ORIGINAL RESEARCH PAPER

Volume-8 | Issue-5 | May-2019 | PRINT ISSN No 2277 - 8179

INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

KNOWLEDGE AND PRACTICE OF PERIODIC HEALTH EXAMINATION AMONG SAUDI FEMALE TEACHERS IN EASTERN PROVINCE (DAMMAM, AL KHOBAR), 2017-2019.

Medicine

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ABSTRACT

Background: Individual and community health is one of the major goals of public health. Preventive medicine is focusing on diseases prevention and health promotion to maintain population's health. The target of these services is to prevent onset or delay complication and progression of the disease. Periodic health examination (PHE) is a regular visit to the primary health care centers, where patients can receive preventive health services.
Aim: to explore teacher's knowledge and practice of periodic health examination in Al Khobar and Dammam, Eastern province.
Method: Analytical cross-sectional descriptive study which was conducted at Eastern Province in Kingdome of Saudi Arabia (Dammam and AL Khobar). The study populations are Saudi female teachers of public schools in all levels. Data was collected by electronic Self-administrated questioner.
Results: Our study conducted on 376 female participants. Most of participating teachers (54.5%) were from Dammam. Around half (50.8%) of the teachers age were between 31 and 40 years. As regards psychological disorders awareness, about (52.9%) of teachers in the study agreed that a person should visit A physician if you have low mood or anhedonia. Social media was the primary source of knowledge PHE among (42.8%) of participants. Concerning the Family history of medical diseases, about (56.6%) had family history of DM2. As regard dyslipidemia, more than half of participants (71.3%) disagreed that its starting age is 21 years. 24% participants had good knowledge about PHE. The percent of PHE practice among participants is only 25%. it was found that the relationship between place of work and total knowledge was significant (P-value = 0.037) with around half of participants who had good knowledge (54.9%) worked in Khobar. A significant relationship (P-value = 0.048) was seen also between marital status and total knowledge with more than half of those with good knowledge (86.8) were married. The relationship between total knowledge and the number of children was significant (P-value = 0.015) .
Conclusion: Awareness and practice among women in the study towards periodic health examination is low.

KEYWORDS

Knowledge ; Practice ; Periodic Health Examination ; Saudi Female Teachers

Introduction And Literature Review

1-Background:

Individual and community health is one of the major goals of public health. World Health Organization (WHO) is expecting decreasing in mortality rate in 2030 in non-communicable diseases(NCD) to 19%, which is less than mortality rate in 2000 by 17%–(1). Both therapeutic medicine and regular medical checkup are basics participant in enhancing morbidity and mortality around the world. Preventive medicine is a medical subspecialty, which is established in 1954 in the United States. It is focusing on diseases prevention and health promotion to maintain population's health. In considering individual's well-being, it gives an opportunity for identifying risk or detecting early health problem. It consists of periodic health examination (PHE), counseling and immunization.

Periodic health examination (PHE) is a regular visit to the primary health care centers, where patients can receive preventive health services. The target of these services is to prevent onset or delay complication and progression of disease. During those visits, the physician routinely taking medical history, doing physical examination, some investigations and finally health education or counseling. For example, measuring cholesterol level at the age of 35 years as a screening of dyslipidemia, if the test is positive, patient should receive an ideal health education message about lifestyle behavior. Saudi national Periodic health examination guidelines program established in 2014 and it is applicable in specific primary health care centers, which are limited in numbers(2).

Many people are not aware about the importance of regular Checkup. Some studies reviewed, in related to the of knowledge and practice of PHE in a different setting (Kingdome of Saudi Arabia, Pakistan) and different populations (Saudi populations, medical and non-medical student) (3),(4), showed low knowledge and practice of PHE among each population.

In Kingdome of Saudi Arabia, the mortality rate from NCD according to WHO is 16.4% –(1). Most common forms of these NCD are hypertension, diabetes mellitus, cancers, and depression. Hypertension is a complex health problem threatened the well-being of the community, as more than 25% of Saudi adult is hypertensive (2). Diabetes mellitus is one of the leading causes of both morbidity and mortality, it is an issue concerns Saudi society, because of its prevalence that measured at 2015 by 23.7% –(5). Breast cancer is ranked first cancer in Saudi's female (6). Cervical cancer is occupying the 8th class of cancer among Saudi female and About 84 cervical cancer deaths occur annually in Saudi Arabia (7) .Prevalence of Depression screening studies in Saudi Arabia is showing variation in the result based on different factors for an instant: age groups, gender, level of education, and geographic locations(8) .

