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# ROLE OF PROSTATE CANCER KNOWLEDGE AND MEMORIAL ANXIETY ON HEALTH CONSCIOUSNESS AMONG MEN IN AWKA METROPOLIS, ANAMBRA STATE, NIGERIA

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**ABSTRACT:** *The study explored role of prostate cancer knowledge and memorial anxiety on health consciousness among men in Awka metropolis, Anambra State, Nigeria, with 46 incidentally sampled participants (43-66 age-range, mean-age 48.4, and SD 6.97), using Health Consciousness, Prostate Cancer Knowledge, and Memorial Anxiety Scales. Two-factorial design/Two-Way ANOVA statistics were used. Model accounted 9.9% variance health consciousness ($F_{3, 42}$)=1.53, p>.05; R=.099, $R^2$ adjusted=.034. First hypothesis: Those with high prostate cancer knowledge will significantly differs from those low prostate cancer knowledge on health consciousness was rejected ($F_{1, 42}$)=2.13, p>.05. Second hypothesis: There will be significant difference between men with high memorial anxiety and men with low memorial anxiety on health consciousness was rejected ($F_{1,42}$)=.01, p>.05. Third hypothesis: There will be significant interaction between prostate cancer knowledge and memorial anxiety on health consciousness was rejected ($F_{1,42}$)=.63, p>.05. As recommendation, men need health education on regular stead screening on prostate cancer and anxiety.*

**KEYWORDS: Prostate Cancer Knowledge, Memorial anxiety, Health Consciousness, Men**

## INTRODUCTION

Some men today engage in unproductive negative behaviours such as smoking, alcohol, drug abuse, poor waste management and indiscriminate sexual practices. These often lead to various degrees of infections, overweight, underweight, obesity, accident and untimely death among others. The health hazards that the mode of health consciousness imposes on people and its effects on security and economy of individuals and society are of great concern. Certain factors may be responsible for these negative health consciousness. However, despite series of researches conducted on health consciousness by researchers, gaps still abound in relation to factors contributing to health consciousness (Adeniyi & Ogunsola, 2016; Shehu 2005). In view of the aforementioned challenges, this study explored the role of prostate cancer knowledge and memorial anxiety on health consciousness among men in Awka metropolis, Anambra State.

Health consciousness refers to the individuals' comprehensive orientation toward health, rather than issue-specific orientation that create tailored messages in diverse health interventions. Similarly, Jayanti and Burns's (1998) defined health consciousness as the degree to which health concerns are integrated into a person's daily activities clearly demonstrated the behavioural aspect of the concept. For example, Divine and Lepisto (2015) noted that people who enjoy healthy consciousness tend to prefer to exercise more often and eat white meat, fruits, and vegetables, while avoiding red meat, snack chips, and soft drinks. Thus, health consciousness is particularly vital because it factored health attitudes and responds to health information (Basu & Dutta, 2018; Schafer, Schafer, Bultena, & Hoiberg, 2013).

Therefore, taking heed of individuals' health consciousness is important in designing health interventions and segmenting target publics, because it determines their responses to health information and sources of health information. Specifically, Forthofer and Bryant (2000) explained why identifying individuals with high health consciousness is important in several ways. Firstly, different approaches to groups with different levels of health consciousness are feasible, which in turn increases the effectiveness of health intervention. Secondly, individuals with high health consciousness are regarded as "targets of greatest opportunity" because they are more likely to undertake health preventive behaviours. By targeting health conscious individuals, health interventions have a better chance to achieve desirable outcomes. Thirdly, the attitudes or behaviours of health conscious individuals could be diffused among other people who are less likely to change their attitudes (Forthofer & Bryant, 2000). More so, the health conscious men turned out to be

moderately engaged in health information seeking and health promoting behaviours, while individuals in the health autonomous cluster were more active in seeking health information from diverse sources, including media channels, and also more active in engaging in health promoting behaviours.

However, scholars noted that health consciousness is related to audiences' attention to or involvement with health messages through processing the argument and recommendations in the messages more thoroughly (Aldoory, 2017; Iversen & Kraft, 2016). Therefore, health consciousness should be understood as a psychological state that may be predicted by a variety of related variables like health attitudes and behaviours, rather than actual specific behaviours. Hence, prostate cancer knowledge and memorial anxiety may likely predict health consciousness among men.

