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

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Abstract

Worldwide prostate cancer is the second most frequent cause of cancer deaths. Screening techniques is useful for improving survival rates and treatment outcomes can be employed to detect the disease earlier in apparently healthy individuals, and increasing evidence shows that this can decrease morbidity and mortality of the disease.

Objectives: The objectives of this study was to assess the knowledge concerning contributing factors and early detection to screen for prostate cancer among male staff of the University of Baghdad Colleges in bab-Almudam Area, Iraq and to find out the relationship between employees' knowledge and their demographical characteristic.

Methodology: This cross-sectional descriptive design study was carried out with 100 male staff working in colleges of Baghdad University in bab-Almudam region. Male staff who agreed to participate and were recruited on giving oral consent. Knowledge about prostate cancer and screening was operationalized through 28items, including 12 items from the Knowledge about Prostate Cancer Screening Questionnaire, and 16 items assessing contributing factors and prostate cancer screening controversy. Data was collected by distributing structured a self-administered questionnaire, written in Arabic was used.

Results: The Majority of participants (36.0%) were ages between (38 -47) years, the median age was 36 years (range, 18-36) years (mean=41.8+ S.td =10.035). Regarding marital status, the majority (77 %) was married, followed by (19%) who were single and (4%) who were divorced or widowed. One third (38%) of participants had PhD education, following by (26%) secondary school, (18 %) university,(9%) intermediate,)5%) MSc and (4%) institute education. Furthermore, (89%) of study participants reported they had no family history of prostate only (11%) reported had family history PCa. A total of (94%) were living in urban area and reminder lived in rural area. About (48%, 35%) respectively, of respondents had a medium and high knowledge level about prostate cancer and early detection screening methods.

Conclusions: This study indicated that the staffs of University of Baghdad Colleges have appreciable knowledge regard contributing factors and early detection to prostate cancer screening. A significant proportion of staff however, exhibited poor knowledge of prostate cancer screening and contributing factors to prostate cancer.

***Keywords**: Assessment, Employees', Knowledge, Contributing Factors, Early Detection, Prostate Cancer*

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Introduction

Prostate cancer is neoplasm of the male prostate gland and is one of the most common cancers in the world wide and it is the second leading cause of cancer related

deaths among men globally. The symptoms of prostate cancer may develop slowly, but some early signs include difficult and frequent urination, erectile dysfunction, pain in lower back, pain in lower pelvic area, and blood in urine. Uncontrolled risk of developing the disease such as age , race and family history are associated to prostate cancer , however PCa awareness and early detection may positively affect the life of adult male, and improve their life style [1]. The American Cancer Society (ACS) recommend the prostate specific antigen test (PSA), and digital rectal (DRE) examination, as the common screening modalities for Prostate cancer for men at high risk such as a family history, racial differences regarding the lack of access to health services, and socioeconomic conditions should performing prostate-specific antigen (PSA) testing ,also recommends that men older than 50 years old, should be informed about early detection of prostate cancer screenings. They should be advised at an earlier age about this risk. An early detection through screening and timely treatment provides the greatest chance for increasing the 5-year survival rate. If the cancer is diagnosed during the early stages, the PCa prognosis is more optimistic [1,2,3].

Methodology

A cross-sectional descriptive design study carried out in the four Colleges of University of Baghdad to determine employees' knowledge concerning contributing factors and early detection for prostate cancer among employees' in Baghdad University Colleges. The participants of this study were conveniently sampled from the four faculties of the University of Baghdad. Male staff who accepted to participate gave oral consent and was recruited. A total of (100) male staff participated in the study. Inclusion criteria for participants were a) employees at the age of 18 – 63 years old; b) those who communication was possible, able to read and write and no suffering from any psychiatric disorders) those who understood the purpose of research and allowed for such participation whereas the exclusion criteria were males who were then diagnosed as benign prostate hyperplasia, prostate cancer or were being treated for prostate cancer. The questionnaires were including the Knowledge about contributing factors and early detection methods screening condition on prostate cancer. Knowledge of prostate cancer questionnaire: a draft of the 28-item based on literature review and previous research related prostate cancer by researcher. Thereafter, the validity of the questionnaire was verified by 5 experts' specialist in urology, 13 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 .84. Each correct answer was scored two to a correct answer while an incorrect answer scored to one-point. Firstly, we conducted a questionnaire preliminary survey to 10 employees over 18 years old and then modified difficult or understood terms into easy ones in a questionnaire. Data was collected from 5thDecember 2019 to 3rd March, 2020. The data was collected through distribution of self -administered questionnaire. The instrument comprised 32 questions, which included (6) questions related participants demographic characteristics 'and (28) questions related contributing factors and early detection methods for prostate cancer. The collected data was analyzed using SPSS statistical package (version 22.0). 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 36 years (mean=41.8+ SD =10.035) for the study participants. Most participants had doctorate education (38%), (26%) secondary school, (18 %) university,(9%) intermediate ,)5%) MSc and (4%) institute education respectively and about (77%) of respondents indicated that they were married and, (11%) of them were single and reminder (4%) were divorced or widowed. The majority of the respondents (89%) indicated having no family history of prostate cancer and (11%) had no family history of prostate cancer. Participants reported residing majority in urban (94%) areas. The mean and standard deviation of the knowledge was 43.60 ± 5.312, most of them 48% of the participants having a moderate level of knowledge about contributing factors and early detection tests of PCa.

