

Determination of Employees' Attitudes Concerning Contributing Factors and Early Detection for Prostate Cancer in Baghdad University Colleges in bab-Almudam

تحديد اتجاهات الموظفين المتعلقة بالعوامل المساهمة والكشف المبكر لسرطان البروستات

في كليات جامعة بغداد في باب المعظم

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الخلاصة: أصبح سرطان البروستات بشكل اساسي أحد أهم المشاكل الصحية التي يواجهها الرجال العراقيون والسبب الأكثر شيوعا للوفيات المرتبطة بالسرطان بين الرجال على مستوى العالم.

الاهداف: - الهدف من هذه الدراسة هو تحديد اتجاهات الموظفين المتعلقة بالعوامل المساهمة وطرق الكشف المبكر عن سرطان البروستات في كليات جامعة بغداد في منطقة باب المعظم.

المنهجية: أجريت دراسة وصفية مقطعية في الفترة من ٥ كانون الأول ٢٠١٩ حتى نهاية ٢٥ من آذار ٢٠٢٠ تضمنت ١٠٠ موظف من الذكور العاملين في كليات جامعة بغداد. وتم الحصول على موافقة شفهية من قبل الموظفين على المشاركة في الدراسة وتم جمع البيانات من خلال توزيع استبيان الدراسة باللغة العربية على عينة الدراسة.

النتائج:- اظهرت نتائج الدراسة بان ٦٦.٠٪ من عينة الدراسة اعمارهم تتراوح بين ٣٨-٤٧ سنة و كان متوسط العمر ٤١ سنة. وفيما يتعلق بالحالة الاجتماعية، كان غالبيتهم من المتزوجين بنسبة ٨٥٪، يليه ١٣٪ كانوا غير متزوجين و ٢٪ فقط من عينة الدراسة كانوا مطلّقين أو أرامل. تقريبا نصف المشاركين ٤٥٪ حاصلين على شهادة الدكتوراه، يليه ٣٣٪ حاصلين على شهادة بكالوريوس، ٨٪ ثانوية، ٧٪ ماجستير و ٥٪ معهد ٣٪ حاصلين على شهادة الدراسة المتوسطة. علاوة على ذلك ٨٦٪ من عينة الدراسة ليس لديهم تاريخ عائلي بسرطان البروستات بينما فقط ١٤٪ من كانوا لديهم تاريخ عائلي. ٩٨٪ يعيشون في المناطق الحضرية بينما البقية يعيشون في المناطق الريفية. اظهرت النتائج بان معظم عينة الدراسة ٥٦٪ كان لديهم مستوى إيجابي، بينما ٢٠٪ كان لديهم اتجاه إيجابي قوي، فقط ٢٤٪ من إجمالي عينة الدراسة لديهم موقف سلبي اتجاه التحري و اجراء فحوصات الكشف المبكر لسرطان البروستات.

الاستنتاجات: - أشارت نتائج الدراسة بان الموظفين الذكور العاملين في كليات جامعة بغداد كان لديهم اتجاهات إيجابية فيما يتعلق بأساليب الكشف المبكر والرغبة في اجراء فحوصات المرتبطة بسرطان البروستات.

التوصيات: - أوصت الدراسة بضرورة اجراء برامج تعليمي للموظفين تجاه طرق الكشف المبكر ونية اجراء فحوصات المتعلقة بالكشف المبكر لسرطان البروستات.

Abstract: -Prostate cancer is increasingly becoming one of the most significant health problems facing Iraqi men and the commonest cause of cancer related death in men globally.

Objectives:- The objective of this study to determination of employees' attitudes toward contributing factors and early detection methods for prostate cancer among male staffs of the University of Baghdad Colleges in bab-Almudam .

Methodology: - A cross sectional descriptive design study was carried out in the period of December 5th 2019 up to the end of 25th March 2020 among 100 male staff working in colleges of Baghdad University in Bab-Al Mudam

region. Male staffs, who agreed to participate and were recruited on giving oral consent. Data was collected by distributing structured a self-administered questionnaire, written in Arabic was used.

