

## Application of Watson Caring Theory for Nurses in Pediatric Critical Care Unit

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**Abstract:** Caring is considered as the essence of nursing and is the basic factor that distinguishes between nurses and other health professions. The literature is rich of previous studies that focused on perceptions of nurses toward nurse caring behaviors, but less study was applied in pediatric nurses in different settings.

**Aim of the study:** evaluate the effect of application of Watson caring theory for nurses in pediatric critical care unit. **Method(s):** A convenience sample of 70 nurses of Pediatric Critical Care Unit in El-Menoufya University Hospital and educational hospital in ShebenElkom. were completed the demographics questionnaire, and the Caring Behavior Assessment (CBA) questionnaire, medical record to collect medical data regarding children characteristics such as age and diagnosis, Interviewing questionnaire for nurses regarding their barrier to less interest of comfort behavior such as doing doctor order, Shortage of nursing staff, Large number of patients, Heavy workloads, Secretarial jobs for nurses and Emotional stress.

**Results:** more than two thirds of nurses in study group and majority of control group had age less than 30 years, there were highly statistically significant difference related to mean scores for Caring Behavior Assessment (CBA) as rated by nurses in pretest (1.4750 to 2.0750) than in posttest (3.5 to 4.55). Also, near to two-thirds (64.3%) of the nurses stated that doing doctor order act as a barrier to apply this theory. In addition, there were a statistical significance difference between educational qualifications of nurses and a Supportive\protective\corrective environment subscale with mean score for master degree 57.0000, also between years of experiences and human needs assistance.

**Conclusion:** Program instructions for all nurses to apply Watson Caring theory for children in pediatric critical care unit were successful and effective and this study provided evidence for application of this theory for different departments in all settings.

**Recommendations:** It was recommended that In-service training programs for nurses about caring behavior and its different areas, with special emphasis on communication are needed to improve their own behaviors in all aspects of the caring behaviors for all health care settings. Motivating hospital authorities to recruit more nurses, then, the nurses would be able to have more care that is direct. Consequently, the amount and the quality of nurse-child communication and opportunities for patient education would increase, this in turn improve child's outcome.

**Keywords:** Watson caring theory, pediatric critical care unit, Nurses, Caring behavior.

### I. Introduction

Illness and hospitalization threatens children's sense of wellness welfare, security, independence, and self-control. Children's positive and negative perceptions of their hospitalization experience are also influenced by their illness, invasive treatments, medications, and length of stay. Children have a limited understanding of the hospital environment and treatment as well as limited control over what is happening to them. This makes them vulnerable when admitted to the hospital. (1)

Approximately 27% of children in the worldwide have a chronic condition and 1 in 15 have multiple chronic conditions (MCCs) (2). Moreover, research indicates that the prevalence of chronic conditions is on the rise among pediatric patients (3, 4). Studies investigating health care use and cost in this population have been limited. Most research has been conducted on children with special health care needs, which are often considered to include MCCs. However, research into children with special health care needs has primarily focused on children with chronic illness, rather than broader pediatric populations with MCCs. (5)

Nursing theories are the basis of a body of knowledge that is structured and organized to support practice. Today, there is still a gap between theory and practice in nursing, which means theoretical models are rarely used and, because of that, theory-guided practice remains only an ideal for most institutions. Theoretical frameworks based on the science of care have brought improvements to: cost-effectiveness of patient care; communication and education; advancement of nursing research; and recognition and appreciation of the professionals. (6)

**Jean Watson's theory (1999)** is a human science and human care theory involves many concepts that is difficult for children to understand at the level in which she presents them. Caring is an important concept in nursing. It has become the essence and central focus of nursing. Furthermore, it is a complex, elusive concept not only to define but also to measure and to provide for children through concrete behavior. To identify nurses' perceptions of which nursing behaviors are important as caring behavior means to understand how caring is offered. It might be meaningful to show the concept of caring in terms of concrete behaviors. (7)

Nursing care for children should be tailored towards helping them make necessary adjustment needed for hospitalized care. This will help children to be able to cooperate better with nursing as well as medical activities enhancing quick recovery. A good understanding of what nurse caring behaviors are important to the hospitalized child will equip the nurse on how to meet these needs. Thus helping the sick child make necessary adjustment relative to his / her care as he/she goes through the hospital experience. (8)

Nursing is a helping profession with caring as its core and also, is categorized as a humanitarian science and characterized as a profession that performs personal, scientific, ethical, and aesthetical practice (8). According to **Watson (2005)**, caring is a set of universal humanistic altruistic values. These values include kindness, empathy, concern, and love for self and others. The values are derived from childhood experiences and are enhanced by beliefs, cultures and arts. Altruistic values arise from commitments to and satisfaction from receiving through giving. They bring meaning to one's life through one's belief and relationships with other people. Humanistic-altruistic feelings constitute the first and most basic factor for science and ethic of caring. (9)

Historically, caring has been considered as the cornerstone for how and why nurses' practice, teaches, and advocate. The caring nurse is more than just a general broad layperson notion of giving, sharing, and attending to, respecting, honoring, and loving (10). **Boev**, stated that nurse caring is dependent upon the specific patient needs and the healthcare setting. Only once the specific patient needs and the healthcare setting are evaluated do nurses decide on an appropriate caring approach for the patient. Patients' perceptions of how they want to be cared for is reflected in many studies on quality of care. (11)