Table 1: Descriptive Analysis Level of Participant's Knowledge concerning Contributing Factors and Early Detection for Prostate Cancer

Items	frequency	Percent	Valid Percent	Cumulative Percent
Low	17	17.0	17.0	17.0
Medium	48	48.0	48.0	65.0
High	35	35.0	35.0	100.0
Total	100	100.0	100.0	

Table 2: Association between Employees' Knowledge and Socio- Demographic Variables

Variables		Sum of Squares	D.F	Mean Square	F	Sig.
Age Group	Between Groups	7.163	2	3.582	3.768	.027
	Within Groups	92.197	97	.950		
	Total	99.360	99			
Marital Status	Between Groups	.371	2	.186	.761	.470
	Within Groups	23.669	97	.244		
	Total	24.040	99			
Level of education	Between Groups	50.082	2	25.041	7.670	.001
	Within Groups	316.668	97	3.265		
	Total	366.750	99			
Family history of PCa	Between Groups	.761	2	.380	4.086	.020
	Within Groups	9.029	97	.093		
	Total	9.790	99			
Residence	Between Groups	.091	2	.046	.799	.453
	Within Groups	5.549	97	.057		
	Total	5.640	99			

Discussion

Throughout the course of the data analysis of the current study, the findings show the majority of the participants (36%) age groups ranged from 38-47 years , the average age was 36 years (mean=41.8+ S.td =10.035). On marital status majority of employees (89%) were married. Most of respondents (38%) had doctorate education, (26%) secondary school, (18 %) university,(9%) intermediate ,)5%) master and (4%) institute holder education, respectively. Majority of them (89%) have no family history of PCa. Finally high percentage of employees (94%) was living in urban area. These findings agreed with study done by Awosan, 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 [4]. These findings are similar to Abuadas who reported the mean age of participants was 52.5 years (SD=8.5; range=40-75). A total of 42.1% had a primary educational level, 29.9% had a secondary educational level, and 28% had a university education. Regarding marital status, the majority (91.4%) was married, followed by 5.6% who were single and 3% who were divorced or widowed [5] . The ages of the respondents ranged from 45-60. The mean age of the study respondents was 49.52 (SD=± 3.95), with the majority of them, 68.1%, in the age category 45-50 years. Most of the respondents, 87.5%, indicated that they were married and 12.5% were single. 90.6%, of the respondents indicated they had completed University education while 9.4% had a 3- year post-secondary education [6].

Twenty eight questions assessed general knowledge of employees concerning contributing factors and early detection methods. Most, 48 (48%) of the 100 participants had fair knowledge of prostate cancer, while 35 (35%) of them had good and only (17%) had poor knowledge about prostate cancer. The finding revealed that participants have scored 80% and above in only (8) questions. They scored between 50% and 79% in (13) questions and they scored less than 50% in seven questions. The highest score was 88%. These findings are similar to Kaninjing as he found A majority of participants (55.2%) exhibited medium knowledge of prostate cancer. In terms of awareness of the PSA test, 88.8% of participants were not aware of this screening method while 91.0% were also not aware of the DRE [7]. The study was also supported by study done in Malaysia by Firzara, et al., who found a majority of the participants correctly answered the questions on 'increased of age more than 50 years' (97.4%) and increase the risk of prostate cancer 'with person having a first-degree relative of PCa (82.7%). Only (31.1%) of respondents were aware the risk increases with individuals who having a first-degree relative of prostate cancer [8]. This finding was in good agreement with that obtained by Morland who stated that the majority of men had an adequate knowledge about prostate cancer (82.1%) [9]. A similar findings are accordance with another study carried out in Jamaica, with 96% of participants answered correctly to questions concerning prostate cancer [10]. This finding is the same line with study done by Adibe that revealed the greater majority of male staff who demonstrated a high level of knowledge of prostate cancer had tertiary degree (94.9%, n = 356.0). Academic staff constituted the greater majority (77.1%) of staff with high knowledge level of prostate cancer [11].The association between socio-demographic and employees' knowledge score was explored. There are significant association between ages, level of education, family history of prostate cancer and studied sample knowledge at p value ≤ 0.05 and also illustrate that no relationship found with rest of studied variables. These findings are disagreeing with findings obtained from Yeboah. Fisher's exact test statistics revealed that there was no association between age, marital status, level of educational, current rank, family history of PC and knowledge about prostate cancer [12,13]. These findings good agreements with many studies study, those reported that the association between social –demographic characteristics' and prostate cancer knowledge among the participants; All demographic data were significant associated with knowledge of prostate cancer except social status (there is no significant associated with knowledge about prostate cancer (p=0.337), While chi-square indicated there are significant association between age, marital status, and the prostate cancer knowledge [14, 15, 16, 17] .

Conclusions

In conclusion, the results of the current study show that the level of knowledge among the employees' about prostate cancer is enough in general, but the

participants in the study demonstrated low knowledge in early detection of prostate cancer and early signs and symptoms. The study found the association between sociodemographic variables and knowledge of prostate cancer, except the marital status and residence which are not associated to the knowledge of prostate cancer. The study recommended the Ministry of health (MOH) should organize public health campaigns using the mass media, social media such as Facebook, twitter and hospital to improve knowledge, attitude and use of screening practices related to early detection methods of prostate cancer. Also we recommended establishing of educational program to improve knowledge and attitudes related contributing factors of and early detection of prostate cancer for university of Baghdad employees.

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Conflict of Interest: None declared.

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