

Cancer Patient Factors Influencing Their Perception On Nursing Care: A Study At A National Referral Hospital In Kenya

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Abstract: Background: Perceptions on nursing care are key to improving the quality of care delivered to patients by nurses. Oncology Nurses should be aware of cancer patient factors that are likely to influence their perception of the care they receive in the ward. The study explored factors that are likely to influence perception on both physical and psychosocial care among cancer patients admitted in oncology wards at Kenyatta national Hospital.

Methodology: The study design was a descriptive cross-sectional, using both quantitative and qualitative approaches. The sample size was 91 patients who were selected using purposive sampling technique. The target population were adult patients (both males and females) aged 18 years and above admitted in oncology wards (GFD and 8C) at KNH, with a confirmed diagnosis of cancer and who had received care for at least 48 hours. Data collection tool was a standardized researcher administered, semi structured questionnaire and Likert scale.

Results: Residence and hospital length of stay affected positively the perception on nursing care at $p = 0.022$ and $p = 0.004$ respectively. Cancer Patients 92.3% (84) had high expectations on nursing care. There was a significant association between patient expectation with perception on physical nursing care, $p = 0.028$.

Conclusion: Cancer patients' demographic characteristics, illness related characteristics and expectations on nursing care, had a positive association with their perceptions on nursing care offered in the ward.

Recommendation: Oncology nurses should consider patient factors that are likely to affect their perception on nursing care to be able to deliver quality care that is satisfying to the patient.

Keywords: Perception, nursing care, cancer patient factors

I. INTRODUCTION

Perception refers to the way something is regarded, understood or interpreted; a belief, opinion or view held by people based on how things seem. The nature of care cancer patients receive from nurses affect their perception on nursing care (Shoemaker, Estfan, Induru & Walsh, 2011).

Patient perceptions on nursing care should be given much considerations and nursing care accorded as per the patient views. The nurse needs to be aware of patient anticipations regarding their health needs and ensure that all of them are met (Daniel, 2012).

According to Taylor et al, (2014), individuals' perception on nursing care is also associated to the social-economic level, age, cognitive capacity, culture, beliefs and tribe.

According to WHO, globally 1 in 6 deaths is due to cancer, with more deaths being reported from less developed countries. Cancer comes third after infectious and cardiovascular causes of death in Kenya. The statistics approximate an incidence of 39,000 cases yearly and a mortality rate of greater than 27,000 deaths per year with cancer death rate set to double by 2026 (KDHS 2014- 2015). This explains the need to understand some cancer patient factors that may be influencing how they perceive their care.

According to Goshal et al, (2016), cancer impacts both physical and psychosocial effects on the patient. These needs

require to be addressed early enough by the health care team to enhance coping and better patient outcomes.

The fact that one is diagnosed with cancer therefore has an enormous effect on the psychosocial well being (Akina & Durna, 2013). A cancer with unknown prognosis is accompanied by treatments with disturbing effects. Even more traumatizing is risk of death and adverse effects of therapies. Cancer patients therefore form a special group that needs more nursing assistance than other patients. (Russel, 2016)

Cancer patient expects their care to be individualised, respectful to their values, timely, sensitive, and address their priority physical and psychosocial needs (Baloghet al, 2011). According to Flagg, (2015), listening keenly and responding to patient concerns, and sharing them to the close family members and significant others as the patient wishes is key to what the patient will rate as quality care.

In oncology wards, studies indicate most cancer patient problems remain unmet because nurses do not often identify cancer patient needs and solve them (Thorsen, Gjerset, Loge & Kiserud, 2011). Understanding cancer patients' perceptions on nursing care is therefore vital for a patient centred, prioritised care.

II. METHODOLOGY

The study was conducted at Kenyatta National Hospital (KNH). KNH is the largest National referral and teaching hospital in Kenya and a regional referral Hospital in East Africa. It is located in Nairobi County off Mbagathi road. The hospital has 50 wards, 22 outpatient clinics, Accident and Emergency Department and 24 theatres (16 specialised). The bed capacity is 2000 with over 1700 nurses and 200 doctors. On average, bed occupancy is greater than 300%.

