

Identifying Barriers to Care for Adult Patients with Cancer in Tanzania



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Introduction

- Most cancers present at advanced stage in Tanzania which contributes to high mortality rates.
- Several of these cancers are preventable or treatable if diagnosed early.
- The factors leading to delay in treatment in northern Tanzania are unknown.
- The purpose of this study was to identify barriers to cancer treatment in adult patients with cancer at a large referral hospital in Northern Tanzania.

Methods

- Ethical approval and informed consent obtained.
- 250 adult patients with new diagnosis of cancer were surveyed at KCMC Cancer Care Centre (CCC) in 1-year period, between July 2018-June 2019.
- Adapted survey instrument was used¹ and included questions about demographics, delay time, and specific barriers to seeking care.
- Hospital records were examined for diagnosis and stage
- Descriptive statistics performed with SPSS.

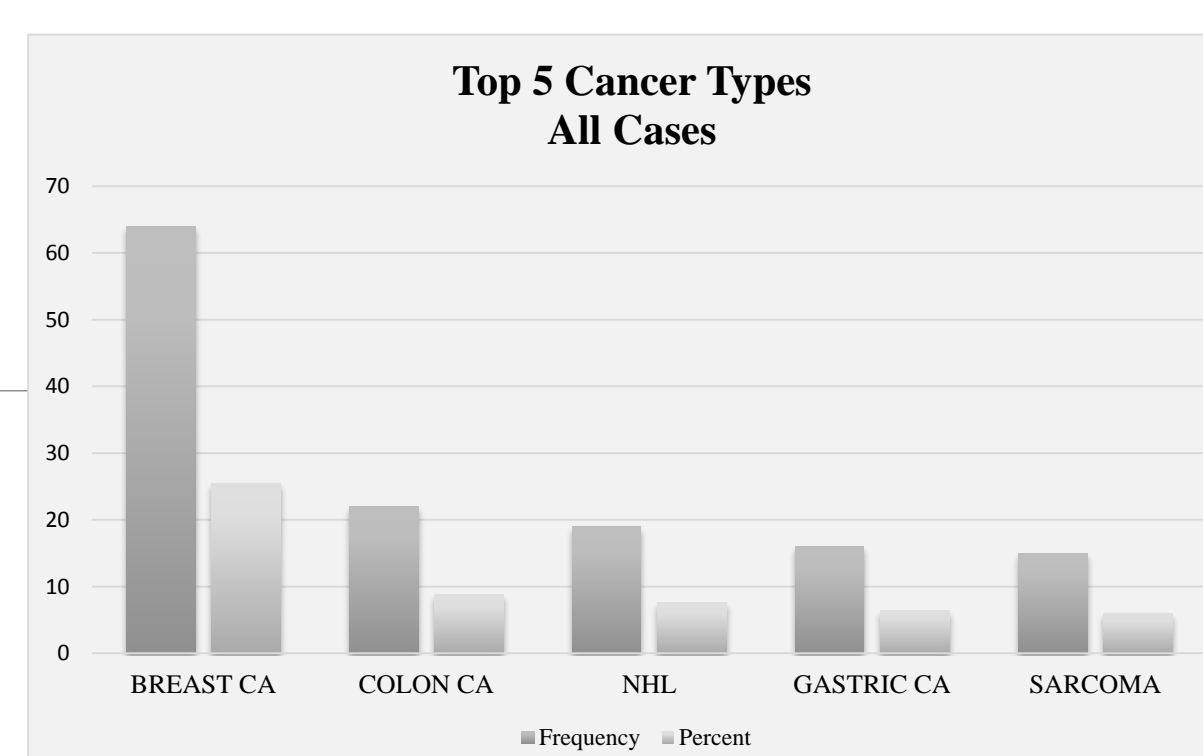
Sample Survey Question

- How many times were you seen by a healthcare provider before presenting to the cancer center?
- Where was the first, second, third, etc medical facility you sought care?
- Specific barriers to seeking care:
 - I was not concerned about my symptoms
 - I was afraid I might have cancer
 - The clinic was too far away for travel

