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Assessment of Knowledge, Attitude and Practice of Males about Prostate Cancer, Screening and Early Detection in Yaounde, Cameroon



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ABSTRACT

Background: Prostate cancer (PCa) is among the commonest causes of deaths among men in the world. It is very rare in men younger than 40, but chances of having prostate cancer rises rapidly after the age 50. It is becoming a major concern for many developing countries and its incidence in Cameroon is increasing and accounts for some of the major cause of mortality. In most developing countries e.g. Benin Republic, Gambia, Senegal, Ghana, Nigeria, and Cameroon access to health care and prostate cancer screening methods for early detection is limited. **Aim:** The aim of this study was to assess the knowledge, attitudes and practices regarding prevention of prostate cancer and determinants associated with these outcomes, in a sample of young men in Yaoundé, Cameroon. **Methods:** A cross-sectional study was conducted in March 2019 involving 244 consenting men in the city of Yaoundé- Cameroon. Data was collected using a pretested self-administered questionnaire and analyzed using descriptive methods. **Results:** The majority of the participants in this were in the range of 29-39 years old (46.7%, n=114). Most of them had at least tertiary education (77.5%) The majority of them (73.8%) had heard about prostate cancer but only 49.2%, knew the location of the prostate gland and 10.25% knew some kind of examination for prostate cancer detection. Only 23 (9.4%) had ever been advised by a physician to undertake a PSA screening while only 13 (5.5%) could remember DRE being performed on them before either for prostate examination or for other anorectal complaints. The overall knowledge of the participants with respect to signs and symptoms of prostate cancer was poor though they had good attitude to screening and treatment of prostatic diseases. **Conclusion:** There was generally a high level of awareness and knowledge level about PCa among males in the Yaoundé Municipality. However, knowledge on preventive measures, symptoms and screening practices for prostate cancer was low. Therefore, creation of awareness of information on the signs and symptoms, treatment and importantly the preventive measures of PCa is required.



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1.0 INTRODUCTION

Prostate cancer is the most common type of cancer in men and has been a major public health issue worldwide [1]. It is the most commonly diagnosed cancer among men and the second leading cause of death in men [2]. In general, all men are at risk for prostate cancer, though it is very rare in men younger than 40, but chances of having prostate cancer rises rapidly after the age 50 [3]. The lifetime risk of being diagnosed with prostate cancer peaked as high as 1 in 5 in 1992- 1994. In 2000, it was estimated that prostate cancer made up 29% of newly diagnosed cancers in men and 119 of all cancer deaths, with 31,900 men expected to die of the disease [4]. For other malignancy, there is less agreement among experts on whether men should be screened or how they should be treated.

Due to the aging population and population growth, the expected numbers will increase in forthcoming years. Thus, prevention and early detection has immense public health importance. Currently, there is no scientific consensus on effective strategies to reduce the risk of Prostate cancer. The prostate-specific antigen (PSA) test is widely used to screen for prostate cancer but its use is controversial for several reasons [5-8].

In 2012 the United States Preventive Service Task Force [9] suggested discontinuing prostate substrate antigen (PSA) based screening for prostate cancer (PCa) screening in all men. In contrast, the American Urological Association [10] recommends that PSA screening, in conjunction with a digital rectal examination, be offered to asymptomatic men aged 40 years or older who wish to be screened and the American Cancer Society [11] emphasizes informed decision making for prostate cancer screening.

All protagonists in the public controversy agree that men should make an informed decision about whether or not to undergo PSA screening and, hence, need to be fully appraised of the arguments for and against it [12-13].

Therefore, the aim of this study is to assess knowledge, attitudes and behaviors regarding prevention of prostate cancer and determinants associated with these outcomes, in a sample of young men in Yaoundé, Cameroon.

2.0 MATERIALS AND METHOD

2.1 Study design and setting

This study was a cross-sectional observational study conducted from the 4th to the 7th of March 2019 in the Ministry of Scientific Research and Innovation, specifically in the Institute of Medical Research and Medicinal plants Studies in Yaoundé, the capital city of Cameroon. Yaoundé is a Centre of attraction for a multi-ethnic population who either move there for business, studies or to explore the diverse economic activities the town can offer.

