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KNOWLEDGE AND ATTITUDE REGARDING PROSTATE DISEASES AND THEIR SCREENING AMONG OLDER MEN IN A RURAL AREA OF LAHORE

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ABSTRACT

Introduction: A prostate is a walnut-sized gland, which is a significant part of the male reproductive system that coils around the urethra posterior to the pubic bone and interior to the rectum, just inferior to the bladder. Its size increases with the growing age and can be of bigger size in older males. Not only age but family history, ethnic background, high levels of dihydrotestosterone (DHT), obesity, diabetes, sedentary lifestyle, and poor diet are the major causes of prostatic hyperplasia (PH).(Tanveer, Tahir et al. 2019) The prostate's function is to produce fluid in the semen that nourishes and protects the sperm cells. A hormone called androgen (testosterone) produced by the testicles controls the activity and growth of the prostate.(Steele, Miller et al. 2010)

Purpose: The goal of the research is to determine the awareness and attitudes of men in Lahore towards prostate disease.

Methodology: A cross-sectional is a study which gathers information from a population at specific time of period**.** A cross-sectional analytical study design was used to evaluate knowledge and attitude regarding prostate diseases and their screening among older men.

Results: This chapter contains 3 review sections. Demographic research was the initial analysis. This provides us with insights on three demographic issues. For three variables descriptive analysis was used. One was independent variables (Marital Status, Age and Education) and two were dependent variables (knowledge and attitude of the participants). It tell us about the knowledge and attitude of the participants towards prostate diseases and their screening in older men in Ali Raza Abad community Lahore

Conclusion: Through this KAP study assess the knowledge and attitude regarding prostate disease and their screening in an older men in Ali Raza Abad community in which mostly participants were male and married and have more than 50 years age, the score of the participants show that more participants have more knowledge and positive attitude about prostate disease and their screening. The people of the community who were illiterate and more than 40 years age need more education and awareness to enhance their knowledge and screening practice towards prostate.

Key Words: Knowledge, Attitude, Benign prostate hyperplasia and Prostate Cancer

I- INTRODUCTION

A prostate is a walnut-sized gland, which is a significant part of the male reproductive system that coils around the urethra posterior to the pubic bone and interior to the rectum, just inferior to the bladder. Its size increases with the growing age and can be of bigger size in older males. Not only age but family history, ethnic background, high levels of dihydrotestosterone (DHT), obesity, diabetes,

sedentary lifestyle, and poor diet are the major causes of prostatic hyperplasia (PH).(Tanveer, Tahir et al. 2019)

The prostate's function is to produce fluid in the semen that nourishes and protects the sperm cells. A hormone called androgen (testosterone) produced by the testicles controls the activity and growth of the prostate.(Steele, Miller et al. 2010)

There are three diseases that arise in the gland: prostatitis (gland inflammation), prostatic adenoma (benign tumor leading to adenofibromyoma hypertrophy), and prostate cancer (malign tumor). An enlarged prostate may block the flow of urine within the urethra, contributing to frequent urination, hematuria, urinary tract infections (UTIs), and urinary incontinence. The Bamoun people know about prostatic diseases. They are known as' 'Kekenschienke' (Hard urine that translates to micturition or dysuria difficulties).(Marans and Planning 2013)

Diseases of the prostate are typical diseases in urology. The most common of these are benign prostatic hyperplasia (BPH), prostate cancer (PCa) and chronic prostatitis (CP). There are variations in ethnicity, diet, lifestyle and environmental factors between Asians and whites; these three prostate diseases therefore have characteristics that are unique to Asian men. Therefore with regard to epidemiology, symptomatology, diagnostics and therapeutics, we examined these features. The characteristics of prostate diseases that are unique to Asians are taken into consideration.(Xia, Cui et al. 2012)

Some studies have indicated that prostatitis (inflammation of the prostate gland) may be associated with an increased risk of prostate cancer, but no such association has been identified in other studies. Inflammation is also seen in prostate tissue samples containing cancer as well.(Saleh, Fooladi et al. 2015)

