

KNOWLEDGE, ATTITUDE AND PRACTICES OF MEN AGED 45 TO 65 YEARS TOWARDS PROSTATE CANCER SCREENING PRACTICES IN LIRA REGIONAL REFERRAL HOSPITAL, LIRA DISTRICT. A CROSS-SECTIONAL STUDY.

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ABSTRACT

The purpose of the study

To assess the knowledge, attitude, and practices of men aged 45- 65 years of age towards prostate cancer screening in Lira Regional Referral Hospital, Lira district.

Methodology

The study employed a cross-sectional study design with simple random sampling as the sampling technique. Data was collected on a sample size of 50 respondents using semi-structured questionnaires written in the English language with open and ended questions as data collection tools; analysis was done manually using tally sheets, pens, and paper, entered in an Excel computer program; presented in tables and figures; then interpreted.

Results

Knowledge towards prostate cancer screening showed that; (76%) of respondents heard about prostate cancer screening, (50%) of the respondents had no idea about the importance of prostate cancer screening, (and 42%) never had ideas about how long should screening be done.

Overall results in regards to attitude towards prostate cancer screening showed that; (82%) of respondents thought prostate cancer was incurable, (58%) of respondents did not know regular screening was important, (78%) thought prostate cancer was a disease for men and screening would help accordingly. In regards to practices towards prostate cancer screening showed that; (70%) of respondents have never been screened, (40%) of respondents often go for prostate cancer screening, (42%) of respondents were not aware of any functional facility.

Conclusion

The knowledge, attitudes, and practices of men aged 45-65 years of age towards prostate cancer screening were fairly noteworthy.

Recommendation

Health workers at Lira Regional Referral Hospital should continue with outreaches more to avail information in regards to prostate cancer screening men, teaching them on dangers of late disease screening, signs and symptoms of the disease, and also encourage respondents at regular appropriate times and age for prostate cancer screening.

Keywords: Knowledge, Attitude, Practices, Prostate cancer, Screening practices, Lira Regional Referral Hospital, Lira district

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INTRODUCTION

Prostate cancer also known as carcinoma of the prostate is the development of cancer in the prostate which is a gland in the male reproductive system.

Prostate cancer is one of the most common cancers worldwide, and the most commonly diagnosed cancer worldwide in over 112 countries, with an overview of 1.4 million newly diagnosed cases, as stated by Jain et al., 2023. Nevertheless, the National Cancer Institute of America (NCIA) also states that a male American has a lifetime 13% chance of being diagnosed with prostate cancer (the incidence rising with age) and a lifetime 2.5% risk (1 in 41) of consequences from it. (Jain et al., 2023)

According to the study done by Rebbeck et al (2013), in Africa showed that, in African countries like Nigeria, Senegal, Gambia, Sierra Leon, Ivory Coast, Ghana Cameroon, and other many countries whose prostate cancer occurrence and incident rates appear much slower than that of African American. In Africa, the highest rates of 64.1 per 100,000 were in southern Africa, followed by northern Africa at 35.9 per 100,000, western Africa with a record of 31.9 per 100,000, and eastern Africa having 23.9 per 100,000. (Rebbeck et al, 2013)

In East Africa as a region, the prevalence of prostate cancer in Tanzania was recorded as being 39.84% with the mean age of its occurrence as being 64.85 years this was also seen where 52.58% had high-grade prostate cancer (Katabalo et al., 2022)

In Uganda, prostate cancer burden puts it at an annual incidence rate of 5.2% occurrence (Okuku et al., 2016).

Furthermore, studies by GLOBOCAN on Ugandan men in Uganda report that prostate cancer is the second most common cancer with a high incidence rate as being 6.4% in Uganda (Katongole et al., 2020)

The study aims to assess the knowledge, attitude, and practices of men aged 45 to 65years toward prostate cancer screening practices in Lira Regional Referral Hospital, Lira district

SPECIFIC STUDY OBJECTIVES

- To assess the knowledge of men aged 45 to 65years towards prostate cancer screening practices in Lira region referral hospital, Lira district
- To assess the attitude of men aged 45 to 65years towards prostate cancer screening practices in Lira region referral hospital, Lira district
- To assess the practices of men aged 45 to 65years towards prostate cancer screening practices in Lira region referral hospital, Lira district.

METHODOLOGY

Study Design

The study design was a cross-sectional descriptive study. It was selected because it allowed studying matters under question from a given point in time.

Study Area.

The study was carried out at Lira regional referral hospital a government-owned facility, located in the Lira district in the Northern Subregion of the country. The district is further bordered and surrounded by districts such as Dokolo, Agago, Kole, Apac, and many others. Lira Regional Referral Hospital is a public health center offering general services that receive an average of 500 per day and has about 250 beds with several other departments such as OPD, inpatient department, ART clinic, and many more others.

Source of data

The study used primary data which was first-hand data collected from the field. The data was only obtained using data collection tools which are identified as the questionnaires.