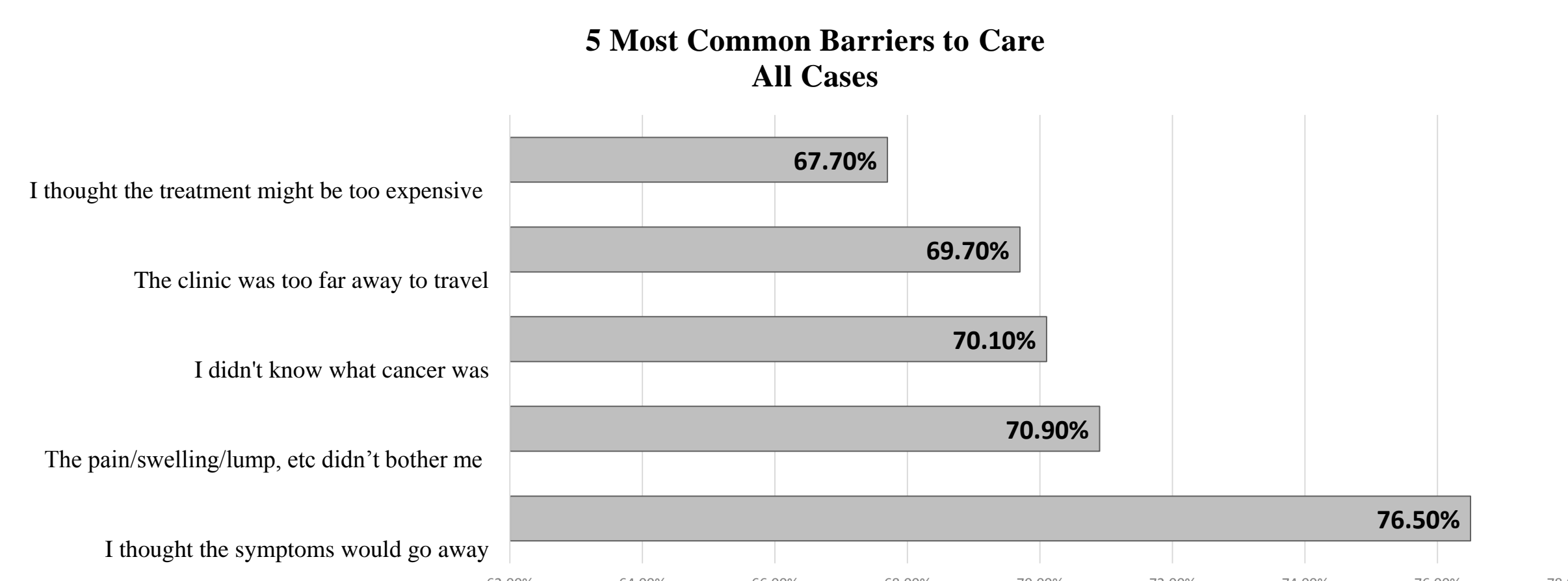
Results

***Delayed presentation:** Time from first onset of symptoms to first presentation at KCMC Cancer Care Centre >3 months

| Sociodemographic characteristics | All Participants | | Only patients with delayed presentation | |
|---|--------------------|------------------------|---|------------------|
| | n | % | n | % |
| Gender | | | | |
| Male | 92 | 36.7 | 64 | 37.2 |
| Female | 159 | 69.3 | 108 | 62.8 |
| Median Age (yrs) | 53.5 | | 56 | |
| Highest Level of Education | | | | |
| None or Primary | 126 | 50.6 | 91 | 53.5 |
| Secondary or College or University | 123 | 49.2 | 79 | 45.9 |
| Employment Status | | | | |
| Unemployed | 99 | 39.4 | 73 | 42.4 |
| Employed | 52 | 20.8 | 37 | 21.5 |
| Self-Employed | 99 | 39.6 | 62 | 36 |
| Time to reach clinic | | | | |
| | median 120 minutes | 150 | | |
| | IQR = 90 to 240 | 120-240 | | |
| Method of transportation | | | | |
| Walk | 3 | 1.2 | 2 | 1.2 |
| Car | 52 | 20.7 | 31 | 18 |
| Public Transportation | 188 | 77.4 | 134 | 77.9 |
| Method of Payment for Treatment | | | | |
| Public Insurance | 113 | 45 | 83 | 48.3 |
| Private Insurance | 116 | 46.2 | 77 | 44.8 |
| Cash | 8 | 3.2 | 5 | 2.9 |
| Loan from Family/Friends or Institution | 13 | 5.2 | 6 | 3.5 |
| Sold Items | 1 | 0.4 | 1 | 0.6 |
| Other | | | | |
| Time from first symptom noticed to visit at CCC | | | | |
| <3months | 74 | 29.60% median 210 days | | median 345 days |
| >3months | 172 | 68.80% IQR 90-365 days | | IQR 180-432 days |
| Times seen by Dr before coming to cancer clinic | | | | |
| 1 to 2 times | 71 | 28.3 | 39 | 24.2 |
| 3 to 5 times | 88 | 35.1 | 63 | 39.1 |
| >5 times | 71 | 28.3 | 59 | 36.6 |



| Valid | Stage | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------|---------|-----------|---------|---------------|--------------------|
| | Stage 1 | 9 | 3.6 | 5.8 | 5.8 |
| | Stage 2 | 26 | 10.4 | 16.8 | 22.6 |
| | Stage 3 | 63 | 25.1 | 40.6 | 63.2 |
| | Stage 4 | 57 | 22.7 | 36.8 | 100.0 |
| | Total | 155 | 61.8 | 100.0 | |
| Missing | System | 96 | 38.2 | | |
| Total | | 251 | 100.0 | | |



Conclusion

The barriers to seeking cancer care in northern Tanzania were centered around lack of cancer knowledge and access to care. To help reduce these barriers, education is needed regarding cancer awareness, recognition of cancer symptoms and availability of financial assistance.

References

1. Sharma K., Costas A., Damuse R., *et al.* The Haiti Breast Cancer Initiative: Initial Findings and Analysis of Barriers-to-Care Delaying Patient Presentation. *J Oncol.* 2013;2013:206367. doi: 10.1155/2013/206367.
2. Pace L., Mpunga T., Hategekimana V., *et al.* Delays in Breast Cancer Presentation and Diagnosis at Two Rural Cancer Referral Centers in Rwanda. *Oncologist.* 2015 Jul;20(7):780-8. doi: 10.1634/theoncologist.2014-0493.
3. Dedey F., Wu L., Ayettey H., *et al.* Factors Associated with Waiting Time for Breast Cancer in a Teaching Hospital in Ghana. *Health Educ Behav.* 2016 Aug;43(4):420-7. doi: 10.1177/1090198115620417.

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