Family physician, who is responsible for large area of anticipatory care in the community, decided to study the knowledge and practice of PHE among teachers as this area is not explored in Saudi community before. In Saudi community, education sector occupies 43%of governmental jobs, as civil service announced, it mentioned in al Riyadh newspaper1436.Female who are working in education sector covering 87.4% of Saudi female workers (17). Teachers are carrying different valuable messages to their student, family and community surrounding them. The literatures showed high prevalence of hypertension, diabetes mellitus and depression. One Turkish studies showed high prevalence of hypertension among teachers (9). Also, another study done in Bengaluru showed 25% of teachers had diabetes mellitus(10).

One Egyptian study figured out high level of depression among teachers (11) .

Saudi national of periodic health examination program expected some limitations in the guidelines implantation, one of these limitations is community awareness (2). All NCD knowledge measuring studies, they recommend to raise the level of awareness by establishing health promotion education programs (12),(13),(14) .Study done on Cervical cancer screening had shown low knowledge and practice among studied populations, and they recommend to increase level of awareness about the value of cervical cancer screening (13),(15).Breast cancer screening study revealed poor knowledge about its screening (12).other study done on hypertensive teachers, showed most of the newly diagnosed teachers are incidentally discover, this outcome resulting from lack of knowledge about regular checkup(9) .

In the other hand, one study done in Nigeria showed good awareness toward the knowledge of PHE but they had poor practice as this return to some factors that is related to age, gender, level of education, socioeconomic status and workload, high cost of the test and related to the shortage of female workers(16) .

2-Rational

Most of the studies in Saudi Arabia focusing on measuring the prevalence of NCD or measuring knowledge, attitude, and practice of specific diseases but only one study was done on PHE knowledge and practice. High prevalence of NCD in Saudi community and presence of preventive medicine make focusing on PHE area opportunistic step in promoting a healthy community.

3- Aim of study:

Our study aim is to explore teacher's knowledge and practice of periodic health examination in Al Khobar and Dammam, Eastern province.

4- Research Questions:

What are the knowledge and practice of PHE and factors affecting it among teachers in the eastern province, Saudi Arabia?

1- Objectives:

A- To estimate teachers' knowledge about periodic health examination in Dammam and Al-Khobar.
B- To measure practice of periodic health examination among teachers in Dammam and Al Khobar.
C- To identify the factors effecting practicing of periodic health examination among teachers in Dammam and Al Khobar.
D- To measure the relationship between factors effecting practicing of PHE and teachers' knowledge and practice.

Materials and Method

1-Study Design:

It Is Analytical cross-sectional descriptive study.

2- Study Setting:

The study was at Eastern Province in Kingdome of Saudi Arabia (Dammam and AL Khobar).The total number of population in Dammam is 903.597 and a total number of population in AL Khobar is 578500. It was conducted at female public schools. The study was included all the school levels primary, intermediate and secondary schools. Schools are small society belonging to the community, as each school has a headmaster, administrative staff, teachers and student. Schools carry huge responsibility in preparing a qualified individual to serve the community in the future. The Study was begin in October 2017 and ended in July 2018.

3- Study Sample:

The study populations are Saudi female teachers of public schools in all levels primary, intermediate and secondary schools and their ages below 60 years old, in Eastern Province (Dammam, Al Khobar).

A-Inclusion/ exclusion criteria:

Inclusion Criteria:

- Saudi female public schools' teachers.
- Age below 60 years old.

4- Sampling technique and Methods:

This study was carried by multistage technique. We contacted the ministry of education to get the total number of female schools and teachers working in all public schools in Eastern Province.

Stage 1: Cluster sampling: we selected the schools according to the number of schools' proportions between both cities
Stage 2: Systematic Random sampling to select the schools.
Stage 3: All teachers of the selected schools were included.

5- Sample size:

Sample size was calculated according to the number of teachers in Dammam and Al Khobar by using Rao soft calculator with a marginal errors 5% and confident level 95%. The sample size was adjusted by adding 10% to avoid sample bias. The sample size of the was 360 teachers.

