

Educational Guidelines for Caregivers of Cancer Patients toward Palliative Care

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Abstract

Background: Palliative care is a specialized medical care for people living with a serious illness such as cancer. **Aim of study:** Was to evaluate the effect of educational guidelines on caregivers of cancer patients toward palliative care. **Research design:** A quasi – experimental research design was utilized in carrying out this study. **Setting:** This study was conducted at the Oncology Center at Nasser Institute Hospital Affiliated to Ministry of Health. **Sample:** A simple random sample was used to select 140 patients according to inclusion criteria from total 1400. **Tools of data collection:** Data were collected by using three tools. **I:** An interviewing questionnaire to assess the socio demographic characteristics of the studied patients, the medical history of patients, the socio demographic characteristics of caregivers, and the caregivers' knowledge about cancer and palliative care. **II:** Likert scale designed to assess the studied caregivers' attitude toward palliative care and **III:** Practices assessment sheet designed to assess the caregivers' practices toward palliative care. **Results:** 35.7% of the caregivers had good total knowledge regarding cancer before the educational guidelines implementation which increased to 62.2% after the educational guidelines implementation, 30.0% of them had good total level of knowledge regarding palliative care before the educational guidelines implementation which increased to 63.6% after the educational guidelines implementation, 25.0% of them had positive total level of attitude regarding palliative care before the educational guidelines implementation which increased to 70.0% after the educational guidelines implementation, and 35.7% of them had satisfactory total level of practices regarding palliative care before the educational guidelines implementation which increased to 77.1% after the educational guidelines implementation. **Conclusion:** The educational guidelines succeeded in improving the studied caregivers' knowledge, reported practices, and attitude regarding palliative care. **Recommendations:** Provide training courses for caregivers regarding palliative care

Key words: Cancer, Caregivers, Palliative care.

Introduction:

Cancer is the generic term for a large group of diseases characterized by a rapid creation of abnormal cells that grow beyond the usual boundaries and has the ability to metastasize to other organs. Cancer can start almost anywhere in the human body and made up of trillions of cells. Normally, human cells

grow and multiply (through a process called cell division) to form new cells as the body needs. When the cells grow old or become damaged, the cells die, and new cell take place. Sometimes the orderly process breaks down, and abnormal or damaged cells grow and multiply. The cells may form tumors, which are lumps of tissue. Tumors can be cancerous or

not cancerous (**National Cancer Institute (NCI), 2021**).

Worldwide, an estimated 19.3 million new cancer cases and almost 10.0 million cancer deaths occurred in 2020. The global cancer burden is expected to be 28.4 million cases in 2040, a 47% rise from 2020, with a larger increase in transitioning (64% to 95%) versus transitioned (32% to 56%) countries due to demographic changes, although this may be further exacerbated by increasing risk factors associated with globalization and a growing economy (**Sung et al., 2021**).

Cancer symptoms and treatment can negatively affect the patients' Quality of Life (QOL) because of the physical discomfort, mental stress, and economic pressure. Therefore, in 1990 the World Health Organization (WHO) introduced the Palliative Care (PC) initiative, which represents medical care focused on improving the QOL of patients with a severe illness by treating symptoms through an interdisciplinary approach (**Gayatri et al., 2021**).

Palliative care is a specialized medical care for people living with a serious illness such as cancer. PC is started with the onset of diagnosis and focused on relieving the symptoms and stress of illness. The goal of palliative care is to relieve suffering and provide the best possible quality of life for patients and their families. Symptoms may include pain, depression, shortness of breath, fatigue, constipation, nausea, loss of appetite, difficulty sleeping, and anxiety (**Center of Advance Palliative Care, 2021**).

The caregiver is a family members e.g. spouses, parents, children, siblings and others (e.g. friends, neighbors), who works with the health care team and has an important role in

improving the patients' health and quality of life. Today, the caregivers can perform many tasks that used to be done in the hospital or in the doctors' office by health care providers. Caregiving includes everyday tasks such as helping the patient with medicines, doctor visits, meals, schedules, and health insurance matters. The caregivers' role also includes giving emotional and spiritual support, such as helping the patient deal with feelings and making hard decisions (**Weis, 2021**).

