Factors associated with masculinity in the early diagnosis of prostate cancer: a narrative review

ABSTRACT | Objective: to identify the factors associated with masculinity in the early diagnosis of prostate cancer. Method: this is a narrative review conducted in the following databases: SCIELO, LILACS and PUBMED. After applying the eligibility criteria, the study sample was composed of 14 articles published between 2000 and 2021. Results: the studies strongly address the influence of socioeconomic and cultural aspects on men’s preventive search for self-care. The standards set by society hinder male adherence, making them less likely to seek health services than women, hindering the early diagnosis of prostate cancer. The rectal examination is linked to the transgression of their masculinity, resulting in the fear of performing it. Conclusion: sociocultural conceptions about masculinity are negatively associated with men’s health, imposing difficulties in the early diagnosis of cancer and consequently increasing male mortality.

Keywords: Prostatic Neoplasms. Masculinity. Men’s Health. Prostate-Specific Antigen. Digital Rectal Examination.

INTRODUCTION

To be a man, in contemporary Western societies, safeguarding existing differences, is to be framed in the ideal of masculinity. In order to achieve this ideal, men deny behaviors considered to be feminine and value demonstrating characteristics considered to be masculine and categorically determined by society, such as
virility, strength and inviolability, often sacrificing their own health in favor of this ideal. (1)

In this way, there are men who are absent in the search for care due to the fear of being effeminate when seeking it, for fear of discovering something that compromises the ideal of strength and for feeling uncomfortable in exposure to the doctor. (2) Therefore, these sociocultural conceptions act to normalize archaic convictions of what it means to “be a man” and, therefore, compromise male health so that the rate of illness and mortality in this population group is high, especially with regard to Prostate Cancer (PCa), since, in many cases, it has a late diagnosis. (1, 2)

The non-adherence of men in the search for health services reveals gender stereotypes based on cultural characteristics, which standardize a certain type of masculinity considered to be hegemonic, obeying a symbolic order in which the disease expresses the fragility of the body and, by extension, of its bearer. (3)

Thus, according to the National Cancer Institute (INCA - Instituto Nacional do Câncer), nowadays, in Brazil, PCa is considered the second cause of death due to neoplasms in men, being surpassed only by Non-Melanoma Skin Cancer (NMSC). Likewise, it is important to note that this type of tumor can grow both slowly and quickly. Therefore, it becomes evident the need to perform routine tests for its early detection and, thus, enable better treatment effectiveness. Thus, the main and first tests performed should be digital rectal examination and the measurement of Prostate Specific Antigen (PSA). (4)

With digital rectal examination, it is possible to check for the presence of nodules in the gland, assessing size, consistency and shape of the prostate, (4) whereas PSA is the most widely used serum marker clinically in relation to PCa and its use encompasses not only screening, but also the diagnosis, prognosis and monitoring of therapy. (5) In addition, experts suggest that men over 50 need to perform PSA and digital rectal examination annually. However, individuals with a family history of PCa must perform such procedures from the age of 40. (3-5) Thus, debating on this subject is extremely relevant in the area of male health and investigating on this topic is an exercise to expand the knowledge of medical students.

Thus, this study aimed to identify the factors associated with masculinity in the early diagnosis of PCa.

METHOD

This is a descriptive, exploratory, documentary, retrospective study, based on a narrative review of the literature. The search for the articles was carried out through the online databases of the Virtual Health Library (VHL), which are: Scientific Eletronic Library Online (SCIELO), Latin American and Caribbean Literature in Health Sciences (LILACS) and Medical Literature Analysis and Retrieval System Online (MEDLINE/ PUBMED). The consultation of these databases was taken as an initial criterion for selection. These databases were chosen because they are currently the main sources of scientific publications and, using their search system, the following descriptors were used: “PCa”; “masculinidad”; “saúde do homem”; “antígeno prostático específico” and “exame retal digital”. Also, they were combined with each other by the Boolean operator “AND” in order to define relationships between the terms in a search, that is, the terms are combined so that each result contains at least one of the terms.