Watson's Human Caring theory focuses on human and nursing paradigm and aims to ensure a balance and harmony between health and illness experiences of children (12). It asserts that a human being cannot be healed as an object. It claims, on the contrary, that he/she is part of his/her self, environment, nature, and the larger universe. In this theory, the environment is defined as comfortable, beautiful, and peaceful place and that caring is the moral ideal that entails mind-body-emotion engagement with one another. (13, 14 & 15)

Caring behaviors are defined as; Behaviors evidenced by nurses in caring for patients. The top ten caring behaviors, derived from nursing literature are; attentive listening, comforting, honesty, patience, responsibility, providing information so the patient can make an informed decision, touch, sensitivity, respect, calling the patient by name. (16)

### **Significance of the problem:**

In Egypt, there were 532 critically ill children admitted to the PICU over one year. Respiratory system diseases, foreign body inhalation removal, and encephalopathy were the predominant etiologies of admission 49.6, 11.9, and 11.5%, respectively. Mortality rate was the highest in infants below 1 year of age (43.9%). Predominant length of ICU stay was around 7 days. (17)

Pediatric Intensive Care Unit (PICU) is different from other departments in hospitals in terms of the treatment methods and technical equipment used physical appearance, and the nature of sensitive environment. When the vital functions of patients decline in a risky way, they need to receive treatment in an intensive care unit with a view to maintaining vital functions and applying special treatment methods (18). Patients in the intensive care unit experience

Changes in their comfort. Some reasons include increase in the anxiety level caused by changes in consciousness level caused by pain and use of sedatives; and movement restriction caused by the existence of invasive and noninvasive tools. (19)

### **Aim of the study**

The aim of this study was to evaluate the effect of application of Watson caring theory for nurses in pediatric critical care unit through:

- Assessing the care of children needed in pediatric critical care unit to detect nurse's needs.
- Planning and Implementing caring theory application according to nurses' needs and
- Evaluating the effect of the theory on the caring of the children in critical care unit.

## **II. Subjects and Methods**

**Research design:** Quasi experimental design was conducted for this study.

**Technical Design:**

**Setting:** Pediatric Intensive Care Unit (PICU) in El-Menoufya University Hospital and educational hospital in ShebenElkom.

**Sample:** A convenient sample used in this study, all nurses providing care for children in the above-mentioned settings the total numbers 70 nurses. This number divided randomly into two groups (40 for study and 30 for control).

**Tools of data collection:**

**First tool:** A structured interviewing questionnaire developed by researchers. It covered the following parts for both groups study and control

- **Part One:** Socio-demographic characteristics of nurses such as age, qualifications, level of education and years of experience.
- **Part Two:** Caring Behavior Assessment (CBA) Scale" (Pre/Post format).

The Caring Behavior Assessment (CBA) scale, which was developed by Cronin and Harrison (20) in 1988 and validated to measure the nurses' perceptions toward children caring behaviors in PICU of selected settings of this study. (CBA) scale was used to measure nurses' perceptions of nurse caring behaviors, which has a good psychometric properties based on well-known Watson's transpersonal theory (21). This scale was translated to Arabic language. It consisted of 63 items based on Watson's ten carative factors. The items of this scale are clustered into seven subscales as the following:

**I-Humanism/Faith-hope/Sensitivity:** items from 1 to 16. Such as, Treat the child as an individual, Try to see things from the child point of view, Know what the child doing, Reassure the child, Make the child feel someone is there if I need them, Encourage the child to believe in himself, Point out positive things about the child and his condition, Praise the child efforts, Understand the child, Ask the child how he likes things done, Accept the child the way he is, Be sensitive to the child feelings and moods, Be kind and considerate, Know when the child "had enough" and act accordingly (for example, limiting visitors), Maintain a calm manner and Treat the child with respect

**II-Helping/trust:** items from 17 to 27. Such as, Really listen to the child when he talks, Accept the child feelings without judging him, Come into the child room just to check on him, Talk to the child about his life outside hospital, Ask the child what he likes to be called, Introduce themselves to the child, Answer quickly when the child call for them, Give the child their full attention when with him, Visit the child if he moves to another hospital unit, Touch the child when he needs it for comfort and Do what they say they will do.

**III-Expression of positive/negative feelings:** items from 28 to 31. Such as, Encourage the child to talk about how he feels, Don't become upset when I'm angry, Help the child understand his feelings and Don't give up on the child when him difficult to get

**IV-Teaching/learning:** items from 32 to 39. Such as, Encourage the child to ask questions about his illness and treatment, Answer the child questions clearly, Teach the child about his illness, Ask the child questions to be sure he understand, Ask the child what he wants to know about his health/illness, Help the child set realistic goals for his health, Help the child plan ways to meet those goals and Help the child plan for his discharge from hospital.