6- Data collection tool:

Data were collected by electronic questioner. This questioner was constructed from similar studies ,USPSTF ,ADA and Saudi National Periodic Health Examination Guidelines that started from 18 -59 years old. This constructed questioner was translated to the Arabic language and it was reviewed by 2 Arabic language spatialized person. Then the questioner passed under content and constructed validity by 10 consultant family and community medicine until valid questioner finalizes. Then the questioner data were entered in google electronic survey .

7- Pilot study :

pilot study was conducted on 50 teachers from different cities who were not included in the research sample to assess questioner validity and reliability .Then electronic survey distributed to the populations through e- mail .The author transferred the data to the SPSS and internal validity were done. cronbach alpha value was above 8 .

Sections of the questioner:

Section A: demographic data: like age, marital status, number of children and nature of work.
Section B: knowledge of PHE of non-communicable disease (diabetes mellitus, hypertension,dyslipidemia, breast cancer, cervical cancer, depression)
Section C: practicing of PHE screening.

I. Variables:

- The dependent variable:

The main outcomes are to determine knowledge and practice of PHE of teachers.

- The independent variables:

Are sociodemographic factors, non -communicable diseases screening knowledge and practice and Identifying factors effecting PHE practice.

8- Data Analysis:

Data will be entered and analyzed using the statistical program in researchers personal computer by social package science version 22 .software (SPSS, 22).Processing of analysis will be conducted by using a statistical test. The statistical significant value will be set at 0, 05. All incomplete variables will be abandon.

9- Data processing:

- Response rate was not calculated because the answers were collected exceed the sample size .
- Data was entered into a personal computer and analyzed by using SPSS software -version 23.
- All variables were coded before entry and checked before analysis.
- suitable statistical test to the data was applied and p-value less than 0.05 was considered significant.
- The total knowledge score was calculated by sum up the correct answers which was 21 , then less than 11 scores was considered as poor knowledge and score of 11 and more was considered as good knowledge.
- the frequancies were calculated for categorical data.

10- Result:

Table 1: Socio -demographic Data Frequency n=376:

Items	Number (n)	Percentage (%)
Sector:		
Dammam	205	54.5
Khobar	171	45.5

Age:		
21-30	31	8.2
31-40	191	50.8
41-50	135	35.9
51-60	19	5.1
Marital status:		
Single	44	11.7
Married	299	79.5
Divorced	27	7.2
Widow	6	1.6
Children:		
Nulliparous	77	20.5
1-6 children	280	74.5
7 or more	19	5.1
Work Experience year:		
Five years or less	101	26.9
5.1-10 years	133	35.4
10.1 or more years	142	37.8
Nature of Job:		
Teaching class	244	64.9
Administrating work	132	35.1
Income:		
Less than 5000 SR	9	2.4
5000-10000 SR	203	54.0
More than 10000 SR	164	43.6
PHE Knowledge source:		
Health service institution	85	22.6
Social media	161	42.8
brochures and publication	54	14.4
Friends	42	11.2
Others	34	9.0
Health service providing place:		
Governmental PHCC	87	23.1
Governmental Hospital	168	44.7
Private hospital	111	29.5
Others	10	2.7
Health insurance:		
Yes	101	26.9
No	275	73.1
Do you have a chronic disease:		
Yes	207	55.1
No	169	44.9
Chronic diseases:		
DM	50	13.3
HTN	38	10.1
Depression	15	4.0
Breast cancer	5	1.3
others	136	36.2
Do you have a Family history of chronic disease:		
Yes	302	80.3
No	74	19.7
A family history of:		
DM	213	56.6
HTN	160	42.6
Depression	12	3.2
Cervical cancer	3	0.8
Breast cancer	11	2.9
others	98	26.1

As seen in table 1 Our study conducted on 376 female participants. Most of participating teachers (54.5%) were from Dammam. Around half (50.8%) of the teachers age were between 31 and 40 years. About (37.8%) of the participant's Work Experience was for more than ten years. About (64.9%) were teachers, and the remaining work as administrative. The average income for most of the teachers in the study (54%) were between 5000 and 10000 SR.

As regards medical co morbidities among participants, (13.3%) were diagnosed with type 2 diabetes, (10.1%) were known hypertensive, and (4%) had depression. No one had a history of cervical cancer, but (1.3%) were diagnosed with breast cancer.

Social media was the primary source of knowledge PHE among (42.8%) of participants. More than two third of the participants (73.1%) did not have Health insurance. About (44.7%) of participants receive their health service at Governmental Hospital .