The following inclusion criteria were adopted for the capture of articles: (1) be indexed in the respective databases; (2) have the abstract available for reading in Portuguese; (3) be available for free to download; (4) be a national or international article; and (5) be published between January 2000 and March 2021. The following were excluded: (1) repeated articles that were indexed in more than one database; (2) articles indexed in databases other than those selected; and (3) articles that did not address the proposed theme. The search resulted in a sample of 526 articles (Table 1), and, after applying the study’s eligibility criteria, the final sample consisted of 14 articles published between the years 2000 and 2021 (Table 2). Still, a careful reading of all selected articles was carried out in order to guarantee the application of the eligibility criteria. Data collection took place during the 1st semester of 2021, between the months of January and March of the respective year, by the responsible researcher. For this, a structured form was used as an instrument of data collection.

The discussion was structured according to the following categories: (1) The construction of the “ideal man”; (2) The prostate and cancer: importance of prevention; (3) Main diagnostic methods: PSA and digital rectal examination; (4) PCa: medical conduct and treatment; and (5) PCa repercussions on masculinity. In short, the study discussed the ideal of masculinity present in Brazil and how it interferes with men’s health, highlighting the justifications of the male public for the absence of the search for health systems. Then, it was argued about the PCa, highlighting the forms of diagnosis, prevention and treatment and, finally, the consequences of the outdated conception of masculinity still present in contemporary society, which interferes and, in many cases, precludes the early diagnosis of prostate cancer.
RESULTS

The sample of this study, after selection in the databases (SCIELO, LILACS and MEDLINE/PUBMED) and application of the eligibility criteria, was represented in a table according to the following variables: title, author, year of publication, journal, objective, method and level of scientific evidence (LOE).

DISCUSSION

The construction of the “ideal man” conception, what fits into the masculin-
<table>
<thead>
<tr>
<th></th>
<th>Study Title</th>
<th>Authors</th>
<th>Year</th>
<th>Journal</th>
<th>Methodology</th>
<th>Level of Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Masculinities of prostate cancer survivors: a qualitative meta-synthesis</td>
<td>Araújo e Zago(10)</td>
<td>2019</td>
<td>Rev. Bras. Enferm.</td>
<td>Identify the production of knowledge in the health literature about masculinities, in the context of PCa survivors and analyze the implications of this relationship for the maintenance of health care.</td>
<td>1A</td>
</tr>
<tr>
<td>6</td>
<td>Screening tests for prostate cancer: men’s experience</td>
<td>Belinelo, Almeida, Oliveira, Onofre, Viegas e Rodrigues(11)</td>
<td>2014</td>
<td>Esc. Anna Nery</td>
<td>Understand the experience of men in performing screening tests for PCa.</td>
<td>2C</td>
</tr>
<tr>
<td>7</td>
<td>Barriers to screening tests for prostate cancer</td>
<td>Paiva, Motta e Grie(12)</td>
<td>2011</td>
<td>Rev. Latino-Am. Enferm.</td>
<td>Describe barriers to PCa tracking.</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>A male issue: knowing possible obstacles to conducting prostate cancer screening tests</td>
<td>Moraes, Oliveira e Silva(13)</td>
<td>2017</td>
<td>Rev. Med. Hered.</td>
<td>Determine whether men perform the test for the detection of PCa and unveil the difficulties to perform it.</td>
<td>2B</td>
</tr>
<tr>
<td>9</td>
<td>Embodied Hegemonies: Moral Dilemmas in Illness from Prostate Cancer</td>
<td>Araújo, Nascimento e Zago(14)</td>
<td>2019</td>
<td>Rev. Esc. Enferm. USP</td>
<td>Interpret the meaning attributed to man’s experience of his body during illness by PCa.</td>
<td>5</td>
</tr>
<tr>
<td>10</td>
<td>Transient masculinities in illness from prostate cancer</td>
<td>Araújo, Conceição e Zago(15)</td>
<td>2019</td>
<td>Rev. Esc. Enferm. USP</td>
<td>Interpret the meanings attributed to the experience of men with PCa on their bodies and their masculinities during illness, based on the conception of medical anthropology and masculinities.</td>
<td>5</td>
</tr>
<tr>
<td>11</td>
<td>Issues of male sexuality in primary health care: gender and medicalization</td>
<td>Pinheiro, Couto e Silva(16)</td>
<td>2011</td>
<td>Interface Comum. Saúde Educ.</td>
<td>Understand how the sexuality of male users of services is presented in the context of assistance, and how the demands that are configured in this context are addressed.</td>
<td>5</td>
</tr>
<tr>
<td>12</td>
<td>Male sexuality and men’s health: proposal for a discussion</td>
<td>Gomes(17)</td>
<td>2003</td>
<td>Cienc. Saúde Colet.</td>
<td>To problematize aspects of male sexuality that, if not properly addressed, could compromise men’s health.</td>
<td>2A</td>
</tr>
<tr>
<td>13</td>
<td>Perceptions about prostate cancer in a male population over 45 years old.</td>
<td>Astudillo, Pinzón, Ospeña, Grisales, García(18)</td>
<td>2011</td>
<td>Hacia Promoc. Salud</td>
<td>To identify the perception of men over 45 years of age on the PCa identified in Santa Rosa de Cabal (Risaralda), with the purpose of generating health promotion strategies on the topic.</td>
<td>2C</td>
</tr>
<tr>
<td>14</td>
<td>Motivation of men in the search for assistance provided by family health strategies</td>
<td>Silva, Silva, Santos, Galvão, Oliveira e Alves(19)</td>
<td>2021</td>
<td>Nursing (São Paulo)</td>
<td>Investigate the motivation of men in the search for assistance provided by the Family Health Strategy.</td>
<td>2B</td>
</tr>
</tbody>
</table>

