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Awareness of Breast Cancer Risk Factors and Screening among Females of Reproductive Age

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Abstract

Background: Recent global cancer statistics indicate rising global incidence of breast cancer and the increase is occurring at a faster rate in developing countries.Knowledge of risk factors of breast cancer like nulli parity,alcohol intake ,family history etc and training women how to carry out breast self-examination (BSE) can help them to be alert to any abnormalities in their breasts to speedily seek medical consultation. Health behavior may be influenced by level of awareness about breast cancer.

Objectives: To study the awareness of screening procedures and knowledge of risk factors among women.

Methods: A structured self-administered questionnaire was constructed based on previous conducted surveys, assessing the risk factors of breast cancer and screening awareness among females of age 15 to 5o.Questionnaire were made available in Google forms and were administered to every female of age 15 to 50 years in August 2020.

Results: About 50% females don't know about breast self-examination and screening procedures. Some who know they don't perform it due to misconceptions. Public is unperceptive on potential risk factors of breast cancer.

Conclusion: Public still have spaces for improvement on awareness of breast cancer. Awareness campaigns should focus on the dangers of ignoring breast cancer instead of promoting the knowledge of presentation in breast cancer.

Keywords: Breast self-examination, Nulli parity, Screening procedures, Misconceptions.

INTRODUCTION

Breast cancer is a common problem worldwide and is one of the major cause of death in females. It is a type of cancer that originates in the breast tissue ranging from noninvasive to metastatic carcinoma. Breast cancer cannot be prevented however its risk can be reduced and can be treated if detected at an early stage (Fatma A.T,2019).

The etiology of the majority of breast cancers is not well known, in which only about 25% to 40% of them may be attributed to well known risk factors. The risk factors for breast cancer vary with respect to geographic characteristics and lifestyle-related habits of a community. However, numerous common risk factors for the disease have been established. These risk factors include female gender, increasing age, family history of BC, early menarche, late menopause, older age at first live childbirth, genetic mutation, diet, obesity, smoking, and alcohol consumption [5, 14]. Nutritional and epidemiological surveys have shown that dietary and lifestyle factors such as obesity, smoking, alcohol consumption, and sedentary lifestyle play significant role as risk factors for breast cancer while breast feeding practice is protective against breast cancer (Mahdi.T,2014)

Cancers in the young (15–34 years) tend to be more aggressive which is a cause of concern as this denotes the need for educative and awareness programs targeting younger members of the society, as early as 18 years, to implement early practices of breast selfexamination (BSE) into their lifestyle.

Screening is also an "alien" word for most people. Hence, naturally, this results in most people presenting only when symptomatic, most "symptomatic" cancers are Stage 2B and beyond. BSE is an important screening measure for detecting breast cancer. Those women who correctly practice BSE monthly are more likely to detect a lump in the early stage and early diagnosis has been reported to influence early treatment, to yield a better survival rate(J.Family,2017)

Urgent interventions are needed to raise awareness of breast cancer in our region in order to improve the rates of early detection and increase the chance of curative treatment.

The early detection of breast cancer can be achieved through a combination of monthly breast selfexamination (BSE), regular clinical breast examinations and annual mammography beginning at the age of 40 years, are the best ways to limit morbidity and mortality associated with breast cancer. It is essential for the target population to have comprehensive knowledge, appropriate attitudes and practice of the screening methods. This is supported by evidence that earliest breast tumors are self-discovered and that the majority of early discoveries are made by BSE performers.Breast cancer awareness in developing countries is not well documented, and comparatively few women in these areas have adequate knowledge of the risk factors an preventive measures or screening techniques for early detection. The lack of knowledge and incorrectly held beliefs about breast cancer prevention among females are responsible for the negative perception of the curability of cancer detected early and of the efficacy of the screening tests. It is, therefore, important to assess the level of awareness of risk factors in our communities(J.Basic.Clinical,2014).

Breast cancer is associated with the second highest mortality rate in the whole world (1.38 Million, 10.9% of all cancers), after lung cancer. (Paul S 2015) Previously Breast Cancer was thought to be a disease of the more developed part of the world, but now 50% of the reported cases and 58% of deaths due to breast cancer occur in less developed countries, according to World Health Organization, WHO. (Dr Freddie B. 2008) It is one of the most commonly diagnosed cancer type in female population of countries like Pakistan that are ranked low in Human Development Index (HDI). (WHO 2008)

Pakistan has the highest incidence of breast cancer among all the Asian countries (Memoona.N.2013) Although the social and economic setting and upbringing of females in Pakistan and India are very similar, still more number of cases of breast cancer are reported in Pakistan (50/100,000) as compared to India (19/100,000). (2013).(Rasheed R.2013)

Poor prognosis and decreased survival rate are the evident consequences in females with breast cancer presenting late to a health care facility. The survival rate is 85% when Breast
Cancer is diagnosed at stage I or stage II and it decreases to 10% at stage IV. (Gillani ,2003) Generally, the disease progresses more aggressively in young patients making their chances of survival narrower and not only increasing the need of making early detection of the disease but also reinforcing the significance of improving breast cancer awareness among young female population (Dina.M. 2007) An international survey conducted among university students of 24 Low, Middle Income and Emerging Economy Countries in 2013 reported 60% or more Pakistani students to be well aware of the genetic causes that predispose a person to the development of breast cancer. Still, there are other risk factors like female gender itself, early menarche, late menopause, chest radiation, excessive alcohol intake, Hormone Replacement Therapy (HRT) after menopause, use of oral contraceptives which remain unknown to the general female population.

Healthy ways of living can prevent one-third of the total breast cancer cases. Besides prevention, breast cancer can be diagnosed well in time by disseminating information regarding basic screening methodologies like Breast Self-Examination (BSE), Clinical Breast Examination (CBE) and mammography among females (Okobia, 2006) Although the significance of Breast Self-Examination (BSE) as a useful diagnostic tool has raised a lot of debate in literature, with many declaring it an important screening methodology while others claiming it to have no effect on mortality rate and it being a source of undue burden on the health care centres because very frequently females mistake minor, benign breast problems with breast cancer, yet it is generally considered essential for a female to know how her breasts look and feel like as emphasized by American Cancer Society as well. (American Cancer Society Breast
Cancer.2013). According to one study conducted in another region of Pakistan, 1 in every 9 Pakistani Females is likely to suffer from Breast Cancer.(Rasheed R.2013)

Objectives:

1.To study the knowledge of risk factors among women of reproductive age.

2. To study the awareness of screening procedures among females of reproductive age.

MATERIALS AND METHODS

Study design:
Descriptive type cross sectional study was done.
Sample Size:
A sample of 461 females of age group 15_ 55 years has been taken for study.
Sampling technique:
Purposive sampling technique has been used.
Inclusion criteria:
Females of age group 15 _55 years and of internet access were included in study.
Exclusion criteria:
Females of age below 15 and above 55 years and those having no excess to internet were excluded from study.
Selection of sample.
Women of age group (15-55) years and those having internet excess were included in study due to lockdown we couldn't take face to face interviews.
Data Collection technique:
A Google response form was developed to collect data.
Tools for data collection:
Closed ended questionnaire was prepared and then converted into google forms which were disseminated via internet among females of reproductive age with internet accessibility.
Data Analysis:
Data was entered in SPSS version 21 for analysis and after then presented in tabulation and charts.

RESULTS

This chapter consists upon the result of current project. Frequencies and cross-tabulation are prepared and interpreted in following tables and figures.

Table-1: Age distribution of respondents

Age	Frequency	Percent
16-25 years	396	85.7
26-35 years	43	9.3
35-45 years	14	3.0
46-55 years	9	1.9
Total	462	100.0

Table 1 shows that from total, 85.7% respondents are of 16-25 years of age, 9.3% are of 2635 years of age, 3% are of 35-45 years of age and 1.9% are of 46-55 years of age.