Concerning the Family history of medical diseases, about (56.6%) had family history of DM2, and (0.8%) had a family history of cervical cancer.

As regard knowledge distribution among teachers in the study, about PHE of non-communicable disease frequency Table (2)showed that about (86.7%) knew that polyuria, polydipsia, polyphagia, require screening for DM2. Minor number (20.7%) agreed that the age of 45 is the right time for DM2 screening. A major number of teachers(67.3%) decided that earlier screening is required if they have a family history for the chronic disease. About (28.5%) knew that Regular screening time for DM2 if a standard laboratory test is every three years and about (66.8%) agreed that blood pressure should be measured if a person has these symptoms (blurred vision, headache, chest pain). While a minority of participants (22.9%) agreed that regular screening time of HTN every two years. About (54.3%) agreed that Mammogram is the most accurate breast cancer screening tools. And (41.5%) knew that Screening of breast Cancer starting from age 40 year. More than half of participants(58%) agreed that regular screening time of breast cancer if mammogram normal is yearly, and (86.4%) disagreed that a 74 year and more is the age to stop the screening of Breast cancer. Unfortunately, most of the teachers in the study (69.4%) did not agree that If you have a family history of breast cancer (first degree), you must screen early than the age of 40 years. About (55.3%) said that Pap smear should be done for every married teacher, and (76.3) did not agree that regular screening of cervical cancer by Pap smear start by age 21, while the majority of participants (73.1%) did not agree that regular screening time of cervical cancer by Pap smear if the last result is healthy, is every three years.

As regards psychological disorders awareness, about (52.9%) of teachers in the study agreed that a person should visit A physician if you have low mood or anhedonia. While (70.7%) disagreed that screening of depression in chronic disease patients should be done every two years and (36.7%) agreed that depression screening age in adulthood starting from 18 years.

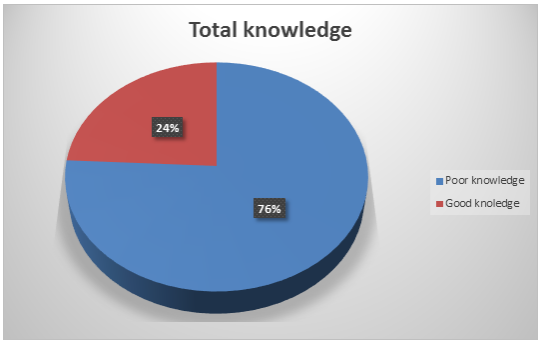
As regard dyslipidemia, more than half of participants (71.3%) disagreed that its starting age is 21 years. Also, the majority (81.6%) disagreed that dyslipidemia regular screening time if last result normal is every five years and about (63.3%) did not agree that BMI >30 or above considered obesity. (Table 2)

Table 2: knowledge about PHE of non -communicable disease frequency total n=376

Item	Correct answer (N, %)	Incorrect answer (N, %)
If you have polyuria, polydipsia, polyphagia, you should screen for DM2?	326 (86.7)	50 (13.3)
Is 45 y old the right time for dm2 screening?	78 (20.7)	298 (79.3)
If you have a family history for chronic disease early screening before age 45?	253 (67.3)	123 (32.7)
Regular screening time for dm2 if normal lab test is every three years?	107 (28.5)	269 (71.5)
Blood pressure should be measured if you have this symptom (blurred vision, headache, chest pain)?	251 (66.8)	125 (33.2)
HTN screening time starting from age 18 y and more?	135 (35.9)	241 (64.1)
Regular screening time of HTN every two years?	86 (22.9)	290 (77.1)
The mammogram is the most accurate breast CA screening tools?	204 (54.3)	172 (45.7)
Screening of breast CA starting from age 40 y?	156 (41.5)	220 (58.5)
Regular screening time of breast CA if mammogram normal is yearly?	218 (58.0)	158 (42.0)