Prostate cancer knowledge is a focal point for interventions promoting informed decision-making (Ilic et al., 2015; Riikonen et al., 2018). It is when people understand the disease as well as risks, benefits, uncertainties, and alternatives to screening that are involved in the decision-making process to the extent that he or she desires (Briss et al., 2004). For the recent increase in survival rates of men diagnosed with PC and knowledge, however, presents new challenges. The knowledge of palliative care issues, such as symptom management, may have emerged as major concerns as men try to know the various treatments like surgery, radiation, chemotherapy, and hormone therapy. Subsequent side effects, both physiological such as sexual dysfunction and incontinence and psychological like depression and anxiety are also of great concern. The adjustments that men have to make are challenging as they deal with emotional distress and manage changes in physical and social functioning while maintaining health consciousness.

However, some men are cancer-free after treatment while others live with the disease for many years. The fact that men live or die from prostate cancer does not alleviate the emotional, social, sexual and physical impairments associated with lack of prostate cancer knowledge and health consciousness. Consequently, most men with prostate cancer knowledge tend to be conscious of their health by trying to live healthy lifestyle. The challenge of the disease and its treatment can impact the health consciousness (Cancer and the Social Construction of Masculine Sexual Identity, 2008). Despite the significance of men's knowledge about prostate cancer in relation to health consciousness, less is known about the memorial anxiety they experience as regards to prostate cancer and its treatment than that of other cancers. For research related to health consciousness in connection to prostate cancer has focused primarily on the physical side effects of treatment, rather than the psychological effects and anxiety (Clark & Talcott, 2016). Essentially, little is known regarding health consciousness and memorial anxiety of men.

Some researchers have suggested that factor such as memorial anxiety may predict health consciousness among men (Cyllene, 2017; Eton & Lepore, 2018). Memorial anxiety is known as identity fear of being diagnosed with prostate cancer (Roth, Rosenfeld & Kornblith, 2003). Based on this uncertainty, natural history and clinical course of prostate cancer may often go unappreciated. Health consciousness affect men through psychological distress, especially memorial anxiety (Dale, Bilir & Han, 2015). Many men express feelings of stress, worry, and anxiety while dealing with prostate cancer and its treatments (Ibbotson, Maguire & Selby, 2014). Moreover, memorial anxiety has been shown to be a significant reason for pursuing health consciousness for prostate cancer (Cantor, Volk & Cass, 2012; Taylor, Shelby & Kerner, 2012).

Extremely heightened memorial anxiety, which becomes fear may decrease the likelihood of adhering to a health consciousness regimen (Roumier, Azzouzi & Valeri, 2014). Memorial anxiety about prostate cancer is decreased following consciousness about health and screening result. It remains elevated following an abnormal result that leads to a biopsy recommendation, which is an affect that is stronger for African-Americans (Taylor et al., 2012). Because heightened memorial anxiety about prostate cancer may lead to health consciousness and higher screening rates and possibly higher biopsy rates, it is important to know memorial anxiety levels in patients at the time of biopsy.

**Statement of the Problem**

Some health hazards of smoking, alcohol, drug abuse, poor waste management and indiscriminate sexual practices are infections, overweight, underweight, obesity, accident and untimely death. Moreover, certain factors influence negative health consciousness. Lack of understanding of health consciousness among men also is the reason why some did not know the risks, benefits, uncertainties, and alternatives to screening that is involved in health decision-making process (Briss et al., 2004). Unfortunately, despite series of studies conducted on health consciousness, gaps

still abound in relation to factors contributing to health consciousness (Adeniyi & Ogunsola, 2016; Shehu 2005). Interestingly, despite the imperatives of men's knowledge about health consciousness less is known about the memorial anxiety as regards to prostate cancer and its treatment. Researches related to health consciousness in connection to prostate cancer has focused primarily on the physical side effects of treatment, rather than the psychological effects and anxiety (Clark & Talcott, 2016). Consequently, this study aims at determining the role of prostate cancer knowledge and memorial anxiety on health consciousness among men in Awka metropolis, Anambra State, Nigeria.

**Research Questions**

1. In what way will prostate cancer knowledge predict health consciousness of men in Awka metropolis, Anambra State, Nigeria?
2. To what extent will memorial anxiety predict health consciousness of men in Awka metropolis, Anambra State?
3. To what degree will prostate cancer knowledge and memorial anxiety interact to predict health consciousness of men in Awka metropolis, Anambra State?

**Purpose of the Study**

The purpose of the study was to:

1. Examine if prostate cancer knowledge will impact health consciousness of men in Awka metropolis, Anambra State, Nigeria.
2. Investigate whether memorial anxiety will influence health consciousness of men in Awka metropolis, Anambra State.
3. Ascertain if prostate cancer knowledge and memorial anxiety will interact to predict health consciousness of men in Awka metropolis, Anambra State.

