time with patients," was the item with the lowest mean score in the two groups. The obstacles for nurses in spending time with patients were the administrative works such as paperwork, reporting, and documentation.^[22] The works have exhausted nurses' time when caring for patients and prevented nurses from giving care and offering their presence at the patient's bedside. These findings prove that most nurses are still concerned with the biophysical aspects of the patient rather than the psycho-social aspects in providing nursing care. However, in general, the study results showed that all items of caring behaviors in CBI-24 in the experimental group were higher than in the control group except item #22, "showing concern for the patient." The mean score of the item was equal between the two groups, but the score was very high. This shows that the CBTP, in general, can improve nurses' caring behaviors as perceived by patients.

Table 2: Comparison of the mean score of CBI-24^(*) between the control group and the experimental group after the implementation of Caring-Based Training Program (CBTP)

Caring behaviors	Mean Score of CBI-24	
	Control group	Intervention group
Attentively listening to the patient	4.95	5.59
Giving instructions or teaching the patient	5.03	5.32
Treating the patient as an individual	4.46	5.86
Spending time with the patient	3.65	4.65
Supporting the patient	4.81	5.32
Being empathetic or identifying with the patient	4.95	5.00
Helping the patient grow	5.43	5.76
Being patient or tireless with the patient	5.14	5.57
Knowing how to give shots, IVs, etc	5.35	5.59
Being confident with the patient	5.32	5.81
Demonstrating professional knowledge and skill	4.76	5.59
Managing equipment skillfully	5.27	5.68
Allowing the patient to express feelings about his or her disease and treatment	5.00	5.49
Including the patient in planning his or her care	4.43	5.14
Treating patient information confidentially	4.86	5.89
Returning to the patient voluntarily	4.95	5.38
Talking with the patient	5.16	5.54
Encouraging the patient to call if there are problems	5.11	5.24
Meeting the patient's stated and unstated needs	4.95	5.08
Responding quickly to the patient's call	5.32	5.65
Helping to reduce the patient's pain	5.38	5.51
Showing concern for the patient	5.54	5.54
Giving the patient's treatments and medications on time	5.73	5.76
Relieving the patient's symptoms	5.51	5.65
Overall Mean	5.04	5.48

(*) Caring Behaviors Inventory-24

Table 3: Independent t-test and ANOVA^(*) Test of participants (n=74)

Variables	Mean (SD)	F-ratio/t-test	p
Age (in years)			
≤34	5.45(0.51)	1.22 ***	0.30
35-60	5.16(0.67)		
≥61	5.33(0.54)		
Gender			
Male	5.30(0.61)	0.41****	0.69
Female	5.24(0.61)		
Education attainment			
Grade school	5.21(0.66)	0.69 ***	0.50
High school	5.37(0.47)		
Undergraduate school	5.42(0.64)		
Length of stay (in days)			
≤7	5.28(0.60)	0.73****	0.47
>7	5.01(0.90)		
Mean score of CBI-24 (**)			
Control group (n=37)	5.04(0.64)	-3.35****	0.001
Experimental group (n=37)	5.48(0.49)		

(*) Analysis of Variance, (**) Caring Behaviors Inventory, ***F-ratio, ****t-test, α=0.05

Regardless of the results, this study has several limitations. The main limitation of this research lies in its design. This design is weak in determining causality;

this design is also exceptionally vulnerable to threats to internal validity, such as selection and history threats; finally, this design is poor at differentiating effects due

to the intervention from those that are uncontrolled extraneous variables.

Conclusion

The study demonstrated that a CBTP can improve nurses' caring behaviors. Therefore, the developed program is essential and required by Indonesian nurses to increase their caring behaviors. Future studies are suggested to investigate the program's effect on increasing patient satisfaction so, in turn, the quality of service in hospitals will increase.

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Conflicts of interest

Nothing to declare.

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