Coping Behaviors and Health Related Quality of Life of Geriatric Patients with Cancer

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Abstract

Cancer is common in old age; more than 60% of all malignancies are found in 12% of the population 65 years and older. ***Objective:*** *To identify the coping behaviors and the health related quality of life of geriatric patients with cancer, to determine the relationship between coping behaviors and health related quality of life of geriatric patients with cancer.* ***Setting:*** *The outpatient clinic in Mansoura University Oncology Center.* ***Subjects:*** *The study was carried out on 143 geriatric patients diagnosed with cancer.* ***Tools:*** *Three tools were used for data collection: Socio demographic and clinical data structured interview schedule, Jaloweic Coping Scale and EORTC-QLQ-C30 Version 3.0 Questionnaire.* ***Results:*** *A statistically significant relation was found between Affective-oriented coping behaviors and Problem oriented coping behaviors. Also, between problem-oriented coping behaviors and Global health status/QoL.* ***Conclusion:*** *Geriatric patients with cancer used affective oriented coping behaviors more than problem oriented coping behaviors to adapt with their condition. Also they have a poor QoL and symptom problem.* ***Recommendations:*** *Education of geriatric patients with cancer how to use problem solving coping strategies rather than emotional coping strategies.*

Keywords: Cancer, Geriatric patients, Coping behaviors, Health related quality of life.

Introduction

Cancer is a group of diseases characterized by uncontrolled growth and spread of abnormal cells. Cancer is caused by either external factors, such as tobacco, infectious organisms, exposure to radiation and pollution and an unhealthy diet, or internal factors, such as inherited genetic mutations, hormones, and immune conditions. These factors may act together or in sequence to cause cancer. Ten or more years often pass between exposure to external factors and detection of cancer[(1)].

Worldwide, it is reported that one in seven deaths is due to cancer; cancer causes more deaths than AIDS, tuberculosis, and malaria combined. When countries are grouped according to income, cancer is the second leading cause of death in high-income countries (following cardiovascular diseases) and the third leading cause of death in low- and middle-income countries (following cardiovascular diseases and infectious and parasitic diseases)[(2)].

In Egypt, there is no accurate recording system for all cancer cases, but according to WHO, liver cancer followed

by bladder cancer then lung cancer constitute the most common three types of cancer in males, while in females' breast cancer, liver cancer and non-Hodgkin lymphoma are the main types. It is also reported that 39.300 deaths from cancer in males and 33.300 deaths from cancer in females occur yearly in Egypt[3].

Cancer can develop in people of all ages, but it is more common in people over 60 years old. One of every three people will develop cancer at some point in their lives. Because people now are living longer, the risk of developing cancer is increasing. The development of cancer is a long process that usually starts with genetic changes in the cells, and continues in the growth of these cells over time. The time from genetic change to development of cancer is called the latency period. The latency period can be as long as 30 years or more[4].

Cancer leads to many physical and psychological problems; one of the most difficult problems is the way that the patient can cope with cancer. Coping is a way to respond or adjust to any change and distress[5]. According to Lazarus coping behaviors are classified into two types: either emotion focused (affective) behaviors, (these thoughts or actions which make a person feel better but don't alter the distressing situation) or problem focused behaviors, (which are efforts taken to change or resolve distressing situations). The type of behaviors used and their effectiveness are highly individualized[6].

Proper coping behaviors may play an even more important role than medical or treatment related factors. Coping with cancer is crucial in improving QoL of geriatric patients with cancer[7]. There is an association between coping behaviors and QoL. In fact, coping behaviors may play an even more important role than medical or treatment-related factors for predicting QoL. The general picture emerging from studies in patients with primary cancer and cancer survivors is that patients who used an active coping strategy, such as reappraisal or acceptance, reported a better QoL and lower levels of depression and hopelessness than those who used avoidant coping strategies[8].

QoL is the state of well-being that is a composite of two components: the elders' ability to perform everyday activities that reflect physical, psychological, and social well-being; and their satisfaction with levels of functioning and control of the disease[9].