The study was conducted in the oncology wards; GFD and 8C each of which has a capacity of 32 patients, but number of patients at times may spill over to up to 60.

This was a descriptive cross-sectional study. Both quantitative and qualitative approaches were used to explore cancer patient factors that influence perception on nursing care among cancer patients admitted in oncology wards at Kenyatta National Hospital.

The study population was adult cancer patients aged 18 years and above, admitted in the oncology wards at KNH for at least 48 hours with a confirmed diagnosis of cancer. A total of 91 cancer patients were sampled using purposive sampling technique.

A semi-structured, researcher administered questionnaire and Likert scale in both English and Kiswahili version was used to collect data. The tool was pretested with nine (10% of sample size) cancer patients admitted in Nakuru County Hospital which is also a referral hospital for the county and admits a large number of cancer patients. The tool was then amended accordingly to ensure validity and reliability. The cronbach's alpha co-efficient was 0.819 which meant a high degree of internal consistency.

After seeking permission from the ward in charges, the researcher used the nurses working in the respective wards to assist in identifying the potential cancer patients that met the above criteria. The researcher and the research assistants also

reviewed the patient's files twice a week to identify those patients who met the inclusion criteria.

Data analysis was done using SPSS version 21. The quantitative data was analysed using descriptive statistics. The qualitative analysis involved identifying themes and patterns and then organizing into categories based on the themes. Inferential statistics (chi-square test and odds ratio) was used to find the association between independent and dependent variable. Regression analysis was done for the various patient variables influencing perception on nursing care (based on chi-square results) using forward selection method to eliminate confounding variables.

The researcher got ethical clearance from MKU/ERC, Ref. No. MKU/ERC/0855, NACOSTI research Permit No: NACOSTI/P/18/61097/23284, Approval from KNH-UoN ERC (P531/07/2018), and a Study Registration Certificate endorsed by KNH head of Oncology Department. Ward in charge was asked for permission to access the participants. Respect for individual participants was expressed by recognising their autonomy and right to self-determination. Confidentiality and anonymity was assured to the participants. The nature and purpose of the research was explained to participants to enable them give consent.

III. RESULTS

Characteristic	Frequency(n)	Percentage (%)
Gender		
• Male	49	53.8
• Female	42	46.2
Total	91	100
Age in years		
• 18-29	15	16.5
• 30-39	15	16.5
• 40-49	16	17.6
• 50-59	27	29.7
• >60	18	19.8
Total	91	100
Religion		
• Christian	90	98.9
• Muslim	1	1.1
Total	91	100
Marital status		
• Single	19	20.9
• Married	64	70.3
• Separated	5	5.5
• Widowed	3	3.3
Total	91	100

Table 1: Socio-Demographic Characteristics (Gender, Age, Religion, Marital Status)

Table 1 above shows that 53.8% (49) were males while 46.2% (42) were females. The ages of the respondents were evenly distributed with 16.5% (15) aged between 18-29, 16.5% (15) between 30-39, 17.6% (16) between 40-49, 29.7% (27) between 50-59 and 19.8% (18) aged above 60 years. Majority were Christians with 98.9% (90) while 1.1% (1) were Muslims. Most of the respondents were married with 70.3%

(64), 20.9% (19) were single, 5.5% (5) were separate and 3.3% (3) were widowed.