2.2 Study population

It involved adult men (18 years and above), who attended the free medical screening campaign organized by the center of medical research in commemoration to several other activities launched by the institute of Medical research and medicinal plant studies. The sample size of 244 was calculated based on result of previous similar study. A confidence interval of 95% and absolute precision of 0.05 were used. It excluded all men who were below 18 and those not willing to give their consent.

2.3 Ethical considerations

The Ethical approval for this study was obtained from the Ethical Committee of the Institute of Medical Research and Medicinal plant Studies while written and verbal consent was obtained from the participants and they were assured of the anonymity and confidentiality of their information. There was no financial benefit for participating in the research and participation was on a voluntary basis.

2.4 Data collection method

Data were collected using a pre-tested self-administered questionnaire, written in both English and French, the semi-structured questionnaire comprising of 6 sections covering; socio-demographic information, knowledge, perception, attitude, practice of the respondent and personal reasons for late presentation/ diagnosis or for not practicing prostate cancer screening. It was developed using the Cancer Awareness Measure Toolkit (version 2.1) develop by the UK cancer research and on questions used in previous peer reviewed published studies. The questionnaires were self-administered to the men who came for the free medical campaign; however special assistance were given to men who were not

sufficiently literate. The completed questionnaires were collected on the spot by the researchers.

2.5 Data analysis

Statistical analysis was used to summarize the results of the study and to reduce, organize and give meaning to the data (Burns & Grove 2005:43) obtained from the questionnaires. Microsoft® Excel was used to enter the data. Summary statistics including frequencies and percentages were calculated for the categorical responses in the questionnaire. The Chi-square test was used to assess any significant association between categorical variables. Mean, median and standard deviation were reported for questions with continuous responses. Descriptive statistics were used to summarize the respondents' demographic characteristics and screening practices.

3.0 RESULTS

3.1 Socio-demographic Data of the Participants

A total of 244 male were recruited and completed the questionnaires. The majority of the participants in this study was of the ages ranging from 29-39 (46.7%, n=114). Most of them had at least tertiary education (77.5%) and were single (70.5%). The majority of the male were students (61.9%, n=151). Regarding their major occupations, the majority of the participants were students (61.9%) followed by civil servants (15.6%) and farmers (1.2%). Concerning practices related to health, 7.4% reported smoking cigarettes and 22.13% alcohol use. Regarding family per capita income, the majority (42.2%) of the participants had a low income. Regarding religion, 72.1% of men declared to be catholic; 18.5%, from other religions, and 9.4% not having any religion. Table 1.

Table No. 1: Socio-demographic characteristic of men

Character	Frequency	Cumulative percentage
(age)		
18-20	26	10,7
21-28	31	12,7
29-39	114	46,7
40-50	11	4,5
>50	14	5,7
(Current Residence)		
Town	202	82,8
Village	10	4,1
(Marital Status)		
Single	172	70,5
Married/ cohabitation	32	13,1
Divorce	2	0,8
Widow	2	0,8
(Education)		
Primary education	8	3,3
Secondary education	11	4,5
Tertiary education	189	77,5
(Major occupations)		
Business	4	1,6
Farmer	9	3,7
Civil servant	38	15,6
Unemployed	7	2,9
Farmer	3	1,2
Retire	9	3,7
Student	151	61,9
(Smoker status)		
Smoker	18	7,4
None smoker	169	69,3
Occasionally	25	10,2
(Alcohol status)		
Drinks alcohol	54	22,1
No alcohol	63	25,8
Occasionally	102	41,8
(Income)		
Low income	103	42,2
Middle income	38	15,6
High income	29	11,9
(Religion)		
Christain	176	72,1
Muslim	26	10,7
Traditional	10	4,1
Other	9	3,7
Personal history of prostate cancer		
Yes	13	5,3
No	194	79,5

No response (Family history of prostate cancer)	6	2,5
Yes	21	8,6
No	189	77,5
No response	5	2,1

3.2 Knowledge and Awareness of Prostate Cancer

Figure 1 shows the knowledge and awareness scores on prostate cancer among the participants. The majority of them (73.8%) mentioned that they had heard about prostate cancer before while 13.1% said they never heard of prostate cancer and 13.1% gave no response with respect to the question. In addition, 29.1%, (n=71) of them reported that they knew someone who had been diagnosed with prostate cancer. In response to the question that required them to identify the location of the prostate gland, 49.2%, (n=120) were able to provide the correct answers. Only 8.2% (n=20) participants in the study reported that they had received information from their health care professionals regarding prostate cancer. There was 5% (n=12) of the male who indicated that their physicians had told them that they had a prostate condition (Fig 2).

