

Nurses Sensitive Outcomes Regarding Palliative Care for Patients with Cancer

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Abstract

Background: Palliative care meets the needs of all patients requiring relief from symptoms, the needs of patients and their families for psychological and supportive care. **AIM of the study:** to assess nurses level of knowledge and practice regarding palliative care and sensitive outcomes regarding palliative care for patients with cancer. **Design:** Exploratory design was utilized. **Setting:** this study was carried out in Oncology unit of El Demerdash hospital. **Subjects:** convenient sample of all available nurses n=40 and purposive sample n=30 were included in the study. **Data collection:** Data were obtained through demographic data tool, nurses knowledge questionnaire, nurses observational checklist, questionnaire to assess sensitive outcomes to patient with cancer regarding palliative care. **Results:** It was revealed that 60 % and 62.5% of the nurses had satisfactory level of knowledge and practice respectively. Also, 86.7% and 85% of the patients receiving palliative care, their sensitive physical and psychological side effects respectively disappeared. **Conclusion:** It was concluded that the majority of nurses had satisfactory level of knowledge and practice regarding palliative care. This finding had significant relation with nurses' level of education, continuous training courses and years of experience. Palliative care had positive effect on patients physical and psychological sensitive side effects. **Recommendations;** Designing in-service training and educational program to improve nurses knowledge and practice about policy of follow palliative care as routine of care to improve quality of patients life.

Key words: Sensitive outcomes, palliative care, Nurses.

Introduction

Cancer is a curable disease depending on the type and the degree of spread in the body. The cure rate of up to more than 90% was found in early stages of the disease, while the percentage drops to less than 10% in the late stages of the disease. Therefore, from the time of cancer diagnosis, care consists of primary and adjuvant treatment with increasing cancer prevalence, the demand for resources to follow up cancer patients and treat cancer recurrence, side effects or palliation for persistent symptoms is increased (Ruddon, 2010).

Nursing –sensitive outcomes are defined as changes in health status upon which nursing care has had direct influence. Sensitive outcomes of palliative care services help patients and their families to cope with their

condition and their treatment from the time of pre- diagnosis, through the process of diagnosis, and treatment, to cure, continuing illness or death and bereavement. Palliative care giving psychological support, symptoms control, social support, rehabilitation, and spiritual support. Thus, it helps the patient and their family to cope with cancer and treatment (Welsh Assembly Government, 2010).

This study aims to assess nurses level of knowledge and practice regarding palliative care and sensitive outcomes regarding palliative care for patients with cancer.

Regarding palliative care for patients with cancer. Illness trajectory and, during that time, may have different palliative care needs. As their disease progresses, they may experience a complex range of social and

emotional needs including isolation, decreased independence and burden on family members. Most people with chronic illnesses other than cancer often reach the terminal phase of physical and social resources available through palliative care (*Fitzsimons, 2012*).

Aim of the Study

This study aims to assess nurses level of knowledge and practice regarding palliative care and sensitive outcomes regarding palliative care for patients with cancer

Research question;

- What are nurses' performance regarding palliative care among cancer patients?
- What are sensitive outcomes regarding palliative care for patients with cancer?

Subjects and Methods

The study was portrayed under the four main designs as following:

- I-Technical design.
- II-Operational design.
- III-Administrative design.
- IV-Statistical design.

Technical design:

The technical design includes research design, setting, subject and tools of data collection used in the study.

➤ **Research design;**

Exploratory design was utilized for the conduction of this study.

Setting

This study was conducted at oncology unit in Eldemerdash hospital, affiliated to Ain Shams University. It contains 25 beds and 6 isolation rooms, delivering routine and palliative care for patients with cancer.

Subjects

A convenient sample of all available nurses included in the study (40nurses) in previously mentioned setting. The nurses

had different qualifications, years of experiences and from both gender.

A purposive sample of 30 patients had different qualifications, different diagnosis and from both gender.