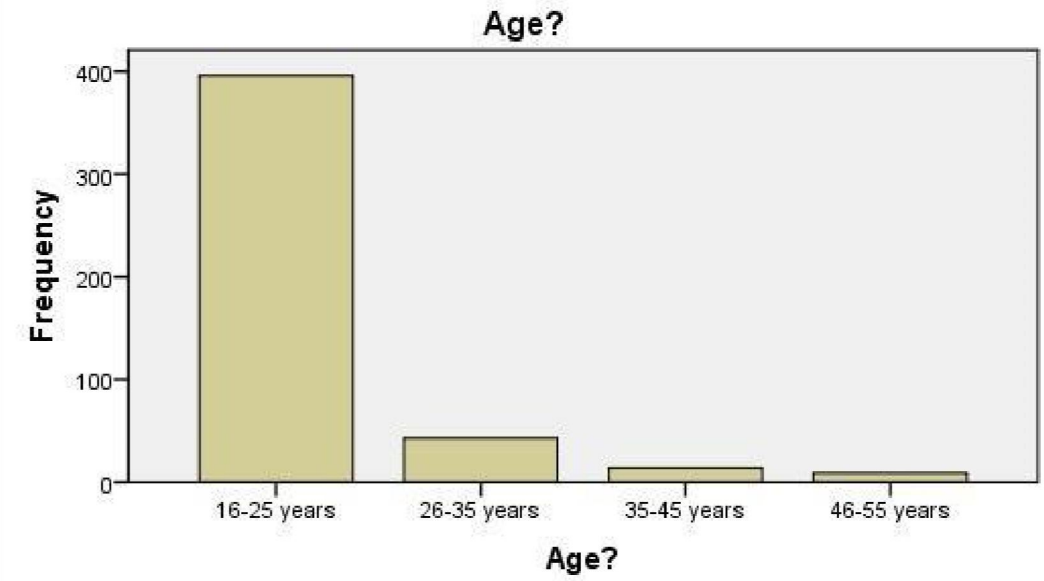

Figure 1 show the age distribution of respondents ,Majority of respondents are of age group 16-25 years because questionnaire in Google form is uploaded due to Covid -19 and only internet users

have access to it and as majority of internet user are of this age group.

Table-2: Residence distribution of respondents

Residence	Frequency	Percent
Urban	320	69.3
Rural	142	30.7
Total	462	100.0

Table 2 shows that from total, 71.3% respondents are urban and 28.7% are rural.

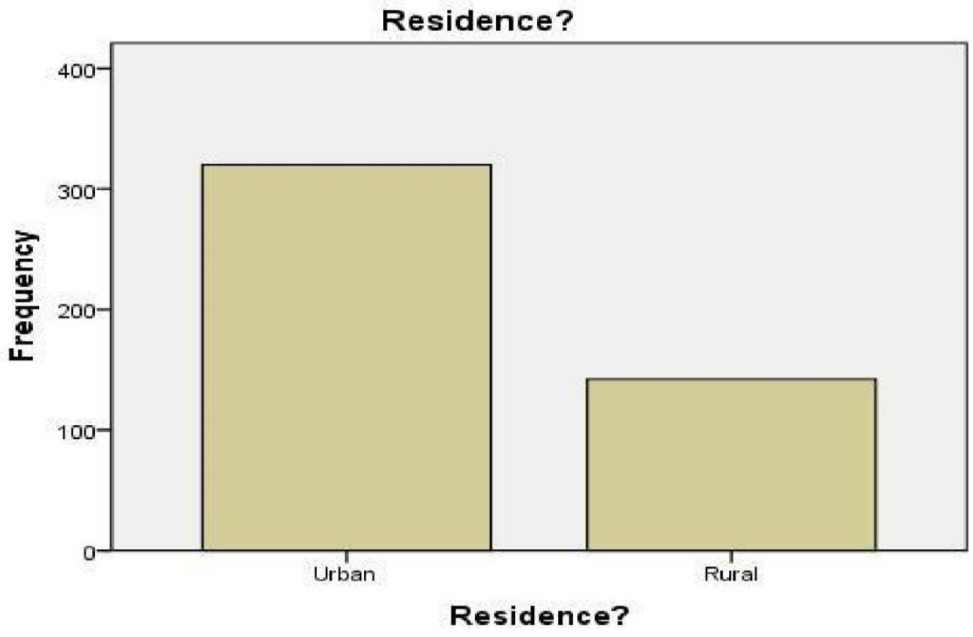

Figure illustrate that majority of respondents are living in the urban areas as they have more easy access to the internet . minority are from rural side .

Table-3: Frequency distribution of age of onset of periods

Age of onset of periods	Frequency	Percent
Younger 15 years	333	72.1
15 year than or above	129	27.9
Total	462	100.0

Table 3 shows that from total, 72.1% are younger than 15 years of age and 27.9% are 15 years or above.

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have it.

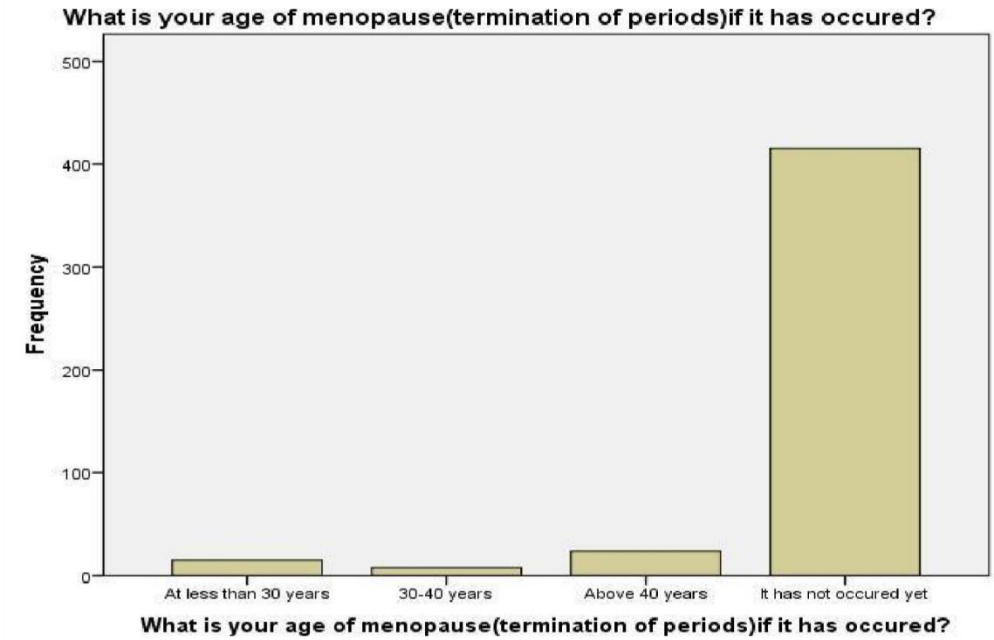

Figure illustrate that majority of respondents have not have menopause yet as majority of them have low age like between 15-30 years as this age group have more internet access and so of Google form.

Table-5: Frequency of distribution of marital status

Marital status	Frequency	Percent
Married	62	13.4
Unmarried	398	86.1
Divorced or widowed	2	.4
Total	462	100.0

Table 5 shows that from total, 13.4% are married, 86.1% are unmarried and 0.4% are divorced or widowed.

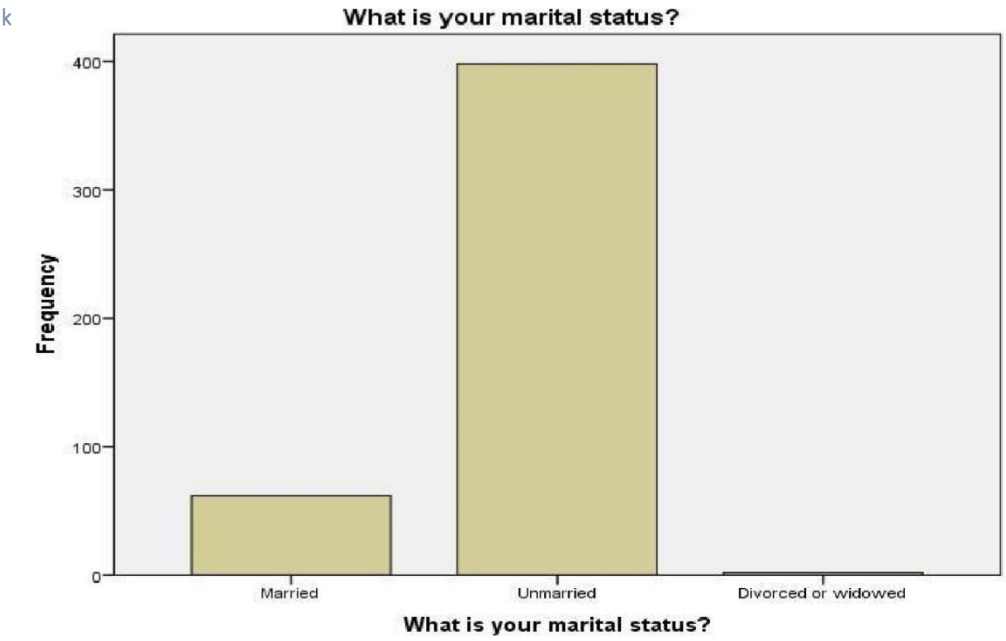

Figure illustrate that majority of respondents are unmarried ,some are married and very few are widowed or divorced.

Table-6: Frequency of distribution of number of children if married

No of children	Frequency	Percent
1-2	20	4.3
3-4	8	1.7
Above 4	4	.9
None	430	93.1
Total	462	100.0

Table 6 shows that from total 4.3% have 1-2 children, 1.7% have 3-4 children and 93.1% have none.