Additionally, 10.25% of the participant reported to know some kind of examination for prostate cancer detection. Among them, 1.6% knew about the digital rectal exam; 4.5%, the PSA and 0.8% knew both (digital rectal and PSA test) but when cited by the researchers, 23.36% and 10.66% admitted to have heard of DRE and PSA respectively (Fig 1). The vast majority of men (44.7%) did not know the proper age for prostate cancer screening as being from 40 to 50 years (Fig3). Table 3 illustrates that the majority of the male in this study have a low level of knowledge and awareness of prostate cancer.

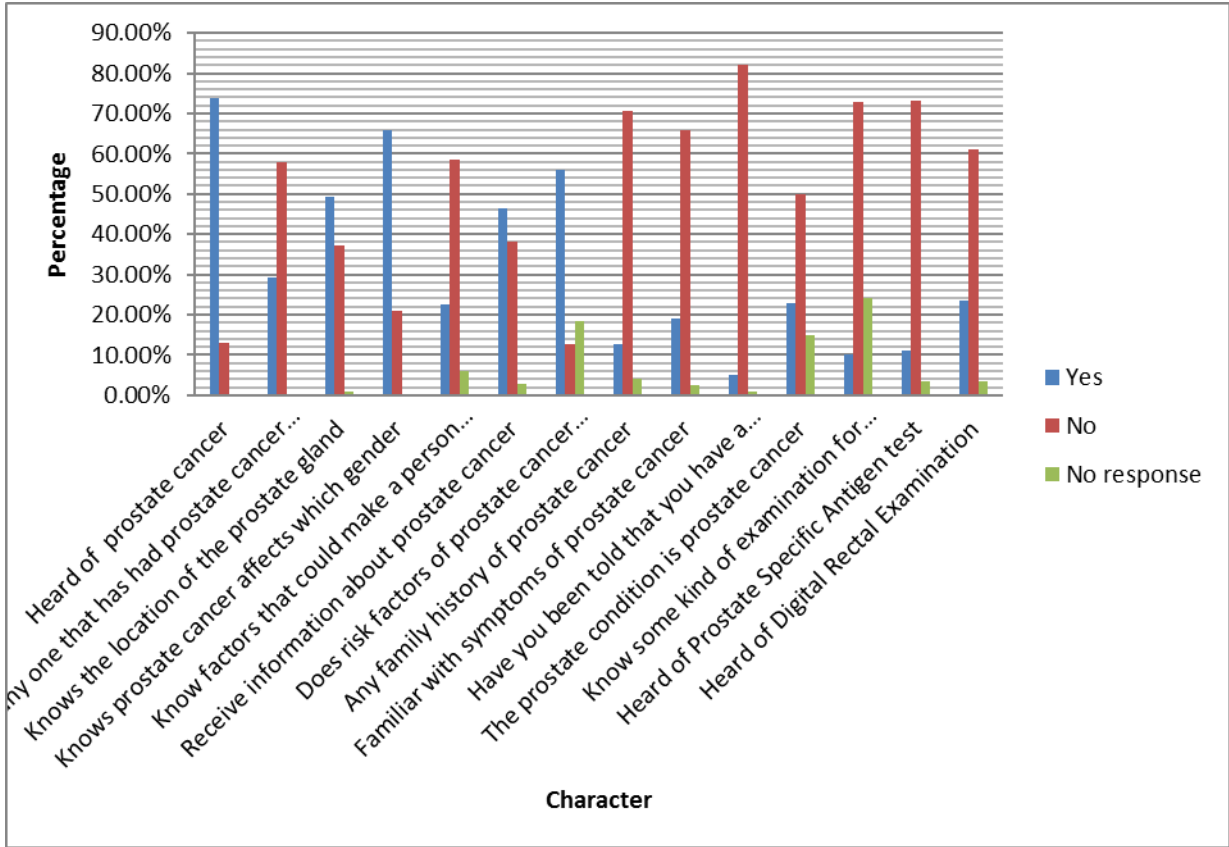


Figure No. 1: Participant response on knowledge and awareness of Prostate cancer

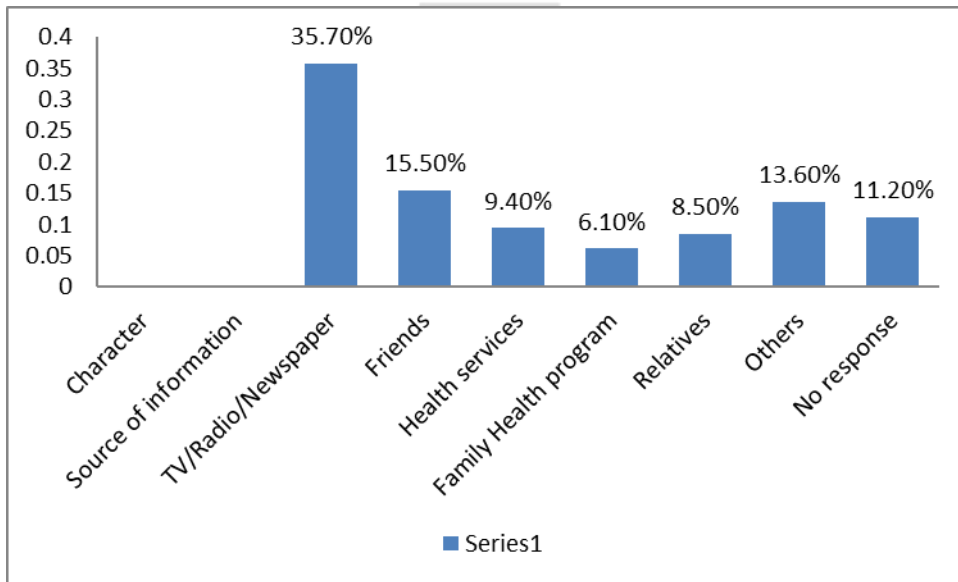


Figure No. 2: Participant response with respect to source of information on prostate cancer