Study Population

The targeted population for this study was men aged 45-65 years and residents of Lira District. These respondents were selected because they were deemed reliable in providing information that would be necessary for the study which came up with a true picture of the knowledge, attitude, and practice of men in the selected age bracket towards prostate cancer screening.

Inclusion criteria

The study considered all men aged 45-65 years residing in Lira City West, attending Lira Regional Referral Hospital

Exclusion criteria

The study also excluded all men in the chosen age bracket that were not residents of Lira District

Sample size calculation

A sample portion of the population results was generated from the entire population. A sample size of 50 respondents was selected.

This number was derived using Kish and Leslie (1965) for sample size calculation, at a 95% level of significance, with a standard of error (e), of 5% as indicated below;

$$n = z^2p(1-p)$$

d^2 Where; n = the number of respondents required (sample size).

P = the proportion of the target population estimated to have prostate cancer, Estimate at 17.3% by Uganda Cancer Institute Report (Ekwan et al., 2023).

$$q = 1-p = 1-0.173 = 0.827$$

Z = the standard normal deviation (1.96) at 95% of confidence.

d = degree of accuracy desired in this case is 0.05

$$n = \frac{z^2p(1-p)}{d^2}$$

$$n = \frac{1.96^2 \times 0.173(1-0.173)}{0.05^2}$$

$$n = \frac{3.8416 \times 0.173 \times 0.827}{0.0025}$$

$$n = \frac{3.8416 \times 0.173 \times 0.827}{0.0025}$$

$$n = \frac{5.4962}{0.0025}$$

$$n = \frac{5.4962}{0.0025} = 219.86$$

$$n = 219.86$$

n = 220

The sample size was therefore 220 respondents but due to financial and time constraints, 50 respondents were used.

Sampling Procedures

After approval of the research proposal; an introductory letter from the Kampala School of Health Sciences research committee to the study area was obtained. After permission was granted, two research assistants were trained to administer the questionnaire to the respondents through interviews in a local language (Luo). The purpose of the study was explained to the participants and data collection began with the signing of a consent form among the targeted age men at the OPD unit. Data collection processes were done in a way that alphabet letters written on paper were given to the respondents to pick; those who picked the letter "A" were interviewed first after consenting and the process continued until the required sample size of 50 respondents was attained. The respondents were asked questions following the designed questionnaire to avoid being biased. After the interview, each respondent was thanked for participating in the study.

Study Variables

Under the study, the variables studied were knowledge, attitude, and practice of men toward prostate cancer screening.

Data Collection technique/tools

During the study, a questionnaire was used. The reasons for adopting a questionnaire were major because it was cheap and easy to administer, preserved confidentiality, and would easily be completed at the respondent's convenience. The questionnaires were distributed by simple random selection of respondents and ensured the accuracy of information.

Plan for data analysis

On the field, data was arranged, edited, coded, and computed using SPSS and presented in frequency tables which made it easy to interpret the results.

Likert scale was used to obtain data from participants which was then categorized to decide whether the level of knowledge was high or low, the attitude was good or poor and the practice good or poor.

Quality control issues

A pretested semi-structured questionnaire was used in the study. Pretesting of the questionnaire was done in Ujama village, Lira City West Division, Lira District. Thereafter adjustments were

made and considered before execution of the study. A research assistant was trained to aid in the field of data collection.

Ethical consideration

The research was purely for academic purposes. Therefore, an introduction letter from KSHS was obtained, which was submitted to the management of the area of study to be granted permission to carry out research within the area. Permission was requested & granted from the Lira regional referral hospital superintendent to address potential respondents who were further informed of their voluntary participation and their consent shall be obtained. The instruments were designed without providing the option for the name, to observe confidentiality. Furthermore, different collection points were created where each of the respondents dropped their responses to avoid suspicion from their colleagues about their participation.

It was ensured that whatever was in the data collection instruments was explained before respondents participated in filling out the questionnaires.

RESULTS OF THE STUDY

Demographic data

Table 1 demonstrates, that most of the respondents (50%) were between the ages of 45-65 years whereas the least (24%) were between 51-60 years. As regards the tribes, the majority of the respondents (72%) majority were Langi, (18%) were Acholi and then (10%) minority were from the Madi tribe. Further results reveal that according to marital statuses, (54%) majority were single men without families, (34%) were married men accordingly whereas (12%) minority were cohabiting. Studies conducted on the number of children reveal that (40%) majority respondents had more than 3 children and as the most respondents while (16%) minority of respondents had 2 children. Based on the study findings, the majority of the (58%) majority of respondents were Catholics, (14%) minority of respondents were Muslims whereas (18%) respondents were Anglicans by religion accordingly. (40%) majority of the respondents according to the study had a higher level of education as being tertiary, (38%) respondents as primary, (18%) as secondary and lastly (04%) minority of respondents never went to school and thus the least respondents. Most of the respondents were businessmen (34%), followed by (32%) of employed men, (28%) were unemployed with the remaining respondents (06%) as students according to the studies conducted.

