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Awareness and willingness to participate in medical screening programs, Taif city

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ABSTRACT

Background: There is great impact of implementing evidence based screening programs on improving public health outcomes. When applied properly it will lead to prevent disease, reduce disability and cut mortality. 1st step in conducting such programs is awareness about current situation regarding knowledge and willingness of the targeted population for such programs.

Objectives: To estimate level of knowledge about breast cancer, colorectal cancer and osteoporosis and assess willingness to participate in screening programs among resident of king Fahad airbase in Taif city.

Methods: This is a cross-sectional study that was conducted among King Fahad Air base residents using an online survey to investigate the awareness of the residents of air base about the detection of some diseases. The study included all age groups and both genders, the study continued for 2 weeks. The survey investigated demographics of participants, their awareness about breast cancer, colon and rectum cancers, and osteoporosis regarding the prevalence, family history, and other questions associated with level of knowledge of such diseases.

Results: The present study included 121 participants; most dominant age group represented 41.32% with an age range of 35-44 years old. Females were more dominant than males with 65.29%. Regarding family history, there were 6.61%, 5.83%, and 42.15% reported having a family history of breast cancer, colon and rectum cancers, and osteoporosis.

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Regarding the prevalence of breast cancer, there were 59.17% moderate in prevalence. Regarding colon and rectum cancers, there were 58.68% moderate in prevalence. There were 70.83% reported that osteoporosis is prevalent.

Regarding the appropriate age for early detection of the diseases, there were 38.02% reported 30 years and more for the detection of breast cancer, 52.07%, 42.15% when symptoms appear regarding colorectal cancers and osteoporosis respectively.

Regarding the symptoms related to colon and rectum cancers, there were 44.63% reported abdominal pain, 49.59% reported changes in faces, 67.77% reported the presence of blood in the stool, 23.14% reported vomiting and nausea, and 5.79% reported no symptoms.

Regarding the risk factors of colon and rectum cancers, there were 66.12%, 70.59%, 76.03%, 66.94%, 71.07%, and 33.06% reported eating few vegetables and fruits, smoking, low fiber diet, high-fat diet, the low practice of exercise, and age older than 50 years old, respectively.

Regarding breast cancers, the symptoms reported for breast cancer were as follows; 79.34% presence of a painless mass in the breast, 72.50% changes in skin color of the breast, 69.42% secretions and blood of the nipple, and 66.12% presence of ulcers around the nipple and the breast. The risk factors of breast cancers reported by participants included; 57.02% presence of a family history of breast cancer, 32.23% obesity, 5.83% early puberty, 15.70% cessation of menstruation in late age, 22.5% reproduction in late age or no reproduction, 34.17% not performing the exercise, 42.02% old age, and 52.07% no breastfeeding.

Regarding osteoporosis, there were 78.99% of participants reported no symptoms for osteoporosis, 77.50% reported that exercise helps against osteoporosis, 74.17% reported that females more prone to osteoporosis than males, and 45.83% reported that smoking is a risk factor for osteoporosis,

The knowledge of participants regarding the early detection of the three stated There were 39.17%, 15.83%, and 23.14% reported having awareness regarding early detection of breast cancer, colon and rectum cancer, and osteoporosis. A positive attitude of participants regarding future connection for early detection of breast cancer was reported by 76.4%, 62.92% colon and rectum cancer, and 76.40% for osteoporosis,

Conclusion:

There was low awareness among the population regarding the early detection of breast cancer, colon and rectum cancers, and osteoporosis. Moreover, there were gaps in the knowledge of participants regarding the symptoms and risk factors of the diseases. The moderate percent has a positive attitude toward early detection.

Recommendations:

Based on the current study, we can recommend the following:

1. Education of the population about early detection of such diseases is mandatory and should be performed through social media, during hospitals visits, by obstetric physicians, family physicians.
2. Encouraging the population to screen such diseases is necessary for protecting them against the disease development and early diagnosis and management to delay/prevent complications.

1] Background

Colon cancer is one of the major reasons of morbidity and increasing mortality rate around the world as it accounts for more than 9% incidence rate among all other sorts of cancers. In Saudi Arabia, colon cancer is the most

common cancer type among male population and the 3rd most common cancer among female population [1]

Breast cancer is one of the most dangerous and frequently occurring cancers among women, and it also affects men, it is a common malignancy among survey Saudi females, with a prevalence of 21.8%. The most recent of cancer-related mortality among Saudi women finds that breast cancer is the ninth leading cause of death [2]

Osteoporosis is a silent disease that has high prevalence among elderly all over the world, Saudi Arabia elderly population is not isolated from this, an epidemiological analysis showed that 34% of healthy Saudi women, and 30.7% of men, 50-79 years of age are osteoporotic. In Saudi Arabia, there is approximately 8,768 femoral fractures each year costing billions, and being an endemic area for vitamin D deficiency, bone health is becoming a serious concern in the kingdom.[3]

Screening population for the three conditions is promoting quality of care and cost effectiveness. Nevertheless, public awareness about the conditions is mandatory to ensure wide screening and proper follow-up for high risk individuals

1.2 Rationale

1. Assessing the current situation of awareness and willingness of community of airbase towards screening programs.
2. Up to the researcher knowledge, there were no previous similar studies in airbase residential area.