Chi squared tests revealed no significant association between genders, age, religion, and marital status with perception on nursing care. ($p > 0.05$)

Characteristic	Frequency (n)	Percentage (%)
Occupation		
• None	1	1.1
• Professional	26	28.6
• Business	20	22
• Farmer	28	30.8
• Housewife	8	8.8
• Student	5	5.5
• Juakali	3	3.3
Total	91	100
Highest Level of education		
• No school	6	6.6
• Primary	39	42.9
• Secondary	31	34.1
• Tertiary	15	16.5
Total	91	100
Area of residence		
• Urban	6	6.6
• Semi-urban	23	25.3
• Rural	62	68.1
Total	91	100

Table 2: Socio-demographic Characteristics (Occupation, Level of Education and Area of Residence)

Table 2 above shows that, 28.6% (26) were professionals, 22% (20) were business persons, and 30.8% (28) were farmers, while the other occupations had each less than 10%. On level of education, 42.9% (39) had primary education, 34.1% (31) had secondary education, 16.5% (15) had tertiary education and 6.6% (6) had no formal education. Finally, majority i.e. 68.1% (62) were rural dwellers, 25.3% (23) were semi-urban dwellers and 6.6% (6) were urban dwellers.

County	Frequency	Percentage
Nyandarua	5	5.5
Vihiga	1	1
Kiambu	18	19.7
Machakos	3	3.2
Nyeri	11	12.1
Nakuru	5	5.4
Homabay	2	2.1
Kitui	5	5.5
Makueni	4	4.3
Baringo	2	2.1
Kisii	3	3.2
Bungoma	3	3.2
Nairobi	3	3.2
Muranga	5	5.4
Nyamira	2	2.1
Meru	3	3.2
Siaya	3	3.2
Uasin gishu	2	2.1
Kakamega	3	3.2
Kirinyaga	6	6.5
Laikipia	2	2.1

Total	91	100
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Table 3: County of Residence

Table 3 shows that most respondents, 49.2% (45) came from the central part of Kenya.

Area of residence significantly affected perception on physical nursing care offered in the ward ($\chi^2=5.219$, $df=1$, $p=0.022$, $OR=0.118$) where those from urban areas were likely to rate physical care as "very good".

Physical care (perception)	Urban	Non-urban	Significance level		
			χ^2	Degrees of freedom	P-value
• Good	50%(3)	89.4%(76)	5.21	1	0.022
• Very good	50%(3)	10.6%(9)	9		0.118

Table 4: Association between Area of Residence and Physical Care Perception

Type of cancer	Frequency (n)	Percent (%)
Brain/head/neck	10	11.0
Breast	4	4.4
Cervix/uterine/ovarian	4	4.4
Prostate/testicular	1	1.1
Colorectal/bowel	16	17.6
Lung	2	2.2
Haematology/lymphoma	37	40.7
Sarcoma/bone	5	5.5
Skin	5	5.5
Pancreas	2	2.2
Gastric	2	2.2
Jaw	1	1.1
Gall bladder	1	1.1
Oral	1	1.1
Total	91	100.0

Table 5: Illness related characteristics (cancer type)

Table 5 above shows that the haematology/lymphoma cancers were the most common with 40.7% (37), followed by colorectal/bowel cancers with 17.6% (16) and brain/head/neck cancer with 11% (10). The other types of cancers accounted for less than 10% each. Chi square analysis revealed no significant association between type of cancer and the perception on nursing care ($p > 0.05$)

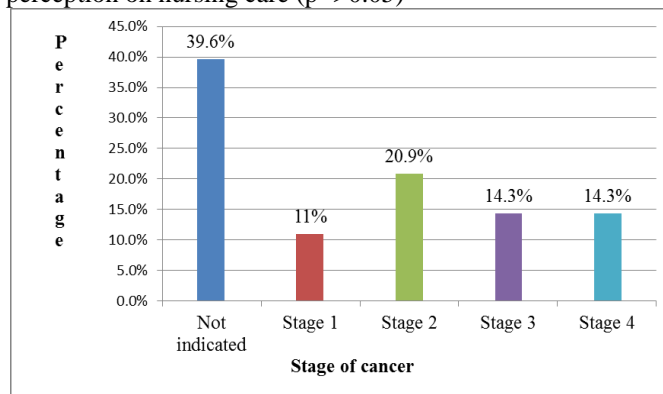


Figure 1: Illness Related Characteristics (Stage of Cancer)