The community health nurses' role in palliative care have been outlined to include facilitating the cancer patients' access to supplies and medicines, routinely conducting assessments of the patients' physical, psychosocial and spiritual needs, developing a personal care plan in conjunction with family members, providing information and keeping records, and encouraging the family to keep the patient involved in the daily lives as much as possible (**Macrae et al., 2021**).

Significance of the Study

In Egypt, the National Cancer Registry Program revealed that the commonest cancer sites were liver, breast, and bladder (23.8%, 15.4 and 6.9%, respectively) in both genders; liver and bladder (33.6% and 10.7%, respectively) in men; and breast and liver (32% and 13.5%, respectively) in females. According to WHO registry of oncology in Egypt, the number of cancer patients is expected to increase because of the increase in Egypt's population and increases in the average age, meaning that by 2050, the number of cancer patients in Egypt will be three times the current number (**Kasem et al., 2021**).

The situation of PC in the Middle East including Egypt, is limited and does not present a clear picture of the cultural context, and still in early stages and there are many obstacles to

Educational Guidelines for Caregivers of Cancer Patients toward Palliative Care

its development, namely, lack of professional knowledge, inadequate support of policy-makers, and lack of access to opioids and financial resources. Despite these challenges, providing services at the community level, support of nongovernmental organizations, using trained specialists and multi-disciplinary approach is an opportunity in Egypt (El-Taybani et al., 2020).

Aim of study

This study aimed to evaluate the effect of educational guidelines on caregivers of cancer patients toward palliative care.

Research hypothesis

The caregivers' knowledge, reported practices, and attitude will be improved after implementation of the educational guidelines toward palliative care.

Subject and Methods

Research Design:

A quasi – experimental research design was utilized in carrying out this study

Setting:

This study was conducted at the oncology center at Nasser institute hospital affiliated to Ministry of health. It provides general and special medical services that include outpatient clinics, radiotherapy, chemotherapy, blood transfusion, CT scan, MRI scan and PET scan. The oncology center consists of three floors; the first floor contains six outpatient clinics, clinic for triage, medical and 2 surgical clinic, clinic for pain management and radiology clinic, waiting areas for patients, one room for engineering who responsible about maintenance of radiation equipment and machines, another room for old files and radiation records, one room for physicians, PET scan unit, radiotherapy unit,

CT scan unit, two atomic scan unit, outpatient pharmacy.

The second floor consists of the day care unit (15 beds for blood transfusion), 36 beds for chemotherapy, inpatient pharmacy, waiting areas for patients, Hematology Clinic, CT scan unit, and MRI unit. The third floor consists of one room for a pediatric outpatient clinic, waiting areas for patients, libraries unit, reporting & recording unit.

Sample:

Simple random sample was used to select sample according to inclusion criteria. This number was representing 10 % from the total number of caregivers who were attending with their cancer patients to the mentioned setting. The number of cancer patient attended to oncology clinics last year was 1400 according to statistic of oncology clinics of Nasser Institute for Research and Treatment Hospital 2018.

Tools of data collection:

Three different types of data collection tools were used to carry out this study namely: An interviewing questionnaire, Likert scale and Practices assessment sheet.

Tool 1-An interviewing questionnaire: It was developed by the researcher based on reviewing the related literatures and it was written in a simple clear Arabic language and consisted of two parts:

Part I: - This part included four portions:

- A- Socio demographic characteristics of the studied patients. It consisted of seven questions related to age, sex, educational level, marital status, family size, occupation, monthly income.
- B- Medical history of patients: It included four questions about (diagnosis – duration of illness, type of treatment and signs & symptoms).

C- Socio demographic characteristics of caregivers. It consisted of twelve questions related to age, sex, educational level, marital status, occupation, nature of work, the kinship to patient, experience to work with cancer patient, health education about palliative care, source of health education, training about palliative care and duration of training.

D- Knowledge questionnaire sheet. It was developed by the researcher to assess the caregivers' knowledge toward 1- cancer. It consisted of twelve questions. 2- Palliative care. It consisted of eleven questions.