## LITERATURE REVIEW

### Theoretical Review

### On Health Consciousness

**Theory of planned behaviour (TPB) by Ajzen and Madden (1986):** It is a further development of an earlier theory of reasoned action and derives from social psychology. The theory added measure of behavioural control in addition to a measure of subjective norm which was added in the theory of reasoned action (TRA). Both models emphasize the role of reasoning on behaviour. It also seeks to explain the suggested relationships between attitudes and behaviours (behavioural intentions as an important precursor to actual behaviour) (Albery & Munafo, 2008; Brannon & Feist, 2007; Pitts & Phillips, 2003). Theory of planned behaviour stresses that behaviour is planned and that the planning is, in part, a function of an individual's intentions. The model identifies intention as the most immediate determinant of behaviour (Ajzen et al., 1986; Pitts et al., 2003).

The theory proposes that intentions (plans of action in pursuit of behavioural goals) are a result of the following beliefs:

1. Attitude towards a behaviour is either a positive or negative evaluation of a particular behaviour and beliefs about the outcome of the behaviour);
2. subjective norm, (composed of the perception of social norms and pressures to perform a behaviour, and an evaluation of whether the individual is motivated to comply with this pressure);
3. perceived behavioural control (composed of a belief that the individual can carry out a particular behaviour based upon a consideration of internal control factors (like skills, abilities, information); and
4. external control factors (like obstacles, opportunities). All these relate to past behaviour (Albery et al., 2008).

According to the TPB, these factors explain behavioural intentions, which are then linked to health consciousness. The model attaches values to each of these factors/beliefs that affect intentions and the particular values attached to each factor will depend upon the individual's health consciousness (Pitts et al., 2003). However, unless the person values his/her health consciousness (which can be affected by what important others want us to do/subjective norm), locus of control has nothing to do with a person's behaviour (Quadrel & Lau, 1989). It also states that perceived behavioural control can have a direct effect on health consciousness without the mediating effect of behavioural intentions (Pitts et al., 2003). Thus, the concept of locus of control which is incorporated by TPB can further be used to see the relationship between health locus of control and health consciousness. Theory of planned behaviour emphasizes that the more resources and opportunities people believe they have, the stronger are their beliefs that they can control their health consciousness (Brannon et al., 2007).

Although this theory has been helpful in explaining health consciousness but it ignores one's needs prior to engaging in a certain action, needs that would affect illness behaviour regardless of expressed attitudes. For example, one might have a very positive attitude towards foods that triggers diseases and yet not order the food because he is not

hungry or because of his/her health condition. Or, one might have a very negative attitude towards particular food and little intention to engage in that particular food and yet engage in that food as he is seeking group recognition. Indeed, some experimental studies challenge the assumption that intentions and behaviour are merely consequences of attitudes, social norms, and perceived behavioural control. To illustrate, in one study (Sussman & Gifford, 2019), participants were prompted to form the intention to support a specific environmental organisation such as to sign a petition. After this intention was formed, attitudes, social norms, and perceived behavioural control shifted.

**On Prostate Cancer Knowledge**

**Social cognitive theory by Bandura and Walters (1977):** Social cognitive theory emphasizes the dynamic interplay between individuals, their physical and social environments, and their behaviours (Bandura & Walters, 1977). In the context of PrCA screening, multiple social and environmental influences determine whether an individual is able to make an informed decision about PrCA screening. Two key individual factors that influence whether an individual has the capacity to engage in informed decision-making about PrCA screening are PrCA knowledge and self-efficacy. PrCA knowledge refers to the information necessary for an individual to understand PrCA (including the prostate's anatomy and function, PrCA risk factors, types of PrCA screening, and PrCA warning signs) and the risks, benefits, uncertainties of, and alternatives to PrCA screening (basis of the scale).

Self-efficacy is the level of confidence an individual possesses to actively involve himself to the extent that he desires screening decisions. At the environmental level, several factors influence whether a man engages in informed decisions about PrCA screening, but the most common are access to PrCA information and a provider. While the measures reviewed in this manuscript focus on PrCA knowledge (one construct associated with PrCA screening decision-making), many of the interventions that utilize PrCA knowledge measures also work to, is to enhance a man's comfort with speaking with a healthcare provider.

**On Memorial Anxiety**

**Anxiety sensitivity theory by Reiss (1991) and McNally (1994):** Anxiety sensitivity (AS) theory posits the existence of a trait like belief in some individuals, especially men with memorial anxiety. The essence of this belief is that memorial anxiety and its associated symptoms, particularly somatic symptoms, may cause deleterious physical, psychological, or social consequences that extend beyond any immediate physical discomfort during an episode of memorial anxiety itself. Proponents of AS theory, such as Reiss (1991) and McNally (1994), differentiate this theory from other perspectives in several ways. Firstly, they clearly see memorial anxiety as an enduring trait like tendency. Secondly, AS theorists argue that men with memorial anxiety are often fully aware of the causes of their sensations (but they do not misinterpret them) and yet are frightened by them because they still hold an inherent belief that the sensations are harmful to their body or mental state. Questions remain about the cause of this trait as well as its precise role in the subsequent ethology of memorial anxiety. Memorial anxiety reflects at least possible vulnerability for later panic attacks, and depressive symptoms, triggered by extreme stress (McNally, 1994; Reiss, 1991).

