

## Biopsychosocial Needs of Patients with Prostate Cancer at Oncology Center

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### ABSTRACT

Prostate cancer is the most common cancer among men. Prostate cancer is a tumor that forms in tissues of the prostate gland in the male reproductive system. The failure of providing appropriate care for prostate cancer patients can compromise the effectiveness of nursing care and thereby adversely affect the health of the patients. **Aim of the study**, this study aimed to assess the biopsychosocial needs of patients with prostate cancer. **Design**: A descriptive exploratory study was used to meet the aim of the study. **Setting**: the study was conducted at the clinics of the Oncology Center affiliated to Ain Shams University. **Subjects**: A purposive sample composed of 80 adult patients with prostate cancer. **Data collection tools**: 1. An interview questionnaire tool: it was used to assess demographic data of the studied patients. 2. Biopsychosocial needs assessment questionnaire and 3. Informational needs assessment tool. **Results**: This study revealed that, regarding demographic characteristics, 90% of the study subjects were at age of sixty and more. In relation to physical needs, this study found that, 77.5% of the study subjects had loss of sexual desire, 90% suffered from pain in different body parts, 84.5% can't do their activities due to pain, 93.25% need emotional support, 83.75% feel that they cause a physical burden for families due to medical expenses and 80% had lack of information regarding self care of prostate cancer. **Conclusion**: this study concluded that patients with prostate cancer had physiological, psychological, social and informational needs. **Recommendations**: This study recommended the importance of man early screening for prostate cancer at the age of 45 and provision of supportive care services and psycho oncology clinics to meet prostate cancer patient's needs and consequently improve the quality of life for those patients.

**Key words**: Prostate cancer, Biopsychosocial needs, Oncology.

### INTRODUCTION

More than 2 million men in the United States count themselves as prostate cancer survivors. Prostate cancer, also known as carcinoma of the prostate, it is the development of cancer in the prostate gland in the male reproductive system. Many prostate cancers are slow growing; however, some grow relatively fast. The cancer cells may spread from the prostate to other parts of the body, particularly the bones and lymph

nodes. It may initially cause no symptoms. In later stages it can cause difficulty urinating, blood in the urine, or pain in the pelvis, back or when urinating. A disease known as benign prostatic hyperplasia may produce similar symptoms. Other later symptoms may include feeling tired due to low levels of red blood cells (Wolfe, 2015).

Risk factors for prostate cancer include increasing age, especially after age of fifty. Also diet high in fat, especially animal fat,

may increase prostate cancer risk (**Nettina, 2014**).

The etiology of prostate cancer is unknown; however, there is an increased risk for persons with a family history of the disease. The influences of serum testosterone levels and industrial exposure to carcinogens are under investigations (**Nettina, 2014**).

Men with early prostate cancer often have no symptoms. The cancer may be found by a screening test such as a prostate specific antigen (PSA) blood test or a digital rectal exam (DRE). But more advanced prostate cancers can sometimes cause symptoms, such as: urinating problems, erectile dysfunction, hematuria, Pain in the spine, hips, ribs, or other bones, weakness or numbness in the legs or feet and Loss of bladder or bowel control (**American Cancer Society, 2014**).

Local treatments are aimed at eliminating cancer from a specific, limited area of the body. For men diagnosed with early-stage prostate cancer, local treatments, such as surgery or radiation therapy. However, if the cancer has spread outside the prostate gland, other types of treatment may be needed to destroy cancer cells located in other parts of the body (**Gupta, 2014 and De vita & Helman, 2015**).

Patients with high-risk prostate cancer, hormone therapy is given before, during, and after radiation therapy for three years. Hormone therapy should also be considered as adjuvant therapy if prostate cancer has been found in the lymph nodes after a radical prostatectomy. It may also be given for up to three years for men with intermediate risk or high-risk cancer (**Horwich and Alan 2012**).

Radiation therapy may cause immediate side effects such as diarrhea or other problems with bowel function, such as diarrhea, gas, bleeding, and loss of control of bowel movements, increased urinary urge or frequency, fatigue, impotence, rectal discomfort, burning, pain and Systemic

treatments (**Yarbro, Wujcik and Gobel, 2011**).