Researchers have looked at whether sexually transmitted infections (such as gonorrhea or chlamydia) could increase prostate cancer risk because they can progress to prostate inflammation.(Saleh, Fooladi et al. 2015)

The numbers of prostate cancer and deaths differ globally, but in North America and Northern Europe they are higher. Higher rates may be due to better or more screening practices, inheritance, poor diets, lack of exercise habits, and exposure to the environment.(Jonsson 2009)

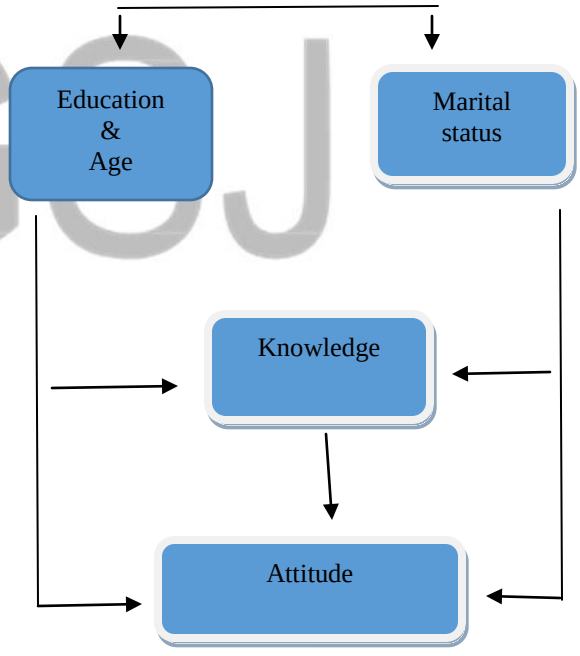
"Screening" means examination for a disease, even though if you've no symptoms. Two examinations used to screen for prostate cancer are the prostate specific antigen (PSA) blood test and the digital rectal examination (DRE). For early detection of cancer, both are used. These exams, however are not flawless. For either test, irregular findings may be due to benign prostatic enlargement (BPH) or infection rather than cancer.(Arafa, Rabah et al. 2012)

In the medical community, Prostate cancer screening with serum prostate-specific antigen (PSA) monitoring and digital rectal examination (DRE) has been the focus of intensive studies over the past decade. While abundant has been learned about the presentation features of the screening tests, their ability to identify clinically relevant prostate cancer is not fully known when it is still curable. In addition, prostate test screening is currently controversial and may lead to redundant, even adverse, effects in several patients.(Anderson, Wallace et al. 2016)

The diagnosis is made on the symptoms of difficulty in urine emission: difficulty of urination in the morning, often hematuria (adenoma); painful prostate, micturition disorder and hematuria (cancer); painful prostate disorder and sometimes abscess; dysuria, sluggish, laborious micturition, small and delayed urine jet (prostatitis). The criteria for clinical signs lead to these various symptoms. (Marans and Planning 2013)

The Knowledge, Attitudes and Practice Assessment (KAP) on prostate cancer was part of the 2013-2014 demographic health survey conducted in Namibia. 64 percent of males aged 40-64 reported that they have heard of prostate diseases, the study reports. Furthermore, the DHS report (2014) reported that only 33 (7%) men from the Oshana region were screened for prostate cancer during the time. (Akinremi, Ogo et al. 2011)

Concepual framework



The framework of this study is divided into two components: a) the knowledge that men have regarding prostate diseases; b) the attitudes and how the men feel towards prostate diseases.The first objective was to measure the level of knowledge, whether adequate or inadequate based on the close ended scale. The way the men feel about prostate cancer was assessed by their attitude response, as per the second objective. Based on the knowledge and

attitudes, the screening practices, PSA and DRE that they are engaged in were evaluated.Below figure shows the demographic variables that play a role in the knowledge and attitudes of patients regarding prostate diseases and their screening. The primary variables that affect attitudes are education, age, and marital status.

