

Knowledge, attitudes and practices regarding the detection of prostate cancer*

Conhecimentos, atitudes e práticas acerca da detecção do câncer de próstata

Conocimientos, actitudes y prácticas acerca de la detección del cáncer de próstata

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ABSTRACT

Purpose: To describe the knowledge, attitudes, and practice regarding the detection of prostate cancer among men aged between 50 and 80 years old attending a PSF of the municipal district of Juiz de Fora, MG. **Methods:** This was a cross-sectional home survey with a randomized sample of 160 men residents in the subscript of the program. **Results:** The majority of participants was married (69.4%), had children (88.8%), used the PSF (86.3%), and had knowledge about detection of prostate cancer. Great number of them had attitudes (40.6%) and engaged in adequate practice for the detection of prostate cancer. Participants with adequate attitudes reported almost twice adequate practice for the detection of prostate cancer (RP = 1.8; IC = 1.1 – 3.0). **Conclusion:** The study's findings support that the use of constant, persistent, and dynamic educational activities is a fundamental requisite for the prevention and early detection of prostate cancer.

Key Words: Prostatic neoplasms; Health Knowledge, attitudes, practice; Men's health.

RESUMO

Objetivo: Analisar conhecimentos, atitudes e práticas em relação ao câncer de próstata de homens com idade entre 50 e 80 anos, adstritos à uma unidade do PSF no Município de Juiz de Fora - MG. **Métodos:** Estudo seccional realizado por meio de inquérito domiciliar abrangendo amostra aleatória de 160 homens residentes em área adscrita desse programa. **Resultados:** Da amostra, 69,4% eram casados, 88,8% tinham filhos, 86,3% informaram utilizar o PSF, 63,8% apresentaram conhecimento, 40,6% atitudes e 28,1% práticas adequadas. Os homens com conhecimento adequado tiveram prevalência 7,6 vezes (IC 95%=2,4-23,6) mais elevada de referir práticas adequadas. Aqueles com atitudes adequadas tiveram prevalência quase 2 vezes maior (RP=1,8; IC=1,1-3,0) de referir práticas adequadas. **Conclusão:** Este estudo corrobora a prevenção e a detecção precoce, como estratégias básicas para o controle do câncer de próstata, e têm como requisito essencial um conjunto de atividades educativas constantes, persistentes e dinâmicas para os homens.

Descritores: Neoplasias da próstata; Conhecimentos, atitudes e prática em saúde; Saúde do homem.

RESUMEN

Objetivo: Analisar conocimientos, actitudes y prácticas en relación al cáncer de próstata de hombres con edad entre 50 y 80 años, inscritos en la una unidad del PSF en el Municipio de Juiz de Fora - MG. **Métodos:** Estudio seccional realizado por medio de encuesta domiciliar abarcando una muestra aleatoria de 160 hombres residentes en área adscrita a ese programa. **Resultados:** De la muestra, 69,4% eran casados, 88,8% tenían hijos, 86,3% informaron utilizar el PSF, 63,8% presentaron conocimiento, 40,6% actitudes y 28,1% prácticas adecuadas. Los hombres con conocimiento adecuado tuvieron incidencia 7,6 veces (IC 95%=2,4-23,6) más elevada de referir prácticas adecuadas. Aquellos con actitudes adecuadas tuvieron incidencia casi 2 veces mayor (RP=1,8; IC=1,1-3,0) de referir prácticas adecuadas. **Conclusión:** Este estudio corrobora la prevención y la detección precoz, como estrategias básicas para el control del cáncer de próstata, y tiene como requisito esencial un conjunto de actividades educativas constantes, persistentes y dinámicas para los hombres.

Palabras clave: Neoplasias de la próstata; Conocimientos, actitudes y práctica en salud; Salud del hombre.