Tools of data collection

Data collected used the following tools:

I-Nurses'self-administered questionnaire:

The self-administrated questionnaire was used to assess nurses 'level of knowledge regarding palliative care of patients with cancer. It was developed by the researcher in simple Arabic language after reviewing the relevant and recent literatures.

❖ **Scoring system:**

The total questionnaire included 65 questions. One mark was given to each correct answer and zero for the in correct one. The total score of the nurses' knowledge was 65 marks.

II-Nurses' practice observational checklists;

It was adapted from, **Ellershaw, & Wilkinson,(2012), Smith, (2012) and Globocan, (2014)**.

❖ **Scoring system;**

Regarding scoring system of the nurses practice observational checklists; it consisted of 12 procedures with total 70 steps. Each item that was done was given one mark and each item that was not done was given zero. The total score of the nurses' practice was 70 marks.

III- Patients' sensitive outcomes questionnaire:

It was used to assess physical and psychological nursing sensitive outcomes. It was developed by the researcher after

reviewing recent and relevant literatures (Hulton, 2012 and Del fabbro, 2016).

❖ Scoring system;

The nurses' sensitive outcomes questionnaire regarding palliative care for patients with cancer, was consisted of 34 statements. The physical and psychological side effects were evaluated as increased, decreased or disappeared. Each side effect disappeared take three marks, each side effect decreased take two marks and each side effect increased take one mark. The total disappeared side effects equal 102 marks.

Operational design:

The operational design includes preparatory phase, content validity and field work.

-The preparatory phase;

It included reviewing of recent literature and theoretical knowledge of various aspects of the study using books, articles, internet, periodicals and magazines to develop data collections tools.

-Validity and reliability

Content validity; tools were tested by inspecting the items to determine whether the tools measure what supposed to measure by a jury of 7 experts from different academic categories (professor and assistant professor) of the critical Nursing at the Faculty of Nursing, Ain Shams University. The expertise reviewed the face and content validity of study tools, relevance, comprehensiveness and minor modifications was done.

Testing Reliability; was done statistically by Cronbach alpha test, for knowledge assessment tool it was 0.810, for practice it was 0.783 and for the nurses sensitive outcomes it was 0.860.

- **Field Work;** the purpose of the study was simply explained to the studied nurses and

patients who agreed to participate in the study prior to data collection.

- The actual work of this study started and completed within six months from September 2017 and was completed by the end of February 2018.
- Data was collected by researcher during nurses' work, three days per week (Sunday, Tuesday and Wednesday).
- Tools were filled in the morning and afternoon shifts in the previously mentioned study settings during care of admitted patients with cancer and receiving palliative care.
- First, The investigator used the questionnaire to assess knowledge of nurses, it was filled in 20-30 minutes by nurses in their available time during their work.
- Second, the investigator used the observational checklist to assess nurses practice during their actual work (while to introducing palliative care). It was filled out with 30-40 minutes according to the weight of each procedure.
- Third, used the third tool to assess the nurses' sensitive outcomes and its effect on patients. It was filled out in 15-20 minutes.

Administrative Design:

An official letter was issued from the Faculty of Nursing, Ain Shams University to medical and nursing director of oncology which the study was conducted, explaining the purpose of the study and written consent for data collection was obtained from the study nurses and patients.

Statistical Design:

All data were collected, tabulated and subjected to statistical analysis. Statistical analysis was performed by SPSS in general (version 17), also Microscopic office Excel was used for data handling and graphical presentation. Chi-squared test of independence was used for categorical variables. Test of significance was used and regarding significance of the result, the observed

differences and associations was considered as follows;

- $P. \geq 0.05$ insignificance (no difference). $P. \leq 0.05$ significance difference.
- $P. \leq 0.01$ moderately significant difference.