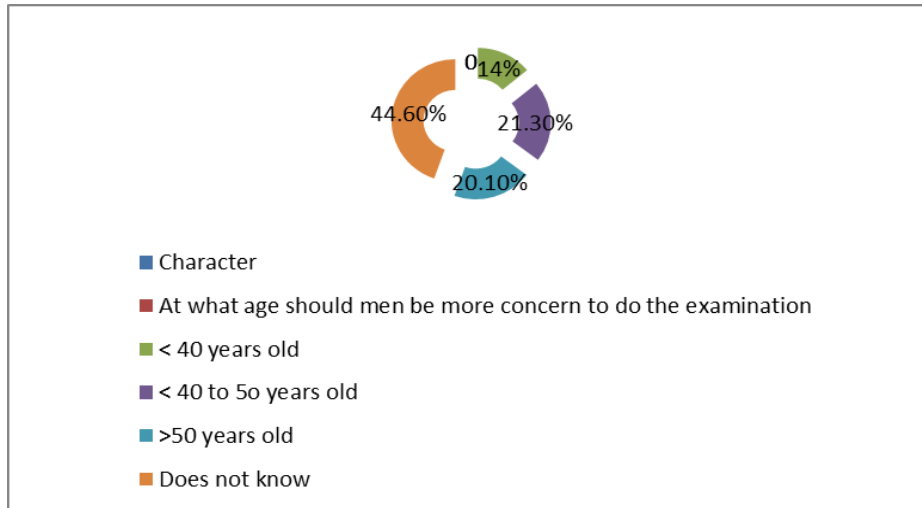


Figure No. 3: Participant response on the age at which men should be more concern to do the prostate examination

3.3 Prostate cancer screening practices:

Of the 244 participants, only 23 (9.4%) had ever been advised by a physician to undertake a PSA screening while only 12 (5%) participants had ever carried out PSA screening for PCa. Of the ones who had carried out PSA screening, only 9 (4%) had done it on regular basis. Similarly, only 13 (5.5%) men could remember DRE being performed on them before either for prostate examination or for other anorectal complaints. One hundred and thirty-eight (56.6%) respondents were willing to undertake screening for PCa. The reasons given by 106 respondents who had never been screened for PCa were multiple and depicted in figure 4 and figure 5.