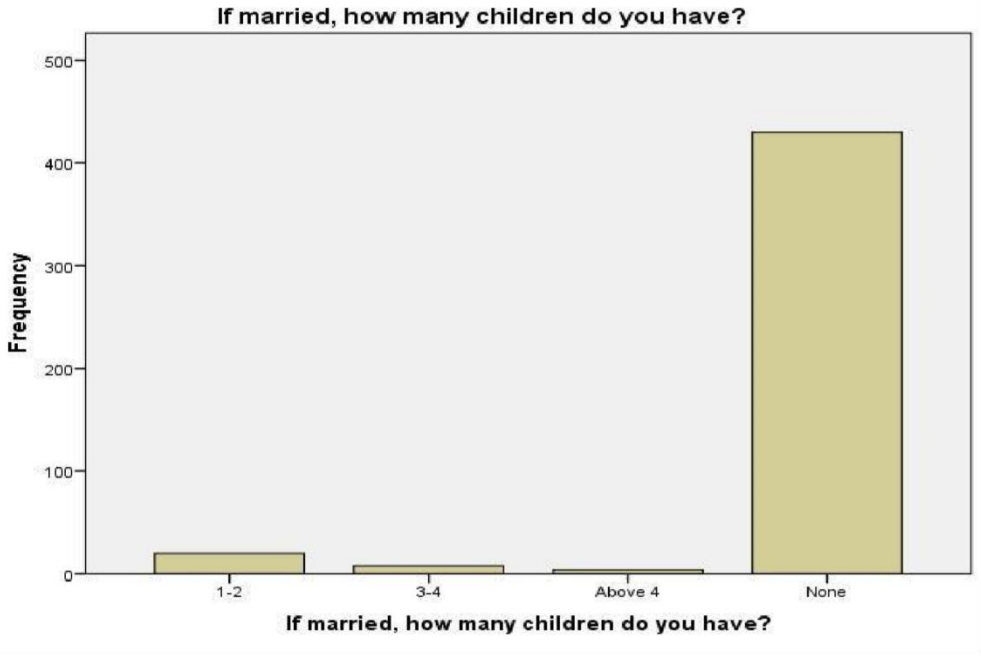

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Figure illustrate that majority of respondents have no children as they are unmarried while some have 1-2 children and very few have 3-4 children.

Table-7: Frequency of distribution of occupation

Occupation	Frequency	Percent
Student	376	81.4
Housewife	31	6.7
Working woman	55	11.9
Total	462	100.0

Table 7 shows that from total, 81.4% are students, 6.7% are housewife and 11.9% are working women.

Figure illustrate that majority of respondents are students as they have more access to Google response form ,some are working women and some are house wives.

Table-8: Frequency of distribution of height

Height	Frequency	Percent
Less than 4 ft	21	4.5
Between 4-5 ft	88	19.0
between 5-5.5 ft	278	60.2
Above 5.5 ft	75	16.2
Total	462	100.0

Table 8 shows that from total, 4.5% are less than 4 ft, 19% are between 4-5 ft 60.2% are between 5-5.5 ft and 16.2% are above 5.5 ft.

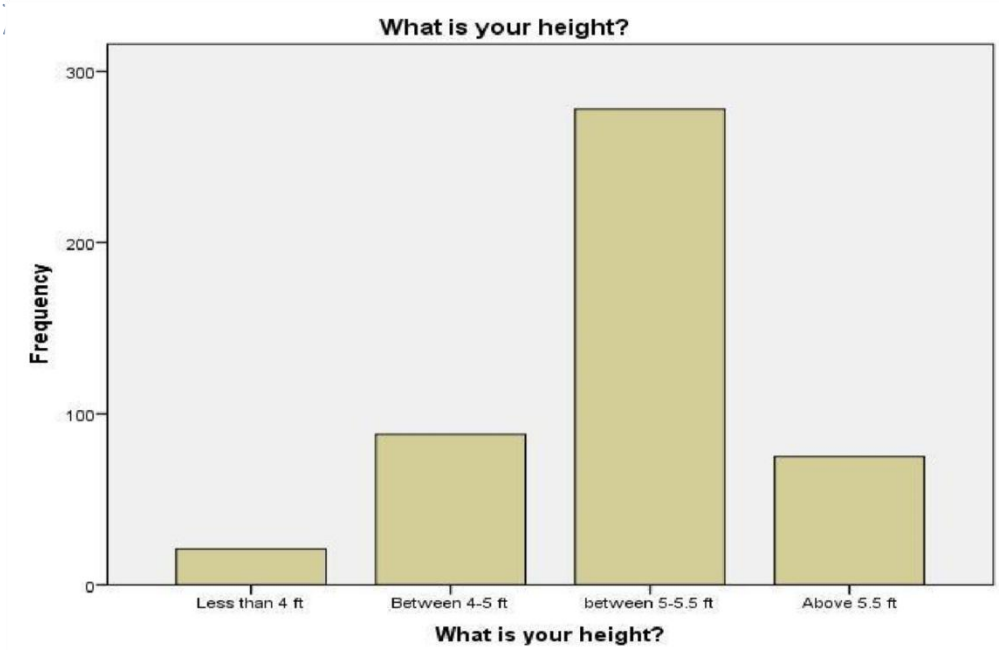

Figure illustrate the response of females about height , majority are between 5-5.5 feet very few are above it.

Table-9: Frequency of distribution of weight

Weight	Frequency	Percent
Less than 30 kg	2	.4
Between 30-40 kg	31	6.7
Between 40-50 kg	126	27.3
Above 50 kg	303	65.6
Total	462	100.0

Table 9 shows that from total,0.4% are of weight less than 30kg ,6.7% are between 30-40kg, 27.3% are between 40-50kg and 65.6% are above 50kg.

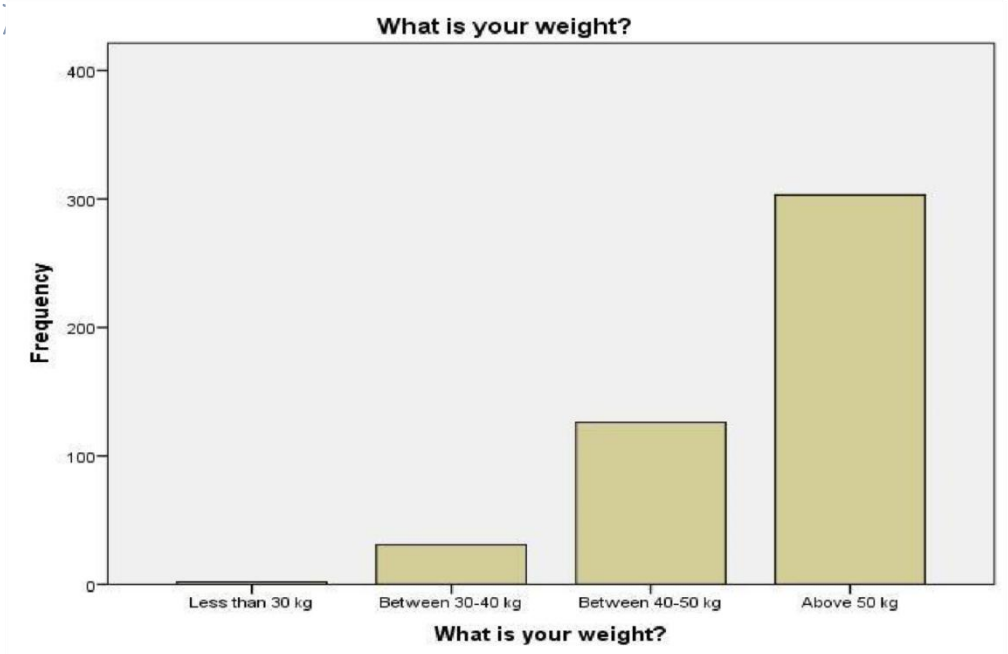

Figure illustrate the response of females about their age ,majority are above 50kg , very few are less than 30kg weight.

Table-10: Frequency of distribution of BMI

BMI	Frequency	Percent
less than 18.5	70	15.2
18.5-24.9	258	55.8
25-29.9	99	21.4
above 29.9	35	7.6
Total	462	100.0

Table 10 shows that from total 15.2% have BMI less than 18.5%, 55.8% have 18.5-24.9%,21.4% have between 25-29.9% and7.6% have above 29.9.