The gerontological nurse plays an important role to maintain function abilities of the elderly cancer patients and attain the best quality of life through assessing coping behaviors of cancer patients[10]. This in turn will help in planning comprehensive nursing care that may improve the patient's condition and wellbeing[11].

Aim of the Study

Identify the coping behaviors and the health related quality of life of geriatric patients with cancer, and to determine the relationship between coping behaviors and health related quality of life of geriatric patients with cancer.

Materials and Method

Materials

Design: Descriptive correlational design was used in this study.

Setting: The study was carried out in the oncology outpatients clinics of the Oncology Center affiliated to Mansoura University in Mansoura city.

Subjects: The study comprised 143 geriatric patients diagnosed with cancer and attending the previous setting during three months and fulfilling the following criteria:

- Aged 60 years or more.
- Free from any debilitating diseases such as heart failure, renal failure, liver failure and amputation.
- Able to communicate.

- Accept to participate in the study.

Tools:

Tool I: Socio demographic and health profile structured interview schedule

This tool was developed by the researcher after reviewing literature and included:

Part I: Socio-demographic characteristics of the patients such as age, sex, residence, marital status, level of education, occupation before retirement and income.

Part II: Medical history of the condition such as: diagnosis, duration of disease, medication used, side effects of treatment, presence of other medical diseases and complaints.

Tool II: Jaloweic Coping Scale

This tool was developed by Jaloweic and Power in 1981. It was used to identify coping behaviors of elderly patients with different chronic diseases. It was translated into Arabic language and was tested for validity and reliability by Fadila[12], it indicated that the scale has a reliability of 0.78. It consists of 40 items, classified into 15 problem-oriented coping behaviors, which focus on problem resolution as look at the problem objectively, and accept the situation as it is, and 25 affective-oriented behaviors, which are aimed to handle the distressing emotions as worry, want to be alone, and work off tension with physical activity. The scale is a 5–point Likert scale with response options of always (4), often (3), about half the time (2), occasionally (1), and never (0). The higher score indicates greater use of that particular coping behavior[13].

Tool III: The European Organization for Research and Treatment of Cancer Quality of life Questionnaire (EORTC-QLQ-C30)

This scale was developed by The EORTC Quality of Life Study Group in 1988. It consists of five functional scales (physical, role, cognitive, emotional, and social), three symptom scales (fatigue, pain, nausea and vomiting), global health and QoL scales, and six single questions assessing additional symptoms commonly reported by cancer patients (dyspnea, insomnia, appetite loss, constipation, diarrhea, and financial difficulties). The scale is composed of 30 questions. The questions from 1 to 28 are coded with the same response categories namely “Not at all- 1”, “A little-2”, “Quite a bit-3” and “Very much-4.”Questions 29 and 30 are coded with ‘‘Very poor-1’’ to ‘‘Excellent-7’’. A high scale score represents a higher response level. The QLQ-C30 is scored according to the recommended EORTC procedures. All raw scores were converted to lie in a range between 0 and 100. For the functioning scales and the global QoL scale, a higher score for the global health status/QoL and the functional subscale represents a better level of functioning, while a higher score on the symptom scales and single items indicates a greater degree of symptomatology. The Arabic version of the European Organization for Research and Treatment of Cancer was used. [14].

Method

1- An official letter was issued from the Faculty of Nursing, Mansoura University to the director of the Oncology Center in the main Mansoura University Hospital.

2- The head of the out patients clinics for Oncology center was informed about the purpose of the study, the date and the time of starting data collection in order to obtain their approval to interview the elderly patients.

3- After reviewing of the relevant literature, tool I was developed by the researcher.

4- Tool III was reviewed by juries to ensure the content validity of the translated version with the original one. The juries consisted of five experts in Gerontological Nursing, Psychiatric and Mental Health Nursing and Medical Surgical Nursing from both Alexandria and Mansoura Faculty of Nursing. Then, the tool was tested for its reliability. Test-retest measurement was used. The scale was applied on 20 elderly cancer patients selected from the outpatient clinic from the Oncology Center. The scale was repeated again for these patients after two weeks. It indicated that the scale has a reliability of 0.88.