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INTRODUCTION

The magnitude of prostate cancer is reflected by statistics published by the National Cancer Institute⁽¹⁾. The number of new cases estimated for Brazil in 2005 was of 46,330, representing an estimated risk of 5.1 cases for 100,000 inhabitants and it is the most frequent type of cancer in all regions of Brazil. As for mortality, despite increasing rates, it is relatively low, partly reflecting the good disease's prognosis⁽¹⁾.

Several factors have been suggested as the determinants for the increase in incidence of prostate cancer, the following stand out among them: greater life expectancy; constant campaigns to identify the disease which found out more men with the disease, and the environmental and dietary influences, such as high energy intake, and the intake of red meat, fat and milk⁽²⁾.

According to the Brazilian Society of Urology⁽³⁾, one out of six men aged 45 or over may have the disease without knowing. This high frequency, which makes prostate cancer a public health problem, coupled with the possibility of detection with a relatively simple procedure, should make this disease a priority in the care of male health⁽⁴⁾. In this sense, this care involves preventive actions of primary feature (which includes actions focused on the risk or predisposing factors) and secondary feature (early diagnosis and a proper therapeutic approach to prevent disability and mortality that may be caused by the disease)⁽⁵⁾. Regarding early prevention, risk factors are, most of the times, unknown and inevitable, hindering more specific prevention measures for prostate cancer. However, two risk markers are recognized as important: age and family history. Regarding age, the likelihood of prostate cancer in men younger than 39 is one for every 10,000 men; one for 103 men aged between 40 and 59 and one for 8 men aged between 60 and 79 years old⁽⁶⁾. Therefore, cases increase exponentially over 50 years, making screening essential from this age on.

In this sense, to evaluate the connection among men's knowledge, attitudes and practices (KAP) in relation prostate cancer can be a useful methodology to plan and evaluate the reach of health education practices⁽⁷⁾ by public health services. KAP's model assumes that a health behavior is attached to a sequential process: it originated from the acquisition of a scientifically correct knowledge which can explain the formation of a positive attitude and the adoption of a health practice⁽⁸⁾. Two major theoretical trends could explain the behavior: one argues that people act by the circumstances and situation; the other one argues that people act on their values and beliefs⁽⁹⁾. KAP's model, on the other hand, is based on the second theory.

However, besides the knowledge, obstacles such as cost, the access to health services and even cultural factors can determine more or less favorable health practices. Additionally, many factors can still motivate or encourage

the provision for certain health practices. This motivation can be internal through symptoms such as pain or discomfort, or even external through advertising campaigns in the mass media⁽²⁻¹¹⁾.

This study aimed to analyze knowledge attitudes and practices towards prostate cancer in men aged from 50 and 80 ascribed to a unit of the Family Health Program in Juiz de Fora municipal district - MG.

METHODS

A sectional study was carried out and developed by a household survey, whose study population was composed by a simple random sample of 160 men aged between 50 and 80 years old of 457 men of an ascribed area to a PSF of Juiz de Fora County - MG. The calculation of the sample size was done from the following formula: $n = Nz2p(1-p) / [d^2(N-1) + z^2p(1-p)]$. (Where N=men total population in the considered age group in the ascribed area (457); z=valor corresponding to the level of a squared confidence (1.962=3.84); d=squared absolute precision (0.062=0.0036); p=proportion of the population with the studied feature (0.5)).

Adopted inclusion criteria were the following: men living in the ascribed community of PSF aged from 50 to 80, regardless of the presence of a prior prostate cancer history or not. Exclusion criteria included: men under 50 years, because they are not the priority groups for the early detection of prostate cancer⁽¹²⁾; men aged over 80 years, once among them urologic problems and even cancer are now very frequent minimizing chances of early detection⁽¹⁻⁶⁾.