Potential effects of testosterone include hot flashes decreased sexual desire, loss of bone density, increased fracture risk, erectile dysfunction, fatigue, increased risk of diabetes and heart attacks/strokes, weight gain, decreased muscle mass, anemia, and memory loss. Cholesterol, especially the LDL cholesterol, tends to rise (**Aronson, 2010**).

The common side effects of chemotherapy include fatigue, mouth and throat sores, diarrhea, nausea and vomiting, constipation, blood disorders, nervous system effects, changes in thinking and memory, sexual and reproductive problems, appetite loss, pain, and hair loss (**Skeel & Khleif, 2011**).

Need is the state of wanting. A needs assessment is the process of collecting and analyzing information to develop an understanding of issues, resources, and constraints of a target population. Needs assessments are required to guide care planning, because many caregivers and patients do not communicate concerns to their clinicians (**Bergeson, 2013 and Margaris and Black, 2012**).

All care providers should ensure that every patient within their practice receives care that meets the standard for biopsychosocial health care through facilitating effective communication between patients and care providers to provide more specific information about the type and stage of cancer, treatment, prognosis, rehabilitation, achievement and maintenance of maximal health, coping, financial and legal concerns (**Patlak and Nass, 2011**).

The Biopsychosocial model uses systems approach in attempting to integrate biological, psychological, and social aspects of the patient's condition. This approach inherently validates the potential importance

of biogenetic, psychological, social and environmental factors in the diagnosis and treatment of the patient. The nurse plays an important role in patient care for those patients.

**Aim of the study:**

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The present study aimed to assess the biopsychosocial needs of patients with prostate cancer.

**Research Question:**

What are the biopsychosocial needs of patients with prostate cancer?

**Research design:**

A descriptive exploratory design was followed to achieve the aim of this study.

**Subjects and methods:**

**I. Technical design:**

The technical design includes setting, subjects and tools for data collection used in this study.

• **Setting:**

This study was conducted in the clinics of the oncology center affiliated to Ain Shams University.

• **Subject:**

A purposive sample composed of 80 adult patients who admitted to the previous mentioned setting during data collection time was recruited in this study.

• **Tools for data collection:**

Three tools were used in the current study as follows:

**I- An interview questionnaire tool:** It was developed by the researcher based on related literatures and it was written in the simple Arabic language. It was used to assess the demographic characteristics of patients as age, occupation, marital status, level of education, smoking and income per month.

**II- Prostate cancer patient needs assessment tool:**

This tool was divided into three parts to assess needs of patients with prostate cancer including physical, psychological and social needs. The patients' response was Yes or No. It was as follows:

**A- Physical needs (67 items)**

This part was adapted from **Wraa, Watson, White, Baumle, and Duncan, 2014., Osborn, 2014 and Pellico, 2013.** It included questions about needs related to Urinary System (9 items), Reproductive System (5 items), Sexual Relation (8 items), musculoskeletal System (8 items), Skin (8 items), Lymph Nodes (1 item), Sleep & Rest (3 items), Pain (9 items), Respiratory System (2 items), Gastro- intestinal System (5 items), Neurological System (2 items), Therapeutic Interventions (7 items).

**B- Psychological needs (15 items).**

This part is adapted from **The National Coordinating Center for National Health Service Delivery and Organization (NCCSDO, 2007)**, it include questions about psychological problems as, depression, anxiety & worries, psychological stress, fear of the future, loss of man role, losing hope of cure, conflicting with family, coping with the psychological stress. The score of psychological needs was graded from 1 to 3 according the patients` response as follows:

**Never =1, sometimes = 2 and always =3.**

The total items of the psychological needs were 15. Total scoring was ranging

from 15-45, the total score of psychological needs was categorized as follows: never = 1-15, sometimes = 16 – 30, always = 31-45.

### **C-Social needs (16 items).**

This part was developed by the researcher using the recent and relevant literatures (Wraa,et al, 2014., Pellico, 2013., Green , Neighbor & Monahan 2011., and Smeltzer, Bare, Hinkle & Cheever 2010). The social needs was 16 items as asking about friends and family support, need a financial support ,treatment expenses and Participating in community activities.