Knowledge of men aged 45-65years towards prostate cancer screening

Most of the respondents (76%) from Figure 1, have heard about

prostate cancer screening whereas the least (24%) haven't heard about prostate cancer screening.

According to Figure 2, most of the respondents (58%) knew about whether prostate cancer screening was proper whereas (10%) never had any idea.

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Table 2 shows that most of the respondents (64%) knew about the importance of prostate cancer screening in men whereas (36%) did know the importance of prostate cancer screening.

In Figure 3, (42%) of the respondents did not have any idea as to how long men are supposed to go for prostate cancer screening whereas, (34%) knew it was after every 2 years. (18%) knew screening was after every 4-5 years. And lastly, few (6%) knew prostate cancer screening was done after a few months. Table 3 demonstrates that (30%) of the respondents recommended 45 years and below as the best age for prostate cancer screening, (24%) of the respondents recommended between 45-65years. Whereas (46%) of respondents mentioned the age of 65 years and above to go for prostate cancer screening.

Table 4 shows that (76%) majority of the respondents did encounter prostate cancer screening examinations, and the rest (24%) didn't

Attitude of men aged 45-65years towards prostate cancer screening.

Figure 4 illustrates that most (82%) of the respondents thought prostate cancer is incurable whereas (18%) of respondents think prostate cancer is curable.

Figure 5 illustrates, (42%) of respondents think prostate cancer screening regularly is important whereas (58%) of respondents do not think prostate cancer screening regularly is important.

In Table 5, (78%) of respondents think prostate cancer is a disease for men, while (22%) of respondents think prostate cancer is not a disease just for men. Figure 6 illustrates, that (36%) of respondents are above 45years which is the most affected by prostate cancer screening, whereas (12%) of respondents are from the age bracket of men aged above 65years.

Figure 7 shows that (64%) of respondents have considered poverty as the socio-economic factor that has favored the increased rate of prostate cancer screening, (18%) have educational background. (36%) respondents rated cultural beliefs, meanwhile (10%) believe diseases such as HIV/AIDS affect the rates of prostate cancer screening.

Table 6 shows, that most respondents (38%) were very less interested in knowing their health status in regards to prostate cancer screening, (11%) of respondents were interested in knowing their health status, (23%) respondents didn't want to know, and (28%) of respondents were also less interested in knowing their health status in regards to prostate cancer

Table 1: Baseline Characteristics of Study Respondents according to demographic data (n=50)

Response	Frequency(f)	Percentage (%)
Age		
45-50 years	25	50
51-60years	12	24
61-65years	13	26
Total	50	100
Tribe		
Langi	36	72
Acholi	09	18
Madi	05	10
Total	50	100
Marital status		
Single	27	54
Married	17	34
Co-habiting	06	12
Total	50	100
Number of children		
1	12	24
2	08	16
3	10	20
3 and above	20	40
Total	50	100
Religion		
Anglican	09	18
Muslim	07	14
Catholic	29	58
Others	05	10
Total	50	100
Education levels		
Primary	19	38
Secondary	09	18
Tertiary	20	40
Never went to school	02	04
Total	50	100
Occupation		
Unemployed	14	28
Employed	16	32
Businessman	17	34
Student	03	06

Total	50	100
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Page | 6 **Figure 1: Shows the distribution of respondents according to whether they had ever heard about prostate cancer screening.**
(n=50)

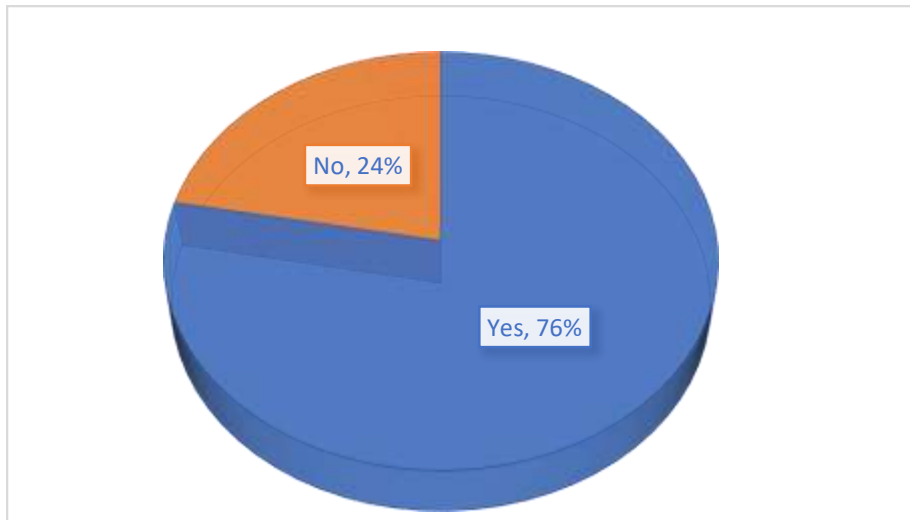


Figure 2: Shows the distribution of respondents according to whether prostate cancerscreening was proper for men.
(n=50)