Figure 1 above shows that 39.6% (36) of the cancer cases were not yet staged, 11% (10) were stage one, 20.9% (19) were stage two, 14.3% (13) were stage three and 14.3% (13) were stage four. There was no statistically significant relationship between stage of cancer and perception on

psychosocial nursing care offered in the ward ($\chi^2=2.463$, $df=1$, $p=0.117$, $OR=4.364$) and physical nursing care ($\chi^2=1.304$, $df=1$, $p=0.254$, $OR=2.107$)

Treatment modality	Frequency (n)	Percent (%)
Chemotherapy	78	85.7
Radiotherapy	2	2.2
Chemotherapy & radiotherapy	6	6.6
Chemotherapy & surgery	4	4.4
Haematinics	1	1.1
Total	91	100.0

Table 6: Illness related characteristics (treatment modality)

Table 6 above shows that the commonest treatment modality was chemotherapy with 85.7% (78). Chi squared tests revealed no significant association between treatment modality and perception on psychosocial nursing care ($\chi^2=0.129$, $df=1$, $p=0.72$, $OR=1.542$) or physical nursing care ($\chi^2=0.451$, $df=1$, $p=0.502$, $OR=0.508$) offered in the wards.

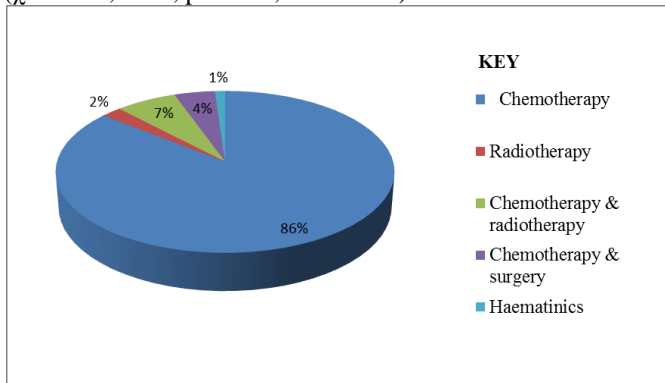


Figure 2: Illness related characteristics (Average Percentage of Treatment Modality)

Duration	Frequency (n)	Percent (%)
Less than 6 months	25	27.5
6 months to 5 years	62	68.1
6 years to 10 years	3	3.3
Over 10 years	1	1.1
Total	91	100.0

Table 7: Illness related characteristics (duration since cancer diagnosis)

Table 7 above shows that majority patients ,68.1% (62) had stayed for six months to five years since diagnosis of cancer. Chi squared tests revealed no significant association between duration since cancer diagnosis with perception of psychosocial nursing care ($\chi^2=0.388$, $df=1$, $p=0.533$, $OR=0.548$) and physical nursing care ($\chi^2=0.230$, $df=1$, $p=0.631$, $OR=0.724$) given in the wards.

Hospital length of stay	Frequency (n)	Percent (%)
Less than 48 hours	50	54.9
1-5 days	16	17.6
6-10 days	2	2.2
Above 10days	23	25.3
Total	91	100.0

Table 8: Illness Related Characteristics (Hospital Length of Stay)

Table 8 above shows that majority of the respondents i.e. 54.9% (50) stayed for less than 48 hours in hospital. Chi

squared test of association revealed that, hospital length of stay influenced perception of nursing care with regard to physical care ($\chi^2=8.380$, $df=1$, $p=0.004$) where those with ≤ 5 days of admission were likely to rate the care as “very good”

Perception of physical care	≤ 5 days	> 5 days	Significance level		
			χ^2	p-value	Degrees of freedom
• Good	68.4%(54)	31.6%(25)	8.384	0.004	1
• Very good	100%(12)	0%			