1.3 Aim of the study

Assessment of current situation and obtaining basic information will help in planning and building initiatives in future.

1.4 objectives

- To estimate level of knowledge about breast cancer, colorectal cancer and osteoporosis among resident of king Fahad airbase in Taif city.
- To assess willingness to participate in screening programs.

2] Literature Review

A literature review was conducted using PubMed, and Google Scholar to identify which some cancers and osteoporosis screening programs have been studied in Saudi Arabia from 2015 to 2020.

The global burden of cancer is increasing due to an ageing population and the adoption of unhealthy life style behaviors in societies across the world[i]. [WHO 2018][4].

Colorectal screening awareness:

colon and rectum cancers is the second most common cancer in Saudi Arabia, ranking first among men [10.6%] and third among women [8.9%][Al-Ahwal Ms et al 2014][5].In cross sectional [Ahmed alzubaidi et al 2015] study they found 42.9% of participants think that colon and rectum cancers screening should start at the onset of symptoms and Approximately 15% think screening should start at the age of 50 [6]. In same manner, [Al-Thafar et al., 2017] concluded that 19.1% of the participants were aware of colon and rectum cancers, 15.5% knew the correct method for screening and 68.1% agreed to perform colonoscopy [7].

In contrast, [Khoja et al., 2018] they found 5.64% of elderly participants have utilized colon and rectum cancers screening and 4.4% of them were done using fecal occult blood test. The screening of colon and rectum cancers was highest between 71 and 75 years of age [8]. At same year, [Al Sharif et al., 2018] concluded that 22.1% knew the correct time of screening for colon and rectum cancers, 42.9% of them were 50 years old and above. Only few knew the screening tool for colon and rectum cancers [9]. A similar study by [Alsayed et al., 2018], they found more than half of participants do not know colon and rectum cancers, 13.1% of the participants answered correctly the appropriate age of colon and rectum cancers, 35% knew the tool for colon and rectum

cancers and 20.8% are considering to undergo colon and rectum cancers [10]

Last study was [Almadi et al., 2019] they concluded that the mean knowledge score was

11.05 with no difference between gender or region, 15.24% undergone colon and rectum cancers screening, 72.73% mostly colonoscopy, 73% willing to undergo screening ,49.6% thought that screening for CRC should start at the age of 40–49 and 34.6% chose colonoscopy as the screening tool for colon and rectum cancers.[11]

[Alshahrani et al., 2019], they found 90.4% of women displayed a low level of knowledge about mammogram. Among those who reported good knowledge, only 15% of patients received mammograms. More than 50% obtained information about breast cancer screening through social media, and magazines. Healthcare providers showed to be only 8.8% as the source of information [13].

Predictors of participants' awareness of the screening were measured by [Al-Wassia et al 2017][14] and results showed that women with a higher level of education, and marital and the occupational status have a greater awareness of breast cancer screening .The findings were similar to previous studies, [Binhussien and Ghoraba, 2018 et al] ,All the participants showed sufficient knowledge about the risk factors and symptoms of breast cancer but insufficient knowledge about screening methods. [15]

Breast cancer screening awareness:

Breast cancer is the second most common cancer worldwide, and most frequent among females [12]

However, In systematic review [Demah AlAyadhi et al 2020] , concluded that All types of cancer showed a low level of practicing cancer screening programs, ranging from 10% to 15%. Several studies demonstrated that most of the Saudi population had never been screened for cancer. There is a need for population-based interventions to fill the gap of knowledge and practice of cancer screening in Saudi Arabia. [16]

Osteoporosis included in these screening programs. The Osteoporosis is a global public health problem currently affecting millions of people worldwide, and Saudi Arabia is not an exception. Awareness and perceptions of susceptibility and belief in the seriousness of a disease can help in its prevention and control.[17] The studies concerned with the prevalence of the osteoporosis in the Kingdom of Saudi Arabia have shown that the condition affects up to 40% of women aged between 50 and 80 years [Barzanji AT et al 2013] [18]

one of the studies were [Abdullah A. Alghunaim et al 2016] ,they concluded that the majority of the participants were aware of some knowledge about osteoporosis but female respondents were more knowledgeable in some very important points in this manner.[19] In cross sectional study by Mohammad E Mahfouz2017 , he found that Among the respondents, only 36,2% had a sufficient level of awareness about osteoporosis.[20] At same year , [Leena Al-Ghamdi et al 2017] , they concluded that the majority of participant women were knowledgeable of osteoporosis, with variation among marital status and college sector subgroups. Raising the importance to increase awareness campaigns especially among non health colleges and the unmarried females is a significant and powerful tool that contributes in the prevention of osteoporosis.[21] Another study of females by [Rina Tripathi et al 2018] knowledge and attitude levels were significantly higher among females and individuals who were <30 years of age. Likewise, knowledge and positive attitude levels were higher among graduates compared to lower education groups. Almost 69.3% of participants were aware of women's susceptibility towards osteoporosis as compared to men.[22] Recently , 2019 [Samer Aladwani et al] they concluded The correlation between awareness and education levels can be backed up since the level of education contributes to the exposure that one can get regarding media understanding. This study can, therefore, be used as a stimulating aspect for further research studies to realize what causes the substantial variance between awareness in males and females in the Kingdom of Saudi Arabia. [23]

3] Methodology

Methods

This is a cross-sectional study that was conducted on King Fahd Air base residents using an online survey to investigate the awareness of the residents of air base about the detection of some diseases. The study included all age groups and both genders, the study continued for 2 weeks. The survey investigated demographics of participants, their awareness about breast cancer, colon and rectum cancers, and osteoporosis regarding the prevalence, family history, and other questions associated with awareness of such diseases.