**V-Supportive/protective/corrective environment:** items from 40 to 51. Such as, Tell the child what to expect during the day, Understand when the child need to be alone, Offer things (position changes, blankets, back rub, lighting, etc.) to make him more comfortable, Leave the child room neat after working with him, Explain safety precautions to the child and his family, Give the child pain medication when he needs it, Encourage the child to do what he can for himself, Respect the child modesty as, keeping him covered, Check with the child before leaving the room to be sure he has everything he needs within reach, Consider the child spiritual needs, Are gentle with the child and Are cheerful.

**VI-Human needs assistance:** items from 52 to 60. Such as, Help the child with his care until he is able to do it for himself, Know how to give shots, IVs etc, Know how to handle equipment (for example, monitors), Give the child treatments and medications on time, Keep the child family informed of his progress, Let the child family visit as much as possible, Check the child condition very closely, Help the child feel like he has some control and Know when it's necessary to call the doctor.

**VII-Existential/phenomological/spiritual forces:** items from 61 to 63. Such as, Seem to know how the child feel, Help the child see that his past experiences are important and Help the child feel good about himself.

### **Scoring System:**

The nurses were asked to fill the CBA questionnaire by choosing the best number that describe the importance of caring behaviors from 1 - 5 (where 1 = the least important caring behavior, and 5 = the most important caring behavior). The CBA scale was translated to Arabic language by an expert in English language, then another expert who is proficient in both Arabic and English languages back-translated it to English language. Moreover, a panel of experts who are interested in the research topic and hold a doctorate degree in nursing also examined the Arabic version of the instrument for the clarity of its content. Their input was taken into consideration for more refining of the items.

- **Second tool:** Medical record to collect medical data regarding children characteristics such as age and diagnosis.
- **Third tool:** Interviewing questionnaire for nurses regarding their barrier to less interest of comfort behavior such as Doing doctor order, Shortage of nursing staff, Large number of patients, Heavy workloads, Secretarial jobs for nurses and Emotional stress.

### **Pilot study:**

A pilot study was carried out on five nurses from the PICU in the selected hospitals. It was conducted to test clarity and simplicity of questions and to check the most common topics related to the study. Necessary modifications were done by exclusion of some items which is not clear to the participants. Nurses who shared in pilot study were excluded from main study sample.

### **Ethical considerations:**

Permission to conduct the study obtained from the dean of the Faculty and administrators of hospitals manager. Personal communication was done with nurses to explain the purpose of the study and assure their best possible cooperation. The researcher emphasized to nurses that the study was voluntary and anonymous. They had the full rights to refuse to participate in the study or to withdraw at any time without giving any reason.

### **Field of Work:**

- A written official letter was obtained from the Dean of the Faculty of Nursing, El-Menoufya University and delivered to the administrator of hospitals in order to obtain the approval for conducting of the research after explaining its purpose.
- Data collection started with a verbal agreement was taken from every participant in the study after clear and proper explanation of the study purpose and its importance for them.
- The previous mentioned setting was visited by the researchers two days/week (Sunday and Monday) from 9.00 am to 1.00 pm. The tools took about 30-45 minutes. Data collection took about six months.
- The study was carried out through four phases: assessment, planning, implementation, and evaluation.
- These phases were carried out from beginning of November 2014 to the end of April 2015. Pre test started for both groups (study and control) nurses and one month apart then start the post test.
- The researchers taught each group of nurses in a classroom setting in nursing station from 60-90 minutes for two consecutive days for each group of nurses.
- It was difficult to include all nurses in one place at the same time. Thus, the nurses were delivered the program of not more than five nurses in pretest then two nurses in the session for posttest.
- Program construction it contained 4 phases:

### **Phase I: Program assessment:**

The researchers reviewed the recent, current, national and international related literature in various aspects related to Watson caring theory. Once the pretest conducted and analyzed, all needs of the nurses was identified. The program is based theory was in a form in Arabic language to be easy understood for the nurses.

### **Phase II: Program Planning:**

**Program objectives:** At the end of the program all nurses will apply Watson Caring theory for children in pediatric critical care unit.

Program contents designed based on Watson's seven behaviors factors after extensive review of related literature as the following:

- Humanism/ Faith – hope / sensitivity
- Helping/trust.
- Expression of positive/negative feelings.

- Teaching/learning.
- Supportive/protective/corrective environment.
- Human needs assistance.
- Existential/phenomenological/spiritual forces.

Staff education started with a booklet the author assembled for containing core concepts of Jean Watson's Theory of Human Caring, what "Caritas" means, a description of the seven Caritas Processes, and articles related to transforming space using color, music and design. The booklets were given to each group of the staff.

### **Phase III: Program Implementation:**

The researcher beginning with implementation of pretest to identify and determine the weak points of the nurses toward their care of children in critical care unit. The nursing intervention implemented in the form of sessions of different durations according to the content and response of nurses. The total number of sessions (pre and post) was 36 sessions. The time allocated for achieving the supportive education nursing intervention was two months and half. The sessions started by an orientation to the program and its purpose. Each session started by a summary of the previous session and objectives of the new session, using a simple language.

### **Phase IV: Evaluation Phase:**

This done by measuring the change in nurses' perception (posttest) about caring and comfortable measures application and how to manage it by using the same pretest, in order to identify differences, similarities and areas of improvement and defects.