We used as a research instrument a questionnaire composed of open and closed questions which were based on questions from another national and international study questionnaire⁽¹⁴⁾. The content of questions covered socioeconomic and demographic variables (age, education, marital status, income and religion), in addition to history of urologic complaints, family and personal history about prostate cancer, knowledge, attitudes and practice related to the prostate exam. Men who knew some of the prostate cancer screening methods, digital rectal exam and/or prostate specific antigen exam (PSA) were considered as having proper knowledge, those who considered the annual performance of prostate cancer screening exam very important were considered as presenting a proper attitude, and men that had performed the digital rectal exam and/or PSA in less than one year were considered as having a proper practice

Initially data analysis was done through the manual review and coding of forms. Therefore, data were typed, using the Epi info program (2005), and were submitted to the exploratory statistical techniques: mean, standard deviation (SD) and frequency distribution. Statistical associations of bivariate analysis were done by the chi-square test and the prevalence ratio, with a 5% significance

level.

The study attended to the requirements of Resolution nº 196/96(14), of the National Board of Health; for such, eligible men were invited to participate of the study and only answer to the questionnaire after taking notice and giving their written consent. The study was approved by the Ethics Committee of Anna Nery Nursing School, under the number (007/07 – protocol of CEP in 05/02/2007).

RESULTS

Participants' mean age was 61.5 years (standard deviation (SD) = 8.0 years). Regarding color/ethnic group, 40.6% declared themselves as white; 20.0% as black, and 39.4% as brown. Most people were married (69.4%). We identify low level of education among the interviewed people, 66.9% reported to have only incomplete elementary school and 16.8% reported not having attended school. Regarding family per capita income, mean salary of the previous month was U.S.\$168.30 (SD=276.4). The majority (76.9%) reported not having health insurance and 88.8% informed having children. Regarding religion, 76.9% of men declared to be catholic; 21.3%, from other religions, and 1.9% not having any religion. Concerning practices assessed related to health, 28.1% reported smoking cigarettes, 56.6% alcohol use, and 31.4% practiced physical exercises (Table 1).

Table 1 - Description of the sample of men in the area belonging to the Family Health Program (PSF) in the city of Juiz de Fora - MG

Sociodemographic variables	N	%
Age	Mean= 61.5	SD= 8.0
Race/color		
White	65	40.6
Black	32	20.0
Mestizo	63	39.4
Marital Status		
Married	111	69.4
Unmarried	49	30.6
Education		
Incomplete Elementary School	107	66.9
Complete elementary school or over	26	16.3
Never went to school	27	16.8
Per capita family income	Mean R\$=308.0	SD R\$=276.4
Has health plan		
No	123	76.9
Has children		
Yes	142	88.8
Religion		
Catholic	123	76.9
Other	34	21.2
Does not have a religion	3	1.9
Smokers	45	28.1
Drinks alcohol	90	56.6
Practices exercises	49	31.4

In relation to the prostate cancer knowledge, 97.5% reported they have already heard about the disease. The respondents identified the media (TV/radio/newspaper) as the main source for this information (33.8%), followed by their friends (33.1%). PSF and other health care services, respectively, were mentioned only by 11.2% and 9.4%. Additionally, 65.7% of them reported to know some kind of prostate cancer detection exam. Among them, 20% knew about the digital rectal exam; 43.8%, the blood test/PSA and 36.2% knew both (digital rectal and blood test). The vast majority of men (75.6%) referred the proper age for prostate cancer screening as being from 40 to 50 years (Table 2).

Table 2 - Knowledge on prostate cancer assessed in men in the area belonging to the Family Health Program (PSF) do Município de Juiz de Fora - MG

Knowledge	N	%
Has heard about Prostate cancer	156	97.5
If yes, where/who mentioned it (n=156)		
TV/Radio/Newspaper	54	33.8
Friends	53	33.1
PSF (Family Health Program)	18	11.2
Other health service	15	9.4
Relatives	9	5.6
Others	11	6.9
Knows some kind of examination for cancer detection	105	65.7
If yes, types of examination they know (n=105)		
Rectal exam	21	20.0
PSA Blood test	46	43.8
Rectal exam/PSA blood test	38	36.2
In your opinion, at what age should men be more concerned to take the examination?		
< 40 years old	18	11.2
40 to 50	121	75.6
> 50	7	4.4
Does not know	14	8.8