Statistical analysis:

Data were analyzed using Survey monkey website, simple descriptive such as percents were used to represent variables.

Self-administered online questionnaire was given to all visited families during field survey. Field survey was conducted by team of community volunteers and hospital representatives. They were divided into multiple small groups, visited 636 villa and 805 apartment total of 1441 residence. 519 only responded. Questionnaires were distributed via barcode by community volunteers after brief discussion about data collection purpose and assurance regarding full confidentiality and anonymity of the data.

Ethical consideration:

- Verbal consent was obtained from each participant to voluntarily participate in the study.
- Data was treated confidentially and used only for the purpose of research.

4] Results

The present study included 121 participants; regarding the age of participants, the most dominant age group represented 41.32%, and it included participants with an age range of 35-44 years old. Females were more dominant than males; 65.29% vs. 34.71% for females and males, respectively. Regarding family history, there were 6.61%, 5.83%, and 42.15% reported having a family history of breast cancer, colon and rectum cancers, and osteoporosis, table1 shows the demographics of participants [Table 1: Demographic characteristics of the participants [n=121]].

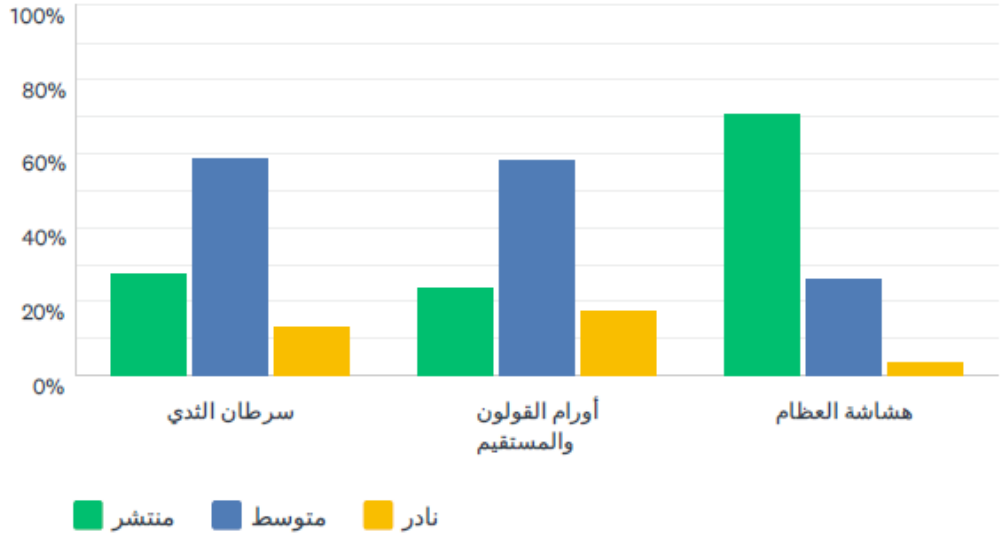
Table 1: Demographic characteristics of the participants [n=121]

Variables	N[%]
Age	
>18	5[4.13%]
18-24	13[10.74%]
25-34	25[20.66%]
35-44	50[41.32%]
45-54	28[23.14%]
Gender	
Males	42[34.71%]
Females	79[65.29%]
Family history of Breast cancer	
Yes	8[6.61%]
No	106[87.6%]
I don’t know	7[5.79%]
Family history of Colon and rectum cancers	
Yes	7[5.83%]
No	98[81.67%]
I don’t know	15[12.5%]
Family history of Osteoporosis	
Yes	51[42.15%]
No	54[44.63%]
I don’t know	16[13.22%]

Prevalence

Regarding the prevalence of breast cancer, there were 27.5%, 59.17%, and 13.33% of participants reported that breast cancer was prevalent, moderate in prevalence, and rare, respectively. Regarding colon and rectum cancers, there were 23.97%, 58.68%, and 17.36% reported that these cancers are prevalent, moderate in prevalence, and rare, respectively. There were 70.83% reported that osteoporosis is prevalent, 25.83% reported moderate prevalence, and 3.33% reported that it is rare, [Figure 1: Prevalence of the diseases as reported by the participants].

Figure 1: Prevalence of the diseases as reported by the participants



Appropriate age for early detection of the stated diseases.