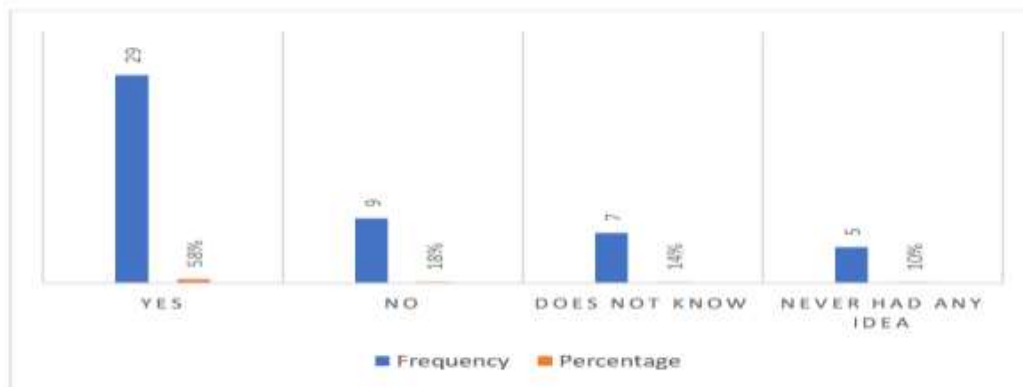


Table 2: Shows the distribution of respondents according to whether they knew the importance of prostate cancer screening. (n=50)

Response	Frequency(f)	Percentage (%)
Yes	32	64
No	18	36
Total	50	100

Figure 3: Shows the distribution of respondents according to their knowledge on after how long men should go for prostate cancer screening. (n=50)

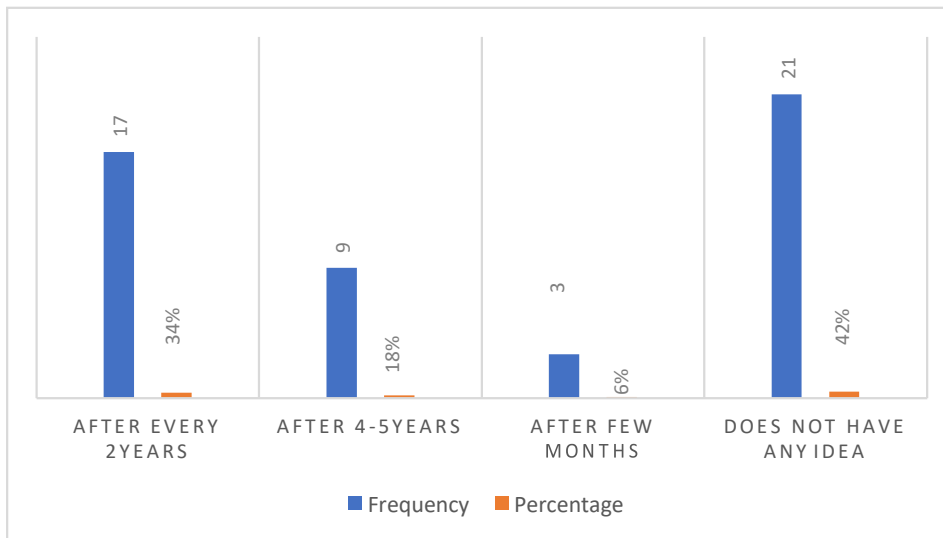


Table 3: Shows the distribution of respondents according to what age they knew as recommended for prostate cancer screening. (n=50)

Response	Frequency(f)	Percentage (%)
45years & below	15	30
Between 45-65 years	12	24
65years & above	23	46
Total	50	100

Table 4: Shows the distribution of respondents according to prostate cancer screening examinations encountered. (n=50)

Response	Frequency(f)	Percentage (%)
Yes	38	76
No	12	24
Total	50	100

Figure 4: Shows the distribution of respondents according to whether they thought prostatecancer is curable after prostate cancer screening. (n=50)

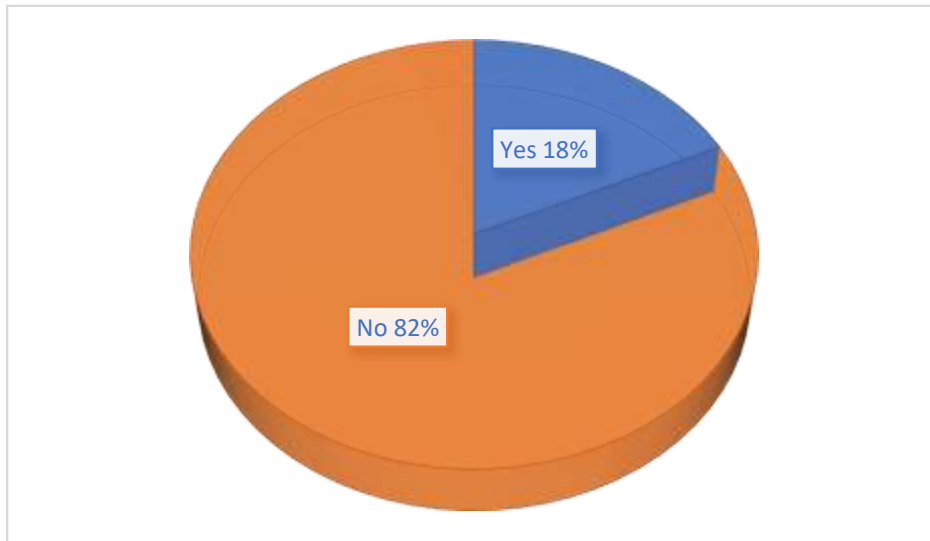


Figure 5: Shows the distribution of respondents according to whether they thought prostate cancer screening regularly is important. (n=50)