Scoring system:

Knowledge score for each answer was given as follows: Correct and complete (2), Correct and incomplete (1) and Incorrect /don't know (0). Total score of knowledge = 46, for each area of knowledge, the score of the items was summed-up and the total divided by the number of the items, giving a mean score for the part. These scores were converted into a percent score. The total knowledge score was considered good if the score of the total knowledge > 75 % (>34points), considered average if it equals 50 – 75 % (23 – 34points), and considered poor if it less than 50 % (< 23points).

Tool 2-Likert scale:

It was adopted from (Ayed et al. 2015), modified and translated to Arabic by the researcher which included sixteen statements to assess the studied caregivers' attitude toward palliative care of cancer patient. This part measured pre and post the educational guidelines.

Scoring system:

A score for each response on questions of attitudes was given as follow: Always (2), sometimes (1) and rarely (0). Total score of attitude =32, the score of the items was summed-up and the total divided by the number of the items, giving a mean score for the part. These scores were converted into a percent score. The attitude was considered positive if the score of total attitudes > 75 % (> 24 score), considered indifferent if it equals 50 – 75 % (16 – 24points), and negative if it is < 50 % (<16points).

Tool 3- Practices assessment sheet:

It was designed to assess the caregivers' practices toward palliative care of cancer patient as reported by them. It included four aspects of palliative care. (A) Psychological aspects of care which included seven steps, (B) Cultural aspects of care which included five steps, (C) Spiritual aspect of care which included five steps and (E) Ethical and legal aspects of care which included four steps. This part measured pre and post the educational guidelines.

Scoring system:

The score for each practice was given as follows: Done (1) and not done (0). Total scores of practices = 61, the total practices were considered satisfactory if the score of the total practices ≥ 60% (≥ 36score), and considered unsatisfactory if it is less than 60% (<36score).

Tools validity:

Content validity was done by five of the Faculty Staff Nursing experts from the Community Health Nursing Specialties who reviewed the tools for clarity, relevance, comprehensiveness, understanding, and applicability. There were minor modifications required

Educational Guidelines for Caregivers of Cancer Patients toward Palliative Care

Reliability of tools:

Reliability of the tools was done by using Cronbach's Alpha coefficient test which revealed that each of the three tools consisted of relatively homogenous items as indicated by the moderate to high reliability of each tool. The internal consistency of knowledge was 0.92, attitudes was 0.89, and 0.94 for practices.

Pilot Study:

A pilot study was conducted on 14 of caregivers who were attended with their cancer patients and represented 10% from the total number of caregivers and they were excluded from the study sample. The pilot study was aimed to assess the feasibility, clarity, and applicability of the tools also to determine the time needed for filling the structured questionnaire. According to the results obtained from data analysis, the modifications, correction, omission and addition were done. The tools lasted about 30 minutes to be filled.

Field work:

An educational guideline was implemented through four phases:

Phase I: -Assessment phase:

Based on the results obtained from the interviewing questionnaire and practices assessment sheet as well as literature review. The educational guideline developed by the researcher.

Phase II: - Planning phase:

The educational guideline was designed to achieve the objectives of the study.

The general objective:

Apply the educational guidelines for caregivers of cancer patients toward palliative care according to their actual educational needs in order to improve their knowledge, attitudes, and practices toward palliative care of cancer patients.

Content of educational guidelines:

The content of the educational guidelines was designed to meet the caregivers ' needs toward palliative care of cancer patients and it was consisted of the following: Meaning of cancer, causes of cancer, types of cancer, the most vulnerable groups for cancer, signs and symptoms of cancer , complications of cancer, methods of cancer diagnosis, cancer treatment methods and its complication, methods of cancer prevention, meaning of palliative care, palliative care recipients, aim of palliative care, the suitable time to start palliative care, aspects of palliative care, components of palliative care, advantages and disadvantages of palliative care, palliative care team, role of palliative care team, ethical principles of palliative care, the barriers of palliative care and apply the different aspects toward palliative care.

All the caregivers received the same guidelines content using the same teaching methods which included the following: Lectures / group discussion, brain storming and demonstration / re-demonstration.