### **Statistical Analysis**

Data were revised, coded, tabulated and analyzed using numbers and percentage distribution and carried out in a PC computer SPSS program version 20. The following statistical techniques were used: Percentage, Mean, Standard deviation paired t-test for comparison of paired two quantity.

## **III. Results**

Table (1) shows that 65% of age of the study group was between 19 to 29 years compared to 86.7% of them for control group. In addition, 32.5% of study had experience less than 5 years, while 26.7% of control group had experience more than 10 years.

Figure (1) shows that 50% of study group has bachelor degree and 47.5 % of them has diploma.

Figure (2) shows that 70 % of control group has bachelor degree and 30 % of them has diploma

Table (2) represents more than half (55%) of children has age less than 10 years. Also, more than one third (37.5%) of them has pneumonias, while 7.5% of them has foreign body inhalation.

Table (3A) shows mean scores for completed list of CBA items regarding Humanism/ Faith – hope / sensitivity and Helping/trust as rated by nurses. This table includes analysis of the most and least important nurse caring behaviors as perceived by participant (study group) nurses. This mean score as rated by nurses in posttest were ranged from 3.5 to 4.55 compared to pretest from 1.475 to 2.075 with highly statistically significant difference.

Table (3B) shows mean scores for completed list of CBA items regarding Expression of positive/negative feelings-Teaching/learning -Supportive/protective/corrective environment as rated by nurses. This table includes analysis of the most and least important nurse caring behaviors as perceived by participant (study group) nurse. An example of most important caring behavior as Leave the child room neat after working with him has highest mean score in posttest 4.400 compared to 1.700 for study group with highly statistically significant difference.

Table (3C) shows mean scores for completed list of CBA items regarding Human needs assistance - Existential/ phenomenological/ spiritual forces as rated by nurses. This table includes analysis of the most and least important nurse caring behaviors as perceived by participant (study group) nurses. An example of least important caring behavior as Let the child family visit as much as possible has least mean score in posttest 3.975 compared to 1.866 for study group with highly statistically significant difference.

Table (4) shows barriers of nursing staff. About 52.9% of nurses stated that heavy workload act as a barrier toward application of Watson theory. Furthermore, near to two-thirds (64.3%) of the nurses stated that doing doctor order act as a barrier to apply this theory.

Table (5) clarifies that there is a statistical significance difference between demographic characteristics of nurses regarding (educational qualifications) and an Supportive\protective\corrective environment with mean for Diploma, Bachelor and Master 52.3158+4.83106 , 48.8500 +5.38297 and 57.0000 respectively, but there no statistical significant difference between demographic characteristics of nurses and other items of subscales.

Table (6) clarifies that there is a statistical significance difference between demographic characteristics of nurses regarding (years of experiences) and human needs assistance with years of experience less than year with mean 35.25 +4.031 compared to 40.363+2.062 for more than 10 years and no statistical significance difference regarding to other items of subscale.

#### IV. Discussion

**Watson (2002)** developed a theory on human caring relationships and human experiences of life. This theory suggests that caring is a different way of being human, present, attentive, conscious, and intentional. In this theory, nursing focused on helping patients achieve highest degree of harmony within seven most important caring behavior. (22)

Regarding to socio-demographic characteristics of the nurses in table (1), this study result showed that the age of nurses in study group for two thirds of them ranged between 19-29 years, half of them had Bachelor degree of nursing and one third had 1-5 years of experience in pediatric critical care unit and that correlated with **Mizuno et al.**, who stated that nurses who hold a bachelor's, master's, or doctor degree perceived knowing the individual as more important than those who graduated only from nursing schools (23). In addition this also agree with study was done in King Saud University by **Suliman et al.**, who reported that the majority of nurses who participated their ages were 20- 30, two thirds hold diploma degree in nursing and had 1-5 years of experience (24). Findings in the table (2) revealed that children ages were more than half of them were less than 10 years old and more than one third of them has pneumonia so those children need more care and comfortable.

Concerning completed lists of CBA items As ranked by the pediatric critical care nurses participant according to scores in table (3 A) the present study showed that The mean score for most important nurse caring behaviors in Humanism/Faith-Hope/ Sensitivity as "treat the child as an individual" were improved post intervention led to significant improvements in nurses response to the CBA in the study group. This is in agreement with **O'Connell and Landers** who reported that the results of the critical care nurses response to the CBA demonstrated that subscale 1 (humanism/faith—hope/sensitivity) had the highest median score with the caring behaviors: 'knows what you are doing', 'treat the child with respect', 'treat the child as an individual' 'reassure the child, 'is kind and considerate', 'know when the child has had enough and act accordingly' and 'maintain a calm manner' from subscale 1 identified among the 10 most important caring behaviors by nurses in the current study. The importance of these affective processes of caring has previously been demonstrated by research which used the CARE-Q instrument (25). In addition Watson, who stated that this subscale which include kindness, empathy, concern, and love for self and others provides the basis of human caring thereby promote the best professional care (12). Also, **Adertiet et al.**, added that that children appreciated nurses who smiled and used kind words, provided age-appropriate diversion and light-hearted conversation, promoted positive well-being and a sense of security, interacted with them as an individual and provided comfort and support (8).

