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THE EFFECTS OF ADVANCED PROSTATE CANCER MANAGEMENT ON HEALTH SERVICE CARE PROVIDERS IN WESTERN KENYA REGION

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ABSTRACT

Background: **The management of advanced prostatic cancer patients in hospitals are known to impact on the patient as well as the core health care services providers, and patient's relatives. This study was purposed to examine for the effects and put forward suggestions to ameliorate the negative impacts.**

Objective: **To establish the effects of advanced prostate cancer management outcome on the involved health care service providers.**

Design: **Cross-sectional study with in-depth interviews of core healthcare service providers.**

Setting: **County Referral Hospitals of the 8 counties in western Kenya region.**

Subjects: Fifty-six healthcare service providers involved in the management of prostate cancer patients in the region.

Results: The respondents' ages ranged between 27 years and 59 years with a mean ±standard deviation of 40.1 ± 7.7 years. Majority of the patients (92.9%) presented with advanced disease. Major treatment options offered were palliative care and symptoms control. The stated effects on the healthcare providers included disappointment with the management processes, limited options of care, low morale, and poor job satisfaction. The suggested ways to improve the care were focused on cancer health support, improved human resources, and infrastructural quality for dedicated services.

Conclusion: **Advanced prostate cancer management in the Western region of Kenya was limited to palliative care and symptoms control. The health care service providers were negatively impacted by the poor outcome of management and the suggestions were to improve human and infrastructural support for better outcomes.**

INTRODUCTION

Prostate cancer is the commonest malignancy among males older than 50 years of age and a lifetime risk of between 1 in 6 and 1 in 9 males depending on geographical areas [1]. There is a global tendency for patients with prostate cancer to present late for medical care. Late presentation is however noted to be worse in the less developed countries like Kenya [2-5]. This in turn leads to morbidities like metastatic bone pains, poor urinary flow with possible renal complications, haematuria, urinary stone formation, protracted hospital stays and mortalities. It is thought that these affect healthcare service providers involved in the management [6]. Our study looked into the effects of advanced prostate cancer management on healthcare providers in the Western region of Kenya as well as their views on how the situation can be improved.

MATERIAL AND METHODS

This study was conducted after approval by the Moi University/ Moi Teaching and Referral Hospital Institutional Research and Ethics Committee (IREC) through IREC/081/2021 with a continuing approval number 0004141 of 26th May 2024.

It involved health care providers grouped into two: group one consisted of Surgeons, Medical Officers, Clinical Officers and Nurses; people who were doing the routine medical care of prostate cancer patients whether in the clinics, wards or theatres; and group two that comprised of those involved in the facilitation of care like the administrators, nutritionists, pharmacists, lab technologists and radiographers involved in the satellite cancer units in the 8 counties of Uasin-Gishu, Elgeyo-Marakwet, Nandi, Kakamega, Vihiga, Bungoma, Busia and Trans-Nzoia. These groups are the people who were conversant with the prostate cancer burden in the region, the general management and the attendant challenges of managing these patients.

All those involved in the care of prostate cancer patients in the 8 counties were briefed about the study and requested to participate after informed consent was given. Data was collected by trained Research Assistants using an interviewer-administered questionnaire with both closed and open-ended questions. In-depth interviews to elicit individual views on experiences dealing with the prostate cancer patients, the general management, challenges and their effects on the providers, and ways to improve on the care were then conducted.

Demographic data included gender, age, and the number of years one had worked as of the time data was collected. The respondents were then asked about prostate disorders and their view on status of patients at presentation, the treatments commonly offered, outcome of treatment, satisfaction or otherwise with the outcomes, reasons for not being satisfied, the effects of working under the prevailing circumstances on their career and what can be done to bring improvement on patient management.

The collected data were compiled and edited for errors, accuracy and completeness. They were then coded, classified and transferred into a spread sheet before entry into a computer. The cleaned data was then analyzed using the Statistical Package for Social Sciences (SPSS) version 21.0. Discrete and categorical data were summarized using frequencies, proportions, ratios and percentages while continuous data was by range, mean and standard deviations. Results for bivariate analysis and linear regression for correlation and causality respectively were considered statistically significant at an alpha of ≤0.05. The

qualitative data on effects and suggested improvements were coded and thematically analyzed for the spontaneously arising themes.