### **III- Informational needs assessment tool:**

This tool was developed by the researcher based on Templeton & Coates, 2003 and Soeyonggo, Warde, Timilishina, Alibha & Fleshner, 2012). It included true & false and open ended questions to assess patients' information regarding prostate cancer as definition, signs and symptoms, treatment, complications, side effects, self management. Each correct answer was given one grade and the incorrect answer was given zero. The total questions of informational needs were 16. The score was considered as follows;

≥ 60% satisfactory level of information.

< 60% unsatisfactory level of information.

### **2-Operational Design:**

It includes preparatory phase, content validity and reliability, pilot study and field work.

#### **The preparatory Phase:**

It included review of related literatures, and theoretical knowledge of various aspects of the study using books, articles, internet,

periodicals and magazines to prepare data collection tools.

### **B. Validity and Reliability**

**Validity** was done to determine whether the tools measure what supposed to measure, the proposed tools were inspected by a jury of 9 experts from the medical surgical nursing at the faculty of nursing, Ain Shams University(7) and medical staff at Oncology center, the Ain Shams University(2). The tools were reviewed for clarity, relevance, comprehensiveness and simplicity. Minor modifications were done accordingly.

**Reliability** of the proposed tools was done statistically by Cronbach alpha test.

#### **Pilot Study:**

Pilot study was carried out on 8 patients with prostate cancer at Ain Shams University Oncology center (10%) to test applicability of the study and clarity of tools used in this study, and some modifications on the tools were done based on the pilot study.

#### **Field Work:**

The study was conducted in the out patients clinics at the Oncology center, Ain Shams University. The interview was done with the patients at the clinic, by emphasizing the importance of this study and their own rights to participate in this study.

Data collection took about 6 months started from June until November 2015, the data were collected by the researcher 3 days a week (Saturday, Wednesday and Thursday), during the morning shift. Each patient was interviewed by the researcher for about 30-45 minutes. First, demographic data, was collected from the patients, patients' relatives and medical records then the prostate cancer patient needs assessment tool was filled in by the researcher for collecting data regarding patients`

biopsychosocial needs. Finally, the informational needs assessment was done through asking the patients questions regarding prostate cancer.

### 3- Administrative Design:

An official letter was issued from the faculty of nursing-Ain Shams University to the medical and nursing director of Ain Shams University Oncology center at which the study was conducted, explaining the purpose of the study and requesting the permission for data collected from the study patients.

### Ethical Considerations:

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**The ethical research considerations in this study included the following:**

- The research approval was obtained from the faculty ethical committee before starting the study.
- Patients consent to participate in the study were obtained after clarifying the objectives and aim of the study to patients included in the study before starting
- The researcher assured maintaining anonymity and confidentiality of subjects' data of the patients included in the study
- Patients were informed that they were allowed to choose to participate or not in the study and they had the right to withdraw from the study at any time.

### Statistical Design:

All data were collected, tabulated and subjected to statistical analysis. Statistical analysis is performed by SPSS in general (version 17), also Microsoft office excels is used for data handling and graphical

presentation. Quantitative variables are described by the Mean, Standard Deviation (SD), while qualitative categorical variables are described by proportions and Percentages. Chi-squared test of independence is used for categorical variables. The significance of the result was considered as follows:

Non significant (NS)  $P > 0.05$

Significant (S)  $P \leq 0.05$

Highly significant (HS)  $P \leq 0.01$

### Results:

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**Table 1** shows the number and percentage distribution of demographic characteristics among patients included in the study. The mean age of the studied patients was  $64.75 \pm 3.62$ , 90% of the studied patients were at and above the age of sixty, 92.5% were not working, 91.25% of them were married and 45% were illiterate. While, regarding the monthly income, 90% of the studied patients stated that, it was insufficient for the treatment cost, 85% of them resorted to treatment at government expense, 83.75% of them residing in urban areas. Regarding smoking 68.75% of the studied group was smokers and 13.75% of them had smokers in their family.