5- A pilot study was carried out on 15 elderly patients from the Oncology Center to test the feasibility of the study tools and the necessary modifications were made. The elderly participated in the pilot study were not included in the study sample.

6- Based on the schedule of the outpatient clinics at Mansoura Oncology Center, the researcher visited the clinics on Saturday, Monday, and Wednesday weekly and all the elders attended the outpatient clinics in these days and fulfilling the study criteria were included in the study.

7- Each elderly was interviewed individually by the researcher after explaining the purpose of the study, and then the necessary data were collected.

8- Time taken to fill the study tools ranged from 20 to 25 minutes for each patient.

9- The data collection covered a period of six months from the middle of May 2014 till the middle of November 2014.

Ethical considerations:

- Approval of the research ethics committee in the faculty of Nursing, Mansoura University.
- Verbal consent of the subjects was obtained after explanation of the purpose of the study.
- Privacy of the subjects was assured and Confidentiality of the collected data was maintained.

Statistical Analysis

After data were collected, they were analyzed with SPSS version 16. Qualitative data were described using number and percent. Continuous variables were presented as mean±SD (standard deviation). The two groups were compared with Student t test. Analysis Of Variance (ANOVA test) used for comparison of means of more than two groups. Z of Wilcoxon test used for comparing two related quantitative non- normally distributed variables. Pearson correlation used for correlation between continuous data. The threshold of significance is fixed at 5% level (p-value). The P value of < 0.05 indicate a significant result while, P value of > 0.05 indicate a non-significant result.

Results

Table (1) shows the socio-demographic characteristics of the geriatric patients with cancer. The age of the studied subjects ranged from 60 to 86 years, with a mean age of 68.2 ± 6.14 years. Females constituted 54.5% of the elders, while 45.5 % were males. About 68.5% of elderly were married, 27.3% widow, and 4.2% divorced. (44.1%) of the studied elders were illiterate, 42.7% had Secondary school education. Those with university education were 9.8% of the subjects and only 1.4% reported post graduate education. More than half (56.6%) of the sample reported that their income was not enough, while for 43.4% it was enough. More than half of the elders were residing in urban areas and 48.3% in rural areas. Elders living with their family constituted 64.3%,

28.7% live with one of the sibling, 4.9% with relatives, and only 2.1% live alone.

Table (2) shows the distribution of the geriatric patients with cancer according to their diagnosis. More than one quarter of the sample (27.3%) were diagnosed with breast cancer followed by liver cancer 15.4%, lung cancer 12.6%, and colon cancer 9.1%.

Figure (1) shows that almost half (46.15%) of the studied sample were diagnosed with cancer from one to two months, 30.07% from two to three months and the rest of the sample 23.78% within one month of the disease.

Table (3) shows the distribution of the geriatric patients with cancer according to their reported side effects. It was noted that all the patients suffered from one or more side effects. fatigue was the most common side effects reported by elders (91.6%), followed by vomiting (82.5%), nausea (80.4%), anorexia (78.3%), hair loss (68.5%), weight loss (67.1%), diarrhea (53.8%), stomatitis (44.1%), severe pain (22.4), dysphagia (18.2%), loss of taste (10.5%), skin problems (10.5%), hyperthermia (6.3%), constipation (4.2%), bleeding (3.5%) and dry mouth (3.5%).

Table (4) shows the total mean score of the coping behaviors of the study subjects. The geriatric patients with cancer used affective oriented coping behaviors more than problem oriented coping behaviors [26.06 (5.47), 13.65 (6.70)]. The differences were statistically significant (Z=10.14, P=0.00).

Table (5) shows the distribution of the geriatric patients with cancer according to their quality of life. The table shows that the score of GQoL was 49.8 and the 5 functional scales ranged from 43.6 to 58.2, which indicate poor function and QoL. For the functioning dimensions, the highest mean score was for cognitive functioning (58.2±26.7) and the lowest was for role functioning (43.6±26.8).