Table 9: Association between Hospital Lengths of Stay with Perception

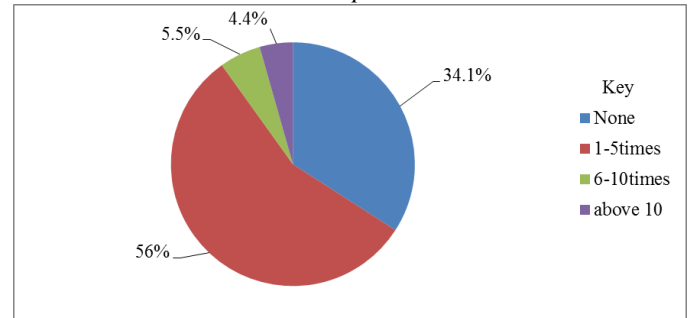


Figure 3: Illness related characteristics (previous number of admissions)

Figure 3 above shows that 34.1% (31) had no previous admissions, 56% (51) had 1-5 admissions, 5.5% (5) had 6-10 admissions and 4.4% (4) had above 10 admissions. There was no statistically significant association between previous admission and perceptions on psychosocial nursing care ($\chi^2=2.734$, $df=1$, $p=0.098$, $OR=1.091$) and physical nursing care ($\chi^2=1.863$, $df=1$, $p=0.172$, $OR=2.900$) offered in the ward.

Variable	Category	Perception of care		df	Statistical values
		Good	Very good		
Residence	Urban	3(50%)	3(50%)	1	P=0.022 $\chi^2=5.219$
	Non-urban	76(89.4%)	9 (10.6%)		
Hospital length of stay	≤ 5 days	54(68.4%)	12(100%)	1	P=0.004 $\chi^2=8.384$
	> 5 days	25(31.6%)	0%		

Table 10: Summary of Significant Patient Characteristics Influencing Perception on Nursing Care

Table 10 above shows that residence and hospital length of stay influenced perception on nursing care offered in the wards ($p<0.05$).

Patient's expectation of the nursing care	S.D	D	N	A	S.A
To be friendly	0	0	1.1% (1)	97.8% (89)	1.1% (1)
To be empathetic	0	0	2.2% (2)	96.7% (88)	1.1% (1)
To be compassionate	0	0	2.2% (2)	95.6% (87)	2.2% (2)
To be sensitive	0	0	2.2% (2)	95.6% (87)	2.2% (2)
To meet my physical needs	0	0	1.1% (1)	97.8% (89)	1.1% (1)
To meet my psychosocial needs	0	0	2.2% (2)	96.7% (88)	1.1% (1)
To treat me as an individual	0	0	2.2% (2)	95.6% (87)	2.2% (2)
To respect my beliefs and values	0	0	2.2% (2)	96.7% (88)	1.1% (1)
To inform me and my family about the	0	1.1%	1.1% (1)	96.7% (88)	1.1% (1)

disease, treatment and the side effects	(1)				
To involve frequent checking of my progress	0	0	1.1% (1)	94.5% (86)	4.4% (4)

Key: S.D-Strongly disagree, D-Disagree, N-Neutral, A-Agree, S.A-Strongly agree

Table 6: Expectations on Nursing Care Offered In the Ward

Table 11 above shows that most responses were “agree” which had 96.4% (877) of the total responses. This indicated that the respondents had generally high expectations on nursing care offered in the ward. A variable dubbed “expectation score” was computed based on sum total of all responses whereby S.D=1, D=2, N=3, A=4 & S.A=5 where those who scored <40 were considered to have low expectations, those who scored 40 were considered to have high expectations and those who scored >40 were considered to have very high expectations.