Regarding to reproductive associated problems, **table 2** shows that, 67.5% and 55% of the studied patients had changes in penis size and penis pain respectively. Meanwhile, regarding sexual relation associated problems; 86.25 %, 80% and 77.5% of the studied patients had impotence, lack of erection of penis and loss of sexual desire respectively.

**Table 3** shows that regarding skin associated problems, 76.25% of the studied patients were suffering from Skin inflammation and flush in different parts of the body, 83.75% of them had sweating and

73.75% had breast tenderness or gynecomastia. Additionally, 52.5% of the studied patients had redness of the pubic area. Regarding sleep and rest associated problem, 97.5% of the studied patients had difficulty sleeping.

Regarding pain, **table 4** shows that, 72.5% of the studied patients suffered from pelvic pain, and its severity ranged from mild to moderate pain (44.82% & 48.3% ) and 56.89% of them had continuously pain. The pain affecting the activities of daily living for 84.5%. On the other hand, 90% of the studied patients had pain in other areas, which concentrated on back (65.27%), chest (40.27%), abdomen (23.6%) and other areas as bones and lower limbs as mentioned by them (86.1%).

Concerning psychological needs, **table 5** shows that, the studied patients sometimes suffered from feeling sorry and sad, depression, nervousness, anxiety and worries, psychological pressures, fear of future and feeling loss of role as man 52%, 52%, 50%, 48.75%, 65%, 75% & 37.5 respectively. On the other hand, they never were conflicting with family members because of their illness (72.5%).

As regard to social needs, **table 6** shows that, 88.75% of the studied patients needed a special person to be near them and

86.25% of them need presence of a special person to share their joys and sorrows, 91.25% of them need family help and standing next to them, 93.75% of them need emotional support, 77.5% of them, their family helped them in making decisions. Additionally, 83.75% of them felt that they cause a physical burden for their families due to medical expenses, 86.25% need a financial support for their expenses of treatment. Added to that, 60% of the studied patients didn't participate in community activities with their family members.

As regard the patient's informational needs, **table 7** shows that, 56.25% of the studied patients had unsatisfactory information about the nature of prostate cancer, 63.75% of them didn't know the causes, 60% of them didn't know how their disease be diagnosed, and 57.5% of them didn't know the disease symptoms. Added to that, 72.5% of the studied patients had unsatisfactory knowledge about the therapeutic interventions and 80% & 85% respectively of them had unsatisfactory knowledge about caring for themselves and manage complications at home.

**Table (8)** reveals that, there were a positive relations between total patients' needs & their informational needs ( $X^2 = 26.450$  at  $P < 0.001^*$ ).

**Table (1):** Percentage distribution of demographic characteristics of the study patients (N=80).

Items	N	%
<b>Age</b>		
> 45	0	0%
45-> 60	8	10%
60- <60	72	90%
Mean ± SD	64.75±3.62	
<b>Occupation</b>		
Work	6	7.5%
Not working	74	92.5%
<b>Marital status</b>		
Married	73	91.25%
Single	7	8.75%
<b>Educational Level</b>		
Illiterate	36	45%
Reads & write	25	31.25%
Basic	15	18.75%
Highly qualified	4	5%
<b>Monthly income*</b>		
Sufficient	8	10%
Insufficient	72	90%
<b>Treatment cost</b>		
Free / Government	68	85%
On the patient's expense	0	0%
Health Insurance	12	15%
<b>Smoking</b>		
Yes	55	68.75%
No	25	31.25%
<b>Residence</b>		
Urban	67	83.75%
Rural	13	16.25%

\*as reported by the patient

**Table (2):** Percentage distribution of patients` physical needs regarding reproductive and sexual relation associated problems (N=80).

Items	Yes		No	
	N	%	N	%
Changing in penis size.	54	67.5%	26	32.5%
Penis pain.	44	55%	36	45%
<b>Sexual Relation</b>				
Impotence.	69	86.25%	11	13.75%
Loss of sexual desire.	62	77.5%	18	22.5%
Lack of erection of the penis.	64	80%	16	20%

**Table (3):** Percentage distribution of patients` physical needs regarding skin, lymph nodes, rest & sleep associated problems (N=80).