RESULTS

There were 56 respondents, 64.3% consisting of 64.3% of whom were clinical staff .They were 28 males and 28 females, giving a male to female ratio of 1:1. Their ages ranged from 27 years to 59 years with a mean ±standard deviation for all respondents of 40.1 ± 7.7 years. Table 1 below shows the age group distributions among the respondents.

Table 1

Age range of respondents

Age Group	Frequency	Percent	Valid	Cumulative %
20-30	7	12.5	12.5	12.5
31-40	26	46.4	46.4	58.9
41-50	17	30.4	30.4	89.3
>50	6	10.7	10.7	100.0
Total	56	100.0	100.0	100. 0

There was no statistically significant difference in age among the two genders (p= 0.342). The majority of respondents were in the fourth, followed by the fifth, then third and finally the sixth decade of life. Table 2 below shows the years of experience.

Table 2

Cadres and years of work experience of respondents

Cadre	Years of Experience					Total
	< 5	5-10	11-15	16-20	> 20	
Nurse	0	6	4	6	5	21
Clinical Officer	1	2	2	0	0	5
Medical Officer	0	1	2	0	0	3
Surgeon	0	0	2	3	2	7
Others	2	11	3	3	1	20
Total	3	20	13	12	8	56

Their work experience ranged from 1.5 to 38 years with mean ±standard deviation of 13.8 ±7.5 years. On average, the nurses who were the majority (57.7%), had greater years of experience than the rest of the respondents and the number in this cadre with more than 10 years of experience was statistically significant (p=0.047).

Table 3 shows the awareness of respondents on common prostate disorders and whether or not satisfied with the treatment given to prostate cancer patients seen in the county referral facilities.

Table 3

Awareness on prostate disorders and satisfaction with management

Cadre	Common Disorders			Satisfied	
	BPH	Prostate cancer	Prostatitis	Yes	No
Nurse	16	4	1	2	19
Clinical Officer	3	2	0	0	5
Medical Officer	3	0	0	0	3
Surgeon	7	0	0	1	6
Others	11	8	1	4	16
Total	40	14	2	7	49

Benign Prostatic Hyperplasia (BPH) was known by all cadres of workers to be the commonest prostate condition encountered in the health facilities (71.4%), followed by prostate cancer. Data gathered from attendance registries on prostate cancer patients in the 8 counties showed that 92.9 % presented late with advanced cancer disease.

The majority of healthcare providers (87.5%) were dissatisfied with the management of prostate cancer patients in those facilities.

When themes on why the respondents were dissatisfied with the management of prostate cancer patients were analyzed, the key ones were late presentation with advanced disease, limited options of management, and inadequate human and infrastructural support. Some of their statements on the effects of dealing with these patients included the following:

"We are used to our patients presenting late, and the results only lead to disappointments for everyone"- Senior Nurse

"It is frustrating being faced with advanced disease for which you know that your options are limited to palliation"-Surgeon.

"It is not easy working in improvised settings where even the basics like space and medicine are missing"- Medical Officer

The experiences were reported to be a source of disappointments at work due to inadequacies leading to emotional drain, low esteem and limited professional contentment.

"I must confess that I usually don't look forward to coming to work"- Clinical Officer.

"*I find nothing satisfactory dealing with these patients. The outcome is constantly a disappointment"* –Nurse.

The respondents with greater than 10 years of experience expressed theses disappointments 3.4 times as often as those with less than ten years' experience of dealing with patients. The dissatisfaction was more in those directly involved in the treatment of the patients with 1.75: 1 clinical health workers to the others not directly involved in the treatment of these patients.

The respondents offered suggestions on the way forward to improve the patient care as depicted in table 4 below.

Table 4

Way to improve prostate cancer patient care in the region

Cadre	Way to improve prostate cancer care					Total
	Staff improvement	Patient education	Diagnostics	Comprehensive care	Funding	
Nurse	7	6	5	2	1	21
C.O.	1	1	0	2	1	5
M.O.	2	0	1	0	0	3
Surgeon	0	2	3	2	0	7
Others	8	7	2	2	1	20
Total	18	16	11	8	3	56

The patient education was considered important in enlightening the aging males at risk of prostate cancer on the importance of early presentation to hospital.