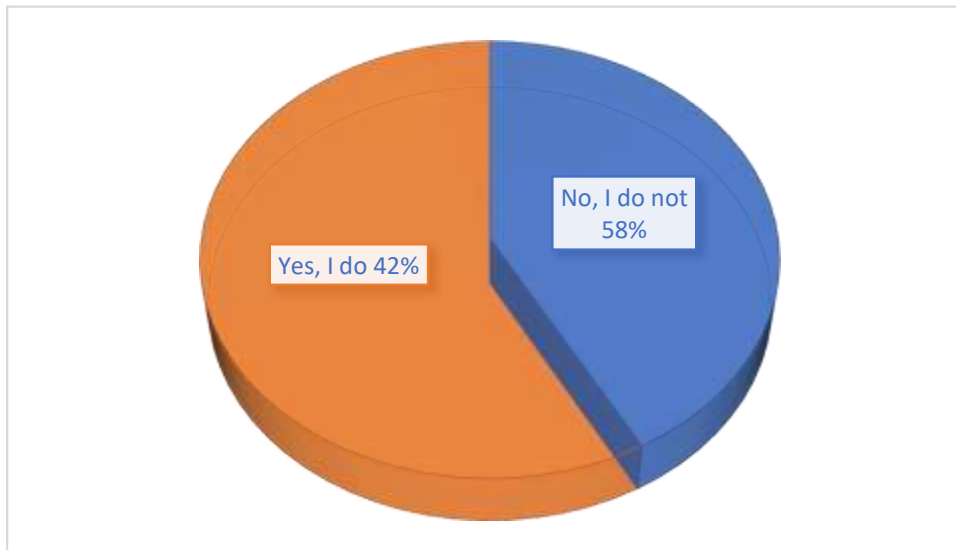


Table 5: Shows the distribution of respondents according to whether they thought prostatecancer is a disease of men and thus its screening would help. (n=50)

Response	Frequency(f)	Percentage (%)
Yes	39	78
No	11	22
Total	50	100

Figure 6: Shows the distribution of respondents according to which age bracket is thought to be most encountered age bracket during prostate cancer screening. (n=50)

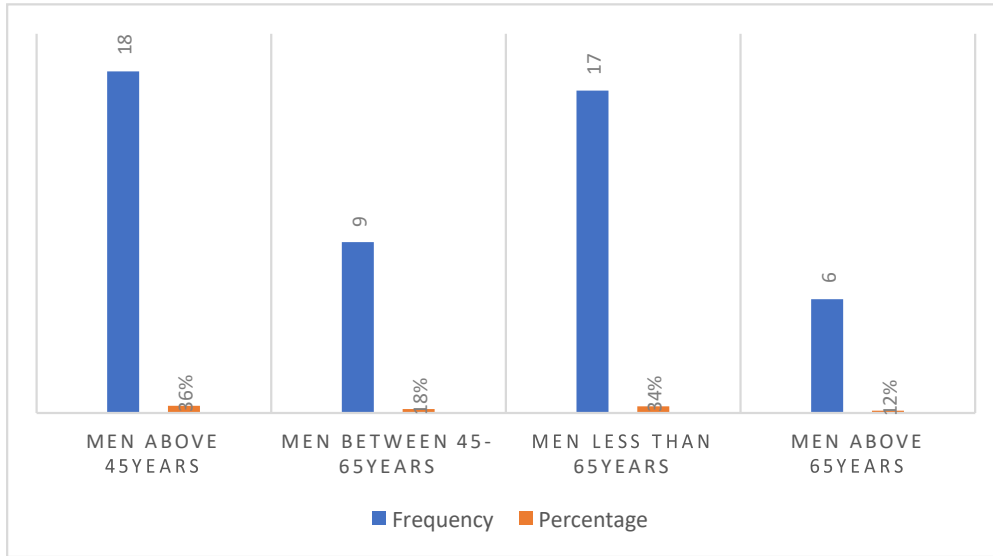


Figure 7: Shows the distribution of respondents according to some of the socio-economic factors that are thought to have affected the rate of prostate cancer screening (n=50)