Regarding the appropriate age for early detection of the diseases, there were 38.02% reported 30 years and more for the detection of breast cancer, 52.07% reported when symptoms appear regarding colon and rectum cancers, whereas 42.15% reported when symptoms appear regarding osteoporosis, [Table 2: Appropriate age for early detection of the stated diseases]

Table 2: Appropriate age for early detection of the stated diseases.

	لا يوجد حاجة للكشف المبكر	عند ظهور الأعراض	سنة 30 فأكثر	سنة 40 فأكثر	سنة 50 فأكثر	سنة 65 فأكثر	TOTAL	WEIGHTED AVERAGE
سرطان الثدي	1.65% 2	21.49% 26	38.02% 46	35.54% 43	3.31% 4	0.00% 0	121	3.17
أورام القولون والمستقيم	1.65% 2	52.07% 63	26.45% 32	19.01% 23	0.00% 0	0.83% 1	121	2.66
هشاشة العظام	2.48% 3	42.15% 51	26.45% 32	20.66% 25	6.61% 8	1.65% 2	121	2.92

Symptoms of colon and rectum cancers as reported by participants

Regarding the symptoms related to colon and rectum cancers, there were 44.63% reported abdominal pain, 49.59% reported changes in faces, 67.77% reported the presence of blood in the stool, 23.14% reported vomiting and nausea, and 5.79% reported no symptoms, [Figure2: Symptoms of colon and rectum cancers as reported by participants]**.**

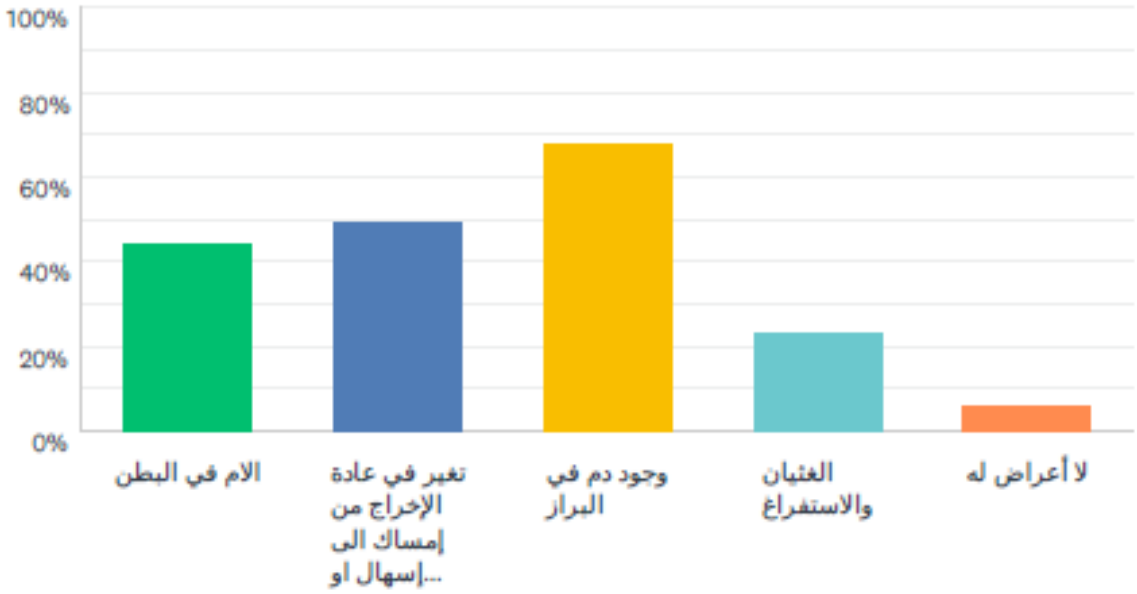


Figure2: Symptoms of colon and rectum cancers as reported by participants

Risk factors of colon and rectum cancers as reported by participants

Regarding the risk factors of colon and rectum cancers, there were 66.12%, 70.59%, 76.03%, 66.94%, 71.07%, and 33.06% reported eating few vegetables and fruits, smoking, low fiber diet, high-fat diet, the low practice of exercise, and age older than 50 years old, respectively, [Table 3: Risk factors of colon and rectum cancers as reported by participants]**.**

Table 3: Risk factors of colon and rectum cancers as reported by participants

	نعم	لا	لا أعلم	TOTAL	WEIGHTED AVERAGE
قلة تناول الخضار و الفواكه	66.12% 80	10.74% 13	23.14% 28	121	1.57
التدخين	70.59% 84	5.88% 7	23.53% 28	119	1.53
قلة تناول الألياف في النظام الغذائي	76.03% 92	4.13% 5	19.83% 24	121	1.44
الغذاء عالي الدهون	66.94% 81	6.61% 8	26.45% 32	121	1.60
قلة ممارسة الرياضة	71.07% 86	9.09% 11	19.83% 24	121	1.49
العمر فوق 50 سنة	33.06% 40	17.36% 21	49.59% 60	121	2.17

Symptoms of breast cancer as reported by participants

Regarding breast cancers, the symptoms reported for breast cancer were as follows; 79.34% reported the presence of a painless mass in the breast, 72.50% reported changes in skin color of the breast, 69.42% reported secretions and blood of the nipple, and 66.12% reported the presence of ulcers around the nipple and the breast, [Table4: Symptoms of breast cancer as reported by participants].