Table (6) shows the correlation between coping behaviors of the geriatric patients with cancer and Global health status/QoL. There was a statistically significant relation between Global health status/QoL and the use of problem oriented coping behaviors (r=0.20, p=0.01).

Discussion

Cancer is a debilitating disease which affects all aspects of the patient's quality of life. It affects the physical, cognitive, emotional and social well-being of elders with cancer. Coping with cancer is important in order to maintain and/or improve the patient's quality of life. This in turn will have its impact on the elders' functioning ability, manage and overcome the symptoms associated with the disease and its treatment such as pain, fatigue, nausea and vomiting,…etc[15]. Therefore, the aim of the present study was to identify the coping behaviors and the health related quality of life of geriatric patients with cancer, and to determine the relationship between coping behaviors and health related quality of life in geriatric patients with cancer.

Young old (i.e. 60 years to less than 75 years) constitutes the majority of the patients. The mean age was 68.2±6.14 years (table 1). Higher mean age (71.7±5.9 years) was reported in Italy by Oliva et al., (2011)[16]; among elderly patients with acute myeloid leukemia. In Denmark Esbensen et al (2006)[17] reported a mean age of 75.48±8.35 among elderly persons with cancer. Another study in China by Li et al., (2014)[18] reported a lower mean age of 63±12.9 for rectal cancer patients.

Females constituted more than one half of the study subjects (table 1). This may be attributed to the fact that females are more likely to be at risk for cancer, mainly breast cancer than males. The same was reported by other studies conducted in Palestine and Denmark by Thweib (2011)[19] and Esbensen and Thomsen (2011) respectively[20]. On the other hand other studies by Esbensen et al., (2006)[17], Oliva

et al. (2011)[16], Fan et al., (2013)[21], Minniti et al., (2013)[22] in Denmark, Taiwan and Italy revealed that males were more encountered than females among elderly suffering from cancer.

Concerning the educational level, more than one third of the study subjects were illiterates (table 1). This may be explained by the fact that the elderly in the past had fewer opportunities for education. This result is in the same line with a study done in Taiwan by Fan et al., (2013)[21] who reported that 39.16% of the study subjects in patients with hepatocellular carcinoma had elementary school education. While this finding is in contrast with a study done in Palestine by Thweib (2011)[19] who reported that illiteracy represented only 20% of the study subjects with cancer.

In the current study, more than half of the geriatric patients with cancer were married. This is in agreement with other studies done in Palestine, Republic of Korea and Taiwan by Thweib (2011)[19], Kwon et al., (2012)[23] and Fan et al., (2013)[21] respectively.

As regards type of cancer, breast cancer, liver cancer, lung cancer, and colon cancer represented the most common types of cancer encountered by the elderly in this study (table 2). These results were in agreement with a study done in Palestine by Thweib (2011)[19] who reported that breast cancer, colorectal cancer, and lung cancer were the most common types of cancer observed. A study done in Republic of Korea by Kwon et al., (2012)[23] revealed that stomach cancer, colorectal cancer, and breast cancer were the most common types of cancer encountered.

The present study indicates a tendency among geriatric patients with cancer to use affective oriented coping rather than problem oriented coping behaviors (table 4). This can be explained by the fact that the Arab people in general and especially the Egyptians tend to use their emotion and spirituality more frequently in case of problems and crises such as diseases. Elderly patients who are newly diagnosed and those with advanced disease do not have a definite treatment solution at that given point. This may trigger their insecurity, lack of control and pessimism, which enhance their preferences for more emotional coping and less the problem approach (Vidhubala et al., 2006)[24]. This result is in agreement with a study in Egypt by Aldwin (1991)[25] who found that older adults are more inclined to use affective oriented coping behaviors.

Cancer is a debilitating illness which influences all aspects of QoL of elderly (Kim et al., 2000)[26]. In this study, as regards the functioning dimensions, the highest mean score was for cognitive functioning and the lowest was for role functioning (table 6). This may be due to the effect of cancer and its treatment on the efficiency and quality of patient's role. This finding supports other studies done in Palestine, Greece and France respectively by Thweib, (2011)[19], Georgakopoulos et al., (2013)[27] and Lemonnier et al., (2014)[28] who found that the highest mean score was for cognitive functioning and the lowest was for role functioning.