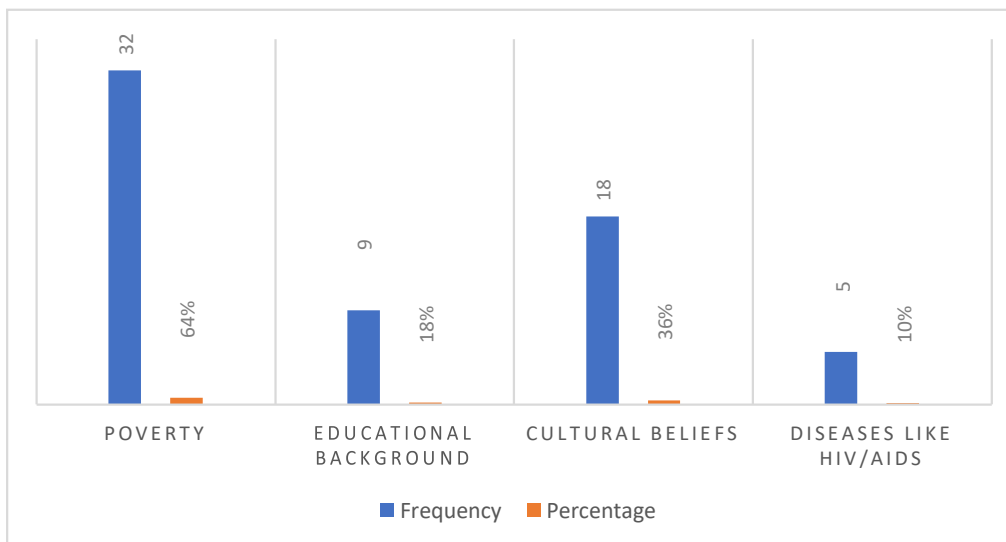


Table 6: Shows the distribution of respondents according to whether they are thought to be interested in knowing their prostate cancer status after prostate cancer screening. (n=50)

Response	Frequency(f)	Percentage (%)
Yes	5	11
No	12	23
Less interested	14	28
Very less interested	19	38
Total	50	100

Table 7: Shows the distribution of respondents according to whether they have ever been screened for prostate cancer. (n=50)

Response	Frequency(f)	Percentage (%)
Yes	15	30
No	35	70
Total	50	100

Table 8: shows the distribution of respondents according to how often they went for prostate cancer screening. (n=50)

Response	Frequency(f)	Percentage (%)
Within every 2-4months	20	40
Does not remember	11	22
Never done it	19	38
Total	50	100

Figure 8: Shows the distribution of respondents according to whether they attended any functional prostate cancer screening facilities in Lira. (n=50)

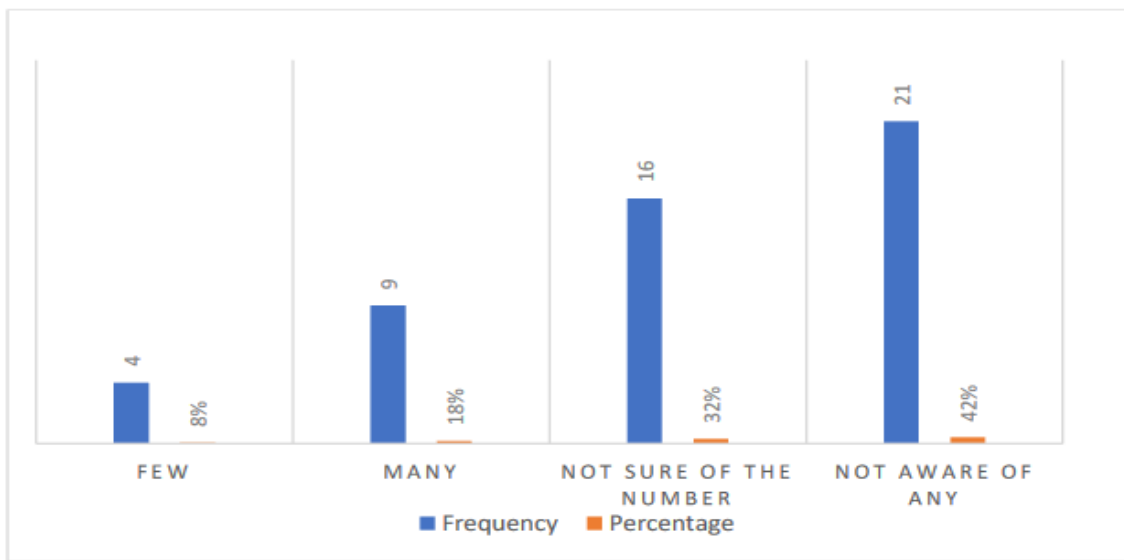
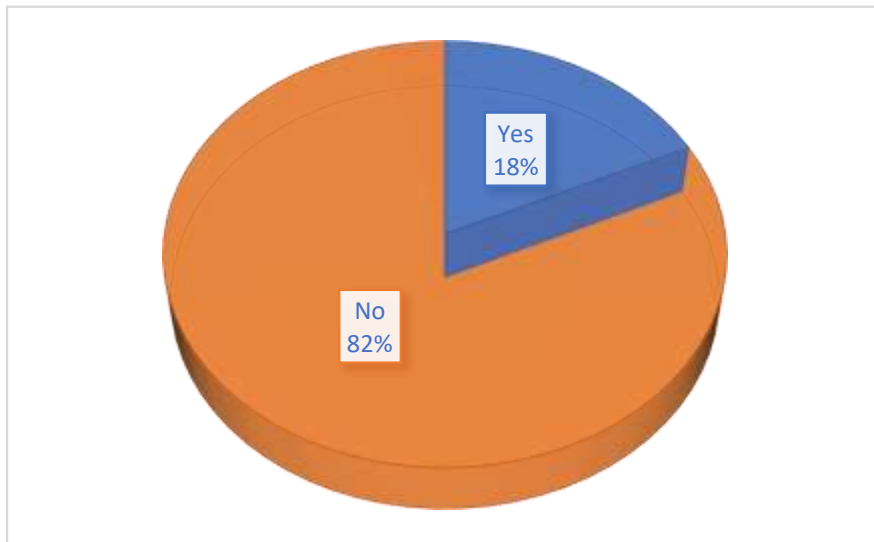