There were several incorrect misconceptions about the etiology of prostatic diseases in this report. The three most common myths are the positive history of sexually transferred infections, multiple sexual partners and unnecessary sexual activity. While there is no empirical justification for these opinions, these mistaken convictions are held by more than half of the study participants. Similar reasons were provided by respondents to a study in Burkina Faso, these beliefs are not specific to men in Lahore.(Emmanuel and Pharmacology 2010)

In this age group, the most common prostate diseases, namely prostatitis, benign prostate hyperplasia (BPH) and prostate cancer (PCa), are some of the most prominent elderly diseases and are a significant reason for urological comparison. A study conducted in England in which the author addressed that average level of awareness of prostatic diseases, however, although only 47% of participants had clear understanding of prostate diseases, the overall level of knowledge was low. However, while the knowledge level was still low, it signifies an enhancement on Nigeria's earlier reports. Approximately a quarter of our research participants had heard of PSA (Prostate Specific Antigen) screening, compared with 5.8% recorded in aprior study. (Emmanuel and Pharmacology 2010)

Baseline data will be generated from the findings of this analysis to help improve effective prevention measures and awareness programs. In addition, this research will also help identify potential causes for the late reporting of males for prostate diseases and help educate the public through screening of the need for early-seeking actions. (AlAyadhi, Alyousif et al. 2020)

Previous studies on other forms of cancer, such as prostate cancer, have shown that different awareness-creating initiatives have contributed to a rise in early detection and care, leading to a reduction in disease burden due to mortality from morbidity. Increased understanding among men of prostate disease risk can therefore result in early detection, reduction of mortality and morbidity, and subsequent burden of disease and disease. In addition, the results of the study will include data on the levels of awareness and attitudes towards early detection of prostate diseases that can be used as a basis for further academic studies. (Nakwafila 2017)

Additionally, the medication and treatment for prostate diseases and especially prostate cancer can be quite costly. Government agencies and stakeholders will adopt strategies with the availability of new knowledge and data that will not only save lives, but also decrease the economic impact of the disease. (Tasian, Cooperberg et al. 2012)

II- Literature Review

In Saudi Arabia, the study by Arafa et al stated that only 54% of doctor's practice PC therapy and screening with the patients and awareness and attitude toward this problem was not good. Physicians who were motivated by scientific evidence, particularly primary health care physicians, were found to be more likely to practice informed decision-making with their patients. The media is a significant strategic instrument for disseminating health information. Public awareness regarding cancer prevention currently tends to be primarily informed by TV and radio programs rather than by information supplied directly by health professionals.(Forrester-Anderson and underserved 2015)

It is suspected that rapid developments in the health care sector and drastic socio-economic changes resulting in altered lifestyles have led to the greater occurrence of cancers in Arab residents. At the other end of the spectrum lies prostate cancer (PC). Arabs have one of the lowest incidences of clinical prostate diseases around globe. This is in spite of the higher prevalence of risk factors, as well as the consumption of high-calorie foods that are rich in animal fat and smoking. (Arafa, Rabah et al. 2012)

The study of the effect of screening for prostate carcinoma on awareness carried out in the United States found that male who avoid screening had less knowledge of prostate diseases and a less optimistic attitude towards screening than male who chose to be screened. This result indicates that it would improve screening rates by offering men data regarding prostate diseases. In other research, the interest in prostate screening was diminished by information intervention once the advantages and disadvantages associated with prostate screening were clarified to respondents. (Rajbabu, Chandrasekera et al. 2007)

The maximum mean total knowledge score was recorded from Jordan (11.24±3.39), which was hardly above the midpoint (56.2 percent), while the highest mean total attitude score was reported from Egypt (20.68±6.4, 73.8 percent), and the partakers in the present study were distinguished by weak knowledge and fair attitude towards prostate diseases and recognition in the three countries. (Arafa, Rabah et al. 2012)

A study conducted to evaluate men's KAP for prostate diseases and screening tests in different populations in the United States reported that prostate disease KAP appears to be low among Black American men, compared with those in low- and middle-income countries, particularly Sub-Saharan Africa. In addition, the level of awareness among multi-ethnic black men in America was estimated to range from 71.1% to 81.9%, taking into account demographic variables. Although a KAP study conducted in Uganda found that 324 (59.4 percent) of respondents knew about prostate diseases, while 9% knew about serum PSA. Consequently, in Uganda, only 3.5% of the participants had ever undergone a serum PSA exam. (Ojewola, Oridota et al. 2017)