Table4: Symptoms of breast cancer as reported by participants

	نعم	لا	لا اعلم	TOTAL	WEIGHTED AVERAGE
وجود كتلة غير مؤلمة في الثدي	79.34% 96	6.61% 8	14.05% 17	121	1.35
تغير في المظهر الخارجي للثدي (لون الجلد أو ملمسه	72.50% 87	5.00% 6	22.50% 27	120	1.50
افراز/ خروج دم من الحلمة	69.42% 84	4.96% 6	25.62% 31	121	1.56
وجود تقرحات حول الحلمة والثدي	66.12% 80	7.44% 9	26.45% 32	121	1.60

Table5: Risk factors of breast cancer as reported by participants

	نعم	لا	لا اعلم	TOTAL	WEIGHTED AVERAGE
وجود تاريخ عائلي لسرطان الثدي	57.02% 69	14.88% 18	28.10% 34	121	1.71
السمنة	32.23% 39	23.97% 29	43.80% 53	121	2.12
البلوغ المبكر	5.83% 7	37.50% 45	56.67% 68	120	2.51
انقطاع الدورة في سن متأخر	15.70% 19	22.31% 27	61.98% 75	121	2.46
عدم الإنجاب او الإنجاب في عمر متأخر	22.50% 27	20.83% 25	56.67% 68	120	2.34
عدم ممارسة الرياضة	34.17% 41	20.00% 24	45.83% 55	120	2.12
التقدم في العمر	42.02% 50	23.53% 28	34.45% 41	119	1.92
عدم او قلة الرضاعة الطبيعية	52.07% 63	14.88% 18	33.06% 40	121	1.81

Risk factors of breast cancer as reported by participants

The risk factors of breast cancers reported by participants included; 57.02% presence of a family history of breast cancer, 32.23% obesity, 5.83% early puberty, 15.70% cessation of menstruation in late age, 22.5% reproduction in late age or no reproduction, 34.17% not performing the exercise, 42.02% old age, and 52.07% no breastfeeding, [Table5: Risk factors of breast cancer as reported by participants]

Knowledge regarding osteoporosis

Regarding osteoporosis, there were 78.99% of participants reported no symptoms for osteoporosis, 77.50% reported that exercise helps against osteoporosis, 74.17% reported that females more prone to osteoporosis than males, and 45.83% reported that smoking is a risk factor for osteoporosis, [Table6: Knowledge regarding osteoporosis].

Table6: Knowledge regarding osteoporosis

	نعم	لا	لا أعلم	TOTAL	WEIGHTED AVERAGE
يوجد لها أعراض؟	78.99% 94	3.36% 4	17.65% 21	119	1.39
الرياضة تساعد في الوقاية؟	77.50% 93	1.67% 2	20.83% 25	120	1.43
وجود تاريخ عائلي يزيد احتمالية الإصابة؟	55.00% 66	15.00% 18	30.00% 36	120	1.75
النساء أكثر عرضة من الرجال	74.17% 89	2.50% 3	23.33% 28	120	1.49
يعتبر التدخين أحد عوامل الخطورة؟	45.83% 55	13.33% 16	40.83% 49	120	1.95

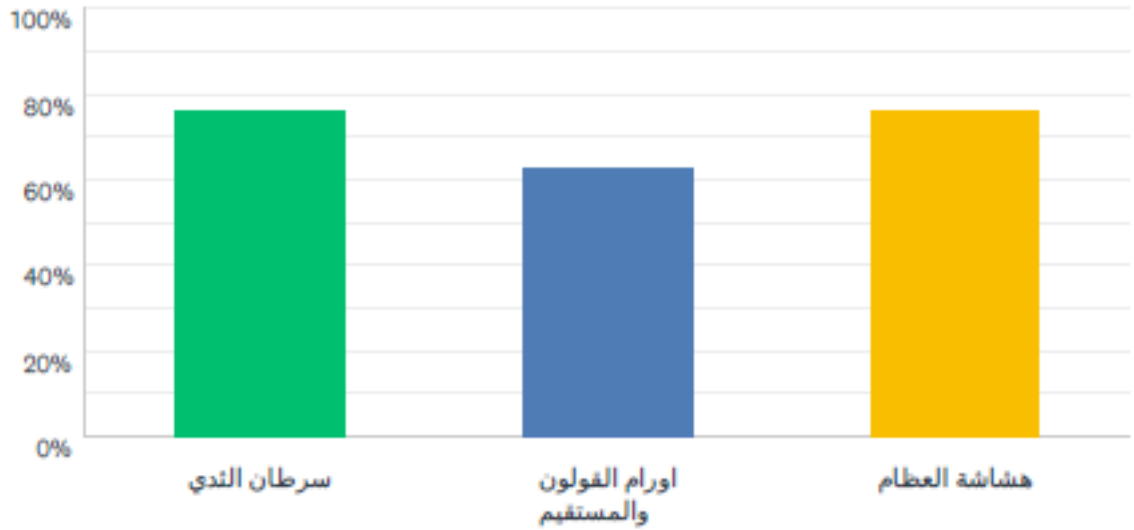


Figure 3: Awareness of participants about early detection of the investigated diseases

Awareness of participants about early detection of the investigated diseases

The knowledge of participants regarding the early detection of the three stated diseases is shown in figure3. There were 39.17%, 15.83%, and 23.14% reported having awareness regarding early detection of breast cancer, colon and rectum cancer, and osteoporosis [Figure 3: Awareness of participants about early detection of the investigated diseases].