Results

Table (1): Frequency and percentage distribution of demographic characteristics of the studied nurses (n=40). shows that 40% of study nurses were in age between (30-40) and less than (30) years, 40% of nurses Bachelor degree, 40% of nurses years of experience between (5-10) years, 35% of nurses experience in dealing with patients with cancer between (10-20) years, 40% of nurses attended training courses of palliative care of patients with cancer.

Figure (2): Percentage distribution of study nurses total level of knowledge regarding to physical side effects and palliative care for patients with cancer (n=40).

shows the percentage distribution of the studied nurses level of knowledge of physical complications of palliative care for patients with cancer in this study, as regards to the level of satisfactory knowledge is (60%) while level of unsatisfactory knowledge's (40%).

Table (3): Frequency and percentage distribution of the studied nurses level of knowledge regarding psychological side effects and palliative care needed for patients with cancer (n=40).

shows related to insomnia 80% of the studied nurses had satisfactory level of knowledge in healthy food help patient had insomnia to sleep at night, while 40% of the studied nurses had unsatisfactory level of knowledge in causes of insomnia, related to anxiety 75% of the studied nurses had satisfactory level of knowledge in signs and symptoms of anxiety while 50% of the studied nurses had

- $P. \leq 0.001$ highly significance difference.

Frequency and percentage were calculated for qualitative data; as educational level, previous courses, knowledge, practice and attitude level.

unsatisfactory level of knowledge in definition of anxiety and related to **depression** 90% of the studied nurses had satisfactory level of knowledge in symptoms of depression while 50% of the studied nurses had unsatisfactory level of knowledge in definition of depression.

Figure (4): Frequency and percentage distribution of studied nurses' total level of practice regarding palliative care needed for patients with cancer (n=40).

shows: 75% of the studied nurses had satisfactory level of practice regarding palliative care while 25% unsatisfactory level of practice regarding palliative care.

Table (5): Frequency and percentage distribution of the studied patients with cancer regarding demographic characteristics (n=30).

This table shows 53.3% of studied patients was female, 40% of the studied patients age more than from (40) with mean (37.93±4.69), 60% of the studied patients not married and 46.7% of studied patients were hard work.

Table (6): Frequency and percentage distribution of the studied patients regarding effect of palliative care on physical nursing sensitive outcomes (n=30). this table illustrated, 86.7% of studied patients had disappeared symptoms, 13.3 decreased and 0% increased symptoms.

Table (7): Frequency and percentage distribution of the studied patients regarding effect of palliative care on psychological nursing sensitive outcomes (n=30). This table illustrates that, 85% of the studied patients

disappear symptoms, 15% of the studied patients decrease symptoms and 0 % of the studied patients increase symptoms.

Table (8): Correlation between nurses' total level of knowledge and practice regarding

palliative care needed for patients with cancer (n=40). this table shows the results found that there were positive correlation between total level of knowledge, practice and palliative care on patients with cancer.

Table (1): Frequency and percentage distribution of demographic characteristics of the studied nurses (n=40).

Items	No.	%
Age (years)		
<30	16	40
30<40	16	40
≥40	8	20
Mean±SD	32.05±5.93	
Academic Qualifications		
Bachelor of Nursing	16	40
Technical institute	10	25
Nursing Diploma	14	35
Years of experience (dealing with oncology patients).		
<5	14	35
5 <10	14	35
10 and more.	12	30
Training courses related to palliative care to patients with cancer.		
No	24	60
Yes	16	40