The teaching aids: Suitable teaching aids were specially prepared for the intervention as follows; booklet and posters.

III. Implementation phase:

The study was conducted over a period of 5 months which started from July 2020 to the end of November 2020. Data was collected by interviewing the caregivers in the selected outpatient clinic at the Nasser Institute for Research and Treatment Hospital.

The researcher was attended three days/week (Saturday, Sunday and Tuesday) from 9:00 am to 12:00 mid – day.

Caregivers were divided into groups (twenty groups) each group contained 7Caregivers.The researcher was attended with

one group /week, and the guidelines were discussed with them

The number of sessions was six (6) sessions of six (6) hours (4 hours theoretical and 2 hours practical). The duration of each session was 60 minutes, including the periods of discussion. The caregivers were present all the time of the intervention sessions and the duration of each session was variable, according to its contents as well as the caregivers' response.

An orientation to the educational guidelines and its process were presented. Each session started with a brief summary about what had been given through the previous session, then the objectives of the new topics, taking into consideration the use of simple language to suite the level of the caregivers.

Discussion, motivation and reinforcement during the educational guidelines sessions were used to enhance learning. Direct reinforcement in a form of copy of the intervention was given as a gift for each caregiver to use it as a future reference. All the caregivers were cooperative with the researcher and at the end of each session the caregivers participated in a discussion to correct any misunderstanding. Also, they were informed about the time of the next session.

Phase IV: Evaluation of the educational guideline:

Evaluation of the educational guidelines were done immediately at the end of it by using the same pre/post tools to evaluate the degree of improvement in the studied caregivers of cancer patients' knowledge, attitude, and practices toward palliative care.

Statistical analysis:

Statistical analysis was done by using Statistical Package for Social Sciences (SPSS) version 20. Data were collected, revised, coded,

organized, tabulated, and analyzed using frequencies, number, percentage, mean scores, standard deviation and correlation coefficient. Data were presented in the form of tables and figures. Quantitative data was presented by mean (\bar{X}) and standard deviation (SD). Qualitative data was presented in the form of frequency distribution tables, number and percent. It was analyzed by Chi- square test (X^2) & correlation to detect the relation between the variables of the study (P- value). Statistical significance was considered as follows:

- P- value > 0.05 Not significant
- P- value < 0.05 Significant
- P- value < 0.001 Highly significant

Results

Table (1): Shows that, 35.7% of the studied patients aged from 38 to < 48 years old with $\bar{X} \pm SD$ of 38.34 ± 11.52 , 67.1% of them were females, and 35.0% of them had university education. As for the marital status, 43.6% of them were married, and 53.6% of the studied patients had from 3-5 members in their family with $\bar{X} \pm SD$ of 4.74 ± 1.27 . Concerning occupation, 58.6% of the studied patients were working, and 49.3% of them had enough monthly income.

Table (2): Illustrates that, 48.6% of the studied caregivers aged from 30 to < 40 years old with $\bar{X} \pm SD$ of 39.21 ± 6.29 , 83.6% of them were females, and 50.0% of them had secondary or technical education. As regards the marital status, 83.6% of them were married, and 92.1% of them were working. Regarding the nature of their work, 75.9% of them were employees, and 42.8% of them were the patients' husband/ wife, and 58.6% of them had less than five years of experience in working with cancer patient with $\bar{X} \pm SD$ of 5.28 ± 3.92 .

Educational Guidelines for Caregivers of Cancer Patients toward Palliative Care

Figure (1): Indicates that, 35.7% of the studied caregivers had good total knowledge regarding cancer before the educational guidelines implementation which increased to 62.2% after the educational guidelines implementation, while 50.0% of them had poor total knowledge before the educational guideline implementation which decreased to 17.1% after the educational guidelines implementation.

Figure (2): Demonstrates that, 30.0% of the studied caregivers had good total level of knowledge regarding palliative care before the educational guidelines implementation which increased to 63.6% after the educational guidelines implementation, while 46.4% of them had poor total level of knowledge before the educational guideline implementation which decreased to 15.0% after the educational guidelines implementation.