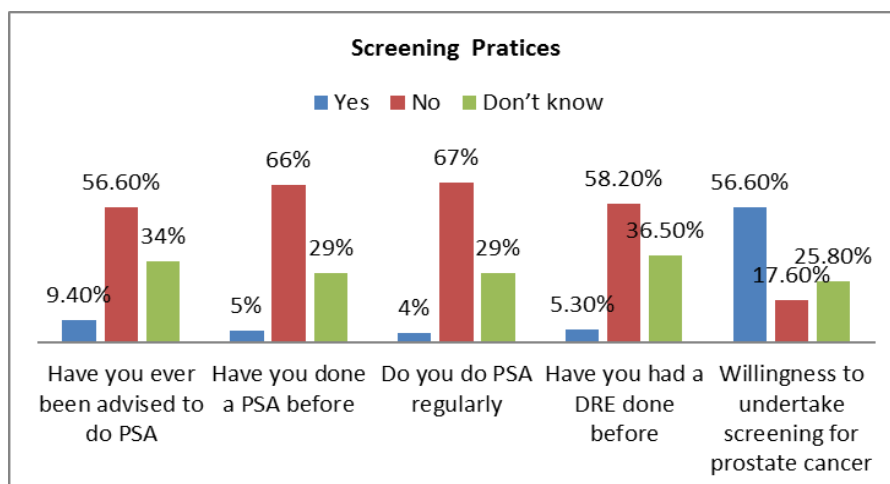


Figure No. 4: Screening Practices among the Participants

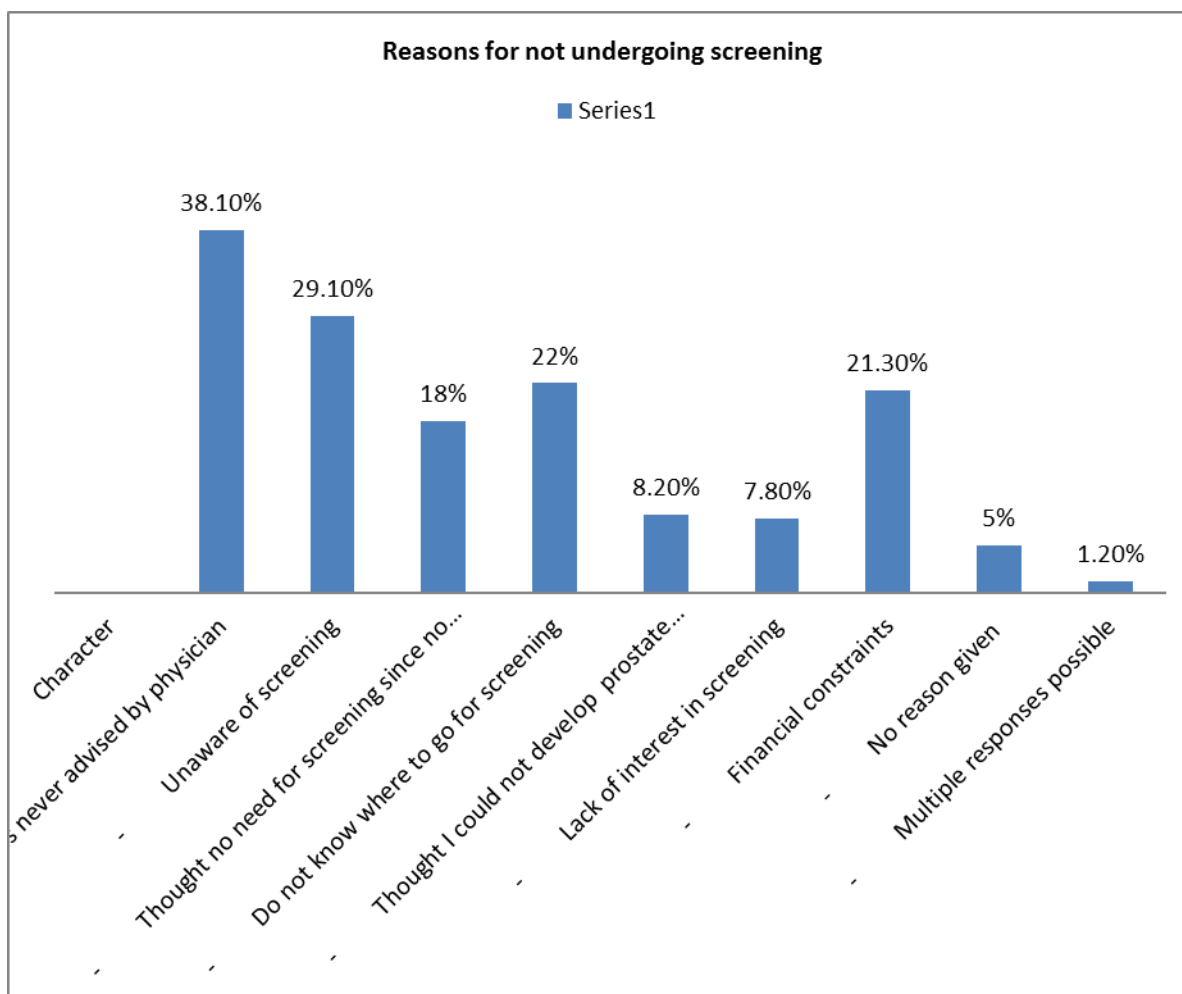


Figure No. 5: Reasons for not undergoing screening amongst participants

3.4 Knowledge on symptoms associated with prostate cancer

The overall knowledge of the participant with respect to signs and symptoms of prostate cancer was poor. Only seventy seven (n=77, 31.56%), eighty one (n=81, 33.2%), fifty two (n=52, 21%), ninety one (n=91, 37.3%), seventy (28.7%), forty two (n=42, 17.2%), fifty eight (n=58, 24%), sixty three (n=63, 25.8%) and forty seven (n=47, 19%) were able to identify the specific symptoms associated with prostate cancer which is difficulty starting urination, weak or interrupted flow of urine, frequent urination especially at night, difficulty emptying the bladder completely, pain or burning during urination, blood in urine or semen, painful ejaculation, trouble having an erection, and Pain in the back respectively. Figure 3