74 year and more is the age to stop the screening of breast CA?	51 (13.6)	325 (86.4)
If you have a family history of breast cancer (first degree), you have to screen early than the age of 40 years?	115 (30.6)	261 (69.4)
Pap smear it should be done for every married teacher?	208 (55.3)	168 (44.7)
Regular screening of cervical CA by pap smear starting from age 21?	89 (23.7)	287 (76.3)
Regular screening time of cervical cancer CA by pap smear if the last result is normal every three years?	101 (26.9)	275 (73.1)
65 year and more is the age to stop the screening of cervical cancer?	59 (15.7)	317 (84.3)
You should visit your physician if you have low mood or anhedonia?	177 (47.1)	199 (52.9)
Should the screening of depression in chronic disease patient every two years?	110 (29.3)	266 (70.7)
Depression screening age in adulthood starting from 18 years?	138 (36.7)	238 (63.3)
Starting age in the screening of dyslipidemia is 21 year	108 (28.7)	268 (71.3)
Does obesity define as BMI >30 or more?	137 (36.4)	239 (63.6)
Dyslipidemia regular screening time if last result normal is every five years?	69 (18.4)	307 (81.6)

PHE knowledge frequency among study population



Graph 1 : showed 24% participants had good knowledge about PHE.

Table 3: the practice of PHE of non -communicable disease (Sample =376)

Item	Yes (N, %)	No (N, %)
Blood glucose screening test	211 (56.1)	165 (43.9)
Blood pressure measurement	203 (54.0)	173 (46.0)
BMI measurement	80 (21.3)	296 (78.7)
Depression screening	16 (4.3)	360 (95.7)
Pap smear practice	50 (13.3)	326 (86.7)
Breast cancer mammogram	48 (12.8)	328 (87.2)

As regards teachers practice of non-communicable diseases toward the frequency (Table 3) showed that more than half of participants (56.1%) did blood glucose screening test, and only (54%) had their blood pressure measured.

Majority of teachers in the study (87.2) did not do a mammogram for breast cancer and the majority (95.7%) did not undergo screening for depression.

Among our participants only (21.3%) underwent BMI measurement. Pap smear test is done by (13.35).

As regards the statistical relationship between sociodemographic data and PHE knowledge, it was found that the relationship between place of work and total knowledge was significant (P-value = 0.037) with around half of participants who had good knowledge (54.9%) worked in Khobar.

A significant relationship (P-value = 0.048) was seen also between marital status and total knowledge with more than half of those with good knowledge (86.8) were married.

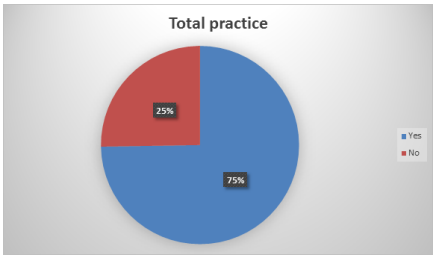
The relationship between total knowledge and the number of children was significant (P-value = 0.015) .

Also, a significant relationship (P-value = 0.048) was recorded between work experience years and total knowledge with (49.5%) of participants who had good knowledge worked more than 10Years . (Table 4).

Table 4: Relation between Sociodemographic data and PHE knowledge:

items	Poor knowledge (N, %)	Good knowledge (N, %)	Chi-square	P value
Sector:				
Dammam	164 (57.5)	41 (45.1)		
Khobar	121 (42.5)	50 (54.9)	4.339	0.037*
Age:				
25-30	25 (8.8)	6 (6.6)		
31-40	151 (53.0)	40 (44.0)		
41-50	94 (33.0)	41 (45.1)		
51-60	15 (5.3)	4 (4.4)	4.406	0.221
Marital status:				
single, divorced or widow	65 (22.8)	12 (13.2)		
married	220 (77.2)	79 (86.8)	3.92	0.048*
Children:				
nulliparous	68 (23.9)	9 (9.9)		
1-6 children	204 (71.6)	76 (83.5)		
7 and more	13 (4.6)	6 (6.6)	8.457	0.015*
Work Experience year:				
Five years or less	77 (27.0)	24 (26.4)		
5.1-10	111 (38.9)	22 (24.2)		
more than 10.1	97 (34.0)	45 (49.5)	11.859	0.003*
Nature of Job:				
teaching class	192 (67.4)	52 (57.1)		
administering work	93 (32.6)	39 (42.9)	3.166	0.075
Income:				
less than 5000 SR	7 (2.5)	2 (2.2)		
5000-10000 SR	155 (54.4)	48 (52.7)		
more than 10000 SR	123 (43.2)	41 (45.1)	0.110	0.946
PHE Knowledge source:				
health service institution and its worker	61 (21.4)	24 (26.4)		
social media				
Brochures and	124 (43.5)	37 (40.7)		
publications	40 (14.0)	14 (15.4)		
friends	31 (10.9)	11 (12.1)		
others	29 (10.2)	5 (5.5)	2.734	0.603
Health service providing place:				
Governmental PHC	61 (21.4)	26 (28.6)		
Governmental Hospital	132 (46.3)	36 (39.6)		
Private Hospital	85 (29.8)	26 (28.6)		
Others	7 (2.5)	3 (3.3)	2.456	0.483
Health insurance:				
yes	79 (27.7)	22 (24.2)		
no	206 (72.3)	69 (75.8)	0.441	0.507
Do you have a chronic disease:				
yes	128 (44.9)	41 (45.1)		
no	157 (55.1)	50 (54.9)	0.001	0.981
Do you have a Family history of chronic disease:				
yes	81 (28.4)	17 (18.7)		
no	204 (71.6)	74 (81.3)	3.395	0.065