Based on Table 3, we can conclude that 90.0% of respondents consider that the prostate exam is the only manner of diagnosing cancer suspicion and 68.1% reported that the proper frequency for exam in the interviewed age group is annual. However, in the opinion of 32.5% of the interviewed men, the prostate cancer screening exam should be done only in the presence of urinary symptoms. With regards to the importance given to the prostate exam, 54.3% reported as "very important", 40% as "important", and only 3.1% stated to be "indifferent" and 2.6% considered to be "not important at all" or "of minor importance".

With respect to the prostate cancer screening practices, 61.3% of men reported that a physician had already informed them they should do the prostate exam; 54.3% had already done the exam and the main reason professionals had requested the examination was for "prevention routine", indicated by 61.6% of the respondents. We stress that more than half the interviewees performed the examination less than one

Table 3 - Opinions (attitudes) regarding prostate cancer detection among interviewees of the area belonging to the Family Health Program (PSF) in the city of Juiz de Fora - MG

Opinions related to Prostate cancer detection	N	%
The only way to suspect prostate cancer is through prostate examination		
No	9	5.7
Yes	144	90.0
Does not know	7	4.3
The adequate frequency of screening for men the same age of the interviewees is		
Annually	109	68.1
Every 2 years	17	10.6
Every 3 to 5 years	4	2.5
Every 5 years	4	2.5
Only when there are symptoms	13	8.1
He should not do the exam	3	1.9
Does not know	10	6.3
Only those men with urinary symptoms should screen		
No	92	57.5
Yes	52	32.5
Does not know	16	10.0
How important is it to perform prostate examination regularly?		
Very important	87	54.3
Important	64	40.0
Doesn't matter	5	3.1
Little or not important at all	4	2.6

Table 4 - Practices regarding prostate cancer screening among interviewees in the area belonging to the Family Health Program (PSF) in the city of Juiz de Fora - MG

Practices regarding prostate exam	N	%
Has any physician advise you to screen for prostate cancer?		
Yes	98	61.3
No	59	36.8
Do not know/do not remember	3	1.9
Have you ever performed a prostate examination?		
Yes	87	54.3
No	71	44.4
Do not know/do not remember	2	1.3
Reason for request (N=87)		
Presented symptoms	18	20.9
Cancer cases in the family	2	1.2
Prevention	53	61.6
The participant requested the examination	11	12.8
Other	3	3.5
When was the last time you underwent the examination (N=87)		
Less than one year ago	51	58.8
Between one and two years	19	21.2
About three to five years ago	11	12.9
Over five years ago	6	7.1
Have you ever undergone a PSA?		
Yes	83	51.9
No	72	45.0
Do not know/do not remember	5	3.1
When was the last time you underwent a PSA (N=83)		
Less than one year ago	54	65.5
Between one and two years	15	17.9
About three to five years ago	5	6.0
Over five years ago	5	6.0
Do not know/do not remember	4	4.8

year ago (58.8%). Regarding PSA performance, 51.9% reported they had already done it, and 65.5% informed that they had already undergone this exam less than one year ago (Table 4).

In this study we found significant association among

respondents' knowledge, attitudes and practices in relation to the prostate cancer screening. Among those who presented a proper knowledge, we found the prevalence 7.6 times (CI 95%=2.4-23.6) higher of attributing an adequate practice than the prevalence found among those

who demonstrated inadequate knowledge. Those who were classified as having adequate attitudes presented prevalence almost two times higher (RP=1.8; CI=1.1-3.0) of attributing proper practices when compared to those with inadequate attitudes. (Table 5)

Table 5 - Association between knowledge, attitudes and appropriate practice among interviewees of the area belonging to the Family Health Program (PSF) in the city of Juiz de Fora - MG