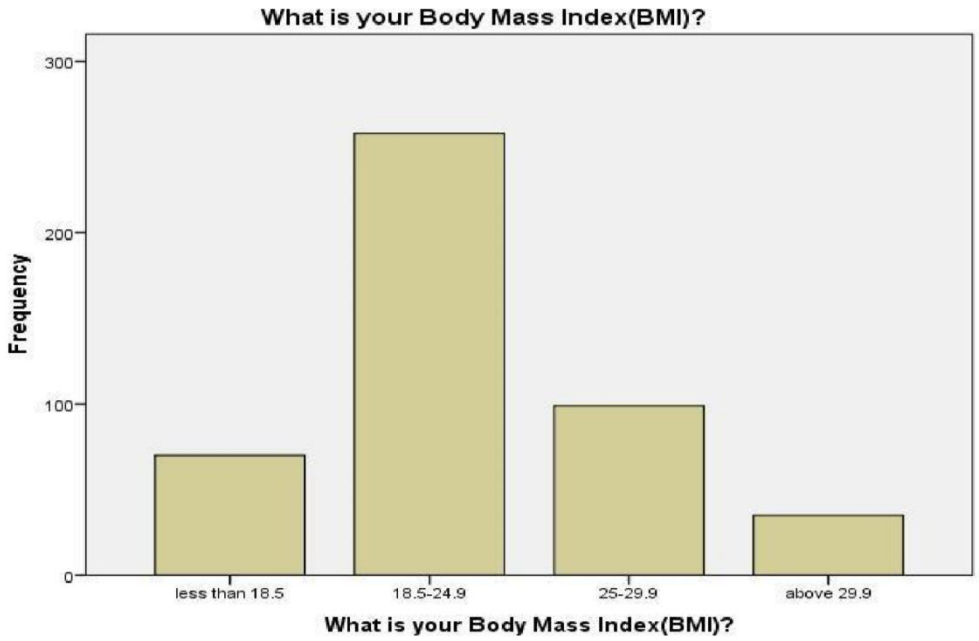

Figure illustrate the response of female respondents about their BMI ,majority have normal BMI .

Table-11: Frequency of distribution of any workout routine

Workout Routine	Frequency	Percent
yes	196	42.4
No	266	57.6
Total	462	100.0

Table 11 shows that from total, 42.4% have workout routine and 57.6% don't have.

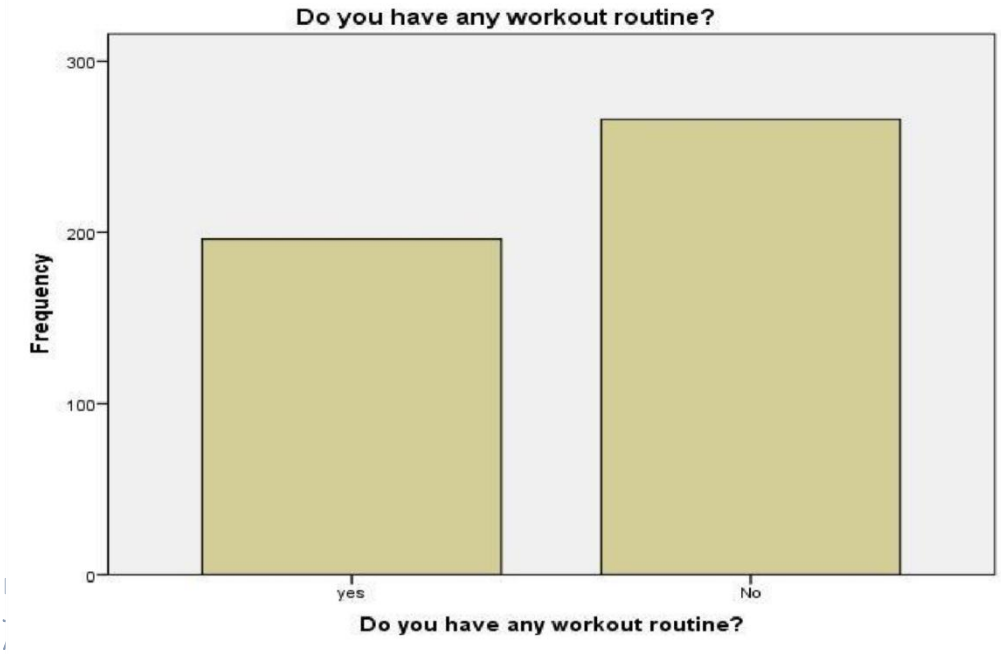

Figure illustrate the response of females about their workout routine ,majority don't have any workout routine but many have .

Table-12: Frequency of distribution of normal menstrual cycle

Regularity of menstrual cycle	Frequency	Percent
Yes 28/6	265	57.4
To some extent	145	31.4
Disturbed	52	11.3
Total	462	100.0

Table 12 shows that from total, 57.4% have normal menstrual cycle of 28\6, 31.4% have to some extent and 11.3% have disturbed.

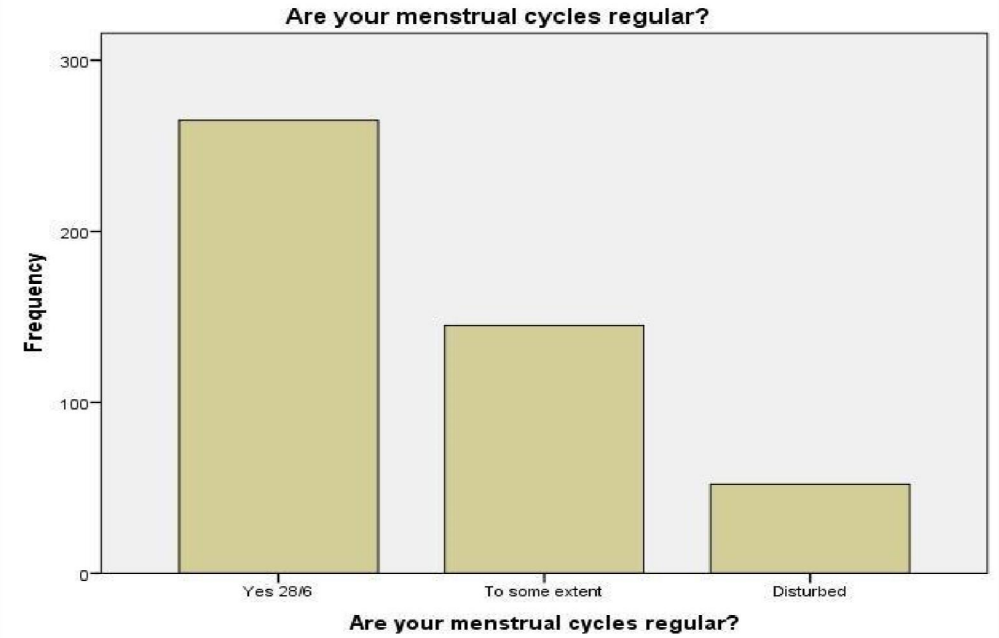

Figure illustrate the response of respondents about menstrual cycle regularity ,majority have normal or near normal menstrual cycle of 28/6 ,some have disturbed.

Table-13: Frequency of distribution of menstrual flow

Menstrual flow	Frequency	Percent
Normal	363	78.6
Heavy	58	12.6
Decreased	41	8.9
Total	462	100.0

Table 13 shows that from total, 78.6% have normal menstrual flow, 12.6% have heavy flow and 8.9% have decreased flow.

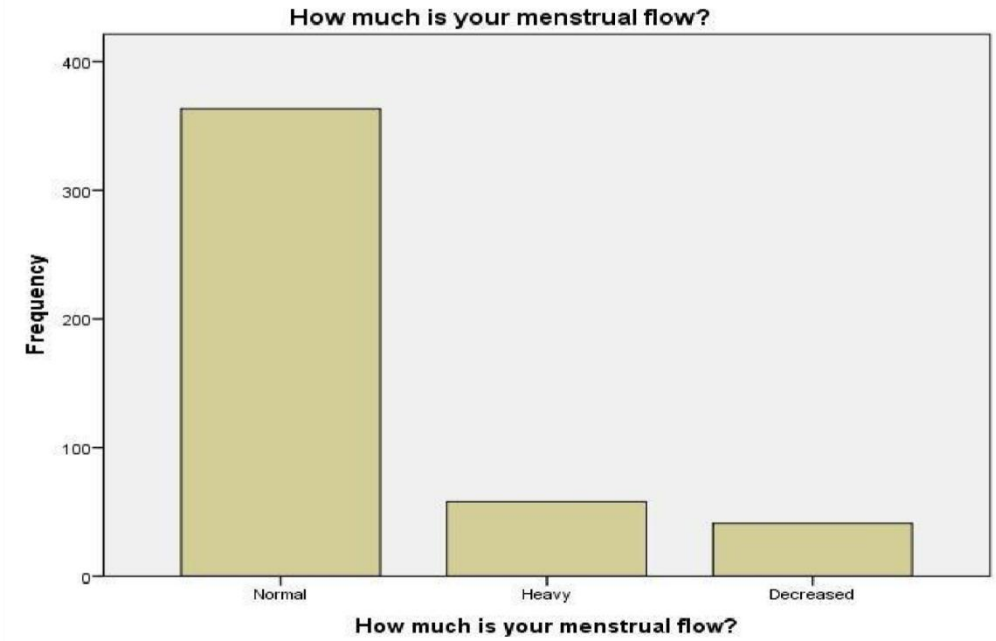

Figure illustrate the response of females about their menstrual flow , majority have normal flow, some have heavy and very few have decreased flow.