Furthermore, in the same table reflected that, Subscale (helping/trust) was improved after implementation of program. The caring behavior "come into child room just to check on him" and "do what they say they will do" scored the lowest overall median for the study groups while subscale "really listen to child when he talks" the second lowest overall median for the control group. This finding was accepted with **Villanueva**, who reported that the low ranking of these subscales by the study and control group in this study could suggest that interpersonal nurse patient relationships may not be considered very important in the critical care setting. There are many barriers to building relations with patients in critical care settings such as the level of the nurse's experience and the difficulty experienced when communicating with unresponsive patients (26).

Regarding completed lists of CBA items As ranked by the pediatric critical care nurses participant according to scores in table (3 B) the present study showed that the teaching/learning subscale has some behavior has most important caring behavior as "Leave the child room neat after working with him" while the least score as "Ask the child questions to be sure he understands" and "Help the child plan for his discharge from hospital" this behavior require effective communication between patient and nurse and this is in line with a study by **Liu, et al.**, in which patients reported that they required adequate explanations and that these explanations helped them feel more secure and safe and less anxious. They also emphasized that nurses need to find positive meanings, possibilities, and hope in situations that may appear bleak. It is also clear that, through caring, nurses can help shape patients' illnesses as positive experiences in which patients experience respect, dignity, comfort, and the feeling that the caregiver is there for them (27).

Findings in the table (3 C) revealed that the top CBA items as ranked by nurse participants for study group in posttest that were considered as the most important caring behaviors. Items from Human needs assistance and Existential/ Phenomenological/ Spiritual Forces subscales had most important caring behaviors as perceived by nurses. This was confirmed by **Azizi-Fini et al.**, who stated that the highest mean scores for CBA in the present study were related to the subscale of "Humanism/Faith-hope/ Sensitivity and Teaching/Learning", Which was consistent with the findings of other studies. Perhaps it was due to the high importance of this area from the perspective of the nurses. It may also be influenced by the more sensible nature of care practice in this area (28).

Concerning of table (4) barriers of nursing staff to less interest of comfort behavior revealed that more than half of nurses stated that heavy workload act as a barrier toward application of Watson theory. Furthermore, near to two thirds of the nurses stated that doing doctor order act as a barrier to apply this theory. The mean score for one of least important nurse caring behaviors reflects this finding indicates the patients respect and emotional needs may be neglected from nurses due to a shortage of nursing staff, large number of patients and heavy workloads, Egyptian nurses spend most of their time and energy to do the doctors' orders, writing the reports and doing some secretarial jobs. Such a condition would cause nurses fatigue, and nervousness and would prevent professional caring relationships with patients and their families.

The findings of the present study in table (5) revealed relation between level of education of nurses & their perception toward caring subscales. There is no significant relation between the nurses with different educational level and their perception toward caring behavior except in Supportive\ protective\ corrective environment. This finding is in accordance with **Poirier & Sossong**, who found no statistically significant differences between cancer nurses' perceptions of caring behaviors and their level of education (29). While this is contradicted with **Mizuno et al.**, whose results meant that Japanese nurses' perception of important caring behavior was affected greatly by educational background. Nurses who hold Bachelor's degree, master's, doctor's degree perceived knowing the individual as more important than those who graduated only from nursing schools (23).

Furthermore, the current study showed relation between years of experience of nurses & their perception toward caring behavior subscales in table (6). This recent study showed no significant relation between their year of experience and their perception toward caring behavior of patients except in human needs assistance. This is in agreement with **Youssef et al.**, who have no significant relationship between their level of experience and their perception for patients in medical surgical ward among hospitals in Taif city in Saudi Arabia (30).

## V. Conclusion

This study provides evidence of the applicability of using this theory as a basis for educational program curricula for nursing students and a basis for the provision of nursing care in different hospitals' departments. Based on the results of the present study, it was concluded that, half percent of nurses in study group has bachelor degree compared to near three quarters of nurses in control group. In addition, there were highly statistically significant difference related to mean scores for Caring Behavior Assessment (CBA) as rated by nurses in posttest (3.5 to 4.55) than pretest (1.4750 to 2.075). Lastly, there were a statistical significance difference between educational qualifications of nurses andan Supportive\protective\corrective environment subscale with mean score for master 57.000.

## VI. Recommendation

*Based on the previous findings, it was recommended that:*

1. Developing a more comprehensive and short quantitative tool to measure caring for future researches and Patient satisfaction surveys should become a regular outcome monitoring feature in all hospitals.
2. In-service training programs for nurses about caring behavior and its different areas, with special emphasis on communication are needed to improve their own behaviors in all aspects of the caring behaviors for all health care settings.
3. Motivating hospital authorities to recruit more nurses, then, the nurses would be able to have more care that is direct. Consequently, the amount and the quality of nurse-child communication and opportunities for patient education would increase, this in turn improve child's outcome.