Figure (3): Clarifies that, 25.0% of the studied caregivers had positive total level of attitudes regarding palliative care before the educational guidelines implementation which increased to 70.0% after the educational guidelines implementation, while 50.7% of them had negative total level of attitudes before the educational guidelines implementation which decreased to 15.7% after the educational guidelines implementation.

Figure (4): Describes that, 35.7% of the studied caregivers had satisfactory total level of practices regarding palliative care before the educational guidelines implementation which increased to 77.1% after the educational guidelines implementation, while 64.3% of them had unsatisfactory total level of practices before the educational guidelines implementation which decreased to 22.9% after the educational guidelines implementation.

Table (3): Indicates that, there were highly statistically significant positive correlations between the studied caregivers' total knowledge and both total attitudes and practices regarding palliative care before and after the educational guidelines implementation at ($P < 0.001$).

Table (1): Frequency distribution of the studied patients according to their socio demographic characteristics, (n = 140).

Socio demographic characteristics	No.	%
Age (years):		
18 - < 28	28	20.0
28 - < 38	34	24.3
38 - < 48	50	35.7
48 +	28	20.0
Mean± SD 38.34 ± 11.52		
gender:		
Male	46	32.9
Female	94	67.1
Educational level:		
Don't read or write	28	20.0
Basic education	26	18.6
Secondary or technical education	37	26.5
University education	49	35.0
Marital status:		
Single	37	26.4
Married	61	43.6
Divorced	19	13.6
Widowed	23	16.4
Family size:		
< 3	18	12.9
3 – 5	75	53.6
> 5	47	33.6
Mean± SD 4.74 ± 1.27		
Occupation:		
Work	82	58.6
Don't work	58	41.4
Monthly income:		
Enough and saving	18	12.9
Enough	69	49.3
Insufficient	53	37.9

Educational Guidelines for Caregivers of Cancer Patients toward Palliative Care

Table (2): Frequency distribution of the studied caregivers according to their socio demographic characteristics, (n = 140).

Socio demographic characteristics	No.	%
Age (years):		
20 - < 30	21	15.0
30 - < 40	68	48.6
40 - < 50	51	36.4
Mean± SD 39.21 ± 6.29		
gender:		
Male	23	16.4
Female	117	83.6
Educational level:		
Don't read and write	4	2.9
Basic education	35	25.0
Secondary or technical education	70	50.0
University education	31	24.1
Marital status:		
Single	19	13.6
Married	117	83.6
Divorced	1	0.7
Widowed	3	2.1
Occupation:		
Work	129	92.1
Don't work	11	7.9
The nature of work (n=129):		
Employee	98	75.9
Free business	31	24.1
The kinship to patient:		
Husband/ wife	60	42.8
Son/daughter	27	19.3
Brother/sister	26	18.6
Others	27	19.3
Years of experience in working with cancer patient:		
< 5 years	82	58.6
5 – 10	31	22.1
>10	27	19.3
Mean± SD 5.28 ± 3.92		

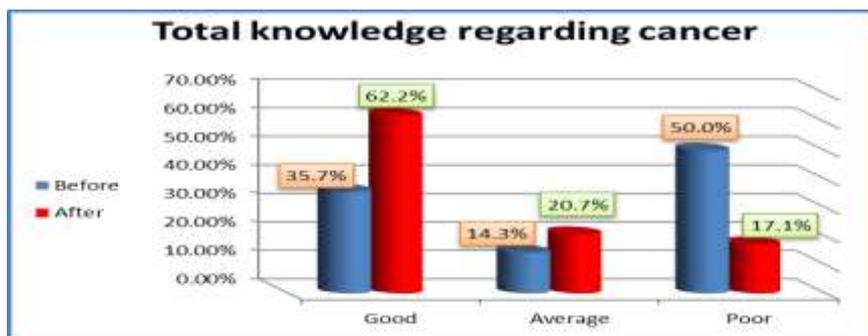


Figure (1): Percentage distribution of the studied caregivers' total level of knowledge regarding cancer before and after the educational guidelines implementation.