Attitude of participants about early detection of the investigated diseases

A positive attitude of participants regarding future connection for early detection of breast cancer was reported by 76.4%, whereas 62.92% reported positive attitude regarding colon and rectum cancer, and 76.40% reported positive attitude regarding osteoporosis, [Figure 4: Positive attitude of participants about early detection of the investigated diseases]

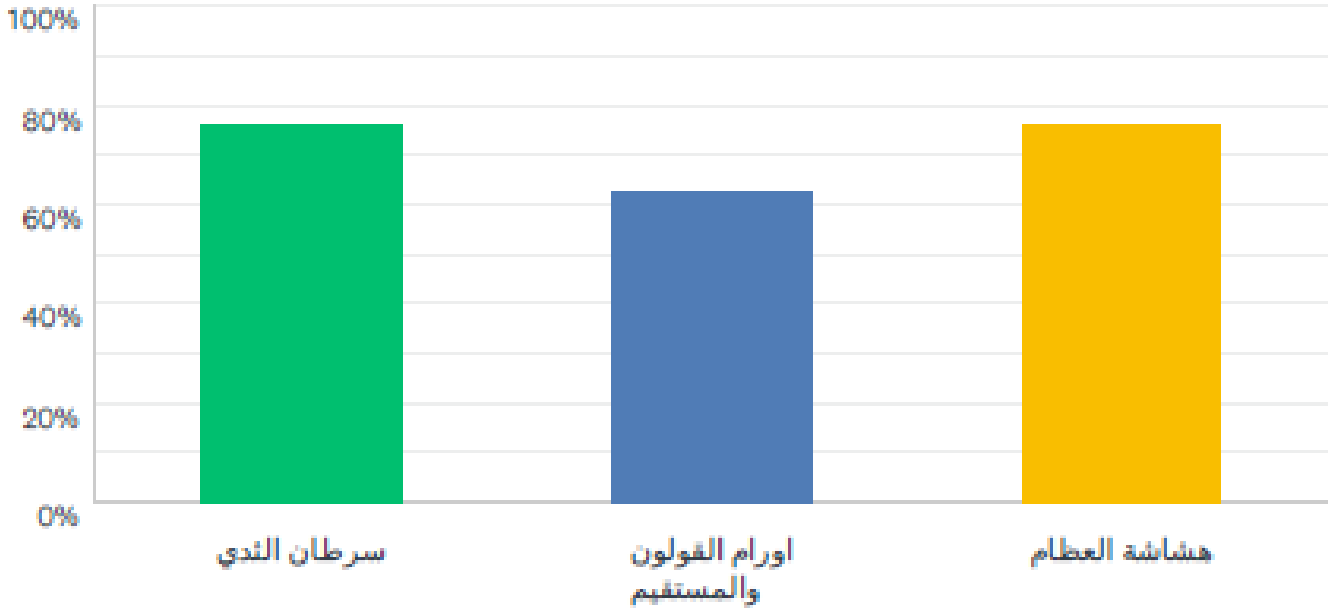


Figure 4: Positive attitude of participants about early detection of the investigated diseases

5] Discussion:

Screening is a means to prevent the disease, which aims to detect asymptomatic patients at an early stage of the disease [24]. The present study included 121 individuals, with females representing more than half of the participants. We aimed to investigate the awareness of participants regarding early detection of breast cancer, colon and rectum cancers, and osteoporosis. A few percent of participants reported having a family history of breast cancer [6.61%] and colon and rectum cancers [5.83%], whereas higher percent [42.15%] reported a family history of osteoporosis.

It was stated that the prevalence of breast cancer varies between different countries and regions in the same countries depending on several factors that affect the prevalence of breast cancer, including; the structure of the population, environment, lifestyle, risk factors, disease stage, and socioeconomic status [25]. Breast cancer is accounting for 25.1% among all types of cancer [26], and in Saudi Arabia, it is the leading cause of death among Saudi among women. The women, as reported in 2010 [27]. Colorectal cancer is ranked first in men and the third rate of colorectal cancer was 9.6/100000 individuals in the Saudi population in 2015 [28].

The prevalence of osteoporosis among the Saudi population was reported to be 34% [29].

Regarding the prevalence of the investigated diseases, participants in this study reported that osteoporosis is the most prevalent disease

[70.83%], followed by breast cancer [27.5%], then colon and rectum cancers [23.97%].

In a study conducted on the Saudi population, it was found that 24.22% and 39.06% of participants reported that colorectal cancer was high and average in the incidence [30].

In this study, 38.2% of participants reported that breast cancer must be screened at the age of 30 years and older, 52.07%, and 42.15% of participants reported that colon and rectum cancers, as well as osteoporosis, should be screened when symptoms appear.