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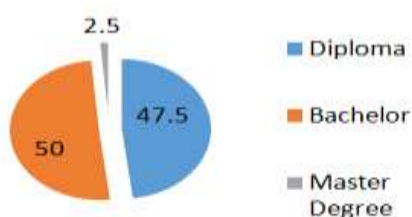
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	Study Group (No.=40)		Control Group (No.=30)	
	No.	%	No.	%
<b>Age:</b>				
• 19 - 29	26	65	26	86.7
• 30 - 40	14	35	4	13.3
<b>Income:</b>				
• Enough.	26	65	21	70
• Not Enough.	14	35	9	30
<b>Experience:</b>				
• Less than 1 year.	4	10	3	10
• From 1 to less than 5 years	13	32.5	10	33.3
• From 5 to 10 years.	12	30	9	30
• More than 10 years.	11	27.5	8	26.7

Table (1): Distribution of Socio-demographic characteristics of nurses

Level of Education for Study Group



Level of Education for Control Group

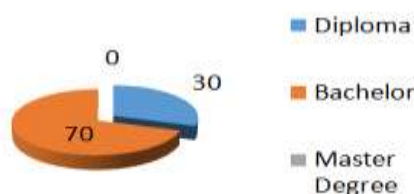


Figure (1): Level of Education for Study Group Figure (2): Level of Education for Control Group



**Table (2):** Distribution of children according to their age and diagnosis

	No.=40	
	No.	%
<b>Age:</b>		
8 – less than 10 years	22	55
More than 10 years.	18	45
<b>Diagnosis:</b>		
Pneumonias	15	37.5
Generalized hypotonic	10	25
DKA	6	15
Encephalopathy	4	10
foreign body inhalation	3	7.5
Heart failure	2	5

**Table (3A):** The mean differences of the seven CBA Items regarding Humanism/ Faith – hope / sensitivity and Helping/trust between study pre/post and control group

Variables	Study Group (No.=40)				t-test	P-Value	Control Group(No.=30)		t- test	P-Value
	Pretest		Posttest				M	SD		
	M	SD	M	SD						
<b>A. Humanism/Faith-Hope/ Sensitivity:</b>										
1. Treat the child as an individual.	1.5750	.71208	4.4250	1.12973	14.171	.000	1.5667	.72793	11.788	.000
2. Try to see things from the child point of view.	1.7250	.78406	3.9250	1.02250	11.781	.000	1.6667	.75810	12.042	.000
3. Know what they're doing	2.0750	.97106	4.2750	1.01242	8.943	.000	1.9333	.90719	11.673	.000
4. Reassure the child.	1.4750	.50574	4.4250	1.03497	17.198	.000	1.5000	.50855	16.155	.000
5. Make the child feel someone is there if I need them.	1.6250	.49029	4.2750	1.03744	13.390	.000	1.6000	.49827	17.588	.000
6. Encourage the child to believe in himself.	1.4750	.67889	4.4750	.84694	16.432	.000	1.4333	.62606	12.540	.000
7. Point out positive things about the child and his condition.	1.6750	.72986	4.3000	.82275	13.933	.000	1.7000	.70221	13.260	.000
8. Praise the child efforts.	2.0750	.82858	4.3250	.99711	10.981	.000	2.0333	.76489	14.560	.000
9. Understand me.	1.6750	.69384	3.5000	1.26085	8.508	.000	1.6667	.71116	12.836	.000
10. Ask the child how he likes things done.	1.8750	.72280	3.8750	1.18078	9.309	.000	1.9000	.71197	14.617	.000
11. Accept the child the way he is	1.7250	.84694	4.2750	.98677	13.471	.000	1.7000	.79438	11.721	.000
12. Be sensitive to the child feelings and moods.	1.5750	.59431	4.3250	.79703	18.766	.000	1.5333	.57135	14.699	.000
13. Be kind and considerate.	1.4750	.59861	4.2250	1.02501	15.760	.000	1.5000	.62972	13.047	.000
14. Know when the child "had enough" and act accordingly (for example, limiting visitors)	1.5750	.67511	4.3250	1.04728	14.324	.000	1.5667	.67891	12.639	.000
15. Maintain a calm manner.	1.7250	.81610	4.1750	.95776	11.920	.000	1.8333	.83391	12.042	.000
16. Treat the child with respect.	1.6250	.58562	4.4500	.71432	21.978	.000	1.6333	.55605	16.089	.000
<b>B. Helping/Trust:</b>										
17. Really listen to the child when he talks.	1.3250	.57233	4.3250	.82858	18.735	.000	1.2667	.52083	13.321	.000
18. Accept the child feelings without judging him.	1.7750	.65974	4.0000	1.08604	12.309	.000	1.7667	.62606	15.456	.000
19. Come into the child room just to check on him.	1.4250	.59431	3.5000	1.24035	10.183	.000	1.3667	.55605	13.462	.000
20. Talk to the child about his life outside hospital.	1.8250	.71208	3.6750	1.20655	8.432	.000	1.7667	.67891	14.253	.000
21. Ask the child what he likes to be called.	1.5750	.63599	3.6250	1.05460	10.462	.000	1.5667	.62606	13.706	.000
22. Introduce themselves to the child.	1.8250	.59431	4.2750	.87669	13.181	.000	1.9333	.58329	18.154	.000
23. Answer quickly when the child call for them.	1.7500	.66986	4.2250	.86194	14.741	.000	1.7667	.67891	14.253	.000
24. Give the child their full attention when with him.	1.7500	.74248	4.2000	.75786	15.319	.000	1.6333	.71840	12.453	.000
25. Visit the child if he moves to another hospital unit.	1.8500	.62224	3.5500	1.21845	7.583	.000	1.8667	.57135	17.895	.000
26. Touch the child when he need it for comfort	1.4250	.59431	3.5000	1.32045	8.602	.000	1.3667	.55605	13.462	.000
27. Do what they say they will do.	1.8250	.71208	3.4000	1.31656	6.565	.000	1.7667	.67891	14.253	.000