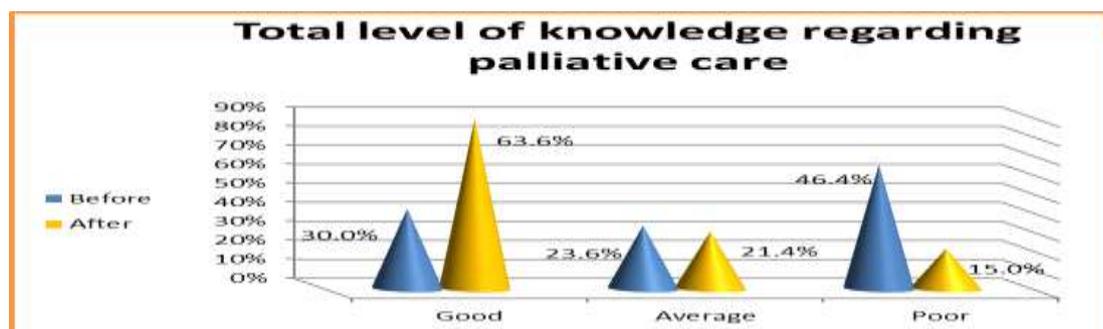


Figure (2): Percentage distribution of the studied caregivers' total level of knowledge regarding palliative care before and after the educational guidelines implementation.

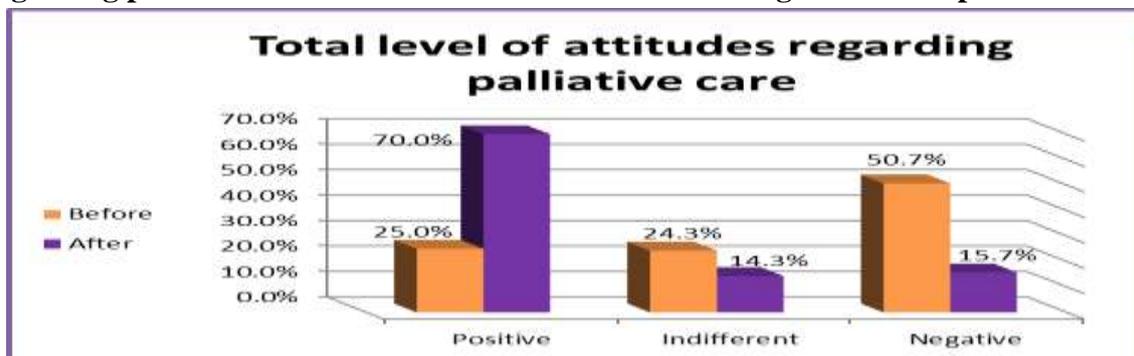


Figure (3): Percentage distribution of the studied caregivers' total level of attitudes regarding palliative care before and after the educational guidelines implementation.



Figure (4): Percentage distribution of the studied caregivers' total level of practices regarding palliative care before and after the educational guidelines implementation.

Educational Guidelines for Caregivers of Cancer Patients toward Palliative Care

Table (3): Correlation between the studied caregivers' total knowledge and both total attitude and practices before and after the educational guidelines implementation, (n = 140).

Items	Total knowledge			
	Before		After	
	r	P-value	R	P-value
Total attitudes	0.477	0.001**	0.590	0.001**
Total practices	0.220	0.002*	0.378	0.001**

**Correlation is highly significant at the 0.001 level.

Discussion:

Palliative care is the active holistic care of patients with advanced, progressive illness. Management of pain and other symptoms and provision of psychological, social and spiritual support is paramount. The goal of palliative care is achievement of the best quality of life for patients and their families. Many aspects of palliative care are also applicable earlier in the course of the illness in conjunction with other treatments. Palliative care goes beyond the traditional medical model to focus on psychosocial issues, spiritual matters, medical decision-making, and on the relief of suffering in all its dimensions throughout a person's illness (Elshamy, 2019).