A research on prostate volume and prostate adverse characteristics, size and location of prostate cancer was said to be of significance for diagnosis. In small gland, prostate cancers are more aggressive than those within larger glands. When it comes to prostate volume, diagnosis and treatment are very necessary.(Patel and Klein 2009)

The prevalence of prostate disease and mortality rates differ worldwide. In prostate diseases, PCa is the most prevalent malignancy affecting men in the United States and is the second leading cause of cancer deaths. Prostate diseases, however, vary between geographical groups and distinct ethnic groups. Prostate disease rates within the SSA differ about 8 times, with the lowest rates recorded in West Africa and the highest rates reported in the East. With the African economy improving and rising the adoption of Western lifestyles, an increase in the rate of PCa incidence in Africa is likely to occur over time as predicted.(Ojewola, Oridota et al. 2017)

Literature documents that in terms of management methods, the level of KAP of prostate diseases correlates with prevalence levels. So the view is generally that men of African origin have low levels of awareness in the USA, Caribbean, and Sub-Saharan Africa (SSA) relative to American Hispanic men, hence the high incidence and mortality rates within those populations. Another study conducted among Arab populations shows levels of awareness of 52.1 percent and 30 percent of men who have had routine prostate exams, respectively.(Morlando, Pelullo et al. 2017)

III- Methodology

A cross-sectional is a study which gathers information from a population at specific time of period**.** A cross-sectional analytical study design was used to evaluate knowledge and attitude regarding prostate diseases and their screening among older men.

Study population

Data was collected from men older than 40 years, living in Deena Naat Lahore.

Sample size

Sample size is by convenient selection.

Data collection procedure

A well-structured, closed-ended and Likert scale questionnaire was acquired from the earlier study i.e. “Knowledge, attitudes and screening practices regarding prostatic diseases among men older than 40 years: a population-based study in Southwest Nigeria”. The questionnaire consist of sections such as the participant’s knowledge and attitude regarding prostate disease and its screening. These questionnaires were distributed among male participants of Ali Raza Abad and Sher Shah Colony. This questionnaire consisted of many questions such as about the knowledge and attitude of males regarding prostate diseases and their screening.

Research tool

A closed ended question as per Likert scale, well adopted questionnaire was used in this analysis. Ojewola, R. J et al 2017 developed this questionnaire in previous study. This questionnaire is based on knowledge and attitude towards prostate diseases and their screening among older men. This questionnaire is made up of many questions which assesses participant’s knowledge and attitude regarding prostate diseases and their screening on older men. Feedback of the participants were calculated by 5 point Likert scale. 1= strongly disagree, 2=disagree, 3= neutral, 4= agree and 5= strongly agree. (Ojewola, Oridota et al. 2017)

Ethical consideration

Ethical principles were implemented during research study. Permission was received from the Ethical Committee of the Department of LSN at Lahore University. The participants were given full research-related details. It was ensured that the contributors were not affected and the research was beneficial. The opportunity to engage in research was available to all participants equally. No one has been compelled to take part in study. Informed consents were signed by participants. Prior signing consent. The contributor were told of the investigation's aim, methodology, drawbacks and benefits. The data and information were kept confidential.

Time framework

This study took approximately 4-6 months (September, 2020 to January, 2021)

IV- RESULTS

PROFILE OF THE RESPONDENTS

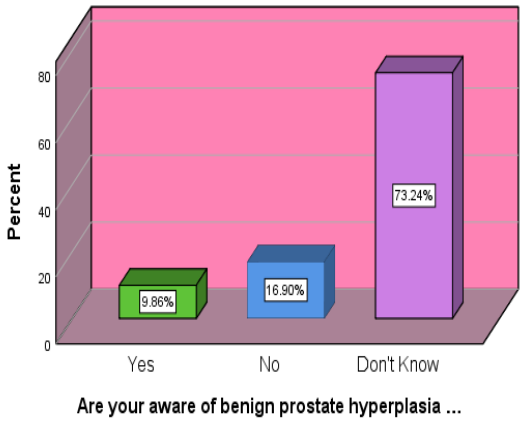
Demographic research was the initial analysis. This provides us with insights on three demographic issues. For three variables descriptive analysis was used. One was independent variables (Marital Status, Age and Education) and two were dependent variables (knowledge and attitude of the participants). It tell us about the knowledge and attitude of the participants towards prostate diseases and their screening in older men in Dena Naat community Lahore.