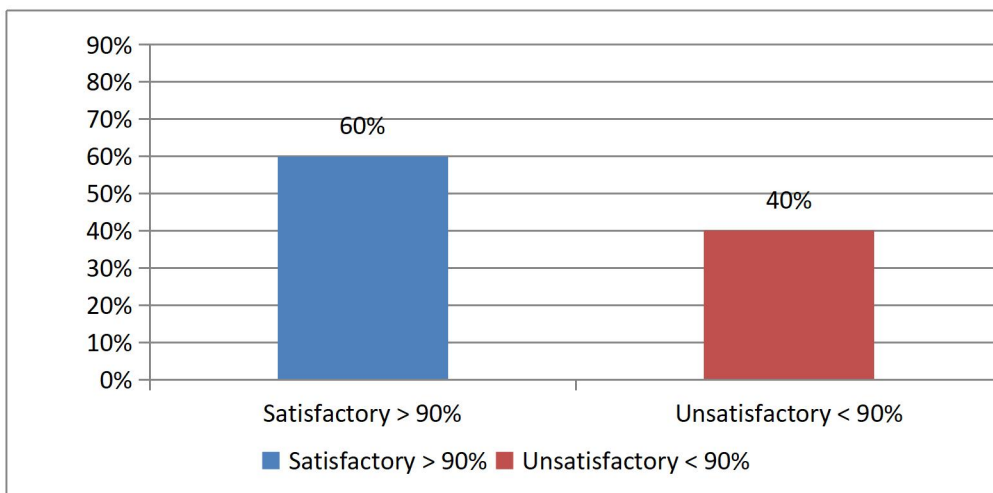


Figure (1): Percentage distribution of study nurses total level of knowledge regarding to physical complications of palliative care for patients with cancer (n=40).

Table (2): Frequency and percentage distribution of the studied nurses level of knowledge regarding to psychological complications of palliative care for patients with cancer (n=40).

Items	Satisfactory		Unsatisfactory	
	No.	%	No.	%
Insomnia.				
Definition of insomnia.	28	70%	12	30%
Causes of insomnia.	24	60%	16	40%
Nursing care for the patient had insomnia.	30	75%	10	25%
Healthy food help patient had insomnia to sleep at night	32	80%	8	20%
Anxiety.				
Definition of anxiety.	20	50%	20	50%
Causes of anxiety.	28	70%	12	30%
Signs and symptoms of anxiety.	30	75%	10	25%
Nursing assessment of patient had anxiety.	22	55%	18	45%
Nursing interventions to treat anxiety.	28	70%	12	30%
Depression.				
Definition of depression.	20	50%	20	50%
Symptoms of depression.	36	90%	4	10%
Effect of depression in regular follow up cancer management.	34	85%	6	15%
Nursing evaluation of depression for patient with cancer.	36	88%	4	12%

Figure (2): studied nurses regarding to total practice to physical and psychological complications of palliative care for patients with cancer.**Table(3):** Frequency and percentage distribution of the studied patients with cancer regarding demographic characteristics (n=30).

Demographic Data	No.	%
Gender		
Female	16	53.3%
Male	14	46.7%
Age (years)		
≤30	8	26.7%
>30-40	10	33.3%
>40	12	40%
Mean±SD		37.93±4.69
Marital status		
Married	12	40%
Not married	18	60%
Type of work		
No work	6	20%
Light work	10	33.3%
Hard work	14	46.7%

Table (4): Frequency and percentage distribution of the studied patients regarding effect of palliative care on physical nursing sensitive outcomes (n=30).

Symptoms	Symptoms Disappeared		Decreased Symptoms		Increased Symptoms	
	No.	%	No.	%	No.	%
Respiratory system	12	40	16	53.3	2	6.7
Sensory system	16	53.3	14	46.7	0	0
Immune system	14	46.7	16	53.3	0	0
Circulatory system	6	20	24	80	0	0
Gastrointestinal system	26	86.7	4	13.3	0	0
Kidney and bladder	20	66.7	8	26.7	2	6.6
Skeletal system	14	46.7	16	53.3	0	0
Hair, skin and nails.	8	26.7	22	73.3	0	0
Total	26	86.7	4	13.3	0	0

Table (5): Frequency and percentage distribution of the studied patients regarding effect of palliative care on psychological nursing sensitive outcomes (n=30).