**Empirical Review**

**On Health Consciousness**

Hoque, Alam and Nahid (2018) examined health consciousness and its effect on perceived knowledge, and belief in the purchase intent of liquid milk and consumer's insights from an emerging market. The outcome of the study was obtained through an exclusive survey conducted on a randomly selected sample of 712 households who purchase liquid milk (LM) in the cities of Dhaka and Chittagong in Bangladesh. A structured questionnaire is used to interview these participants to obtain data which are analysed employing descriptive statistics, Confirmatory Factor Analysis, and Structural Equation Modelling. The results of the analyses corroborate that consumers' health consciousness has a positive impact on perceived knowledge, belief, and attitude, but not on purchase intent.

In addition, belief affects both the attitude and PI positively. Although consumers' perceived knowledge is too low to constitute their attitude towards LM, it has a positive, significant impact on the PI. The results also revealed that more than a third of the respondents consume LM several times per month, followed by more than a quarter of the sampled respondents who consume LM several times per week, and these consumption patterns have a positive and significant influence on the PI.

Espinosa and Kadić-Maglajlić (2018) identified groups of health-related behaviours among young adults and gauge the relation between emotional intelligence and health behaviours in this population, and assess health consciousness as mediator of said relation. They used latent class

analysis identified two mutually exclusive health behavior groups, which according to response patterns were labelled as Healthy and Unhealthy.

The Healthy group (56%) was composed of individuals who had a healthy diet (i.e., low fat and high fiber), exercised regularly, and who frequently engaged in behaviours that prevent oral and skin-related diseases. In contrast, the Unhealthy group (44%) rarely engaged in these health-promoting behaviours. Using structural equation modeling they found a negative relation between emotional intelligence and unhealthy behaviours relative to health-promoting ones. Mediation analyses indicated that the mechanism explaining said relation was through increments in health consciousness, with large standardized indirect effects ranging between -0.52 and -0.78.

**Prostate Cancer Knowledge and Health Consciousness**

Enemugwem, Eze and Ejike (2019) assessed the knowledge and intention to screen for prostate cancer among men in Obio Akpor Local Government Area, Rivers State, Nigeria. Respondents were within the ages of 40 and 75 years. The study result indicated that most frequently reported source of information about prostate cancer screening was the news media 72 (35.0%) and healthcare workers 62 (30.1%). Thirty (14.9%) of the respondents had good knowledge of prostate cancer, while 80 (39.6%) had good knowledge of prostate cancer screening methods. Concerning prostate cancer screening methods, only 47 (23.3%) were able to correctly identify screening methods for prostate cancer. With regards to intention to screen, 104 (51.5%) were willing to be screened for prostate cancer.

Machirori, Patch and Metcalfe (2018) examined role of culture in Black men's beliefs about the disease. Using a symbolic interactionist approach explored meaning-making in Black men around culture and prostate cancer reveals varied ways in which culture affects interaction with health services. A thematic analysis of 25 studies included in the final scoping study showed that there are three main themes under which cultural issues can be examined: Personal, societal and structural. The study revealed that knowledge was contextual and that personal and societal beliefs and structural factors intertwine to create a system that can preclude Black men from taking part in prostate cancer-related health practices, and discusses some of the ways in which these can be addressed.

Ogunsanya *et al*, (2017) assessed the knowledge of prostate cancer and screening and its associated factors in young Black men aged 18 to 40 years. The study was a cross-sectional study conducted in a convenience sample of 267 young Black men in Austin, Texas. Knowledge about prostate cancer and screening was operationalized through 14 items, including 12 items from the Knowledge about Prostate Cancer Screening Questionnaire (PC knowledge), and two items assessing dietary knowledge and prostate cancer screening controversy. Prostate cancer (PC) knowledge scores were regressed on age, cues to action, health screening experience, and demographic/personal factors.

Most participants were African American men of American origin (65.3%) and were college freshmen (18.9%). The PC knowledge scores were low, with mean correct responses of 28.5%, mean knowledge score of 5.25 ± 3.81 (possible score range of 0 to 14, with higher scores indicating higher PC knowledge) and a median score of 5.00. On average, 47% of the respondents replied "Don't Know" to the questions. Overall, PC knowledge scores were low among these young Black men, especially in domains related to risk factors, screening age guidelines, limitations, and diet.