Table-14: Frequency of distribution of family history of breast cancer

Family history of breast cancer	Frequency	Percent
Yes	42	9.1
No	406	87.9
Don't know	14	3.0
Total	462	100.0

Table 14 shows that from total, 9.1% have family history of breast cancer, 87.9% don't have any family history and 3% don't know.

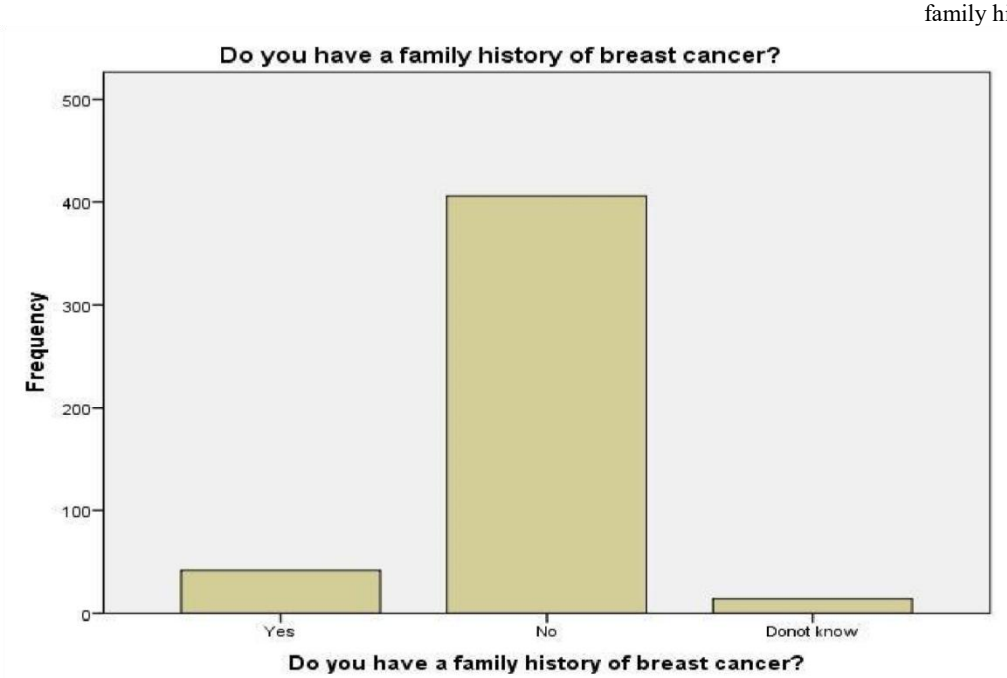

Figure illustrate the response of respondents about family history of breast cancer,majority do not have any family history of breast cancer, some have positive family history and few do not know either have or not because of lack of awareness.

Table-15: Frequency of distribution of respondents who think that breast self-examination helps in early detection of abnormal changes in breast

Roleof BS Einearlydetect ionofFr equ encyPercent abnormalch angesinbreast		
Yes	286	61.9
No	40	8.7
Don otknow	80	17.3
To someextent	56	12.1
Total	462	100.0

Table 15 shows that from total, 61.9%agree with the fact that BSE is helpful fir detection of any abnormal changes of breast ,12.1%agree to some extent ,8.7% do not agree and 17.3% do not know about this.

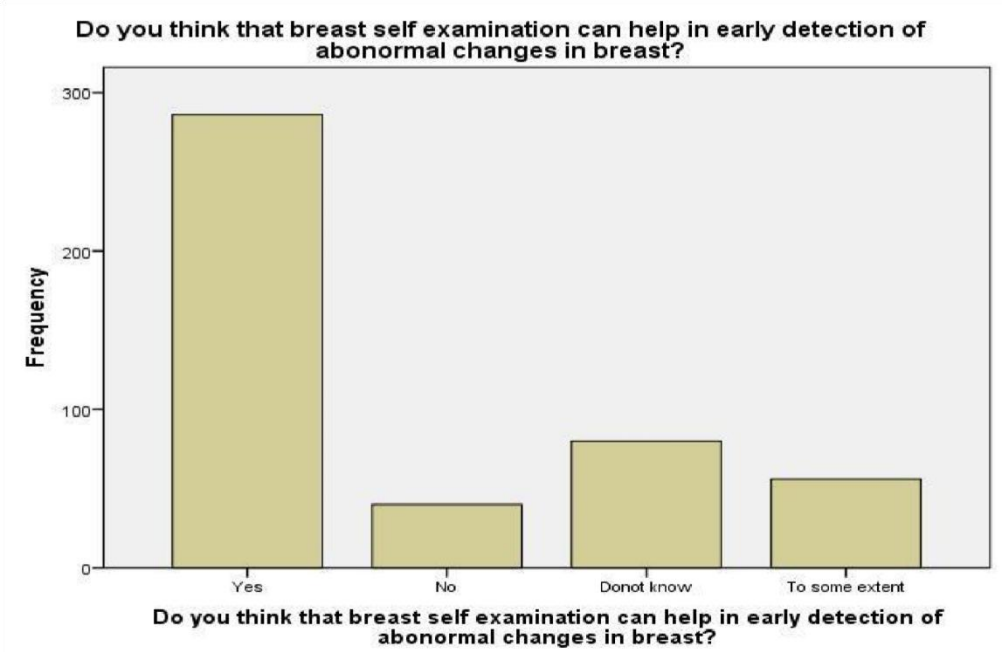

Figure illustrate the response of females respondents about either BSE is helpful in early detection of breast abnormalities or not , majority is agreed,some donot know about this due to lack of awareness , and minority do not agree with this.

Table-16: Frequency of distribution of knowledge of respondents about risk factors of breast cancer

Knowledge about risk factors of CA breast	Frequency	Percent
Yes	244	52.8
No	89	19.3
Donot know	31	6.7
To some extent	98	21.2
Total	462	100.0

Table 16 shows that from total, 52.8% have knowledge about risk factors of breast cancer, 19.3% don't have any knowledge, 6.7% don't know and 21.2% have to some extent.

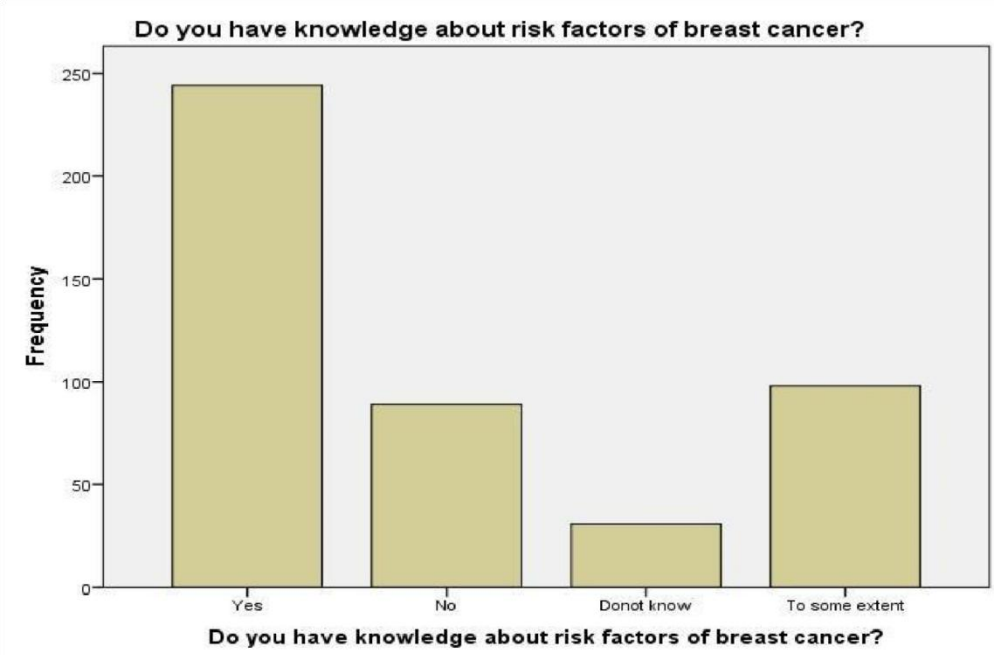

Figure illustrate the response of females about that either they have knowledge about risk factors of breast cancer or not, majority give positive response like they have knowledge,some have no knowledge and few females even don't know about them due to lack of awareness.

Table-17: Frequency of distribution of usage of contraceptives and type that is used

Type pf contraceptive if ever used	Frequency	Percent
Never used	435	94.2
Oral pills	15	3.2
IUCD	3	.6
Condoms	9	1.9
Total	462	100.0

Table 17 shows that from total, 94.2% have never used, 3.2% have used oral pills, 0.6% have used IUCDs and 1.9% have used condoms.