Variables	Practices				PR* (CI 95%)
	Appropriate		Inappropriate		
	n	%	n	%	
Knowledge					
Appropriate	41	40.2	61	59.8	7.6 (2.4-23.6)
Inappropriate	4	6.9	54	93.1	
Attitudes					
Appropriate	25	38.5	40	61.5	1.8 (1.1-3.0)
Inappropriate	20	21.1	75	78.9	

* Prevalence ratio

DISCUSSION

We identified a sample with poor socioeconomic situation which is peculiar of areas ascribed to the PSF in many cities; some authors state that people in unfavorable socioeconomic conditions have greater difficulty in accessing the health system: therefore, they are more exposed to health hazardous and cancer may be one of these problems⁽¹⁶⁾. Prostate cancer screening is definitely the most important step of treatment, mainly in developing countries, because it is in the early stage of the disease that a cheaper and effective treatment can be offered to men, contributing to the maintenance of the quality of life. Thus, the role of those responsible for adopting public policies and the work of health professionals cannot be dissociated from the health education provided to the population.

Complementing the profile of the socioeconomic sample, the analysis of education presented an unfavorable situation. There are authors who associate lack of information about the prevention or about prostate cancer treatment to the low levels of education and show that the male population with low level of education and socioeconomic status suffer greatly from lack of information, demanding educational actions especially directed to this group⁽¹⁷⁾.

With regards to the large number of children reported (average of 4.27 children) this is a reflex of the association between low income and low education, because according to some authors⁽¹²⁾, these two factors create a group with less access to the health care system.

Although there are several studies discussing masculinity, overall, in the health field, studies on male efforts towards a health lifestyle and health promotion are still lacking⁽¹⁷⁻¹⁸⁾.

In relation to the lifestyle of the sample, we could still find many smokers and heavy alcohol users, which expose them to the risk factors related to the prostate cancer⁽³⁾. The small portion of the study participants who practiced physical exercises (31.3%) completed the characteristics of individuals with poor health: smokers, alcohol users, and sedentary lifestyle.

After analyzing data from the sample we could see that 63.8% of men presented proper knowledge regarding prostate cancer; 40.6% had a proper attitude, and 28.1% a proper practice. These rating can be considered concerning and must be considered in strategies for prevention and health promotion among men from the community. Although less than a third of men reported proper practices, we observed that, among them, knowledge seems to have been a decisive factor in the adoption of these practices and also in their attitudes towards the recommended exam. This aspect of our results confirms the logic of the KAP model, which assumes that health behaviors are linked to a sequential process: the acquisition of a correct knowledge leads to a favorable attitude that can also lead to healthy practices (8-9). Therefore, we expect that the appropriate knowledge is one of the features that favor positive behavioral changes, though we recognize that this is not the only determinant factor of health practices. Similar to our results, a study carried out in Florida showed that lack of appropriate knowledge was considered as a determinant factor for the prostate cancer exam⁽¹⁴⁾.

The area we studied is ascribed to the PSF, therefore it deserves greater professional attention to preventive health. We know that PSF activities should prioritize preventive practices, but there is still a gap in male preventive actions. It is necessary to change the way of thinking. We could observe in the present study that men have consistent opinions about the subject; however, most of them do not include the examination in their annual prevention as indicated.

FINAL CONSIDERATIONS

The study contributions go beyond knowledge production, as it intends to provide guidance to conduct or define actions within health care institutions to increase the number of early detection exams for prostate cancer and, thus, significantly contributing to the reduction of diagnoses in advanced stages of this disease.

Based on the analyzed experience, there is an observation that reinforces the idea that prevention and early detection, basic strategies for prostate cancer control, request a set of constant, persistent and dynamic educational activities for men, according to their standard values, their education, and other variables. These educational activities should prioritize the urgent need for behavioral changes in men and in the institutions, giving priority to screenings.

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