Results:- The Majority of participants (66.0%) were ages between (38 -47) years, the median age was 41 years (range, 18- 62) years (mean=41.8+ S.D =10.035). Regarding marital status, the majority (85 %) was married, followed by (13%) who were single and (2%) who were divorced or widowed. Approximately half (45%) of participants had PhD education, following by (33 %) university, (8%) secondary school, (7%) MSc and (3%) institute education and (3%) intermediate education. Furthermore, (94%) of study participants reported they had no family history of prostate only (6%) reported had family history PCa. A total of (98%) were living in urban area and reminder lived in rural area. Most of the study participants 48 (56%) had positive level, while (20%) of them had strong positive and only (24%) of total participants had negative attitude about early detection and intention screening of PCa.

Conclusions:- This study indicated that the male staffs of University of Baghdad Colleges have positive attitudes regard intention and early detection methods to prostate cancer screening.

Recommendation:-The study recommended that educational programs should be constructed or designed for employees toward early detection methods and intention to prostate cancer screening.

Keywords: Determination, Employees', Attitudes, Contributing Factors, Early Detection, Prostate Cancer

INTRODUCTION:

Prostate cancer is recognized as one of the main causes of morbidity and mortality among men. It is estimated to be the second of all diagnosed with cancer and the fourth largest cause of cancer in both sexes worldwide. For many years, screening for early detection of prostate cancer has been an important health intervention tool. However, poor knowledge of prostate cancer and a lack of screening practices among men is the risk of this disease being elevated in Iraq^(1,2). The Prostate Specific Antigen (PSA) and the Digital Rectal Exam (DRE) are the two most commonly used tests to identify prostate cancer⁽³⁾. The PSA is more effective at detecting tumor cells in the early stages, but it is not specific to prostate cancer, which calls into question its ability to positively differentiate between a cancerous or non-cancerous tumor⁽⁴⁾. The Digital Rectal Exam is the other test conducted during a prostate exam. During this procedure, the provider inserts his gloved finger into the rectum, assessing the back part of the prostate gland for abnormalities in shape, size, consistency and the presence of any lumps. Research has shown the DRE to be significantly less effective than the PSA in detecting prostate cancer⁽⁵⁾. There is no research done locally in Iraq on attitudes and beliefs toward prostate cancer, hence reference will be made to research done elsewhere in order to understand issues around PC, it can be said that a negative attitude towards prostate cancer screening is responsible for the increase in deaths from prostate cancer in Iraq, indicating the need for more awareness and a change in the attitude towards prostate cancer screening. The current study aim to determine of employees' attitudes toward contributing factors and early detection methods for prostate cancer among employees' of the University of Baghdad Colleges in Baghdad City, Iraq.

METHODOLOGY:

A descriptive across sectional quantitative design study was conducted in the four Colleges of University of Baghdad. The study was carried out during the period extended from 5th December 2019 to 25th, March 2020. The study aims to determine employees' attitudes about contributing factors and early detection for prostate cancer among employees' men in Baghdad University Colleges, Baghdad city, Iraq. The targeted population for this study were conveniently sampled from the four colleges of the University of Baghdad. Male staff who accepted to participate gave oral consent and was recruited. Total of (100) employees participated in this study. Inclusion criteria for participants men with no prior diagnosis or signs

and symptoms of prostate cancer who were at least 18 years of age were included in the study. Employees with no evidence or diagnosis of mental illness also were included and understood the purpose of study and allowed for participation. Whereas the exclusion criteria were individuals diagnosed as benign prostate hyperplasia, prostate cancer or were being treated for prostate cancer. Unable to read and write. Female individuals are not legible and those were not working in selected colleges. The questionnaires were including the attitudes toward contributing factors and early detection methods and intention of prostate cancer screening. The questionnaire included a number of items on personal attitudes and beliefs toward prostate cancer, early detection methods and intention to screening of prostate cancer, and each item was measured on a four-point Likert-type scale. In the first study cognitive and psychological representations related to prostate cancer screening were measured using the Thomas Jefferson University Prostate Cancer Screening Survey⁽⁶⁾. Thereafter, the validity of the questionnaire was verified by 5 experts' specialist in psychologist, 7 experts in adult nursing department with more than 10 years of experience. As a result of the tool's test-retest reliability was $r = 0.86$. Each item had a 4-point Likert response (i.e., 1=strongly disagree, 2=sort of disagree, 3=sort of agree, 4=strongly agree). Firstly, we conducted a questionnaire preliminary survey to 10 employees' age above 18 years old and then modified difficult or understood terms into easy ones in a questionnaire. Data was collected from 5th December 2019 to 1st March, 2020. The data was collected through distribution of self-administered questionnaire. The instrument comprised (20) questions, which included (5) questions related participants demographic characteristics and (20) questions related cognitive and psychological representations related to prostate cancer screening. The collected data was analyzed using SPSS statistical package (version 21.0). Descriptive analyses were used to describe the characteristics of the participants related to prostate cancer knowledge: frequency, percentage (%), mean and standard deviation. one-way ANOVA were used to explore difference of knowledge of prostate cancer according to characteristics of the employees and prostate cancer. at $p < 0.05$ was considered statistically significant for all test.