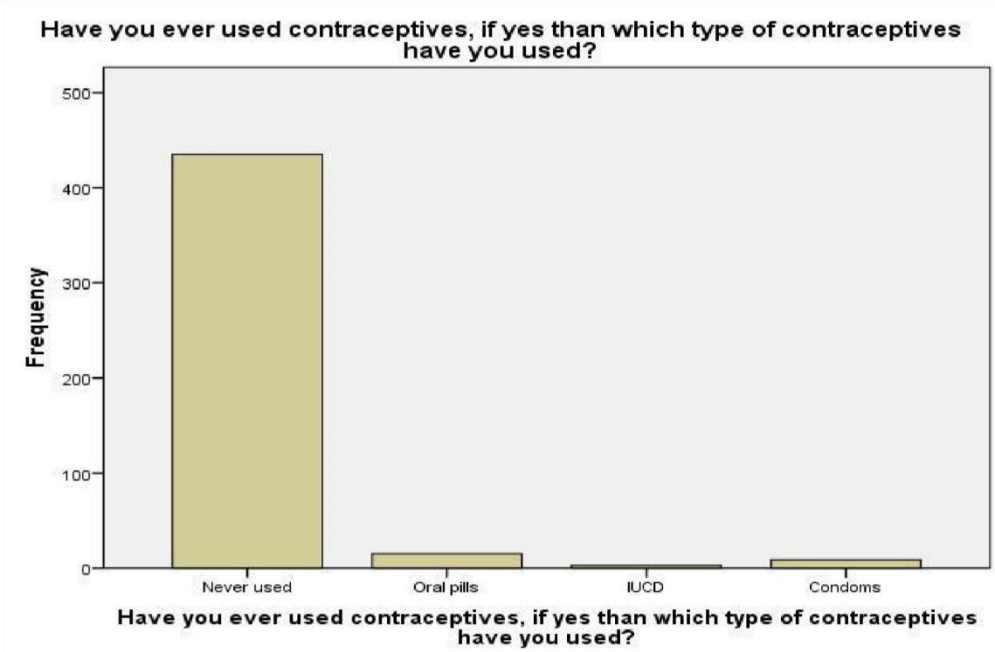

Figure illustrate the response of females about usage of contraceptives,as maximum respondents are students and unmarried so they never used any contraceptives ,from users majority use oral pills ,some use condoms and very few use IUCDs.

Table-18:Frequencyofdistributionofusageofcontraceptives

Durationofuseofcontraceptives	Frequency	Percent
Neverused	434	93.9
6months-2years	16	3.5
2-5years	7	1.5
Morethan5years	5	1.1
Total	462	100.0

Tables 18 shows that from total, 93.9% have used contraceptives, 3.5% have used from 6 months to 2 years and 1.5% have used for more than 2-5years and1.1% have used more than 5 years..

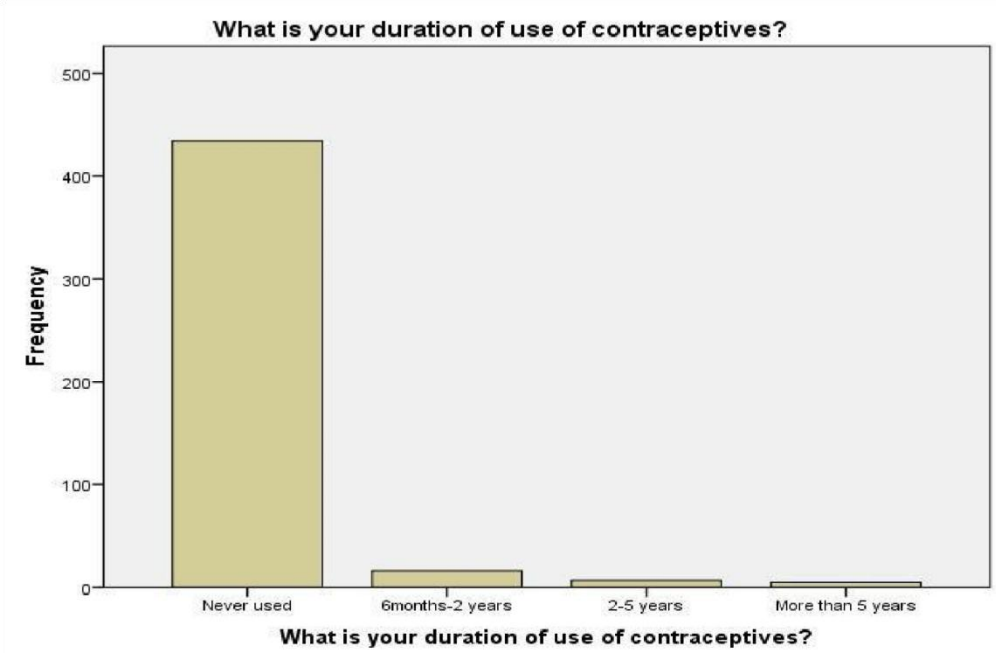

Figure illustrate the response of females about the duration of use of contraceptives, from users majority used for 6month -2 years, very few use for more than 5 years as very few use IUCDs.

Table-19: Frequency of distribution of family history of gynecological problems

ikeovariancancer		
Historyofanygynecological	Frequency	Percent problem
Yes	7	1.5
No	455	98.5
total	462	100.0

Table 19 showsthat fromtotal, 1.5%have family history and 98.5% don't have.

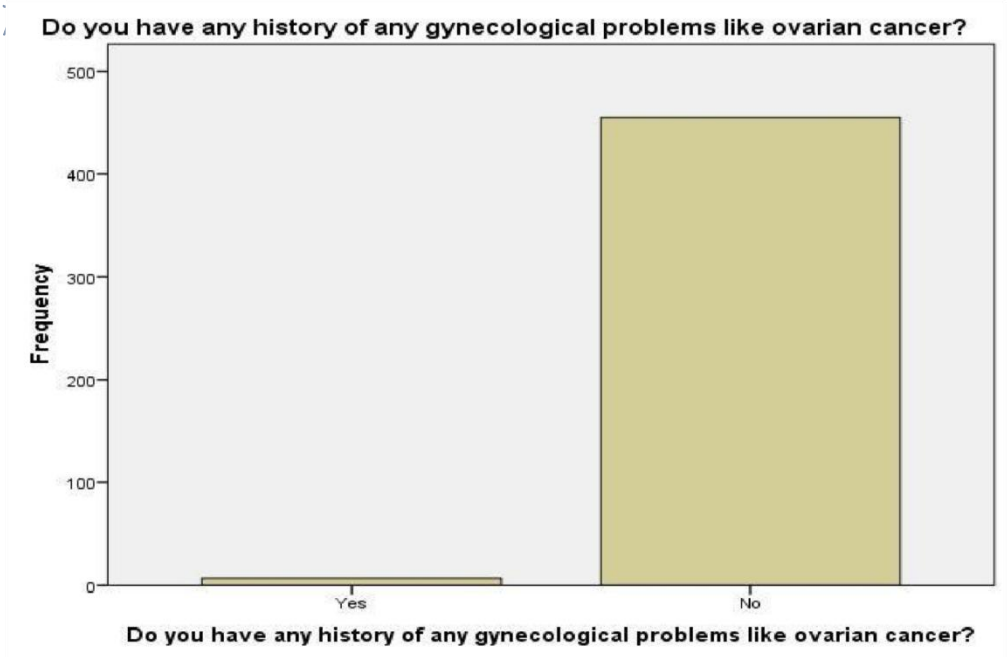

Figure illustrate the response of females about any history of gynecological problem, majority do not have any problem,very few have gynecological problems like ovarian cancer etc.

Table-20: Frequency of distribution of respondents who have done smoking or drinking

Smoking or drinking habits	Frequency	Percent
Smoking	16	3.5
Both a and b	2	.4
None	444	96.1
Total	462	100.0

Table 20 shows that from total, 3.5% have done smoking, 0.4% have done both and 96.1% have none of them.