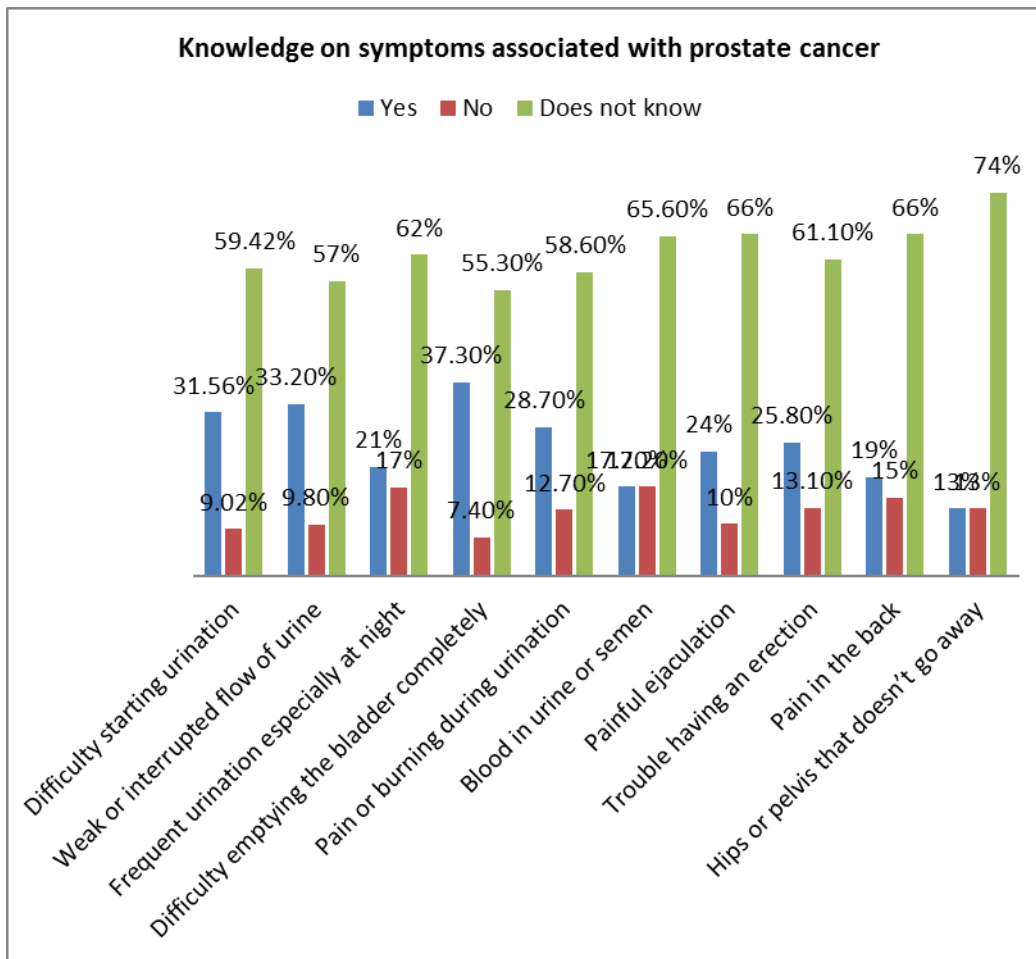


Figure No. 6: Knowledge on symptoms associated with prostate cancer

3.5. Attitudes of participants to screening and treatment of prostatic diseases:

Figure 7 shows the responses of participants to attitude questions regarding prostate diseases screening and treatment. Overall, the participants had good attitude to screening and treatment of prostatic diseases. Details of participants' responses are contained in figure 4.