RESULTS:

Participants age range was from (38 to 47) years-old with an average age of 41 years (mean=41.8+ SD =10.035) for the study participants. Most participants had doctorate education (45%), (33 %) university, (7%) MSc (8%) secondary school, (4%) institute and (3%) had intermediate education level, respectively. Majority of employees (85%) were married, (13%) of them were single and reminder (2%) were divorced or widowed. The majority of the respondents (94%) indicated having no family history of prostate cancer and (6%) had no family history of prostate cancer. Participants reported residing majority in urban (98%) areas. The mean and standard deviation of the attitudes was 54.83 ± 11.8 , most of them 56% of the participants having positive level of attitudes about early detection tests of PCa and intention to prostate cancer screening.

Table (1): Socio-demographic characteristics of respondents N(100)

Variables	Groups	Frequency	percent
1. Age	18-27	2	2.0
	28-37	7	7.0
	38-47	66	66.0
	48-57	15	15.0
	58and above	10	10.0

	Total	100	100.0
	MS±SD = 41.8±10.035		
2. Marital status	Single	13	13.0
	Married	85	85.0
	Divorced	1	1.0
	Separated	1	1.0
	Total	100	100.0
3. Level of education	Intermediate	3	3.0
	Secondary	8	8.0
	Diploma	4	4.0
	College	33	33.0
	Master	7	7.0
	Doctorate	45	45.0
	Total	100	100.0
4. Family history related to PCa	Yes	6	6.0
	No	94	94.0
	Total	100	100.0
5. Residence	Urban	98	98.0
	Rural	2	2.0
	Total	100	100.0

This table revealed majority of participants (66%) of the age groups ranged between 38-47 years, and the average age was 41 years (average = 41.8 + S.d = 10.035). Regarding marital status, the majority of participants (85%) are married, followed by (13%) unmarried and (2%) divorced or widowed. Most of the respondents (45%) have a doctorate degree, and (33%) have a bachelor's degree. (8%) secondary (7%) master's, (4%) institute education, and (3%) intermediate education respectively. Most of them (94%) do not have a family history of prostate cancer. Finally, a high percentage of employees (98%) live in urban areas.

Table (2): Descriptive Analysis Level of Participant's Attitudes concerning Contributing Factors and Early Detection for Prostate Cancer

Items	frequency	Percent	M.S	S.D
Strong Negative	8	8.0	1.72	0.68
Negative	16	16.0	1.93	.689
Positive	56	56.0	2.99	.708
Strong Positive	20	20.0	3.26	.545
Total	100	100.0		

M.S. = Mean of score, SD=Standard deviation, Ass. = the level of assessment, 1- 1.74 = Strong negative (Sn), 1.75-2.49= Negative (N), 2.50-3.24= Positive (P), 3.25-4= Strong positive (SP)

This table presented a descriptive analysis of employees' attitudes toward early detection of prostate cancer. The results demonstrated that by assessing their frequency, means and standard deviations. The findings indicated that the mean scores of attitude's items for participants of study 56 of them had positive attitude based on total mean of mean of score was (2.99) while

(20%) of them had strong positive based on total of MMS was (3.26) and only (24%), total MMS was (1.82) of total participants had negative attitude about early detection and intention screening of PCa.

Table (3): Association between Employees' attitudes and Socio- Demographic Variables

Variables	Chi-Square	P value	Sig.*
Age groups	.583	.486	NS
Marital status	.733	.000	HS
Educational level	.649	.011	S
Family history	.237	.132	NS
Residence	.398	.001	HS

Sig. = Significance level ≤ 0.05 = significant, NS= no Significant, HS = High Significant, S = Significant

These tables showed there are significant association between marital status, educational level and residence with employees' attitudes at p value < 0.05 and also illustrate that no relationship found with rest of studied variables.