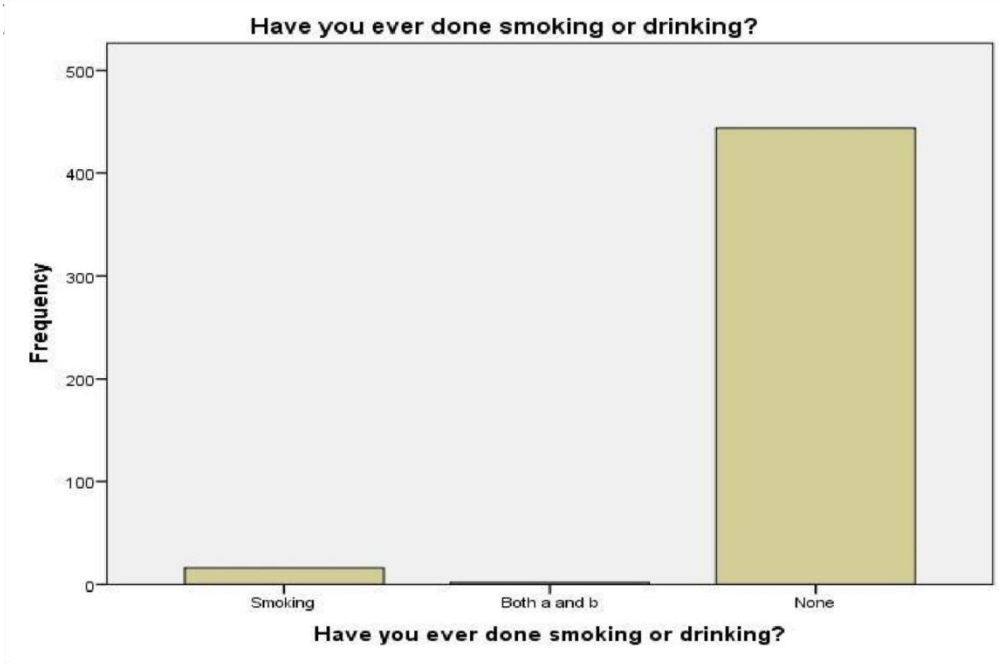

Figure illustrate the response of females about any drinking or smoking habits, majority do not drink or smoke,some only smoke and very few have both of these habits.

Table-21: Frequency of distribution of child breastfeeding if any

History of breastfeed to child	Frequency	Percent
Yes	24	5.2
No	438	94.8
Total	462	100.0

Table 21 shows that from total, 5.2% have breastfeed their child and 94.8% have not.

Figure illustrate the response of females about breastfeeding to their child,majority do not feed as majority of respondents are unmarried and and they do not have children ,minority have positive response i.e they breast feed their child.

Table-22: Frequency of distribution of radiation exposure or hormonal therapy

Any exposure to radiation or hormonal therapy	Frequency	Percent
Radiation exposure	43	9.3
Hormonal therapy	15	3.2
Both a and b	5	1.1
none	399	86.4
Total	462	100.0

Table 22 shows that from total,9.3% had done radiation exposure, 3.2% had hormonal therapy, 1.1% had done both and 86.4% had not.

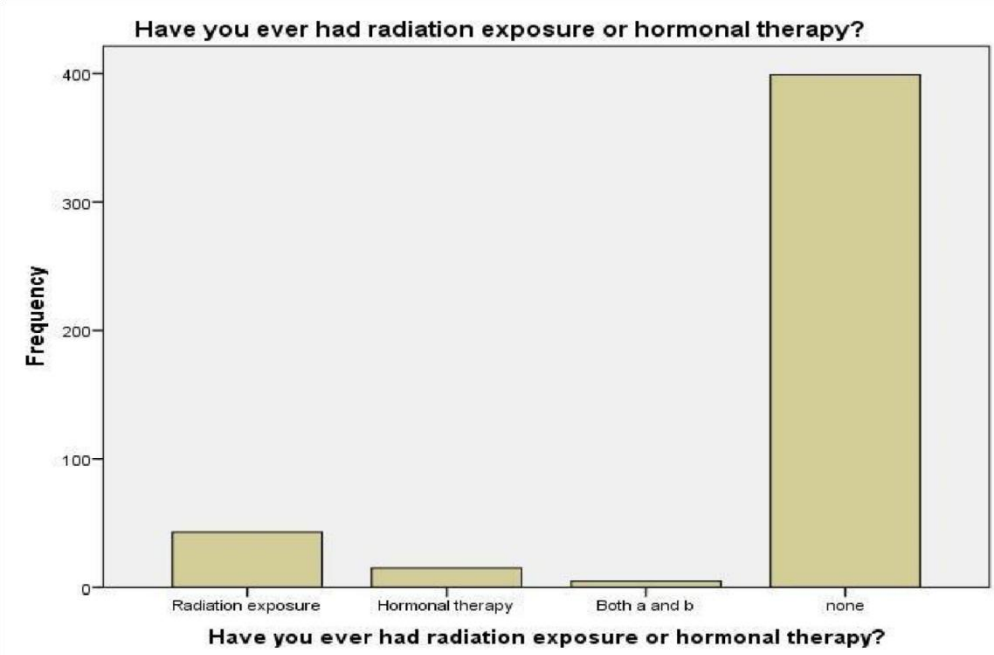

Figure illustrate the response of females about any hormonal or radiation exposure ,majority do not have any exposure ,some have radiation or hormonal only and very few have both procedures.

Table-23: Frequency of distribution of any other type of cancer

History of any other cancer	Frequency	Percent
Colon cancer	1	.2
Ovarian cancer	3	.6
Endometrial Cancer	4	.9
None	454	98.3
Total	462	100.0

Table 23 shows that from total,0.2% had colon cancer, 0.6% had ovarian cancer, 0.9% had endometrial cancer and 98.3% don't had.

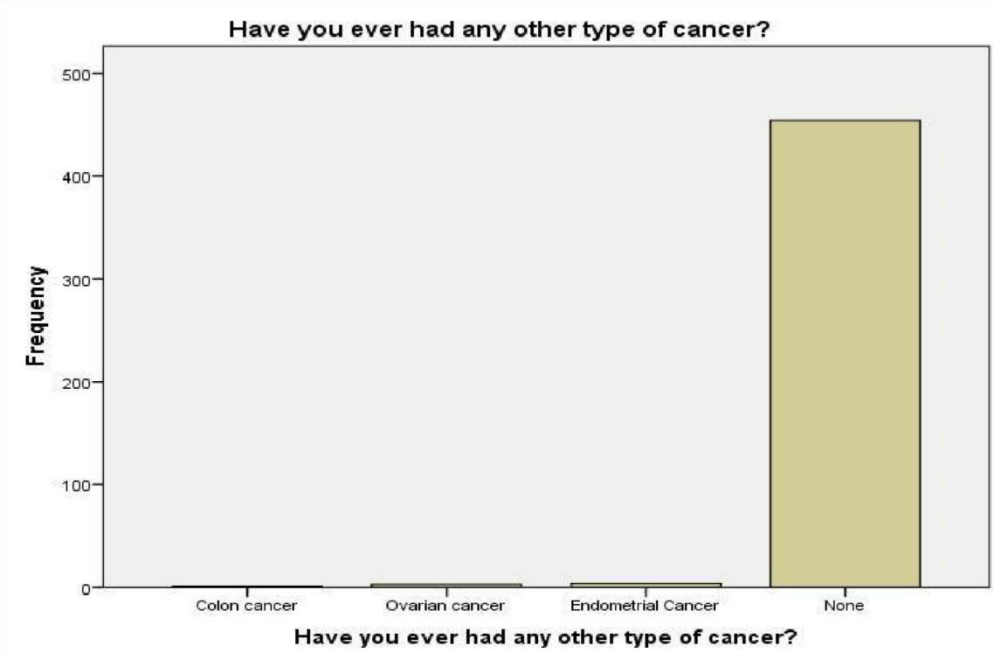

Figure illustrate the response of females about history of any other cancer,majority do not have any ,some have endometrial and ovarian and very few have cancer history.

Table-24: Frequency of distribution of respondents who have heard of breast self-examination and those who performed it

Any idea about BSE ,How often you do it	Frequency	Percent
Yes, i do it daily	4	.9
Yes, i sometimes do it	225	48.7
I donot	162	35.1
No, I have never heard of it	71	15.4
Total	462	100.0

Table 24 shows that from total, 0.9% have done it daily, 48.7% have done it sometimes, 35.1% don't have performed and 15.4% have never heard of it.

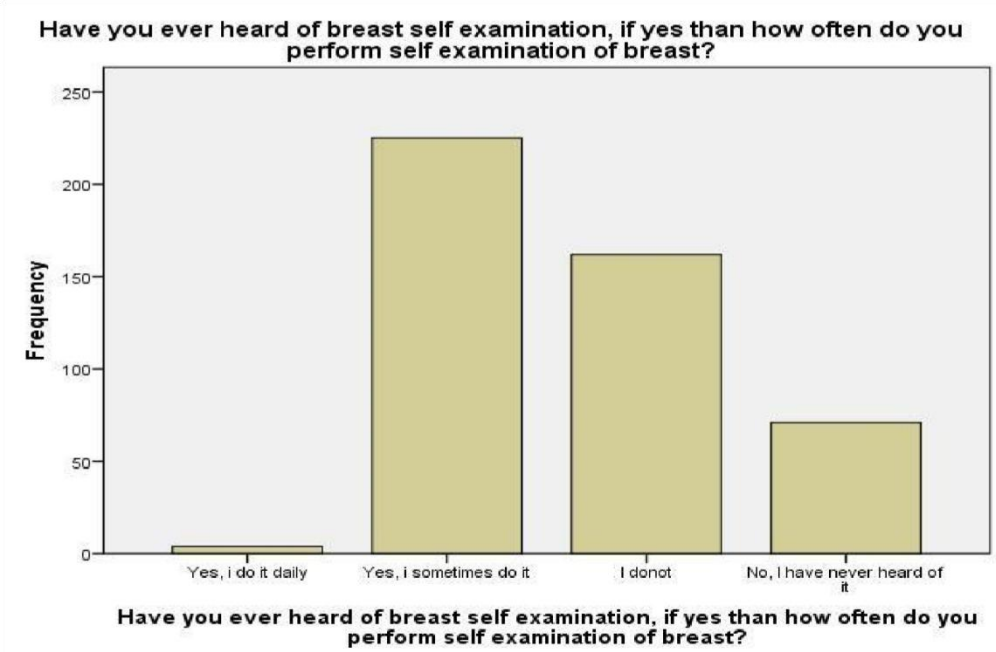

Figure illustrate the response of females about performance of Breast self examination , majority do it sometime or daily but most do not and some have even no idea about it due to lack of education and awareness about it.