Items	Yes		No	
	N	%	N	%
Itching in the pelvic area	41	51.25%	39	48.5%
Redness of the pubic area	42	52.5%	38	47.5%
Skin inflammation & flush in different parts of the body	61	76.25%	19	23.75%
Sweating	67	83.75%	13	16.25%
Breast tenderness or gynecomastia	59	73.75%	21	26.25%
<b>Sleep and rest</b>				
Difficulty sleeping	78	97.5%	2	2.5%
Insomnia	76	95%	4	5%

**Table (4):** Percentage distribution of patients` physical needs regarding Pain. (N=80).

Items	Yes		No	
	N	%	N	%
Pelvic pain.	58	72.5%	22	27.5%
Severity of the pain "Mild".	26	44.82%	32	55.28%
Moderate.	28	48.3%	30	51.7%
Sever.	4	6.89%	71	93.1%
Pain affects on daily activities.	49	84.5%	9	15.5%
Pain in other areas.	72	90%	8	10%
Concentrated pain in abdomen.	17	23.61%	55	76.38%
Chest.	29	40.27%	43	59.72%
Back.	47	65.27%	25	34.72%
Other areas.	62	86.1%	10	13.88%

**Table (5):** Percentage distribution of patients` psychological needs (N=80).

Items	Never 1		Sometimes 2		Always 3	
	N	%	N	%	N	%
Feeling sorry & sad	7	8.75%	42	52.5%	31	38.75%
Depression	8	10%	42	52.5%	30	37.5%
Nervousness	7	8.75%	33	41.25%	40	50%
Anxiety & worries	5	6.25%	36	45%	39	48.75%
Psychological stress	3	3.75%	52	65%	25	31.25%
Fear of the future	16	20%	60	75%	4	5%
Loss of role as a man	22	27.5%	28	35%	30	37.5%
Losing hope of cure	57	71.25%	17	21.25%	6	7.5%
Conflictwith family members	58	72.5%	17	21.25%	5	6.25%



**Table (6):** Percentage distribution of patients` social needs (N=80).

Items	Yes		No	
	N	%	N	%
Need a special person to be near to them when needed	71	88.75%	9	11.25%
Need a special person to share their joys and sorrows	69	86.25%	11	13.75%
Family help and stand next to them	73	91.25%	7	8.75%
Emotional support from family when need	75	93.25%	5	6.25%
Depending on friends at the time of need	39	48.75%	41	51.25%
Family help them in making their decisions	62	77.5%	18	22.5%
They cause a physical burden for families due to treatment expenses	67	83.75%	13	16.25%
Need a financial support for their expenses of treatment	69	86.25%	11	13.75%
Their life influenced because of treatment expenses	66	82.5%	14	17.5%
Participating in community activities with their family members	32	40%	48	60%
<b>Total</b>	<b>69</b>	<b>86.6</b>	<b>11</b>	<b>13.4</b>

**Table (7):** Percentage distribution of patient`s informational needs (N=80).

Items	Need		Don't need	
	N	%	N	%
The nature of prostate cancer	45	56.25%	35	43.75%
Causes of prostate cancer	51	63.75%	29	36.25%
Diagnosing of prostate cancer	48	60%	32	40%
Symptoms of prostate cancer	46	57.5%	34	42.5%
Complications of prostate cancer	61	76.25%	19	23.75%
Therapeutic interventions for prostate cancer	58	72.5%	22	27.5%
Side effects of hormone therapy	53	66.25%	27	33.75%
Self management to side effects	65	81.25%	15	18.75%
Management of complications	68	85%	12	15%
Follow up plan	59	73.75%	21	26.25%
Self care for prostate cancer	64	80%	16	20%
<b>Total</b>	<b>59</b>	<b>73.75%</b>	<b>21</b>	<b>26.25%</b>

**Table (8):** Relation between total needs & informational needs (N= 80).

Items	Don't need		Need		Chi-square	
	N	%	N	%	$\chi^2$	P-value
Physical Needs	20	25.0	60	75.0	40.000	<0.001*
Psychological needs	12	15.0	68	85.0	39.200	<0.001*
Social Needs	11	13.8	69	86.3	42.050	<0.001*
Informational Need	17	21.3	63	78.8	26.450	<0.001*
Total needs	13	16.3	67	83.8	36.450	<0.001*