DISCUSSION:

The findings of the study samples show that the majority of participants (66%) of the age groups ranged between 38-47 years, and the average age was 41 years (average = $41.8 + S.d = 10.035$). Regarding marital status, the majority of participants (85%) are married, followed by (13%) unmarried and (2%) divorced or widowed. Most of the respondents (45%) have a doctorate degree, and (33%) have a bachelor's degree. (8%) secondary (7%) master's, (4%) institute education, and (3%) intermediate education respectively. Most of them (94%) do not have a family history of prostate cancer. Finally, a high percentage of employees (98%) live in urban areas. These findings agreed with study done by Awosan, et al.,⁽⁷⁾ who reported the ages of the respondents ranged from 40 to 84 years (Mean = 53.13 ± 7.92) with a larger proportion (44.7%) in the 40-49 years age group. Most of the respondents were married (84.0%). Majority of respondents (55.4%) had little education. These results are similar to the result of the study that was done by Abuadas, et al., who stated that the mean age of the participants was 52.5 years (SD = 8.5; range = 40-75). 42.1% had a primary education level, 29.9% had secondary education, and 28% had a college education. Regarding marital status, the majority (91.4%) are married, followed by 5.6% unmarried and 3% divorced or widowed⁽⁸⁾. The findings are accordance with study done by the results of study shown the most common group was High School diploma (HSD) or lower (32.3%, n = 162), while 16.7% (n = 89) had a BA/BS degree. The most common marital status was married (48.4%, n = 243), and 48.8% of the sample was single without kids (n = 245), the mean age for the sample was 61.58 years (SD = 10.71) with a range from 45 to 85 years⁽⁹⁾. Twenty questions utilized to explore employees attitude concerning diagnosis, early detection methods and intention screening of prostate cancer. Most, 48 (56%) of the respondents had positive level, while (20%) of them had strong positive and only (24%) of total participants had negative attitude about early detection and intention screening of PCa. These findings are similar to the results of the study that was done by Anderson, et al.,⁽¹⁰⁾. Who stated our analysis suggests that a large portion of men 40 years and older who live in western Jamaica had a positive attitude toward prostate cancer screening. These men also have high levels of knowledge

concerning the risk factors and symptoms associated with prostate cancer (81.8% of screened and 87.8% of unscreened participants). However, despite positive attitudes and high levels of knowledge regarding prostate cancer screening, only 34.8% of participants reported that they had ever been screened for prostate cancer during their lifetime. These results can be supported by results obtained from other researchers who stated, another important finding is attitudes towards the PSA-test. About 60% of respondents expressed their willingness to receive a PSA-test. This intention was similar when compared with another study conducted in Spain (57.9%)^(11,12,13). A similar findings are accordance with another study carried out in Jamaica, the result of study the participants had positive attitude toward early detections of prostate cancer but low intentions of getting tested⁽¹⁴⁾. This findings disagree with many studies have shown negative attitudes toward early screening for PC^(15, 16, 17). The association between socio-demographic and employees' attitudes score was explored. There are significant association between employees attitudes with sociodemographic characteristics such as marital status, educational level and residence at p value < 0.05 and also illustrate that no relationship found with rest of studied variables. These findings don't the same line with findings obtained from Arafat, et al.,⁽¹⁶⁾ Pearson's chi-square test and Fisher's exact test revealed that there were no significant associations observed between age, marital status (p=0.768), educational level, current rank, having a family and friends history of PC and attitudes toward PC. Variables such as marital status, age, and education were found to have no relationship with intention. This does not support the literature which shows these variables to have influence on individual's intention to screen for prostate cancer⁽¹⁸⁾.

CONCLUSIONS:

In conclusion, employees in this study had positive attitude toward early detections of prostate cancer but low intentions of getting tested.

RECOMMENDATION:

1. The study recommended to establishing of educational program to improve attitudes related contributing factors, early detection of prostate cancer and education of their toward appropriate health attitude and healthful behavioral change for university of Baghdad employees.
2. Further studies on behavioral factors contributing to prostate cancer screening including general attitudes, beliefs and social influence.