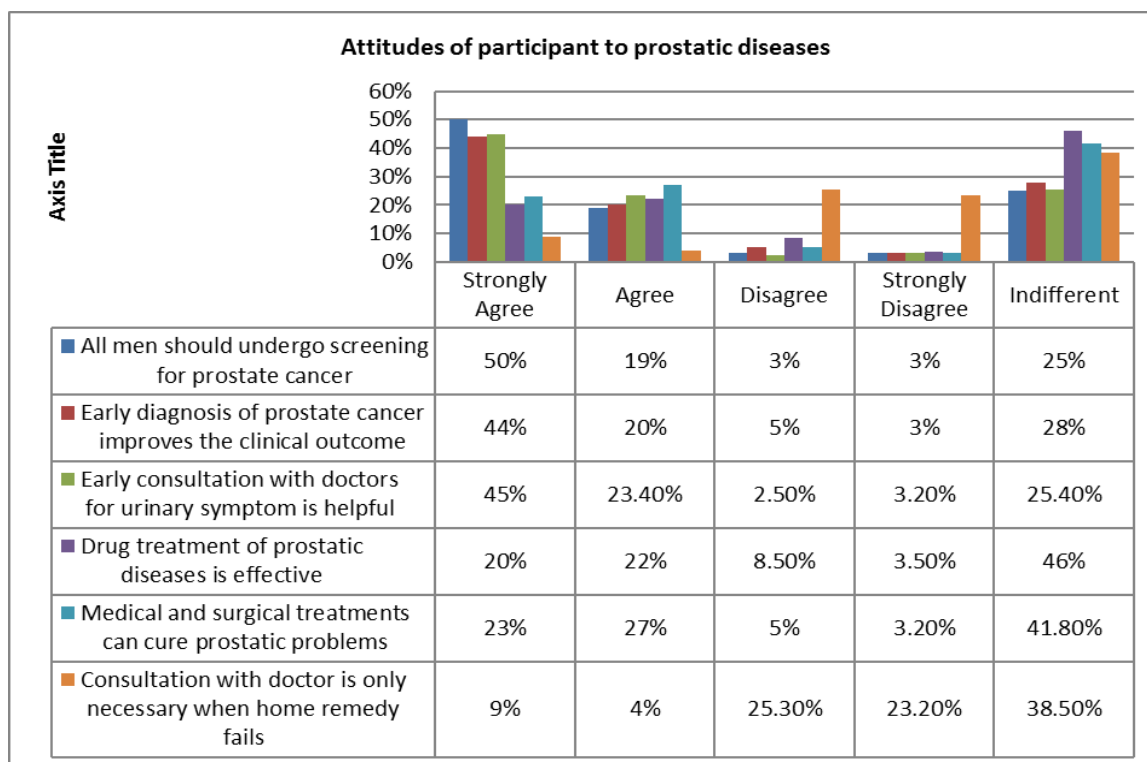


Figure No. 7: Attitudes of the participants to prostatic diseases

4.0 DISCUSSION

PCa is of important concern for all men since it poses a health threat especially to men over the age of 40 years. Inadequate literature exists on the knowledge, attitude and perception of PCa and screening behavior among males in Yaoundé, Cameroon. This study therefore assessed the knowledge, attitude and perception of prostate cancer among men in Yaoundé, Cameroon.