Source: Own authorship, 2021. LOE = Level of Evidence.
more subordinate.\(^{(21)}\) In the hegemonic masculinity model, domination and heterosexuality stand out as structuring axes. \(^{(6,8,14,20)}\) Thus, people who follow such accepted standards of masculinity are attested as men and are not questioned by those who share the same symbols. \(^{(7,8,21)}\)

Such an ideal was historically constructed with the image of man as responsible for the family, author of political decisions, holder of greater access to knowledge and even as a model of perfection represented in anatomy in works by Da Vinci and Michelangelo, in paintings, sketches and sculptures. In this way, roles attributed to male beings over the years contributed to the formation of the ideal of masculinity that praises men as being strong, virile and inviolable. \(^{(2,13,14,16,17,19)}\)

Therefore, from this socioeconomic construction of masculinity, men who try to follow it often end up leaving health as something that is not a priority. This factor can be exemplified by the fear of men feeling effeminate when seeking health services, since the search for care is something considered by the female public, this would be justified by the socialization that women receive, from an early age, to reproduce and consolidate the roles that make them responsible, almost exclusively, for maintaining social relationships, committing themselves to care. \(^{(2,3,14,19)}\) Another point to be discussed is the male public’s disgust at exposing themselves to the doctor, justifying that showing his body part or being touched in a procedure would put his masculinity at risk. \(^{(6,8,13-17)}\)

Furthermore, considering the man as the responsible and financial maintainer of the family contributes to the absence of health services, since the hours of the workday generally coincide with the hours of service, especially in the Primary Health Care (PHC) units. \(^{(13,14,17-19)}\) For the man to take care of his health, he would have to be absent from his service for such an action, so that this would have an impact on his family income, as well as on charges for the sector in which he performs the function, making it difficult to search for health care. \(^{(6,19)}\) Finally, another factor that repels men from health systems is the fear of discovering something serious that could lead to a feeling of fragility, compromising the ideal of strength. For men, it is a terrible fear to face any possibility that something might go wrong. \(^{(6,7,19)}\)

### Prostate and cancer: importance of prevention

The prostate is a small organ belonging to the group of accessory sexual glands of the male reproductive system and its function is to secrete the prostatic fluid, which in addition to composing 25% of the semen, is formed by several proteolytic enzymes such as PSA (widely used in the PCA identification), in addition to other substances essential for energy production and sperm survival. \(^{(24)}\) However, diseases can affect such an organ, such as the PCA, which occurs through the uncontrolled multiplication of tissue cells that subsequently originate metastases capable of invading neighboring organs and spreading through the body through the lymphatic and blood systems. \(^{(25)}\)