Figure 9: Shows the distribution of respondents according to cultural norms that could be having any influence on prostate cancer screening. (n=50)



Practices of men aged 45-65years towards prostate cancer screening.

Table 7 demonstrates, (70%) majority of respondents have screened for prostate cancer, and (30%) the minority haven't.

In Table 8, (40%) of respondents often went for prostate cancer screening, (22%) of the respondents did not remember when they ever went to check, whereas (38%) of respondents had never been screened. Figure 8, shows that (42%) of respondents were not aware of any functional prostate cancer screening facility in Lira while (08%) few respondents were aware.

Figure 9 illustrates that; the greater number of respondents (82%) never had any cultural norms that influenced them on prostate cancer screening whereas the least number of respondents (18%) had cultural influences that did.

DISCUSSION

Knowledge level on prostate cancer screening amongst men aged 40-65years.

Findings from the study conducted on 50 respondents indicated that there was a high knowledge level about Prostate Cancer and its screening as 76% majority of the respondents knew it was a disease for men majorly because they had been hearing over the media like radio, sensitizations by Village Health Teams as compared to studies by Ojewola et al, (2017) a study from southwest Nigeria whereby there was generally poor knowledge about prostate cancer with 53.1% having poor knowledge than the remaining respondents.

There was increased awareness about the disease since 58% of respondents knew it was proper for men to screen for the disease. This was emphasized by the Village Health Team members about the side effects of late screening and its outcomes as well as compared to studies by Carrasco-Garrido et al. (2014) which was conducted in Spain showed a lack of awareness among the respondents 54.72% minority of respondents did PSA as prostate cancer screening as other cancer screenings had higher record than cancer of the prostate.

Although the majority of respondents were well educated 40% majority of respondents were of tertiary education since they seemed more knowledgeable about the disease and its screening as a way to detect it. The rest of the respondents were of secondary education, the majority had been screened for prostate cancer as also seen in Adibe et al, (2017) study done by the University of Nigeria showed that high education level is a determinant of knowledge on prostate cancer screening in that tertiary degree holders had a good percentage of 94.9% of the majority and the remainder having a lower percentage.

Though knowledge of prostate cancer screening was high among men in the study, most of them did not know it is important to screen so that they know their status of prostate cancer as well. The knowledge was perceived only with the name prostate cancer screening but never considered other factors related to its knowledge.

The attitude of men towards prostate cancer screening amongst men aged 45-65years

The study found out that men think that prostate cancer is a disease for men aged 45 years and above as it was 36% higher

than in other age brackets because the majority said they experienced this by seeing their relatives become screened positive for the disease antibodies at that age as compared to as equated to studies by Abuadas et al, (2015) a study in Jordan Asian Pacific region whereby 13% of older men above 40years did go for prostate cancer screening.

During the studies, the majority 82% of the respondents thought prostate cancer as a disease has no cure even on screening and it was greatly associated with verbal influence and ignorance merged with little insight about the screening of the disease as compared to studies by Nakandi et al, (2013) in Uganda 45.9% of men thought that prostate cancer is not curable and it is not important to the screen when they have no pain or any other symptom, it is costly to screen and a painful procedure, all which are misconceptions because prostate cancer is asymptomatic in its early stages.

During the study, the attitude was generally poor about prostate cancer screening as 58% of respondents did not know the importance of the screening as they considered it to be time wasting and mostly for whites (Europeans) as compared to a study conducted by Gift et al. (2020) in Zambia whereby 98.5% of the respondents had a positive attitude towards prostate cancer screening.

Also, in the study by Adibe et al, (2017) from the University of Nigeria, 94.7% of the respondents were tertiary education holders who had good attitudes and constantly went for subsequent screening on prostate cancer as well as their academic staff also did have good attitude about the disease as well.