Symptoms	Symptoms Disappeared		Decreased Symptoms		Increased Symptoms	
	No.	%	No.	%	No.	%
Stress	12	40	18	60	0	0
Anxiety	10	33.3	18	60	2	6.7
Depression	10	33.3	20	66.7	0	0
Total	25	85	5	15	0	0

Table (6): Correlation between nurses' total level of knowledge and practice regarding palliative care needed for patients with cancer (n=40).

Total level of knowledge.	Total level of Practice				Chi-square test	
	Satisfactory		Un Satisfactory		χ^2	p-value
	No.	%	No.	%		
Satisfactory (n=24)	22	73.3%	2	20%	6.806	0.009*
Unsatisfactory (n=16)	8	26.7%	8	80%		
Total (n=40)	10	100.0%	30	100.0%		

Discussion

Cancer is the second leading cause of death in the world and accounts for one in four patients deaths annually. Patients who present with advanced, metastatic disease can have disease control for a period of time with chemotherapy and other disease – directed interventions. However, the duration of disease control is variable, and most patients develop progression of their cancer that leads to their death within weeks, months or years. Patients with advanced cancer often have significant symptom burden, including dyspnea, pain, nausea and fatigue that can cause distress and decreased quality of life (*Morrison, 2015*).

The current study revealed that two fifths of the nurses was in the age group less than thirty years. This may be due to

working in oncology unit is exhausting and need young age nurses. This finding is in the same line with that of *Al-Qadire (2017)*, who conducted a study in Jordan to measure nurses knowledge about palliative care, and found that the most of the studied nurses were young aged.

As regards the academic qualifications, it was found that two fifths of the nurses had bachelor degree in nursing. This may be due to the new trend in nursing education is now aiming at delivering high qualified nurses. This finding is in the same line with *EL-Nagar (2015)*, who conducted study to measure nurses knowledge about cancer care; he found that most of the studied nurses had bachelor degree in nursing science.

In relation to years of experience for nurses in dealing with oncology patients, it was observed that more than one third of the nurses had less than five years of experience in dealing with oncology patients. This may be due to new nurses needs to take the experience to work efficiently in the critical care unit. This finding is the same line with **Morrison (2015)** who conducted study about nurses palliative care and he found that two quarters of the studied nurses had few years of experience.

As regards to training courses, the current study show that two fifths of nurses attended training courses about palliative care. This may be due to palliative care represent new trend in Egypt and limited attention to nurses' continuing education or training programs especially about end of life care. This is in the same line with **David (2016)** who conducted a study about the important of palliative care in life of patients with cancer and found that most of the nurses attended training courses about palliative care.

As regards gender of studied nurses; the current study revealed that more than three fifths of studied nurses were female. This may be due to nursing field especially oncology nursing more interesting by female nurses than male nurses. this findings in the same line with **Wen-Yuhu (2017)**, who conducted study about knowledge of oncology nurses about palliative care who found that almost all of studied nurses were female.

AS regards the level of general knowledge of the nurses about palliative care, the current study revealed the majority of studied nurses had satisfactory level of general knowledge about palliative care. This may be due to most of nurses now days become more interest of continuous learning in nursing science. This is in the different line with **Karkadal (2016)**, who conducted study about palliative care in end life of care and the revealed that the minority of studied nurses were aware of the term palliative care.

Regarding to nurses level of knowledge about physical side effects. this current study revealed three fifths of studied nurses in this study had satisfactory level of knowledge to physical side effects. This may be due to most of nurses become more interest with nursing science. This is in the different line with **Prem (2016)**, who conducted study about important of palliative care, found that nurses knowledge to physical side effects about palliative care was poor.

Regarding to nurses level of knowledge to psychological side effects. This study revealed the more than three fifths of nurses in this study had satisfactory level of knowledge to psychological side effects of palliative care. This may be due to nurses become interest with patients from all sides not only physical side and more interest with psychological care, point of view of researcher most of nurses had more senses to patients and introduce emotional support and deal with patient as human being, this is in the same line with **Shea (2015)**, who conducted a study about assessment of advanced practice palliative care nursing competencies among nurses found that nurses had greater knowledge about psychological problems.