**Memorial Anxiety and Health Consciousness**

Salari, Hosseinian-Far and Jalali (2020) analyzed the existing research works and findings in relation to the prevalence of stress, anxiety and depression in the general population during the COVID-19 pandemic. In the systematic review and meta-analysis, articles that have focused on stress and anxiety prevalence among the general population during the COVID-19 pandemic were searched in the Science Direct, Embase, Scopus, PubMed, Web of Science (ISI) and Google Scholar databases, without a lower time limit and until May 2020. In order to perform a meta-analysis of the collected studies, the random effects model was used, and the heterogeneity of studies was investigated using the $I^2$ index. Moreover, data analysis was conducted using the Comprehensive Meta-Analysis (CMA) software. The study depicted that stress, anxiety and depression were related.

Cannito, Di Crosta and Palumbo, (2020) examined attentional bias for virus-related stimuli in people varying in their degree of health anxiety (HA). Consistent with previous literature, it was hypothesized that higher HA would predict attentional bias, tested using a visual dot-probe task, to virus-related stimuli. Participants were 132 Italian individuals that participated in the study during the lockdown phase in Italy. Results indicated that the HA level predicts attentional bias toward virus-related objects. This relationship was

double mediated by the belief of contagion and by the consequences of contagion as assessed through a recent questionnaire developed to measure the fear for COVID-19.

Islam, Barna, Raihan, Khan & Hossain (2020) identified the determinants of depression and anxiety. A total of 476 university students living in Bangladesh participated in this cross-sectional web-based survey. A standardized e-questionnaire was generated using the Google Form, and the link was shared through social media (Facebook, now called Meta). The information was analyzed in three consecutive levels, such as univariate, bivariate, and multivariate analysis. Students were experiencing heightened depression and anxiety. Around 15% of the students reportedly had moderately severe depression, whereas 18.1% were severely suffering from anxiety. The binary logistic regression suggested that older students have greater depression (OR = 2.886, 95% CI = 0.961–8.669). It is also evident that students who provided private tuition in the pre-pandemic period had depression (OR = 1.199, 95% CI = 0.736–1.952).

**Hypotheses**

1. Those with high prostate cancer knowledge will significantly differ from those with low prostate cancer knowledge on health consciousness of men in Awka metropolis, Anambra State, Nigeria.
2. There will be significant difference between men with high memorial anxiety and men with low memorial anxiety on health consciousness of men in Awka metropolis, Anambra State.
3. There will be significant interaction between prostate cancer knowledge and memorial anxiety on health consciousness for men in Awka metropolis, Anambra State.

## METHOD

**Participants:** Incidental sampling technique was used to select the participants for the study. The participants were selected on basis of availability, accessibility and willingness to participate in the study. On the whole, 46 men participated in the study with age of 43 to 66 and mean age of 48.40 and standard deviation of 6.97. Marital status data indicated that 37 (80.4%) were married and 9 (19.6%) were unmarried. The educational data showed that 14 (30.4%) finished tertiary education, 28 (60.9%) finished Secondary School, and 4 (8.7%) finished primary school.

**Instruments:** The first instrument used was **Health Consciousness Scale by Hong (2010)**. The scale comprised of 11 items designed to measure an individual's comprehensive mental orientation toward his or her health, being comprised of self-health awareness, personal responsibility, and health motivation, as opposed to being related to a specific issue (like smoking, exercise, healthy diet). Respondents were asked to indicate how much they agree with each statement, between 1 (strongly disagree) and 7 (strongly agree), or how much each action was worth the benefit, between 1 (not worth the benefit at all) and 7 (very much worth the benefit). The scale has reliability Cronbach's Alpha of 0.85 to 0.86. In this study, Cronbach alpha of 0.89 was reported for the overall scale. For the subscales, Cronbach alpha of 0.88 for self-health awareness, 0.78 for personal responsibility and 0.76 for health motivation.

The second instrument was **Prostate Cancer Knowledge Scale by Owens, Tavakoli, Rose and Wooten (2019).** The Knowledge of Prostate Cancer Knowledge Scale is a twenty item questionnaires developed to assess men's knowledge about PrCA screening, symptoms, and risk factors. Response options were *true*/*false* for each question. Scoring was based on the percentage of questions answered correctly and ranged from 0 to 100.The scale has Cronbach alpha of 0.80. In this study, Cronbach alpha of 0.83 was reported for the scale.