Table 1. Demographic frequency					
Marital Status	**Single**	**Married**	**Divorced**		
	12.0%	77%	10.6%		
Education	Illiterate	Primary	Secondary	High School	Graduate
	40.8%	31%	16.2%	7.0	4.9%
Age Group	☐40-45 Years	☐46-50 Years	☐51-55 Years	☐above 56	
	8.5%	11.3%	16.2	52.8%	

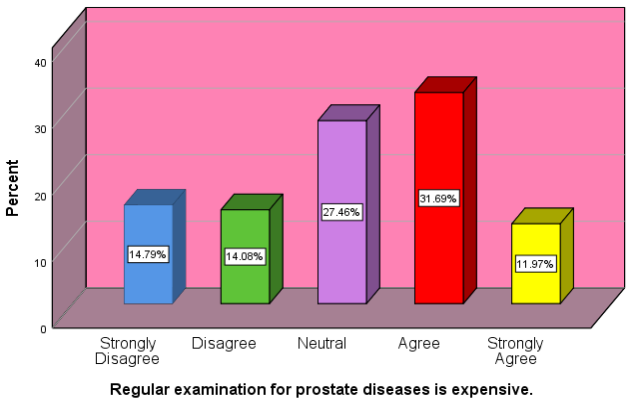
The above table shows that the marital status of 12% of the participants were single, 77% were married and 10.6% were divorced. The educational status of the illiterate people were 40.8%, primary educated were 31%, secondary were 16.2%, high school educated people were 7% and graduate people were 4.9%. In the age group 8.5% people were 40-45 years old, 11.3% people were 46 to 50 years old, 16.2% people were 51 to 55 years old and 52.8% people were above than 56 years old.

		Frequency	Percent
Valid	Yes	14	9.9
	No	24	16.9
	Don't Know	104	73.2
	Total	142	100.0

Regular examination for prostate diseases is expensive		
	Frequency	Percent
Strongly Disagree	21	14.8
Disagree	20	14.1
Neutral	39	27.5
Agree	45	31.7
Strongly Agree	17	12.0
Total	142	100.0



The above table and graph number 6 show the participants response about **Are your aware of benign prostate hyperplasia (BPH)?** In which 9.86 % participant response to Yes 16.90 % participants response to No and the 73.24% participants response to Don't Know.



The given table and graph 18 indicated the response of participant toward Regular examination for prostate diseases is expensive in which 14.7% were strongly disagree, 14.08% were disagree, 27.46% were neutral, 31.69% were agree and 11.97% were strongly agree.

V- DISCUSSION

This KAP study to assess knowledge and attitude regarding prostate disease and their screening in an older men among 142 participants in Dena Naat a rural community of Lahore. In this study the overall participants were male and mostly participants were educated. Most participants have more knowledge about prostate disease and very less participants have no knowledge, mostly participants have positive attitude and some have negative attitude.

In Pakistani study author discuss his study results and show Most of our attendees (74-79%) were married, the age bracket in Jordan was high, most of them had a university degree in Egypt and Jordan, while approximately half of the Saudi members were in high school preparatory education. The number of participants who performed routine prostate examination in Jordan was 30 percent, followed by 10 percent and 8.3 percent in Saudi Arabia and Egypt, respectively, most of whom (67-82 percent) were 50 years of age and over. (Arafa, Rabah et al. 2012)

Some results of the variable show the participants response about Do you have any awareness about prostate diseases? In which 50.75% participant response to Yes 28.17% participants response to No and the 21.13% participants response to Don't Know.