During the study, it was found that fear of positive diagnosis also created a negative attitude towards prostate cancer screening since 70% of the majority did not screen since they feared stigma as the result of the apposite test, also feared being cleared to having the disease after the results appeared to be positive since many assume the disease is incurable as it was also matched and seen by Adibe et al, (2017) whereby the poor attitude was were associated with many factors including fear and anxiety.

During the study, it was discovered that most of the socioeconomic factors influenced the attitude of the respondents especially poverty with 64% as the most influential factor towards the poor attitude because some examinations required monetary interventions which could not be acquired by the majority also seen furtherly in studies by Ekwana et al, (2023) from Lira city whereby socio-economic factors greatly affected and influenced prostate cancer screening attitude amongst the respondents.

During continuous studies, the respondent's attitudes were also low as most of the respondents were very less interested 38%, less interested to be 28%, and 23% of respondents did not want

to know their health statuses in regards to prostate cancer with 11% least respondents will know their statuses in regards to prostate cancer. This therefore showed a very low attitude towards prostate cancer screening.

The practice of men towards prostate cancer screening amongst men aged 45-65 years.

The findings of the study showed that there was a very low uptake of screening services for prostate cancer among men as 70% have never screened for the disease with 26% of respondents having been screened and 04% never being screened for prostate cancer. This showed low levels of awareness as 42% of the respondents were not aware of prostate cancer screening as the majority thus making it the major cause of the low screening practices of prostate cancer.

It was also found that the majority below 65years of age, 42% were not aware of the number or even the existence of functional prostate cancer screening facilities in Lira as they hailed from areas that were less sensitized about the disease screening thus creating low awareness as compared to the case of Bugoye et al, (2019) where a factor of age was of greater influence on facility utilization as 60% of respondents above 60 years of age did fluctuate screening facilities mostly and utilized the available services than the lesser aged respondents.

It was also found that during the study, cultural norms and beliefs affected greatly the practices of many men that is 67% of the majority towards prostate cancer screening since their cultural norms influenced them about the prevailing disease as being majorly for the white men and the rich in particular, in that matter, it was also considered to be inappropriate about sodomy, especially digital rectal examinations since they feared it would enlarge the patient's rectal canal. This was compared to a study done by Nakandi et al, (2013) in Nakawa, Uganda as many respondents 51.1% were affected by cultural factors too.

CONCLUSION

Given the findings obtained from 50 respondents, the following conclusions were made: This study indicated a lack of knowledge about prostate cancer screening because 76% of the respondents knew about prostate cancer screening. However, 58% of respondents also knew prostate cancer screening was proper for men, as 34% of the respondents knew the importance of prostate cancer screening as the second greatest population in that category, and 34% of the respondents knew that prostate cancer screening was done after every subsequent 2years which was the second greatest number according to that category

The study revealed that the attitude towards prostate cancer screening amongst the respondents was generally poor as 82%

of the majority knew that prostate cancer was incurable, 58% of the respondents also did not know the importance of regular prostate cancer screening, 64% of respondents think poverty is the most influential socio-economic factor which has greatly made their attitude poor towards prostate cancer screening, 38% majority of the respondents also were very less interested in knowing their health status in regards to prostate cancer screening. This therefore shows that the respondents have a poor attitude toward prostate cancer screening.

Majority of the respondents (70%) had never screened for prostate cancer indicating a poor prostate cancer screening practice, 38% of the greater majority do not often go for prostate cancer screening as a practice, 42% of the majority of respondents were never aware of any functional prostate cancer screening facility in the district and lastly, 82% of respondents never had any cultural norms or practices that influence them not to go for regular prostate cancer screening. Thus, the practices of the respondents towards prostate cancer were generally poor.

LIMITATIONS OF THE STUDY

The following limitations were encountered;

The poor attitude of the respondents towards the research, posed a challenge because some respondents refused to participate saying they didn't benefit from anywhere.

The study was conducted only in one hospital and in an urban setting. Hence it limited a larger field of data collection during the research study.

RECOMMENDATION

The Ministry of Health (MoH) should make sure many more prostate cancer screening facilities are built to ensure that a greater number of men can go for the available screening regularly to aid encounter and also fight prostate cancer as well.

The Ministry of Health through the Lira district regional referral hospital management should carry out regular advertisements to enhance knowledge outreach to the greater community that will ensure that the information regarding prostate cancer is perceived accordingly by the age brackets such that they are seen to be going for the prostate cancer screening

Lira regional referral hospital administrators must engage in the hospital further as to the extension of the facility to ensure more sumptuous space is created as it also encourages people to go and attain required services according to the available resources required

Health workers in Lira Regional Referral Hospital should continuously sensitize and encourage men above the age of

45years to continuously go for screening practices to help rule out the existence of prostate cancer in their particular individual lives and also teach them more about the screening methods as most of them have negative attitudes because of the methods of screening used.

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LIST OF ABBREVIATIONS

ART: Antiretroviral Therapy

NCIA: National Cancer Institute of America.

MoH: Ministry of Health

OPD: Outpatient Department

PSA: Prostate Specific Antigen

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There was no source of funding

CONFLICT OF INTEREST

There was no conflict of interest

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