In a previous Saudi study [31], it was reported that most of the participants believed that screening of colorectal cancer should be performed before the onset of symptoms, which was in contrast with our findings. There were 42.9% of participants from a study in Riyadh reported that screening of colon cancer should begin at the onset of symptoms [32].

Regarding the colon and rectum cancers, the participants reported that the most common symptoms of such cancers include; the presence of blood in the stool, changes in faces, abdominal pain, and vomiting. Whereas the most reported risk factors included; low fiber diet, smoking, performing no exercise.

A study conducted on Saudi Adults in Al-Dammam demonstrated that less than 30% reported that red meat is a risk factor for colorectal cancer, 18% reported diabetes, and 53% reported family history as risk factors [31].

In Saudi study, it was revealed that 61.9% of participants reported that lack of exercise was a risk factor for colorectal cancer, and 67.9% reported the effect of food style in contributing to colorectal cancer development [33].

Another Saudi study showed that only 29% reported blood with the stool as colorectal cancer symptom, 32% reported inflammation and ulceration of the colon as the most risk factor [34].

Regarding breast cancer, the most reported symptoms by participants included; the presence of a painless mass in the breast, change in the outer appearance of the breast, secretions and blood from the nipple, and ulcers around the nipple. The most-reported risk factors of breast cancer included; family history of breast cancer, no breast milk feeding, and older age, whereas early puberty and cessation of menstruation were the least reported risk factors.

In a previous Saudi study conducted on females from Jeddah, it was found that half of the participants reported the presence of mass was a warning symptom of breast cancer, and more than half reported that family history was a risk factor for breast cancer [35].

Another Saudi study conducted family medicine department in security forces hospital showed that 57% and 68% of female participated in the study knew that presence of lump and bleeding from the nipple are warning signs of breast cancer; moreover, 75.8% had good knowledge about the risk factors of breast cancer [36].

The knowledge of participants regarding different aspects of osteoporosis included; having symptoms, the role of exercise in protection against osteoporosis, association with family history, the association of genders, and smoking as risk factors. The majority of participants reported that osteoporosis has symptoms, can be prevented by exercise, and more prone to affect females, whereas fewer percent reported that family history and smoking are risk factors of osteoporosis.

It was reported that the risk factors of osteoporosis include female gender, low level of sex hormones, smoking, old age, menopause, and low levels of vitamin D [37,38].

A study from Riyadh conducted on females showed a good level of awareness about osteoporosis [39]. Another Saudi study reported moderate general knowledge among 60.66% of participants, whereas only 25.33% had good knowledge [40].

The awareness of participants regarding early detection of the investigated diseases was low, there were 39.17%, 15.83%, and 23.14%

reported having awareness regarding early detection of breast cancer, colon and rectum cancer, and osteoporosis. However, moderate percent had a positive attitude toward early detection.

Regarding breast cancer, similar findings were reported from a previous Saudi study conducted in the Hail region; the study reported a lack of appropriate information about breast cancer and its early detection, the knowledge of the participants was good among 34.3% only [25].

Ina previous Saudi study conducted on females, it was found that 79% have heard about breast cancer screening [35], fewer percent was reported from Riyadh, where 54% of females participated reported awareness about breast cancer screening [41].

In a Saudi study investigated the knowledge about colorectal cancer, it was found that 47% of participants heard about cancer screening, whereas 82.9% had a positive attitude to perform it if the doctor advised them [28].

Another Saudi study reported that 73.2% of participants from Makkah didn't hear about the screening of colon and rectum cancers [42].

A study from Madinah reported that only 38% have heard about an early screening of colon cancer [43].

There were 67% of the Saudi population reported hearing of early detection of colorectal cancer in Saudi study [34].

6] Conclusion:

The following would be concluded from the results of this study:

There was low awareness among the population regarding the early detection of breast cancer, colon and rectum cancers, and osteoporosis.

Moreover, there were gaps in the knowledge of participants regarding the symptoms and risk factors of the diseases.

The moderate percent has a positive attitude toward early detection.

7] Recommendations:

Based on the current study, we can recommend the following:

1. Education of the population about early detection of such diseases is mandatory and should be performed through social media, during hospitals visits, by obstetric physicians, family physicians.

2. Encouraging the population to screen such diseases is necessary for protecting them against the disease development and early diagnosis and management to delay/prevent complications.

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Appendices

استبيان قياس المعلومات و مدي الوعي بالكشف المبكر :

من منطلق حرصنا على تحقيق أفضل مستويات الخدمة والرعاية الصحية ,, نضع بين أيديكم هذا الإستبيان لقياس مدى معرفتك حول الفحص المبكر لسرطان الثدي, أورام القولون, هشاشة العظام. علما بأنه سيتم التعامل مع المعلومات بسرية تامة لذا نأمل الإجابة بدقة ووضوح لكي يتسنى لنا بالمستشفى خدمتكم بشكل أفضل

ونرحب دائما باقتراحاتكم

1. العمر:
   - أقل من 18
   - 18 -24
   - 25 – 34
   - 35 – 44
   - 45 – 54
   - 55 – 65
   - اكبر من 65
2. الجنس
   - ذكر
   - أنثى
3. في اعتقادك ما مدى انتشار:

سرطان الثدي	○ منتشر ○ متوسط ○ نادر
أورام القولون والمستقيم	○ منتشر ○ متوسط ○ نادر
هشاشة العظام	○ منتشر ○ متوسط ○ نادر

4. هل يوجد لديك تاريخ عائلي بالإصابة ب :

سرطان الثدي	○ نعم ○ لا ○ لا أعلم
أورام القولون والمستقيم	○ نعم ○ لا ○ لا أعلم

هشاشة العظام	○ نعم ○ لا ○ لا أعلم

5. في اعتقادك ما هو العمر المناسب لإجراء الكشف المبكر ل :

سرطان الثدي	○ لا يوجد حاجة للكشف المبكر ○ عند ظهور الأعراض ○ 30 سنة فأكثر ○ 40 سنة فأكثر ○ 50 سنة فأكثر ○ 65 سنة فأكثر
أورام القولون والمستقيم	○ لا يوجد حاجة للكشف المبكر ○ عند ظهور الأعراض ○ 30 سنة فأكثر ○ 40 سنة فأكثر ○ 50 سنة فأكثر ○ 65 سنة فأكثر
هشاشة العظام	○ لا يوجد حاجة للكشف المبكر ○ عند ظهور الأعراض ○ 30 سنة فأكثر ○ 40 سنة فأكثر ○ 50 سنة فأكثر ○ 65 سنة فأكثر

6. أي من الأعراض الآتية تعتقد أنه يتعلق بأورام القولون والمستقيم (يمكن اختيار أكثر من إجابة):
   - ○ آلام في البطن
   - ○ تغير في عادة الإخراج من إمساك إلى إسهال أو العكس
   - ○ وجود دم في البراز
   - ○ الغثيان و الإستفراغ
   - ○ لا أعراض له

7. أي مما يلي يعتبر من عوامل خطورة الإصابة بأورام القولون والمستقيم:

قلة تناول الخضار و الفواكة	○ نعم ○ لا ○ لا أعلم
التدخين	○ نعم ○ لا ○ لا أعلم

قلة تناول الألياف في النظام الغذائي	○ نعم ○ لا ○ لا أعلم
الغذاء عالي الدهون	○ نعم ○ لا ○ لا أعلم
قلة ممارسة الرياضة	○ نعم ○ لا ○ لا أعلم
العمر فوق 50 سنة	○ نعم ○ لا ○ لا أعلم

8. أي من الأعراض الآتية تعتقد أنه يتعلق بسرطان الثدي (يمكن اختيار أكثر من إجابة)

وجود كتلة غير مؤلمة في الثدي	○ نعم ○ لا ○ لا أعلم
تغير في المظهر الخارجي للثدي (لون الجلد أو ملمسه)	○ نعم ○ لا ○ لا أعلم
افراز/ خروج دم من الحلمة	○ نعم ○ لا ○ لا أعلم
وجود تقرحات حول الحلمة والثدي	○ نعم ○ لا ○ لا أعلم

9. أي مما يلي يعتبر من عوامل خطورة الإصابة بسرطان الثدي (يمكن اختيار أكثر من اجابة):

وجود تاريخ عائلي لسرطان الثدي	○ نعم ○ لا ○ لا أعلم
السمنة	○ نعم ○ لا ○ لا أعلم
البلوغ المبكر	○ نعم ○ لا ○ لا أعلم
انقطاع الدورة في سن متأخر	○ نعم ○ لا

	○ لا أعلم
عدم الإنجاب أو الإنجاب في عمر متأخر	○ نعم ○ لا ○ لا أعلم
عدم ممارسة الرياضة	○ نعم ○ لا ○ لا أعلم
التقدم في العمر	○ نعم ○ لا ○ لا أعلم
عدم أو قلة الرضاعة الطبيعية	○ نعم ○ لا ○ لا أعلم

10.فيما يتعلق بهشاشة العظام:

يوجد لها أعراض	○ نعم ○ لا ○ لا أعلم
الرياضة تساعد في الوقاية	○ نعم ○ لا ○ لا أعلم
وجود تاريخ عائلي يزيد احتمالية الإصابة	○ نعم ○ لا ○ لا أعلم
النساء أكثر عرضة من الرجال	○ نعم ○ لا ○ لا أعلم
يعتبر التدخين أحد عوامل الخطورة	○ نعم ○ لا ○ لا أعلم

11.هل سبق لك التفكير بعمل الكشف:

سرطان الثدي	○ نعم ○ لا ○ لا يوجد لدي المعرفة الكافية
سرطان القولون والمستقيم	○ نعم ○ لا ○ لا يوجد لدي المعرفة الكافية

هشاشة العظام	○ نعم ○ لا ○ لا يوجد لدي المعرفة الكافية

12.أرغب في التواصل معي مستقبلا بما يتعلق بمبادرات الكشف المبكر ل : (يمكن اختيار أكثر من مبادرة)

- ○ سرطان الثدي
- ○ أورام القولون والمستقيم
- ○ هشاشة العظام

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