P > 0.05 insignificant      \*p ≤ 0.05 significant    \*\*p ≤ 0.001 highly significant

## Discussion:

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Prostate cancer is one of the most common types of cancer in men. Some types of prostate cancer are aggressive and can spread quickly. Prostate cancer can spread to nearby organs, such as bladder, or travel through the bloodstream or lymphatic system to the bones or other organs. Prostate cancer that spreads to the bones can cause pain and broken bones (*Wolfe, 2015*).

Biopsychosocial health services include psychological and social services and the interventions that enable patients, their families, and health care providers to optimize biomedical health care and to manage the psychological, behavioral and social aspects of illness and its consequences to promote better health (*Adler and Page, 2008*).

The study was carried out aiming to assess the biopsychosocial needs of patients with prostate cancer through assessing physical, psychological and social needs.

Regarding the studied patients` demographic characteristics, the results of the present study revealed that more than three quarters of the studied patients' ages were sixty years old and more. This is supported by *National Cancer Institute in United States of America (2016)*, which stated that; most men with prostate cancer are older than 65 years.

Related to the other characteristics of the studied patients, more than two thirds of them were married, from urban areas, not working and less than one fourth had basic education. This finding is on the same line with what was reported by *Soeyonggo, et al (2012)*, who found that about two third of the studied patients with prostate cancer were married, less than one fifths of them with less than high school “ basic education”, they read & write only.

As regard treatment at government expense, the majority of them seek it; this may be attributed to insufficient monthly income. This finding is consistent with what was reported by *Elfeky, (2014)*.

Related to smoking, more than two third of the studied patients were smokers and one sixth of them exposed to passive smoking. This finding is disagree with the result of *Ramadan (2010)*, who found that more than three fifths of the studied patients with leukemia exposed to passive smoking. Also, *American Cancer Society (2014)* revealed that, Cigarette smoking may increase the risk of prostate cancer by affecting circulating hormone levels or through exposure to carcinogens.

Regarding reproductive associated problems, the current study found that the majority of the studied patients had changes in penis size and penis pain. Meanwhile, as regard sexual relation associated problems, the majority of the studied patients had impotence, lack of penis erection and loss of sexual desire. This finding is consistent with *Lamm, Lepor & Sperling (2013)*, who stated that, the most common side effects of hormone therapy are impotence, loss of libido, fatigue and anemia.

Regarding skin associated problems, the current study revealed that, the majority of the studied patients suffering from sweating and breast tenderness or gynecomastia and had Skin inflammation and flush in different parts of the body. Add to that, more than half of the studied patients had redness of the pubic area and itching in the pelvic area. This finding is supported by *Cho (2010)*, who stated that, Side effects of hormone therapy for prostate cancer include hot flushes and sweating, breast tenderness and gynecomastia.

Regarding sleep and rest associated problem, the current study showed that, the majority of the studied patients had difficulty sleeping because of illness, Insomnia during

sleep and inability to sleep due to the illness and its treatment. This finding is supported by *Sahota and Chokroverty (2011)*, who stated that, Insomnia, and other sleep disturbances are common among oncology patients.

As regards pain associated problems, the current study revealed that, the majority of the studied patients suffered from mild to moderate pelvic pain that affected activities of daily living for more than half of them. On the other hand, the majority of the studied patients had pain in other areas regardless pelvic area which concentrated on back, chest, abdomen and other areas as bones and lower limbs. In relation to this finding, *Siegel, Miller and Jemal (2015)* stated that, the most common complications of advanced prostate cancer and metastasis are pain in bones, thigh and back.

Concerning psychological needs, the current study revealed that, the majority of the studied patients suffered from feeling sorry and sadness, depression, nervousness, anxiety and worries, psychological pressures, fear of the future and feeling loss of role as a man (Manlessness). This finding is consistent with *Zaorsky et al. (2015)*, who stated that there is evidence of depression, anxiety, sleep disturbance and diminished body image perception in patients with prostate cancer undergoing androgen deprivation and there is a relation between low testosterone and depression.