For symptom dimensions, the lowest score was for dyspnea and the highest was for financial difficulties (table 6). This may be explained by the costs of treatment and transportation that represents a heavy burden on the patients' financial status. This finding was supported by Thweib, (2011)[19] and Georgakopoulos et al., (2013)[27].

The present study indicates that there is a statistically significant relation between Global health status/QoL and the use of problem oriented coping behaviors (table 8) and that coping resources seem to be important tools for those with chronic illness in handling their daily life. This may be related to the fact that scientific thinking and attention to the problem and focus on it can produce better results in patient's QoL. This is consistent with a study done in

China by He and Liu, (2005)[29], and in Palestine by Thweib, (2011)[19].

Conclusion

Cancer has a negative impact not only on the physical role of geriatric patients but also on the psychosocial aspects and QoL. Based on the present study findings, it can be concluded that the geriatric patients with cancer used affective oriented coping behaviors more than problem oriented coping behaviors to adapt with their condition. There was a statistically significant relation between affective oriented coping behavior and problem oriented coping behavior. Moreover, the geriatric patients with cancer had a poor QoL and symptom problem. Also there was a statistically significant relation between Global health status/QoL and the use of problem oriented coping behaviors.

Recommendations

Based on the results of the present study the following recommendations are suggested:

1- Socialization and friendship relations between elders and their families, friends and other significant persons should be enhanced. This can provide elders with social and emotional support that act as a significant buffer against psychosocial distress caused by cancer. In turn, this can enhance coping with the disease.

2- Focus on educating geriatric patients with cancer how to use problem solving coping strategies rather than emotional coping strategies.

3- Mass media could play a vital role in providing the community with information about risk factors of cancer and the importance of early detection.

Table (1): Socio-demographic characteristics of the geriatric patients with cancer

Items	No	%
Age (in years)		
- 60-	125	87.4
- 75-	15	10.5
- 85 +	3	2.1
Mean (SD)	68.2± 6.14	
Sex		
- Male	65	45.5
- Female	78	54.5
Marital status		
- Married	98	68.5
- Widow	39	27.3
- Divorced	6	4.2
Education level		
- Illiterate	63	44.1
- Read and write	3	2.1
- Secondary	61	42.7
- University	14	9.8
- Post university	2	1.4
Income		
- Enough	62	43.4
- Not enough	81	56.6
Residence		
- Urban	74	51.7
- Rural	69	48.3
Living condition		
- With family	92	64.3
- With sibling	41	28.7
- With relative	7	4.9
- Alone	3	2.1

Table (2): Distribution of the geriatric patients with cancer according to type of cancer

Type	(N= 143)	Gender		%
		Male	female	
- Breast cancer	39	1	38	27.3
- Liver cancer	22	15	7	15.4
- Lung cancer	18	14	4	12.6
- Colon cancer	13	10	3	9.1
- Ovarian cancer	8	0	8	5.6
- Leukemia	8	0	8	5.6
- Brain cancer	7	5	2	4.9
- Uterine cancer	6	0	6	4.2
- Non-Hodgkin lymphoma	5	5	0	3.5
- Stomach cancer	4	3	1	2.8
- Other cancer#	13	10	3	9.1

Other types of cancer include cancer of pancreas, thyroid cancer, skin cancer, gall bladder cancer and prostate cancer.