The third instrument was **Memorial Anxiety Scale for Prostate Cancer by Roth, Rosenfeld and Kornblith (2003).** The scale contained 18 items developed to facilitate the identification and assessment of men with prostate cancer-related anxiety. This scale consists of three subscales that measure general prostate cancer anxiety, anxiety related to prostate specific antigen (PSA) levels in particular, and fear of recurrence. The scale rating format include: Not at all=0, rarely=1, sometimes=2, often=3.The coefficient for the scale was 0.89 and test-retest reliability of 0.89. For subscale 0.90 for prostate cancer anxiety, 0.56 for Prostate Specific Antigen, and 0.82 for fear reoccurrence. For this study, the researcher reported Cronbach alpha of 0.68 for prostate cancer anxiety, 0.84 for Prostate Specific Antigen and 0.76 for fear reoccurrence.

**Procedure:** The researchers met with the men at hospital with self-introductory letter which stipulated the objective of the study. After the introduction, the researcher debriefed the participants on how to respond to the questions and informed them that there are no wrong or right answers. On the whole 46 were appropriately

answered and were subjected to data analysis. The process took the researcher two weeks to achieve.

**Design and Statistics**

The study adopted two by two factorial design and two-way analysis of variance was used as appropriate statistics. The study was geared towards ascertaining the significant difference and interaction effect of prostate cancer knowledge and memorial anxiety on health consciousness.

For the **ethical considerations, t**he researcher maintained research ethical standard. Firstly, informed consent was obtained before instruments were issued to them. Secondly, they were assured of confidentiality and anonymity of their identity and responses.

## RESULTS

**Descriptive Statistical Table of Prostate Cancer Knowledge and Memorial Anxiety on Health Consciousness**

| **Prostate Cancer Knowledge** | **Mean** | **Std. Deviation** | **N** |
|---|---|---|---|
| High | 31.11 | 5.53 | 18 |
| Low | 33.71 | 3.39 | 28 |
| Total | 32.70 | 4.48 | 46 |
| **Memorial Anxiety** | **Mean** | **Std. Deviation** | **N** |
| High | 32.67 | 5.09 | 30 |
| Low | 32.75 | 3.21 | 16 |
| Total | 32.70 | 4.48 | 46 |

**Two-Ways Analysis of Variance Table of Prostate Cancer Knowledge and Memorial Anxiety on Health Consciousness**

| **Source** | **Type III Sum of Squares** | **Df** | **Mean Square** | **F** | **Sig.** |
|---|---|---|---|---|---|
| Corrected Model | 89.025[a] | 3 | 29.68 | 1.53 | .221 |
| Prostate Cancer Knowledge | 41.298 | 1 | 41.30 | 2.13 | .152 |
| Memorial Anxiety | .025 | 1 | .03 | .01 | .972 |
| Prostate Cancer Knowledge * Memorial Anxiety | 12.254 | 1 | 12.254 | .63 | .431 |
| Error | 814.714 | 42 | 19.40 | | |
| Total | 50078.000 | 46 | | | |

a. R Squared = .099 (Adjusted R Squared = .034)

From on the results above, the corrected model accounted for 9.9% variance of the health consciousness, with ($F_{3, 42}$) = 1.53, $p$>.05; $R$ = .099, *R2* adjusted = .034. Hypothesis one that stated those with high prostate cancer knowledge will significantly differs from those low prostate cancer knowledge on health consciousness among men in Awka metropolis, Anambra State was rejected at ($F_{1, 42}$)= 2.13, $p$>.05. Also the mean differences and standard deviation within the prostate cancer knowledge: M=31.11, SD= 5.53 (High) and M=33.71, SD=3.39 (Low), N=46. This means that men with high prostate cancer knowledge are less health consciousness than men with low prostate cancer knowledge at 9.9%. The second hypothesis which stated there will be significant difference between men with high memorial anxiety and men with low memorial anxiety on health consciousness of men in Awka metropolis, Anambra State was not accepted at ($F_{1,42}$)= .01, $p$>.05. Also the mean differences and standard deviation within the memorial anxiety: M=32.67, SD= 3.09 (High) and M=32.75, SD=3.21 (Low), N=46. This means that adults with high memorial anxiety experience less health consciousness than those with low memorial anxiety at 9.9%. The third hypothesis which stated that there will be significant interaction between prostate cancer knowledge and memorial anxiety on health consciousness of men in Awka metropolis, Anambra State was not confirmed at ($F_{1,42}$)= .63, $p$>.05.

## DISCUSSION

Hypothesis one that stated those with high prostate cancer knowledge will significantly differ from those with low prostate cancer knowledge on health consciousness among men in Awka metropolis, Anambra State was rejected. This means that men with high prostate cancer knowledge are less health consciousness than men with low prostate cancer knowledge. This finding contravene statement by Machirori, Patch and Metcalfe (2018) that knowledge was contextual and personal, societal beliefs and structural factors intertwine to create a system that can preclude men from taking part in prostate cancer-related health practices.