According to the INCA, PCA is currently considered the second leading cause of death due to neoplasms in men, being surpassed only by NMSC. Also according to the INCA, it is expected that in the period from 2020 to 2022 there will be 65,840 new cases of PCa. \(^{(26)}\) PCa can develop in any male individual, however, the existence of several other risk factors such as age, family history and lifestyle habits directly influence the onset and evolution of the pathology. Cancer can take on multifactorial causes that contribute to its development in order to involve environmental factors such as smoking, ionizing radiation, alcohol and hormone administration; endogenous factors...
such as aging, obesity, hormonal changes and genetic inheritance. (20,22,23,27) Thus, the periodic examination with the urologist is of great importance for the discovery of the disease in the initial stages and guarantee of better treatment effectiveness. For this reason, men over 50 years of age must undergo annual examinations such as PSA and rectal examination. However, individuals with a family history of NAC must perform such procedures from the age of 40, even in the absence of symptoms. (6-8,12)

Main diagnostic methods: PSA and digital rectal examination

PSA is a protease located in the prostatic epithelium and excreted in the seminal fluid. Its main function is the liquefaction of the seminal fluid. (28) Until the beginning of puberty, the prostate has a slow growth and when it reaches this stage, the gland quickly increases its size, stabilizing soon afterwards until the age of 45, when it tends to expand once again. Thus, the concentration of PSA, which is only produced by the epithelial cells of the prostate, increases with the enlargement of the prostate and may indicate infection, benign hypertrophy or cancer. (4,5,24)

Therefore, the dosage of PSA is an ideal tumor marker and therefore has great relevance, since its production is restricted to the prostate. However, if, on the one hand, the laboratory analysis of this glycoprotein is of great importance for guaranteeing the diagnosis of PCa, on the other hand, its existence in high quantities may also be associated both with the age of the patient, as in the case of Benign Prostatic Hyperplasia (BPH) as well as for other disorders in the gland like prostatitis and not just cancer. With the exception of extreme values, the PSA is not accurate enough to isolate the patient in isolation. (5,24)

Therefore, the PSA dosage should be requested by the medical professional as a complementary exam to digital rectal examination and not as a single method for diagnosis.

Therefore, it is noted that, although the PSA has great relevance for the diagnosis, treatment and monitoring of PCa, its use still generates controversies, since in certain situations, its presence in the organism at higher levels than expected does not determine by themselves the existence of the PCa. Thus, there is a need for further studies aimed at the discovery of other specific tumor markers that are more accurate and that assist in the diagnosis of prostatic carcinoma. (4,5)

Digital rectal examination is a method used to assess structures located internally and close to the rectum. Through it, it is possible to make the diagnosis of several diseases in the area, such as PCa. The procedure is done quickly and painlessly by the medical professional. Thus, the professional introduces a finger, using a glove and lubricant in the patient’s anus and, in this way, palpates the gland in order to analyze the size of the organ, the consistency and the presence of possible tumors. In addition, digital rectal examination is a very advantageous method, since it is possible to assess the prostate instantly, it is inexpensive, it is done in a few minutes, it is non-invasive and therefore does not cause risks or sequelae to patients. (6,8)

Despite being a useful procedure, digital rectal examination has limitations and therefore needs to be accompanied by other tests to obtain the final diagnosis, since the size of the prostate may be associated with other disorders in the gland such as Prostatitis and BPH. Also associated with the technique, there is the fact that through it, the professional is unable to evaluate the organ as a whole. Therefore, the diagnosis made only by digital rectal examination is not a guarantee of the presence of malignant tumors. Therefore, it is essential that it be associated with the PSA dosage and even the biopsy of the tissue belonging to the organ. This professional is limited only to the posterior and lateral parts of the palpation, with some tumors being out of reach of the examiner. (4,5,7,8,10)

Likewise, the method is also a victim of much prejudice by men who associate the procedure with a violation of their masculinity. Therefore, it is necessary to develop actions that aim to raise awareness among the male public about the consequences of such outdated thinking for health and how important it is to discover prostate cancer in the early stages. (6,7)