Rufus Wale OJEWOLA's research showing people to be knowledgeable about these diseases was identified, as 48.2 percent of respondents in this study had never heard of any of the three major prostatic diseases. Interestingly, 67.5% had not heard of BPH, which is the most prevalent prostatic disease. During the advertising for data collection for this initiative, they claimed to have learned about it for the first time.(Ojewola, Oridota et al. 2017)

The results of the variable show the participants response about Do you know what prostatitis is?In which 59.86 % participant response to Yes 21.13% participants response to No and the 19.01% participants response to Don't Know.

A study conducted by Rufus Wale OJEWOLA in Nigeria in which the author described the result of his studies which reported an average level of understanding of prostate diseases, but as only 47 percent of participants had strong knowledge of prostate diseases, the overall level of knowledge was low. However, while the level of knowledge was still low, it represents an improvement on Nigeria's earlier reports.(Ojewola, Oridota et al. 2017)

The results of the variable show the participant's response about Are you aware of PSA screening? In which no any participant response to Yes 33.10 % participants response to No and the 66.90% participants response to Don't Know.

Another study results show that majority of respondents (85 percent) were not tested for PDs. The most common explanation for not obtaining medical screening was "not being informed by the doctor" (33 percent), followed by the absence of symptoms (23 percent). However, when there were any signs, most people (64 percent) decided to see a doctor. The second most common response was to seek homeopathic care. (Tanveer, Tahir et al. 2019)

The results of the variable show score of the participant in response to Prostate diseases are only the problem for males of advancing age in which 9.2% participant show their response to strongly Agree, 16.9% participants response to Disagree, 24.6% participants response to Neutral, 24.6% participants response to Agree and 24.6% participants response to Strongly Agree.

In another results much of the population had learned of the prostate; however, no PDs were known to the majority (64%) of individuals. Nevertheless, about half (48%) of the population was aware of the rising danger of elderly PDs. The same proportion (48 percent) thought that age was the major factor when asked about the probable cause of such diseases, while the climate was thought to play the least important role here. More than half of people correctly recognized that in people over 50 years of age, PDs are more prevalent.(Tanveer, Tahir et al. 2019)

The results of the variable show the knowledge of the participants towards Is it important to screen for prostate diseases i.e. 12% of the participants were strongly disagree, 11.3% were disagree, 28.9% were neutral, 26.1% were agree and 21.8% were strongly agree.

In another study the author described about the importance of the screening and discuss the response of the participants in which the current analysis, the number of participants who conducted PC review and periodic inspection during the last year ranged from 8-30 percent in the three samples. A significant finding was that, despite the highest percentage of their respondents' attitude towards PC scanning and testing, Egypt had the least realistic activities.(Arafa, Rabah et al. 2012)The overall results show that mostly participants who were educated have more know knowledge about prostate disease and have prostitute towards screening, the score of the participant's attitude that age is the main factor of prostate. In this community peoples need more knowledge about the disease and their screening.

LIMITATIONS

- Less sample size 142 due to which we cannot generalize this study on whole population.
- One of limitations of this study was lack of time.
- Willingness of patients to participate in study was also a big obstacle.
- Convenient sampling technique was used which often suffer from biasness

VI- CONCLUSION

Through this KAP study assess the knowledge and attitude regarding prostate disease and their screening in an older men in Ali Raza Abad community in which mostly participants were male and married and have more than 50 years age, the score of the participants show that more participants have more knowledge and positive attitude about prostate disease and their screening. The people of the community who were illiterate and more than 40 years age need more education and awareness to enhance their knowledge and screening practice towards prostate.

RECOMMENDATIONS

In addition, the role of the doctor remains an important part of enhancing the patient's understanding and screening practices. The responsibility of every person is, if they experience any urinary symptoms they must visit to a doctor. In this kind of situations, a consultation with the doctor about Prostate Disease and counseling about assessments for diagnosis might enhance the patient's knowledge. This is the responsibility of every health organization to visit these types of community and provide more knowledge about prostate diseases and importance of their screening.

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