Some of the ways in which these can be addressed are based on the low PC knowledge among these men, especially in health consciousness domains like risk factors, screening

age guidelines, limitations, and diet (Ogunsanya *et al.*, 2017). Theoretically, it is believed that context of PrCA knowledge, screen, multiple social and environmental influences determine whether an individual is able to make an informed decision about PrCA screening (Bandura & Walters (1977). Unless the person values his/her health which can be affected by what important others want us to do, subjective norm has nothing to do to his/her consciousness and knowledge (Quadrel & Lau, 1989).

The second hypothesis which stated there will be significant difference between men with high memorial anxiety and men with low memorial anxiety on health consciousness among men in Awka metropolis, Anambra State was not accepted. This means that adults with high memorial anxiety experience less health consciousness than those with low memorial anxiety. This finding is not in agreement with the notion that anxiety and attentional bias toward virus-related objects may likely affects health consciousness among men (Cannito, Di Crosta and Palumbo, 2020). Memorial anxiety and its associated symptoms, particularly somatic symptoms, may cause deleterious physical, psychological, or social consequences that extend beyond any immediate physical discomfort during an episode of memorial anxiety itself. Memorial anxiety reflected at least possible vulnerability for later panic attacks, and depressive symptoms, triggered by extreme stress (McNally, 1994).

The third hypothesis which stated that there will be significant interaction between prostate cancer knowledge and memorial anxiety on health consciousness among men in Awka metropolis, Anambra State was not confirmed. This supported the idea that intentions (plans of action in pursuit of behavioural goals) are a result of the following beliefs: Attitude towards a behaviour either a positive or negative evaluation of a particular behaviour and beliefs about the outcome of the behaviour), Subjective norm (composed of the perception of social norms and pressures to perform a behaviour, and an evaluation of whether the individual is motivated to comply with this pressure), perceived behavioural control (composed of a belief that the individual can carry out a particular behaviour based upon a consideration of internal control factors (like skills, abilities, information) and external control factors (like obstacles, opportunities) all of which relate to past behaviour (Albery et al., 2008).

**Implications of the Study**

1. The outcome of this study will create awareness as regards prostate cancer knowledge and memorial anxiety impact on health consciousness. This will help clinical psychologists in identifying other factors that foster health consciousness among men.
2. Men also will learn the importance of health consciousness. Lack of impact of prostate cancer knowledge and memorial anxiety is a signal that men are not conscious of their health. Thus, psycho-health education becomes imperative.
3. The study outcome will enhance theories reviewed in this study, as well as add to literature.

**Conclusion**

The study investigated role of prostate cancer knowledge and memorial anxiety on health consciousness among men in Awka metropolis, Anambra State, Nigeria. The following were the observations made from the study: Prostate cancer knowledge and memorial anxiety had no significant role on health consciousness among men in Awka metropolis.

**Recommendations**

1. Based on the results, health enlightenment programme is needed. This will help educate men on the need of stead screening as regards to prostate cancer and anxiety associated with.
2. Men should know how to take their health serious. Health is wealth and being conscious of it will not break them rather than keep them.
3. Workshops from appropriate authorities like government, clinicians, religious leaders and other expert maybe vital. This might help enlighten men on health consciousness.

**Limitations of the Study**

The following are limitations of the study:

1. Firstly, the findings cannot be generalized. This is based on the ground that the study utilized limited population from a homogenous city.
2. The number of items on the questionnaire is big thereby making it a bit difficult for the participants to answer. This also accounted for delay in retrieving the questionnaire form the respondents.

**Suggestions for Further Studies**

1. Future research also should cover different settings (rural areas, different cities with different cultures), so as to be able to

provide results that can be widely applicable.

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## APPENDIX 1

**INTRODUCTION**

Dear Ma/Sir,

Please respond to the following statements as they apply to you. They are only for research and academic purposes. Your responses will never be used against you, as your identity is unknown. Thank You.

**CONSENT FORM/AGREEMENT**

I am above 18 years of age. I have read and understood that the information contained herein is for research purpose. I therefore voluntarily chose to participate and respond to these questionnaires. Tick in any of the boxes below.