References:

1. Benurugo G, Munyembaraga E, Chironda G, & Bisanukuri, E. Awareness on prostate cancer and screening practices among men attending outpatient at a referral hospital in Kigali, Rwanda: A quantitative study. *International Journal of Africa Nursing Sciences*, 2020;13(2):PP.1-7.
2. Banerjee, S. 'Worldwide Prostate Cancer Epidemiology: Differences Between Regions, Races, and Awareness Programs', *International Journal of Clinical and Experimental Medical Sciences*, 2016;2(1): p. 1.
3. United States Preventive Services Task Force. Draft Recommendation Statement: *Prostate Sancer: Screening*, 2017. Retrieved from <https://www.uspreventiveservicestaskforce.org/Page/Document/draftrecommendation-statement/prostate-cancer-screening14>.
4. Mutua, K., Pertet, A. M., & Otieno, C. Cultural factors associated with the intent to be screened for prostate cancer among adult men in a rural Kenyan community. *BMC Public Health*, 2017;17 (2):PP. 894-901.

5. Cui T, Kovell R C, & Terlecki, R P. Is it time to abandon the digital rectal examination? Lessons from the PLCO Cancer Screening Trial and peer-reviewed literature. *Current Medical Research and Opinions*, 2016 ; 32(10):PP. 1663-1669.
6. Myers R E, Hyslop T, Jennings-Dozier K., & et al. Intention to be tested for prostate cancer risk among African American men. *Cancer Epidemiology Biomarkers and Prevention*, 2000;9(12):PP.1323-1328.
7. Awosan K J, Yunusa E U, Agwu N P, & Taofiq S. Knowledge of Prostate Cancer and Screening Practices among Men in Sokoto, Nigeria. *Asian Journal of Medical Sciences*, 2018;9 (6):PP.51-56.
8. Abuadas M H, Petro- Nustas W, Albikawi Z F, & MariM. Predictors of Prostate Cancer Screening Intention among Older Men in Jordan. *International Journal of Urological Nursing*, 2017; 11(1):PP. 31-41.
9. Agodi F I. Factors Associated with Prostate Cancer Screening among African American Men in California. *Dissertation*, College of Health Sciences, Walden University,2020;PP.1-122.
10. Anderson T, Wallace T, Aung M, & Jolly P E. (Prostate Cancer Knowledge, Attitudes and Screening Practices among Men in Western Jamaica. *West Indian Medical Journal*, 2016;65(1):PP.67-71
11. Jasim A H, Majeed H M, & Mohammed TR. Knowledge and Protective Health Behaviors Concerning Risk Factors for Coronary Heart Disease among Baghdad University Students. *Medico Legal Update*, 2020; 20(2):PP. 234-239.
12. Morlando M, Pelullo C P, & Di Giuseppe G. Prostate cancer screening: Knowledge, attitudes and practices in a sample of men in Italy. A survey. *PloS one*, 2017; 12 (10):PP.1-11.
13. Carrasco-Garrido P, Hernandez-Barrera V, Lopez de Andres A, Jimenez-Trujillo I, Gallardo Pino C, Jimenez-Garcia R. Awareness and uptake of colorectal, breast, cervical and prostate cancer screening tests in Spain. *Eur J Public Health*, 2014; 24:PP.264–70.
14. Necku J G, Anaba E A, & Abuosi A A. Prostate cancer awareness and attitude toward early detection among male soldiers in Ghana: a cross-sectional study. *African Journal of Urology*, 2019; 25(1):PP.1-6.
15. Olusegun O, Ayoola A, & Oluwakemi O. Awareness and Attitude of Male Journalists in Lagos State towards Prostate Cancer Screening. *Global Media Journal*, 2020; 18(34):PP. 1-16.
16. Arafat M A, Farhat K H, & Rabah D M. Knowledge and attitude of the population toward cancer prostate, Riyadh, Saudi Arabia. *Urol Ann*, 2015;7(2):PP.154- 158.
17. Nakandi H, Kirabo M , Semugabo C, Kittengo A, Kitayimbwa P, Kalungi S, & Maena J. Knowledge, attitudes and practices of Ugandan men regarding PC. *African Journal of Urology*, 2013;19(4):PP. 165–170.
18. Jackson D D, Owens O L, Friedman D B, & Hebert J R. An intergenerational approach to prostate cancer education: Findings from a pilot project in the south eastern USA. *Journal of Cancer Education*, 2014; 29:PP. 649-656.