Also, *Newnham and Melman (2011)* stated that the prostate cancer treatment, especially, hormone therapy causes, effects on mood, irritability and anxiety. Additionally, patients had fear of the future, death and a man statue that engaging in a sexual experience reminds them of their "lack of manliness," often times, increasing their distress or depression over the loss of erections. This process leads to a lack of intimate contact in the relationship, which can lead to conflict and frustration.

As regard to social needs, the current study found that, the majority of the studied patients needed a special person to be near of them, to share their joys and sorrows, their family helping them, got emotional support, needed to talk about their problems with family, their family helped them in making decisions, felt that they cause a physical burden for the family because of medication expenses, need a financial support for their expenses of treatment and found that it's difficult to cope with their condition. This finding is consistent with the *National Cancer Institute, (2014)*, which stated that, the patients with the prostate cancer, their families and friends face social, emotional, physical and spiritual challenges due to the treatment costs.

Moreover *Spiegs (2011)*, stated that the men with decreased functional ability, their social activities reduced significantly, and urinary symptoms had a negative effect on men's social needs as they could no longer participate in sporting activities, hobbies and attendance of social events. Some of them experience a sense of loneliness.

Regarding to informational needs, the majority of the studied patients had information needs regards the definition of prostate cancer, causes, diagnoses, symptoms. Added to that, less than half of the studied patients had informational needs regarding the therapeutic interventions, complications of prostate cancer and caring themselves, follow up program and management of the side effects at home. This finding could be due to their low social class, educational level and also absence of health awareness about diseases.

This finding is consistent with, *Potter, Perry, Stockert & Hall (2016)*, who stated that, most patients needs information about the disease so, the major patients suffered from lack of information clarity about the arrangement of treatment and initiating follow- up appointments and tests. Add to that, other men wanted to understand

effective self management of side effects, types of treatments, how to improve their recovery following treatment and also psychological care.

The current study revealed that, there were a positive relations between total patients' needs and their informational, this could be due to increased need for information when their problems increased because the first line for managing problems is recognizing it. This result is on the same line with **Templeton & Coates, 2003** who clearly demonstrated that the men with prostate cancer have a knowledge deficit with regards to their disease and treatment.

In summary, the studied patients had unmet biopsychosocial needs. This may be due to decreased awareness or neglecting of the staff for these needs that affect the quality of life and then consequently patients' outcomes. So, the staff should take care of the approach of biopsychosocial needs, as more biopsychosocial needs support becomes available to prostate cancer patients, the better the prostate cancer patients' immune system and well-being will become.

### **Conclusion:**

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**Based on the findings of the present study, it can be concluded that:**

Regarding the physical problems, the majority of the studied patients had sexuality dysfunction as inability to maintain erection, impotence, loss of sexual desire, frequent urination, gynecomastia, diarrhea, sweating, lack of concentration, bone and muscle pain, pelvic pain, insomnia, weakness and loss of energy. Also, as regard psychological problems, the majority suffered from depression, nervousness, psychological pressures and feeling the loss of a man's role. While regarding social needs, the majority of the studied patients felt that they cause a physical burden for their family because of the treatment expenses and also, they needed a special person to share their joys and

sorrows. Furthermore, in relation to the informational needs, more than one half of the studied patients had unsatisfactory knowledge regarding disease, treatments and self care at home.

### **Recommendations:**

**Based on the results of the current research, the following suggestions for future research and practice are proposed:**

1- Health awareness about the importance of early screening for prostate cancer at the age of fifty.

2- Health education programs about the prostate cancer, treatment modalities, and self care should be provided for patients with prostate cancer using new methods of teaching such as booklet assisted instructions and home videos.

3- Supportive care services should be directed towards meeting biopsychosocial needs.

4- Psycho-oncology clinics should be provided to meet prostate cancer patients' needs and consequently improve the quality of life for those patients.

5- Further studies about the effect of the biopsychosocial needs of the patient's quality of life and outcomes, should be encouraged.

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