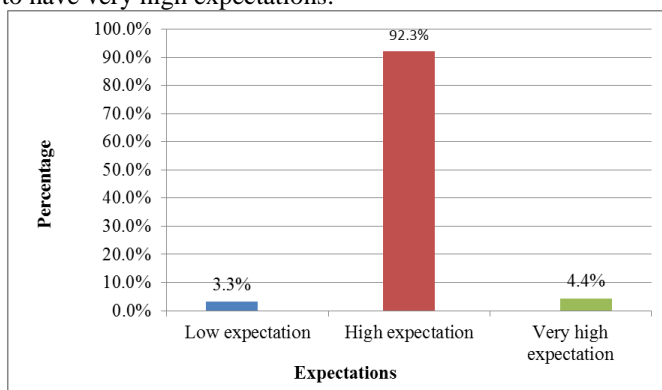


Figure 4: Expectations on nursing care provided in the ward

Figure 4 shows that majority i.e. 92.3% (84) had high expectations, 4.4% (4) had very high expectations and 3.3% (3) had low expectations. Chi squared tests revealed an association between patient expectation and perception on physical nursing care ($\chi^2=4.834$, $df=1$, $p=0.028$, $OR=0.064$) whereby those with low expectations were likely to rate physical care as “very good”.

Expectation	Perception of care		Significance level			
	Good	Very good	χ^2	Df	p-value	Odds ratio
• Low	33.3%	66.7%	4.8	1	0.028	0.064
• High & Very high	(1) 88.6% (78)	(2) 11.4% (10)	34			

Table 12: Association between Expectations and Perception on Physical Care

Table 12 demonstrates that there was a significant association between cancer patients’ expectations and perception on nursing care ($p<0.05$).

IV. DISCUSSION

There was no significant association between patient socio-demographic characteristics (gender, age, religion, marital status, occupation and level of education) and perception on nursing care. This findings contrast with a study by Johansson et al, (2012) which found that socio-demographic characteristic is a factor influencing patient perception on nursing care.

Yim et al, (2010) also highlights factors that influence perception on nursing care as age, gender, education, ethnic background among others. Another study by Bozdogan, et al, (2017) in Ankara, found out that perceptions on nursing care decreased with the age of the patient. Older females were also found to value physical care more than younger females.

Area of residence significantly affected perception on nursing care ($p=0.002$), whereby urban dwellers were likely to rate the care as very good. According to the researcher’s point of view, urban dwellers are generally busy people and in most cases seek assistance to perform certain tasks. For such people therefore to meet a nurse willing to spare their time to offer care is likely to translate to appreciation of the care, hence rating it as very good.

The main treatment modality was chemotherapy with 85.7%. This is similar to a study by Mahendran et al, (2017), which had majority of the cancer patients under chemotherapy treatment modality.

Hospital length of stay significantly affected positively perception on nursing care ($p=0.004$). Those who stayed in hospital for less than 5 days were likely to rate the care as very good. This may be due to first impression whereby as nurses get used to a patient, they tend to give less attention. These findings concur with a study by Georgaki et al, (2012), which found that as the cancer disease period last longer, nurses may become more insufficient in managing interpersonal needs. This is because the individual needs change and the patients learn to manage their own needs.

There was however no association between illness related characteristics (type of cancer, stage of cancer, treatment modality, duration since diagnosis, and previous number of admissions) with the perception on nursing care. This contrasts with a study among breast cancer patients by Yim et al, (2010) that found stage of disease to affect perception on nursing care. In another study done in Ontario Canada to measure perceptions of patients on quality of care, cancer patients on chemotherapy, radiotherapy and chemo radiotherapy all had different perceptions on nursing care

On expectation of nursing care offered in the ward, majority (92.3%) had high expectations. This is similar to a study by Daniel, (2012), which revealed that cancer patients expected all their needs to be met by the nurse. Expectation significantly affected perception on physical nursing care offered

V. CONCLUSION

Area of residence, hospital length of stay and patient expectations influenced the perception on nursing care.

VI. RECOMMENDATIONS

Nurses should provide quality comprehensive nursing care to all cancer patients regardless of their stay in the ward or where they come from.

Nurses should aim at meeting patient expectations by assessing their needs frequently since cancer patients have high expectations of their care.

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