4.1 Knowledge and Awareness of Prostate cancer

Findings from our study showed that the majority (73.8%) of the study participants have heard of PCa which indicates that the level of awareness about PCa among the study population was high. Similar high level of awareness was also found among male university students in Ghana [14] and among older men in Oyo State of Nigeria [15]. The result from this study is however contrasted by a study among public servants in Nigeria where 94.2% of the study participants were completely uninformed of PCa [16]. The high level of awareness in our study could be due to the fact that most of the study participants were youths and have attained tertiary education and could therefore assess information.

4.2 Knowledge on symptoms associated with prostate cancer

Symptoms familiarity, the location of the prostate gland and possible factors most likely to cause the disease were used to test the knowledge and awareness of the respondents regarding prostate cancer. Surprisingly, only 49.2% of the participants were able to identify the location of the prostate gland and 22.5% were able to correctly identify which factors that would make an individual more likely to develop prostate cancer. Moreover, only 22.95% have knowledge about the prostate condition, and 18.9% were familiar with the symptoms of prostate cancer and were able to identify the specific symptoms associated with prostate cancer which is excessive urination at night and blood in urine (Chart 4.3j). These findings are similar to previous study findings that showed low levels of knowledge and awareness on prostate cancer among Nigerian and Australian [17,18] and also corresponds with that of Nnodimele, (2010)[19] whose findings revealed that only 1.5% of their participants know the specific symptoms of prostate cancer. The low level of knowledge could be explained by the difference in the age range of the participants since the majority of them were youths and they believe Pca is the disease of the old so they pay least attention on educational sensitization on Pca. Magnus (2004) [20] also indicates a similar reason for low knowledge and awareness of prostate cancer among their multiethnic black men. The results of this study, therefore, suggest that education is an important determinant of prostate cancer knowledge, awareness and perception. Hence, this suggests requisite for improving knowledge and awareness information through the delivery of tailored health promotion messages in higher institutions to capture a wider target male audience to enhance the knowledge and awareness about prostate cancer.

4.3 Prostate cancer screening practices

In this study, only a few number of participants had undergone PSA and DRE screening. Very few of the participants did the test regularly as part of their routine check-ups recommended by their spouses and family health practitioners. Other reasons were because they were worried and felt sick. Out of those who were not screened, most of them indicated not being aware of screening and mentioned a few other reasons such as not knowing where to get screened for PCa. These results indicate that participants were not aware of the screening methods. In Cameroon, there are no schedules as to when men should go for PCa screening like other illnesses in Cameroon such as HIV-aids and Diabetes, hence a very low screening uptake.

A study conducted by Paiva et al [21] showed that practice levels were adequate (51.9%), or at least above average. The results are different from the findings observed in our study where the practice was very low; 5% for PSA and 4% for DRE. These differences relate to the programs put in place to inform communities on what is available. In Uganda, it was reported that only 3.5% of the participants had ever undergone a serum PSA test [21].

4.4 Attitudes regarding prostate cancer

The overall results of the study showed that many of the respondents had a positive attitude towards PCa as a disease in general, screening, as well as treatment.

Our study findings are similar to findings from a study conducted in Brazil and Ghana where both studies indicated good attitudes of participants towards prostate cancer [21, 22].

Half of the respondents in our study strongly agreed that all men should undergo screening for prostate cancer (50%) and the rest of the respondents' attitudes about the importance of prostate cancer and treatment were positive. These results are similar to studies conducted in Nigeria [22, 23]. In Ghana, Binka et al (2014) [24] had a contrasting result which may be attributed to sociocultural influences.

CONCLUSION

There was generally high level of awareness and knowledge level about PCa among males in the Yaoundé Municipality. However, knowledge on preventive measures, symptoms and screening practices for prostate cancer was low. Therefore, creation of awareness of information on the signs and symptoms, treatment and importantly the preventive measures of PCa is required.

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