**Table (3B):** The mean differences of the seven CBA Items regarding Expression of positive/negative feelings- Teaching/learning -Supportive/protective/corrective environment between study pre/post and control group

Variables	Study Group (No.=40)				t-test	P-Value	Control Group(No.=30)		t- test	P-Value
	Pretest		Posttest				M	SD		
	M	SD	M	SD						
<b>C. Expression of Positive/ Negative Feelings:</b>										
28. Encourage the child to talk about how he feels.	1.5750	.63599	4.0000	1.17670	11.810	.000	1.5667	.62606	13.706	.000
29. Don't become upset when I'm angry	1.8250	.59431	4.3750	.77418	17.298	.000	1.9333	.58329	18.154	.000
30. Help the child understand his feelings.	1.7500	.66986	3.9250	.94428	12.429	.000	1.7667	.67891	14.253	.000
31. Don't give up on the child when him difficult to get	1.7500	.74248	4.1750	.84391	12.825	.000	1.6333	.71840	12.453	.000
<b>D. Teaching/Learning:</b>										
32. Encourage the child to ask questions about his illness and treatment.	1.8500	.62224	4.2750	.81610	16.013	.000	1.8667	.57135	17.895	.000
33. Answer the child questions clearly.	1.5750	.71208	4.3750	.74032	20.058	.000	1.5667	.72793	11.788	.000
34. Teach the child about his illness	1.7250	.78406	4.1750	.95776	13.982	.000	1.6667	.75810	12.042	.000
35. Ask the child questions to be sure he understands.	2.0750	.97106	3.9000	.87119	8.281	.000	1.9333	.90719	11.673	.000
36. Ask the child what I want to know about his health/illness	1.4750	.50574	4.1000	.92819	16.118	.000	1.5000	.50855	16.155	.000
37. Help thechild set realistic goals for my health.	1.6250	.49029	4.1250	.93883	14.252	.000	1.6000	.49827	17.588	.000
38. Help thechild plan ways to meet those goals.	1.4750	.67889	4.1250	.88252	16.326	.000	1.4333	.62606	12.540	.000
39. Help thechild plan for his discharge from hospital.	1.6750	.72986	3.9250	.91672	12.631	.000	1.7000	.70221	13.260	.000
<b>E. Supportive/Protective/ Corrective Environment:</b>										
40. Tell the child what to expect during the day.	2.0750	.82858	3.9500	1.08486	9.693	.000	2.0333	.76489	14.560	.000
41. Understand when I need to be alone.	1.6923	.69410	4.0256	.95936	13.149	.000	1.6667	.71116	12.836	.000
42. Offer things (position changes, blankets, back rub, lighting, etc.) to make the child more comfortable.	1.8750	.72280	4.1000	.90014	11.074	.000	1.9000	.71197	14.617	.000
43. Leave the child room neat after working with him.	1.7250	.84694	4.4000	.87119	12.929	.000	1.7000	.79438	11.721	.000
44. Explain safety precautions to the child andhis family.	1.5750	.59431	4.4000	.70892	19.199	.000	1.5333	.57135	14.699	.000
45. Give the childpain medication when he needs it.	1.4750	.59861	4.2500	.98058	16.719	.000	1.5000	.62972	13.047	.000
46. Encourage the child to do what he can for himself.	1.5750	.67511	4.3250	.61550	18.230	.000	1.5667	.67891	12.639	.000
47. Respect the child modesty as, keeping his covered.	1.7250	.81610	4.4000	.70892	14.827	.000	1.8333	.83391	12.042	.000
48. Check with the child before leaving the room to be sure he has everything he needs within reach.	1.6250	.58562	4.2000	.93918	16.126	.000	1.6333	.55605	16.089	.000
49. Consider the child spiritual needs.	1.3250	.57233	4.1750	.90263	16.402	.000	1.2667	.52083	13.321	.000
50. Are gentle with the child.	1.7750	.65974	3.9250	.91672	11.879	.000	1.7667	.62606	15.456	.000
51. Are cheerful.	1.4250	.59431	4.3750	.80662	19.446	.000	1.3667	.55605	13.462	.000

**Table (3C):** The mean differences of the seven CBA Items regarding Human needs assistance -Existential/ phenomenological/ spiritual forces between study pre/post and control group