**Agree** ☐ **Disagree** ☐

**SECTION A**

**Instruction:** Please fill in the section A as they apply to you.

1. **Age……**
2. **Gender……**
3. **Marital Status…….**
4. **Educational Level.……**

**SECTION B**

**Health Consciousness Scale**

| S/N | Item Statements | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|
| | **Self-Health Awareness** | | | | | | | |
| 1 | I'm very self-conscious about my health. | | | | | | | |
| 2 | I'm generally attentive to my inner feelings about my health | | | | | | | |
| 3 | I reflect about my health a lot. | | | | | | | |
| 4 | I'm concerned about my health all the time. | | | | | | | |
| | **Personal Responsibility** | | | | | | | |
| 5 | I notice how I feel physically as I go through the day. | | | | | | | |
| 6 | I take responsibility for the state of my health. | | | | | | | |
| 7 | Good health takes active participation on my part. | | | | | | | |
| 8 | I only worry about my health when I get sick. (R) | | | | | | | |
| | **Health Motivation** | | | | | | | |
| 9 | Living life without disease and illness is very important to me. | | | | | | | |
| 10 | My health depends on how well I take care of myself. | | | | | | | |
| 11 | Living life in the best possible health is very important to me. | | | | | | | |

**Developed by Hong, H. (2010)**

**SECTION C**

**Prostate Cancer Knowledge Scale**

| S/N | Item Statements | True | False |
|---|---|---|---|
| 1 | The prostate gland is a reproductive organ located below the bladder | | |
| 2 | The prostate gland makes some fluid that is part of semen | | |
| 3 | Older men are more likely to get prostate cancer | | |
| 4 | More men are diagnosed with prostate cancer than Whites | | |
| 5 | Men who have fathers or brothers with prostate cancer are more likely to get it | | |
| 6 | Who do you think is more likely to get prostate cancer | | |
| 7 | Who do you think is more likely to get prostate cancer | | |
| 8 | A PSA blood test can be done to check for prostate cancer | | |
| 9 | A digital rectal examination can be done to check for prostate cancer | | |
| 10 | The only way a man can know for sure if he has prostate cancer is to have prostate biopsy | | |

| | | | |
|---|---|---|---|
| 11 | A prostate biopsy is when a blood test is used to check for protein in the blood | | |
| 12 | Neither the PSA nor DRE are 100% accurate | | |
| 13 | A man can have prostate cancer and have no symptoms | | |
| 14 | The warning signs of prostate cancer are always present | | |
| 15 | Pain often in your lower back could be assign of prostate cancer | | |
| 16 | Warning signs of prostate cancer: having hard time passing urine | | |
| 17 | Passing urine often, especially at night | | |
| 18 | Blood in the urine or semen | | |
| 19 | Painful ejaculation | | |
| 20 | Pain in the stomach | | |

**Developed by Owens, O.L., Tavakoli, A.S., Rose, T., & Nikki R. Wooten, N.R. (2019).**

**SECTION D**

**Memorial Anxiety for Prostate Scale**

**Instruction:** Below is a list of comments made by men about prostate cancer memorial anxiety. Please indicate by circling the number next to each item how frequently these comments were true for you *during the past week;* not at all=0, rarely=1, sometimes=2, often=3.

| S/N | Item Statements | 0 | 1 | 2 | 3 |
|---|---|---|---|---|---|
| 1 | Any reference to prostate cancer brought up strong feelings in me | | | | |
| 2 | Even though it's a good idea, I found that getting a SA test scared me. | | | | |
| 3 | Whenever I heard about a friend or public figure with prostate cancer, I got more anxious about my having prostate cancer. | | | | |
| 4 | When I thought about having a PSA test, I got more anxious about my having prostate cancer. | | | | |
| 5 | Other things kept making me think about prostate cancer. | | | | |
| 6 | I felt kind of numb when I thought about prostate cancer. | | | | |
| 7 | I thought about prostate cancer even though I didn't mean to. | | | | |
| 8 | I had a lot of feelings about prostate cancer, but I didn't want to deal with them. | | | | |
| 9 | I had more trouble falling asleep because I couldn't get thoughts of prostate cancer out of my mind. | | | | |
| 10 | I was afraid that the results from my PSA test would show that my disease was getting worse. | | | | |
| 11 | Just hearing the words "prostate cancer" scared me. | | | | |
| 12 | I have been so anxious about my PSA test that I have thought about delaying it. | | | | |
| 13 | I have been so worried about my PSA test result that I have thought about asking my doctor to repeat it. | | | | |
| 14 | I have been so concerned about my PSA test result that I have thought about having the test repeated at another lab to make sure they were accurate. | | | | |
| 15 | Because cancer is unpredictable, I feel I cannot plan for the future. | | | | |
| 16 | My fear of having my cancer getting worse gets in the way of my enjoying life. | | | | |
| 17 | I am afraid of my cancer getting worse. 0 1 2 3 | | | | |
| 18 | I am more nervous since I was diagnosed with prostate cancer | | | | |

**Developed by Roth, A.J., Rosenfeld, B., & Kornblith, A.B. (2003)**