As regarding to level of practice to physical side effects this current study found majority of studied nurses near three quarter had satisfactory level of practice to physical side effects. This may be due to more of nurses become know the cancer spread widely and try to help patients to life safely with this disease and their side effects, this results were in the different line with **Shea (2015)** conducted a study about assessment of advanced practice palliative care nursing competencies among nurses and found limited level of practice.

In relation to level of practice about psychological side effects, this current study found that slightly more than three quarter of studied nurses had satisfactory level of practice. This may be due to increase

emotional senses in most nurses when dealing and caring of end life care patients and try to introduce all emotional support to patients and their family, this results the different line with **Wen-Yu Hu (2017)** who evaluated the philosophy, principles and practical level about palliative care and revealed that the majority of studied nurses had knowledge about the philosophy, and principles of palliative care, however, minority had knowledge about clinical management of symptoms such as management of anxiety and depression.

Regarding demographic characteristics of studied patients, the current study shown that more than half of the studied patients was female and two fifths of studied patients age more than forty. Three fifths of studied patients unmarried and near half of studied patients had hard work. This may be explained as due to cancer affect different categories of people at any age group. More in patients had hard work due to not had time to interest with their health. This finding the same line with **Rojanasak (2012)**, who conducted study about effective outcome of palliative care in patients with critical disease which found more than half of patients female, three quarter of patients age more than fifty and near half of studied patients had difficult work.

As regards the effect of palliative care on patients with cancer physical and psychological sensitive outcomes, it was found that most of the sample who taken palliative care their physical and psychological side effects disappeared. This may be due to palliative care had positive effect on patients' health. This is in the same line with **Del Fabbro (2016)** who conducted a study about symptoms control in palliative care; dyspnea and delirium and revealed that anxiety –reducing techniques were used for breaking the breathlessness–anxiety cycle. Combined non-pharmacological managements improved breathlessness, performance status and emotional status.

As regards to nurses total level of practice and total level of knowledge about palliative care of patients with cancer. The current study found that there were statistically significant correlation between total level of knowledge and total level of practice. This may be due to increased level of knowledge had a significant effect on increasing level of practice, this in the same line with **David (2016)** who conducted a study about the important of palliative care in life of patients with cancer and found a relation between total level of knowledge and total level of practice.

Conclusion

Based on finding of the present study, it can be concluded that; regarding to nurses findings found the majority of nurses had satisfactory level of knowledge and practice regarding to palliative care and minority of nurses had an satisfactory level of knowledge and practice regarding to palliative care and this findings had good relation between nurses level of education, continuous training courses and years of experience this findings because in these days most of nurses had highly level of graduation in nursing science. Regarding to patients sensitive outcomes findings palliative care has important part of management of critically ill cancer patients, palliative care had positive effect on patient physical and psychological symptoms and improve quality of life and help patient to life safe period free from pain and any distress.

Recommendations

Based on the findings of the present study, the following recommendations are suggested;

Educational;

- On-going and regular in-service educational programs regarding palliative care.
- Nursing educators and clinical facilitators must incorporate strategies regarding

palliative care in all hospitals and use learning opportunities to raise awareness of nursing staff about the topic.

- Developing a simplified and comprehensive booklet including basic information about palliative care.
- Learning resources such as articles, journals and electronic resources such as computer and internet should be made accessible in the units for nursing staff members. Continuing professional development programs should include skills updates.

Practice;

- In-service training and educational program prior to the work in the hospitals treat patients with cancer.
- Nurse supervisors should also verify that palliative care checklist appropriately followed by all nursing staff.
- Increase the number of nurses in each units based on international nurse patient ratio to improve quality of care.

Research:

- The study should be replicated on large sample and in different hospitals setting in order to generalize the results.
- Further study to evaluate the reflection of educational program regarding nurses' perception

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