PHE practice frequency among study population



Graph 2 showed that the percent of PHE practice among participants is only 25%.

Table 5 :- Relation between Sociodemographic data and PHE practice:

items	Yes (N, %)	No (N, %)	Chi-square	P value
Sector:				0.086
Dammam	146 (52.0)	59 (62.1)		
Khobar	135 (48.0)	36 (37.9)	2.949	
Age:				0.348
25-30	19 (6.8)	12 (12.6)		
31-40	145 (51.6)	46 (48.4)		
41-50	103 (36.7)	32 (33.7)		
51-60	14 (5.0)	5 (5.3)	3.294	
Marital status:				0.873
single, divorced or widow	57 (20.3)	20 (21.1)		
married	224 (79.7)	75 (78.9)	0.026	
Children:				0.395
nulliparous	53 (18.9)	24 (25.3)		
1-6 children	214 (76.2)	66 (69.5)		
7 and more	14 (5.0)	5 (5.3)	1.858	
Work Experience year:				0.050*
Five years or less	70 (24.9)	31 (32.6)		
5.1-10	95 (33.8)	38 (40.0)		
more than 10.1	116 (41.3)	26 (27.4)	5.984	
Nature of job:				0.930
teaching class	182 (64.8)	62 (65.3)		
administering work	99 (35.2)	33 (34.7)	0.008	
Income:				0.533
less than 5000 SR	7 (2.5)	2 (2.2)		
5000-10000 SR	147 (52.3)	56 (58.9)		
more than 10000 SR	127 (45.2)	37 (38.9)	1.258	
PHE Knowledge source:				0.503
health service institution and its worker	69 (24.6)	16 (16.8)		
social media	120 (42.7)	41 (43.2)		
Brochures and publications	38 (13.5)	16 (16.8)		
friends	31 (11.0)	11 (11.6)		
others	23 (8.2)	11 (11.6)	3.340	
Health service providing place:				0.0.918
Governmental PHC	67 (23.8)	20 (21.1)		
Governmental Hospital	124 (44.1)	44 (46.3)		
Private Hospital	82 (29.2)	29 (30.5)		
Others	8 (2.8)	2 (2.1)	0.505	
Health insurance:				0.890
yes	76 (27.0)	25 (26.3)		
no	205 (73.0)	70 (73.7)	0.019	
Do you have a chronic disease:				0.133
yes	120 (42.7)	49 (51.6)		
no	161 (57.3)	46 (48.4)	2.260	
Do you have a family history of chronic disease:				0.001*
yes	44 (15.7)	30 (31.6)		
no	237 (84.3)	65 (68.4)	11.384	

Table 5 showed the relationship between Sociodemographic data and PHE practice, there was a significant relationship with the years of work experience (p-value =0.050). Also, the relationship between PHE practice and positive family history of chronic diseases (p-value =0.001) with more than half of participants (68.4%) had a negative history of chronic diseases

Table 6: Correlation between PHE of non-communicable disease knowledge and PHE practice:

PHE of non-communicable disease knowledge and PHE practice	A correlation coefficient (r)	P value
	0.302	0.000*

In table 6 there was a positive correlation between PHE of non - communicable disease knowledge and PHE practice which indicates that increased knowledge leads to increase practice with a positive p-value .