PCa: medical conduct and treatment

After the diagnosis of PCa, measures are necessary to prevent its evolution. According to the Onco-guia Institute, several treatments can be performed, with each case having its necessary therapeutic measures, taking into account the stage at which the neoplasm is. In summary, surgeries can be performed to remove tumors and the gland, there is also the possibility of chemotherapy and radiotherapy, which basically aim to inhibit the growth of cancer cells by destroying them. Bone marrow transplantation (BMT) can also be performed when associated with the other methods mentioned above. (10)

PCa repercussions on masculinity

According to the Ministry of Health (MHI), in 2016, a study with more than six thousand adult males pointed out that 1/3 (31%) of this public still do not have the habit of going to the doctor. (31,32) Some of the main reasons for this absence in health systems are related to the attempt of men to always be inserted in the current hegemonic masculinity patterns. (2,6,14) This absence in the health system contributes to smaller preventive actions and to aggravations, as it prevents the PCa diagnostic exams from happening early. (2,3,6,14,19,20,31)

Regarding the PCa, in Brazil, the campaign calling attention to the ne-
oplasia appeared in 2008, promoted by the Instituto Lado a Lado Pela Vida, a Non-Governmental Organization. Initially called Um Toque, Um Dribble (One Touch, One Dribble), it got the name Novembro Azul (Blue November) in 2012. However, even with the campaign, social conceptions prevent the search for prevention or early diagnosis. One of the reasons is the lack of knowledge about the primary, secondary prevention methods and how these procedures are performed, which generates fear and repulsion from men to perform the exams. In addition, another reason is the fear of the diagnosis because, for many, knowing that they have cancer is a death sentence.

Furthermore, undergoing digital rectal examination means, for many men, touching masculinity, among the justifications of the male audience is that the examination touches an interdicted space of the body. Likewise, digital rectal examination can symbolically be seen as a violation of masculinity, since it is associated with sexual penetration, passing the image of the penetrating (active) man to the conception of a passive man in the exam, so being passive at the time of the exam could counteract the ideal of masculinity. Another factor is the fear of having an erection during the procedure, as arousal could mean for the doctor that the patient is enjoying it, which can put his masculinity at risk.

Thus, it becomes evident how sociocultural conceptions about masculinity hinder the early diagnosis of PCa and, consequently, contribute to the aggravation and deaths of male people.

**CONCLUSION**

There is little demand from the male public for health services. Such occurrence is mainly due to outdated sociocultural conceptions that equate the fact of being sick with frailty, an idea that goes against the established concept of what it means to be manly in society. Thus, such retrograde thinking implies several consequences for male health, since this distance makes it difficult to guarantee a healthier life.

Concomitantly, with regard to the search for PCa prevention, there is an even lower demand for health services, since the fear of being diagnosed as a patient coupled with prejudice in relation to the digital rectal exam persists in an exacerbated way. The problem is justified, mainly due to the way in which the procedure is performed and how it causes embarrassment, since there are recurrent situations in which the digital rectal examination is seen as a reason sexual experiences in which the man is exposed to the condition of passivity, which goes against his representation of what it is to be manly and manly in today’s society.

Thus, PCa cases today have alarming numbers and that is why it is considered a public health problem. Consequently, it is clear that the biggest obstacles of health services with regard to men’s health and the prevention of PCa, is prejudice in relation to digital rectal examination coupled with the lack of concern of this public in taking care of their own health, in certain cases, not accepting the fact that the possibility of being ill may in some way make you more fragile and vulnerable, since such assignments are usually referred to the female group.

Therefore, it is essential to develop health actions that aim to raise the awareness of the male public about the consequences of such outdated thinking for the guarantee of a healthy life and how important it is to perform periodic exams such as digital rectal examination and dosage of the PSA for the early discovery of PCa.

**References**


2. Gomes R, Nascimento EF, Araújo FC. Por que os homens buscam menos os serviços de saúde do que as mulheres? As explicações de homens com baixa escolaridade e homens com ensino superior. Cad. Saúde Pú-