Regarding to socio – demographic characteristics of the studied patients, the current study illustrated that more one third of the studied patients aged from 38 to < 48 years old with $\bar{X} \pm SD$ of 38.34 ± 11.52 , this result disagreed with **Ramasubbu et al. (2020)**, who studied “quality of life and factors affecting it in adult cancer patients undergoing cancer chemotherapy in a tertiary care hospital, India” and reported that 40% of patient aged more than 60 years, also in same line with **Aboul Enien et al. (2018)**, who were in a study about health-related quality of life: impact of surgery and treatment modality in breast cancer, Egypt, as reported that 46.3% of age group of the studied patients were 50-60 years.

Regarding gender and marital status.

The current study illustrated that more two thirds of them were females, more than two-fifths of them were married, this result in same line with **Nayak et al. (2017)**, who were in a study about “quality of life among cancer patients in Indian” and found that(57.2%) were females, (94.5%) were married,

Regarding family member, the current study showed that more than half of the studied patients had from 3-5 members in their family, this result in same line with **Aboul Enien et al. (2018)**, who reported that 40% of studied patients their family 3-5 members. This might be due to the most of patients female and aware of the importance of family planning.

In relation to occupation, the present study illustrated that about three-fifths of the studied patients were working, this result is supported by **Metwaly&Hamad, (2019)**, who studied “the effect of palliative care program on nurses’ performanceregarding prostate cancer and patients’ outcomes, Egypt” as they reported that 56.7% of the studied patients were worked, this might be due to they need to cover the financial life's requirement or had desire for actualization.

Concerning income, the present study revealed that about half of the studied patients had enough monthly income, this result contradicted with **Bayumi& Mohamed (2019)**, who studied “factors affecting quality of Life among cancer patients with

chemotherapy at Qena university hospital in upper Egypt”, as reported that 78% of studied patients not had enough monthly income, this result might be due to the family members were 3/5 and studied patients were working so the monthly income enough their requirement.

As Regard socio demographic characteristics of the studied caregivers, the present study Illustrated that, about half of the studied caregivers aged from 30 to < 40 years old with $\bar{X} \pm SD$ of 39.21 ± 6.29 , half of them had secondary or technical education, this result is supported by **Nejad et al. (2016)**, who conducted a study about “the effects of a patient-caregiver education and follow-up Program on the breast cancer caregiver strain index, Iran” and reported that caregiver age 30-50 years and 52% of them had secondary school. This result might be because this age enabling caregivers to provide care to their sick relatives and meet their requirement and satisfaction.

Also, this result illustrated that more than three quarters of the studied caregivers were females; this result agreed with **Seo&Park (2019)**, who studied “factors influencing caregiver burden in families of hospitalized patients with lung cancer, Korea” as reported that 75.7% of the studied caregivers were female. This result might be due to that female considered the first one in family to support and provide caring for all family members.

As regards the marital status of the studied caregiver, the current study revealed that more than three quarters of the studied caregiver were married, this result in same line with **Yesilbalkan et al. (2017)**, as reported that 54.8% of caregivers were married, this result might be due the most of patients were married, the most of caregivers were their wives who caring their patients.

Concerning caregivers working, the present study demonstrated that most of studied caregivers were working and more than three quarters of them were employed, this study is disagreed with **Burns et al. (2020)**, who reported that 41% of care givers were employed, while 59% unemployed, this might to help to cover the financial requirements of family.

Regarding the nature of their work, the current study revealed that more than three quarters of studied caregivers were employees, this result disagrees with **Geddie, (2016)** who studied family Care giver's knowledge, patient illness characteristics, and Unplanned Hospital Admissions in Older Adults with Cancer, Florida as reported that 50.7% of studied caregivers were unemployed, this result might be due to as the most of them had university education that enabled them to be employed.

Regarding kinship of caregivers to patients, the present study illustrated that more than two-fifths of the studied caregivers were the patients' husband/ wives, this result in same line with **Seo& Park (2019)**, as reported that 62.6 % of studied caregivers were spouse, this result might be due to the husbands/ wives were the nearest one to provide care because they stay with them long time in the same household.