Variables	Study Group (No.=40)				t-test	P-Value	Control Group(No.=30)		t-test	P-Value
	Pretest		Posttest				M	SD		
	M	SD	M	SD						
<b>F. Human Needs Assistance:</b>										
52. Help the child with his care until he is able to do it for himself.	1.8250	.71208	4.2750	.71567	15.718	.000	1.7667	.67891	14.253	.000
53. Know how to give shots, IVs etc.	1.5750	.63599	4.1750	.74722	17.716	.000	1.5667	.62606	13.706	.000
54. Know how to handle equipment (for example, monitors)	1.8250	.59431	4.2250	.91952	14.038	.000	1.9333	.58329	18.154	.000
55. Give the child treatments and medications on time	1.7500	.66986	4.3750	.86787	15.742	.000	1.7667	.67891	14.253	.000
56. Keep the child family informed of his progress.	1.7500	.74248	4.3250	.69384	16.126	.000	1.6333	.71840	12.453	.000
57. Let the child's family visit as much as possible.	1.8500	.62224	3.9750	.99968	11.178	.000	1.8667	.57135	17.895	.000
58. Check the child condition very closely.	1.4250	.59431	4.1000	.95542	15.128	.000	1.3667	.55605	13.462	.000
59. Help the child feel like he has some control.	1.8250	.71208	4.0500	.87560	12.822	.000	1.7667	.67891	14.253	.000
60. Know when it's necessary to call the doctor.	1.5750	.63599	4.2500	.86972	14.827	.000	1.5667	.62606	13.706	.000
<b>G. Existential/Phenomenological/ Spiritual Forces:</b>										
61. Seem to know how he feels.	1.8250	.59431	4.0750	.76418	14.512	.000	1.9333	.58329	18.154	.000
62. Help the child see that his past experiences are important.	1.7500	.66986	4.0750	.91672	14.041	.000	1.7667	.67891	14.253	.000
63. Help the child feel good about himself.	1.7500	.74248	4.5500	.74936	15.578	.000	1.6333	.71840	12.453	.000

**Table(4):** Barriers of Nursing Staff to less interest of comfort behavior

	Total Nurses (No.=70)	
	No.	%
Shortage of nursing staff	32	45.7
Large number of patients	35	50
Heavy workloads	37	52.9
Secretarial jobs for nurses	15	21.4
Emotional stress	20	28.6
Doing doctor order	45	64.3

**Table (5):** Relation between Level of Education of Nurses & Their Perception toward CBA

	Pretest			F	P
	Diploma	Bachelor	Master		
<b>Humanism \faith-hope\sensitivityMean</b>	66.1579	68.5500	75.0000	.559	.576
+SD	12.17586	7.42311	-		
N	19	20	1		
<b>Helping \trustMean</b>	41.8421	42.5000	46.0000	.244	.785
+SD	5.73743	6.51718	-		
N	19	20	1		
<b>Expression of positive\negative feelingsMean</b>	16.1053	16.6500	20.0000	1.245	.300
+SD	2.70585	2.30046	-		
N	19	20	1		
<b>Teaching \learningMean</b>	33.3158	32.4500	38.0000	.969	.389
+SD	4.39763	3.84537	-		
N	19	20	1		
<b>Supportive\protective\ corrective environment Mean</b>	52.3158	48.8500	57.0000	3.007	.062*
+SD	4.83106	5.38297	-		
N	19	20	1		
<b>Human needs assistanceMean</b>	38.7895	36.7000	39.0000	1.258	.296
+SD	3.89557	4.44972	-		
N	19	20	1		
<b>Existential\phenomenological\spiritual forcesMean</b>	12.6316	12.6500	15.0000	.804	.455
+SD	2.08728	1.56525	-		
N	19	20	1		

**Table (6):** the Relation between Years of Experience of Nurses & Their Perception toward CBA Subscale

	Pretest				F	P
	less than year	1 to less than 5	from 5 to 10	more than 10		
<b>Humanism \faith-hope\sensitivityM</b> +SD N	68.500	66.538	66.916	69.181	.162	.921
	6.454	14.65501	7.1281	7.1807		
	4	13	12	11		
<b>Helping \trustM</b> +SD N	39.750	42.9231	41.833	42.909	.328	.805
	7.1355	6.90967	4.9878	42.909		
	4	13	12	11		
<b>Expression of positive\negative feelingsM</b> +SD N	18.000	15.7692	15.833	17.454	1.73	.178
	2.1602	3.11325	2.0375	2.0181		
	4	13	12	11		
<b>Teaching \learning M</b> +SD N	32.000	32.3846	33.000	34.090	.413	.745
	4.5460	4.85693	3.7172	3.7803		
	4	13	12	11		
<b>Supportive\protective\corrective M</b> <b>Environment+SD</b> N	49.750	49.9231	49.583	53.181	1.09	.365
	5.6199	6.19760	4.8328	4.7078		
	4	13	12	11		
<b>Human needs assistance M</b> +SD N	35.250	37.1538	36.833	40.363	2.38	.086*
	4.0311	5.39824	3.5376	2.0626		
	4	13	12	11		
<b>Existential\phenomenological\spiritual</b> <b>forces</b> <b>M</b> +SD N	12.750	12.0769	12.833	13.272	.877	.462
	2.2173	2.39658	1.0298	1.6180		
	4	13	12	11		