3- Discussion:

Preventive services are always needed for the burden of chronic non-communicable diseases. It's reported that there is a high prevalence of chronic non-communicable diseases as hypertension, diabetes, and dyslipidemia in KSA. (18, 19, 20)

Our study showed significant relation between the participant knowledge and practice , and the total knowledge and total practice among them was about 25% which was low in comparison to Tahiraet al., where the knowledge about PHE was 62 % and out of them 54% practice it . The practice of PHE was low in our study. Although that around two third of participant in our study seek free health care services. Tahiraet al. relate the Lack of facilities and cost of investigations to be the causes of low awareness about PHE and practice in there study . (31).

There was significant relation between The marital status among teachers and there total knowledge which was seen in(32)where they found married people more likely to seek PHE.

Our findings showed that good knowledge related to the age group (31-40) in contrast to Bausell study who related awareness of the elderly to increased co morbidities with age (21) and (32) .

The total PHE knowledge and practice among the teachers in our study was low , which was surprisingly different than what was seen in the Saudi national multistage survey among 10735 participant where they found the PHE practice is increased with education (32). Other wise the education level didn't not effect PHE practice among the participant at Eke et al(16)

Our results showed that the main source of information of PHE was through social media while Sadiq et al. related his participant's knowledge to the internet. (4) And Eke et al(16). main knowledge source of people in his study was friends (11)

The knowledge score for breast cancer screening in our study was very low 9.5% in comparison to Adibe et study which was around 90% . This might be related to their study population that was among university female staff (22)..

There was significant relation between the knowledge of women about breast cancer screening and practice, but unfortunately the practice was very low 12.7% , which is similar to Qatari women study that showed low breast cancer screening activities, despite adequate knowledge level. (27) and to Adibe et al where the majority of women didn't practice mammogram screening. (22). Our results still very low in comparison with other countries, for example, in the past two years 72% of the Canadian population had a mammogram. (25) And in the UK, more than 80% of women aged 50–69 are had mammography in the past three years. (26)and the study conducted by Elobaid et al. in the United Arab Emirates, about half of the women in the study did breast mammography in the past few years. (24)

Our data showed that the practice of breast cancer screening was related significantly to marital status, type of job, and the number of children. While Fregene and Newman related poor knowledge of old African women of breast cancer to lower literacy, poor socioeconomic status. (23).

Considering cervical cancer screening and Pap smear most of the women in the study had poor knowledge of Pap smear and its role , and few numbers actually practice it, and this is similar to Al Khudairi et al. study where even the highly educated individuals were not aware of the importance of cervical cancer screening test. (15, 28). Bahri et al. study also reported that most of his populations had poor knowledge of Pap smear test (34), while Amirian et al. and Tabatabaee Kave et al.

had enough knowledge. (29, 30).

in the study ,we find low hypertension screening knowledge among participant which is in accordance with Al-Khashman study (33) study which showed poor knowledge of hypertension screening among primary health care physicians. While we found that half of the participant had regular blood pressure measurement in dispute one Turkish study showed blood pressure measurement among teachers was low(9)

As the high periodic health examination knowledge is strong factor in preventing non communicable disease through regular checkup , PHE awareness effort among population should be raised .

The study limitation was study sample including the governmental school teachers.

4- Conclusion

Awareness among women in the study towards periodic health examination is low as well as its practice. Efforts should be made by the government and other health authorities, to educate and train population on the periodic medical examination on a continuous regular way.

5- Recommendations:

1- periodic health examination for teachers should be added to the school health program in kingdom of Saudi Arabia as part of health promotions in the schools.
2- Regular health education for teachers about the importance and content of periodic health examination .
3- Establish electronic system and provide it to the school teacher to notify each teacher about her specific time and test for early screening of non communicable disease .

6- Acknowledgements:

I would like to express my deepest appreciation to all those who provided us the possibility to complete this research . A special gratitude I give to our research supervisor, DR.Nawal AL-Qahtani , whose contribution in stimulating suggestions and encouragement, helped us to coordinate the research especially in writing it.

Furthermore I would also like to acknowledge with much appreciation the crucial role to DR.Maha eL-Twansy, who guide us in result writing and choose appropriate significant tests .also, A special thanks goes to Saudi program of family medicine in eastern provenance at MOH center for their support . Last but not least, many thanks go to the ministry of education and their teachers for their permission and participations in this research.

7- Ethical Consideration:

a) Ministry of education acceptance.
b) IRB approved research approval.
c) No conflict of interest.

8- Budget:

It is self-funding.

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