The suggested ways to improve the care of patients focused on staff improvement in training and expertise and patient education on prostate disorders. The enlightened patient was thought to be able to present early to a health facility that should ideally be adequately funded and has diagnostic support. The empowered healthcare provider would reach early diagnosis and institute early treatment in an envisaged comprehensive care outfit that will yield good treatment outcomes.

DISCUSSION

The widely acknowledged fact that prostate cancer patients present late for medical attention has been blamed on limited knowledge, poor health seeking behavior and inadequate training of health personnel [2-4]. This is a vicious cycle where patients delay to present to hospital or encounter healthcare providers inadequately trained to make the right clinical decisions, thus increasing the likelihood of disease progression and ultimately limited options for treatment. This combination of deficiencies leads to advanced disease and reduces the care to palliation, especially in the Lower- and Middle-Income Countries like Kenya, where majority present in such a state [7].

In this study, most patients (92.9%) presented with advanced disease that was either referred for oncological care, due to lack of chemo-or radiotherapy in the peripheral county hospitals, or offered palliative treatment with limited options and poor outcomes in terms of morbidity and mortality. The studies that have been done elsewhere have shown this to be the fate of most men of African descent irrespective of geographical regions [8, 9]. It is the same experience in the two East African countries of Kenya and Tanzania [3, 4] and can possibly explain the 87.5% level of dissatisfaction among healthcare providers with the kind of management offered in the county referral hospitals in this Western Kenya region.

Having late presentation to hospitals, limited options of treatment and poor outcome of interventions would inevitably take toll on not only the patients and relatives but also the healthcare workers. Abdurrahman and colleagues [6] had established the negative effect of such experiences among workers involved in the care of these patients with burnouts and a general sense of failure in the treatment efforts. Respondents in our study cited frustrations, lack of job satisfaction, dissatisfaction with kind of treatment and disappointment with outcomes, as well as

sense of failed intentions to be of help to patients.

The study by Abdurrahman and others, however, unlike in our study, did not establish statistically significant correlation between years of experience and degree of dissatisfaction with working in the care of these patients. This might be explained by the years of experience; with our study having a significant number of people with over ten years of working. These experienced workers would no doubt have a greater expectation of treatment outcomes given their good understanding of prostate disorders and options of treatment. They would then experience greater level of disappointment with the limited treatment options and their outcomes. Our study also shows a significantly greater effect among those workers directly involved in the routine care of these patients.

Besides identifying basis for the unsatisfactory experiences with prostate cancer management, the participants in this study outlined the key areas in need of improvement of care in the health facilities. They include patient education that would enlighten the patients on prostate disorders and particularly the benefits of presenting early to hospital. They suggested staff empowerment in terms of education, training and skills improvement. This would make them adequately prepared to handle prostate cancer at varied stages with improved outcomes of management. The other suggestions have also been pointed out in other studies and are now fairly well understood to potentiate the care of prostate cancer [10, 11]; infrastructural support including provision of laboratory and imaging diagnostics, adequate facility funding and setting up of comprehensive care outfits for these patients.

The suggestions point to a desire to have informed populations that would seek healthcare early, present to a hospital adequately funded and equipped, meet competent healthcare workers with requisite expertise, and have early diagnosis and subsequent appropriate treatment that would yield the best of the outcomes under the circumstances.

These suggestions are seemingly in line with efforts in the High Income Countries where there is a growing movement towards person-centred, age-friendly care of older adults with cancer focused on the 4Ms of (What) Matters, Medication, Mentation and Mobility [12]. They also fit well with other studies that have found that the key elements to be addressed in the improvement of prostate cancer care include knowledge on cancer, health professional training, and tackling challenges causing unsatisfactory treatment outcomes [13]. There is also the need for coherent and integrated cancer approach including focused research for maximum benefit to the patients [14]. The ideas suggest that it is possible to improve the poor state of prostate cancer treatment and outcomes, alongside their impact on healthcare workers involved, with the known underlying causes and offered suggestions to tackle the problem.

CONCLUSION

Advanced prostate cancer management in the Western Kenya region leads to poor management outcomes which have negative effects on the healthcare providers and can be made better through human and infrastructural improvements.

RECOMMENDATION

There is need for concerted efforts to improve the general management of patients with prostate cancer in Western Kenya region

guided by the suggestions given by the healthcare providers involved in their care.

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