Regarding years of experience of caregivers in working with cancer patients, the present study revealed that more than half of the studied caregivers had less than five years of experience in working with cancer patients with $\bar{X} \pm SD$ of 5.28 ± 3.92 , this result in similar a study carried out by **Ugalde et al. (2018)**, about “understanding rural caregivers’ experiences of cancer care when accessing metropolitan cancer services: a qualitative study. Australia” as reported that 53% of caregivers spent less than 5 years

Educational Guidelines for Caregivers of Cancer Patients toward Palliative Care

caring with cancer patients. This might be due to the duration of illness, of the studied patients was less than five years, so it is the same period of caregivers spent caring with cancer patients.

Concerning total level of knowledge regarding cancer before and after the educational guidelines implementation, the current study revealed that half of the studied caregivers had poor total level of knowledge before the educational guidelines implementation compared to less than one fifth after the educational guidelines implementation, this result in same line with **Belgacem et al. (2016)**, who studied “A caregiver educational program improves quality of life and burden for cancer patients and their caregivers: A randomized clinical trial” , as reported that the caregiver s' knowledge improved after educational program compared to before it, there was statistically significant relation.

Concerning total level of knowledge of caregivers regarding palliative care before and after the educational guidelines implementation, the current study revealed that less than half of studied care givers had poor total level of knowledge before the educational guidelines implementation which decreased to less one fifth after the educational guidelines implementation, this result is supported by **Shah, et al. (2020)**, as reported that more half of the caregivers had enhanced understanding of the palliative care approach. They showed consistent understanding of two foundational aspects indicating correct knowledge .This might be due to concise presentation using a simple language and clear educational methods and instructional media.

The present study demonstrated that the studied caregivers had unsatisfactory total level of practices regarding palliative care

before the educational guidelines implementation compared to satisfactory level after the educational guidelines implementation, this result congruent with **Carrillo et al. (2021)**, who studied ‘the effect of an educational intervention for family caregivers of individuals with cancer, in Colombia”, as reported that the educational intervention is a strategy that increases skills for care at home, and reduces the burden on caregivers of people with cancer on the perception of burden among the family caregivers of patients with cancer in Tunisia and reported that there were significant relation between practices and age, gender, occupation.

Regarding Correlation between the studied caregivers' total knowledge and both total attitudes and reported practices before and after the educational guidelines implementation, the current study revealed that there were highly statistically significant positive correlations between the studied caregivers' total knowledge and both total attitudes and reported practices regarding palliative care before and after the educational guidelines implementation at ($P < 0.001$) ,this result in same line with

Conclusion:

The educational guidelines succeeded in improving the studied caregivers' knowledge, reported practices, and attitude regarding palliative care. There were highly statistically significant positive correlations between the studied caregivers' total knowledge and both total attitudes and practices regarding palliative care before and after the educational guidelines implementation.

Recommendations:

- Provide training courses for caregivers regarding palliative care.
- The study should be replicated to include farther research.

- Illustrated booklet should be distributed at outpatient clinics and included knowledge and practices about palliative care.

- Palliative care should be integrated into the healthcare system, include hospitals and the community awareness should be raised by using public media, community volunteers, public health centers, and nursing schools.

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ارشادات تعليمية لمقدمي الرعاية لمرضى السرطان تجاه الرعاية التلطيفية

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الرعاية التلطيفية هي رعاية طبية خاصة للأشخاص الذين يعانون من امراض خطيرة مثل السرطان، لذلك هدفت هذه الدراسة الي تقييم تأثير ارشادات تعليمية على مقدمي الرعاية لمرضى السرطان تجاه الرعاية التلطيفية وقد أجريت الدراسة في العيادات الخارجية بمركز الأورام بمعهد ناصر للبحوث والعلاج على ١٤٠ مريض وفقا لمعايير معينة ومقدمي الرعاية لهم. حيث كشفت النتائج عن وجود خلل في معلومات وممارسات مقدمو الرعاية لمرضى السرطان تجاه الرعاية التلطيفية، وأوضحت أيضا النتائج عن تحسن في مستوي المعلومات والممارسات لمقدمي الرعاية لهؤلاء المرضى، وذلك بعد تنفيذ الدراسة. لذلك اوصت الدراسة بضرورة عمل دورات تدريبية لمقدمي الرعاية تجاه الرعاية التلطيفية