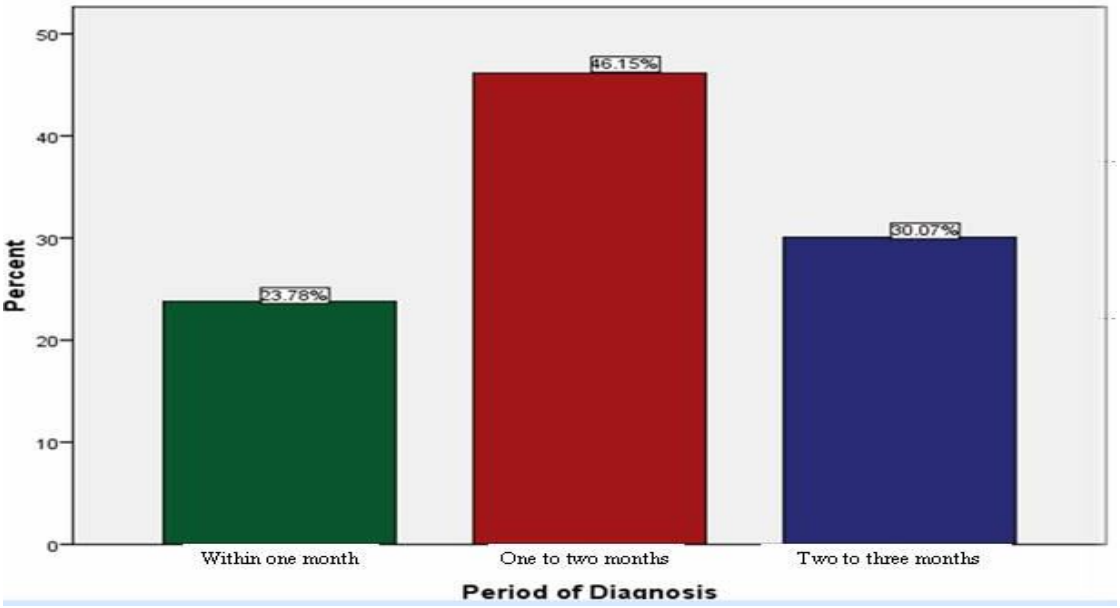

Figure (1): Distribution of the geriatric patients with cancer according to the period of diagnosis

Table (3): Distribution of the geriatric patients with cancer according to their side effects of cancer treatment

Side effects	(N=143)	%
yes	143	100
Side effects#		
- Fatigue	131	91.6
- vomiting	118	82.5
- Nausea	115	80.4
- Anorexia	112	78.3
- Hair loss	98	68.5
- Weight loss	96	67.1
- Diarrhea	77	53.8
- Stomatitis	63	44.1
- Severe pain	32	22.4
- Dysphagia	26	18.2
- Loss of taste	15	10.5
- Skin problems	15	10.5
- Hyperthermia	9	6.3
- Constipation	6	4.2
- Bleeding	5	3.5
- Dry mouth	5	3.5

#More than one response

Table (4): Total mean score of coping behaviors either affective oriented or problem oriented for geriatric patients with cancer.

Coping behaviors	Total mean score (SD)	*Wilcoxon test*
1-Affective oriented coping behaviors	26.06 ± 5.47	*Z=10.14*
2-Problem oriented coping behaviors	13.65 ± 6.70	*P=0.00**

*Significant, at P≤ 0.05

Table (5): Distribution of the geriatric patients with cancer according to their total mean score of quality of life.

Variable	Mean (SD)	Scored ≤33.3%	Scored ≤33.3%
Physical Functioning	47.8 ± 25.1	66	46
Role Functioning	43.6 ± 26.8	59	25
Emotional Functioning	48.2 ± 21.8	52	28
Cognitive Functioning	58.2 ± 26.7	22	57
Social Functioning	54.3 ± 15.5	33	76
Fatigue	38.0 ± 13.6	102	13
Nausea & Vomiting	40.4 ± 13.7	105	27
Pain	37.2 ±15.8	101	21
Dyspnea	13.0 ± 9.6	112	12
Insomnia	42.8 ± 16.2	88	16
Appetite loss	38.9 ± 13.6	117	26
Constipation	53.6 ± 38.4	68	12
Diarrhea	17.5 ± 27.1	85	8
Financial difficulties	60.4 ± 27.1	30	73
Global health status/QoL	49.8 ± 18.7	62	15

Table (6): The correlation between coping behaviors and Global health status/QoL of the geriatric patients with cancer.

Items	Global health status/QoL	
	r	p
Affective - coping	0.00	0.99
Problem - coping	0.20	0.01*

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