Table-25: Frequency of distribution of respondents who had knowledge regarding screening of breast cancer

Any idea about screening factors 0f breast cancer	Frequency	Percent
No idea at all	196	42.4
To some extent	103	22.3
Yes, I know about FNAC and Mammography	163	35.3
Total	462	100.0

Table 25 shows that from total, 42.4% had no idea, 22.3% had to some extent, 35.3% know about FNAC and mammography.

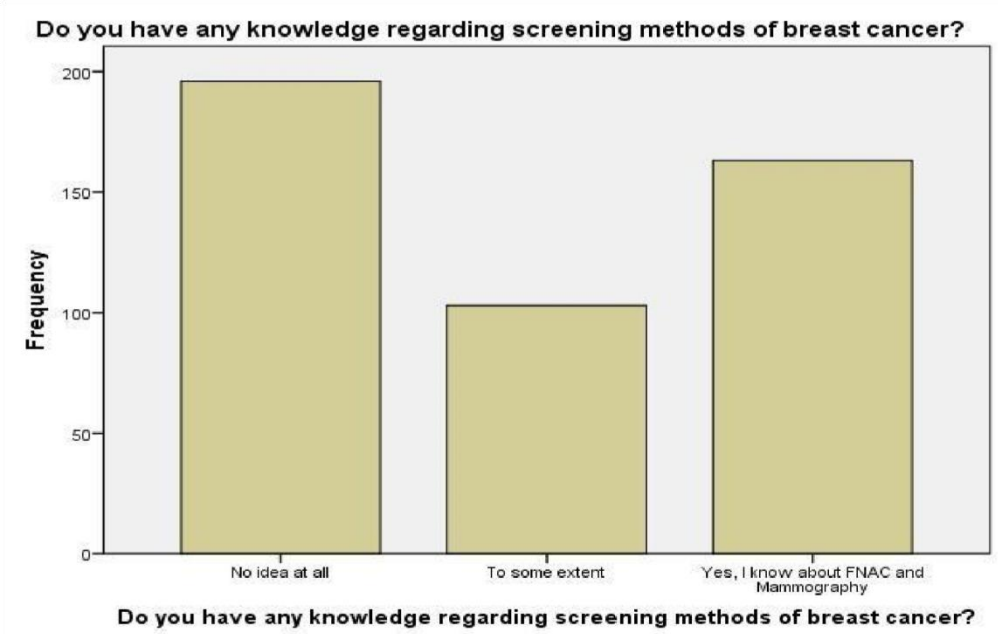

Figure illustrate the response of females regarding their knowledge about screening procedures of breast cancer,majority do not have any knowledge about these procedures either may be due to they do not have any history of breast cancer or lack of awareness,but some know about these procedures.

Table-26:Frequencyofdistributionofrespondentswhohadtheirmammographydone

History of mammography	Frequency	Percent
Yes	21	4.5
No	441	95.5
Total	462	100.0

Table26showsthatfromtotal,4.5 %haddoneand95.5 %hadnotdone.

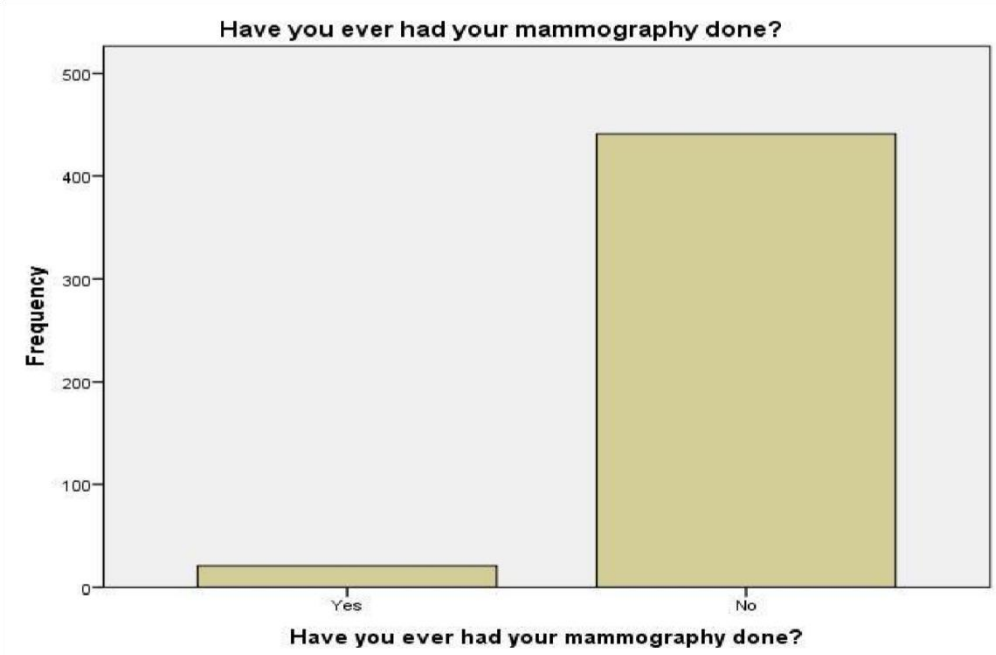

Figure illustrate the response of females about mammography ,majority do not have it butr very few have it done.

Table-27: Frequency of distribution of respondents who know the timings for mammography

Timing for mammography	Frequency	Percent
Yes	81	17.5
No	381	82.5
Total	462	100.0

Table 27 shows that from total, 17.5% know and 82.7% don't know.

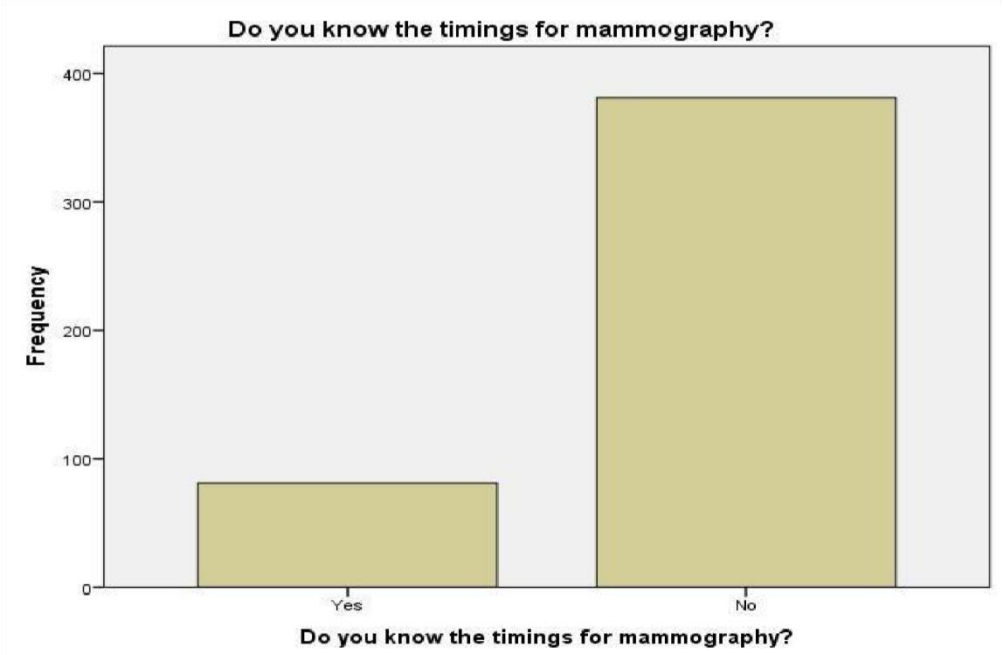

Table-28: Frequency of distribution of respondents who know what is best time for breast self-examination

Knowledge about best time of BSE	Frequency	Percent
I donot know	377	81.6
Before 1 week of menstruation	14	3.0
During menstruation	19	4.1
After 1 week of menstruation	52	11.3
Total	462	100.0

Table 28 shows that from total, 81.6% don't know, 3% know that before 1 week of menstruation, 4.1% know that during menstruation and 11.3% know that after 1 week of menstruation.

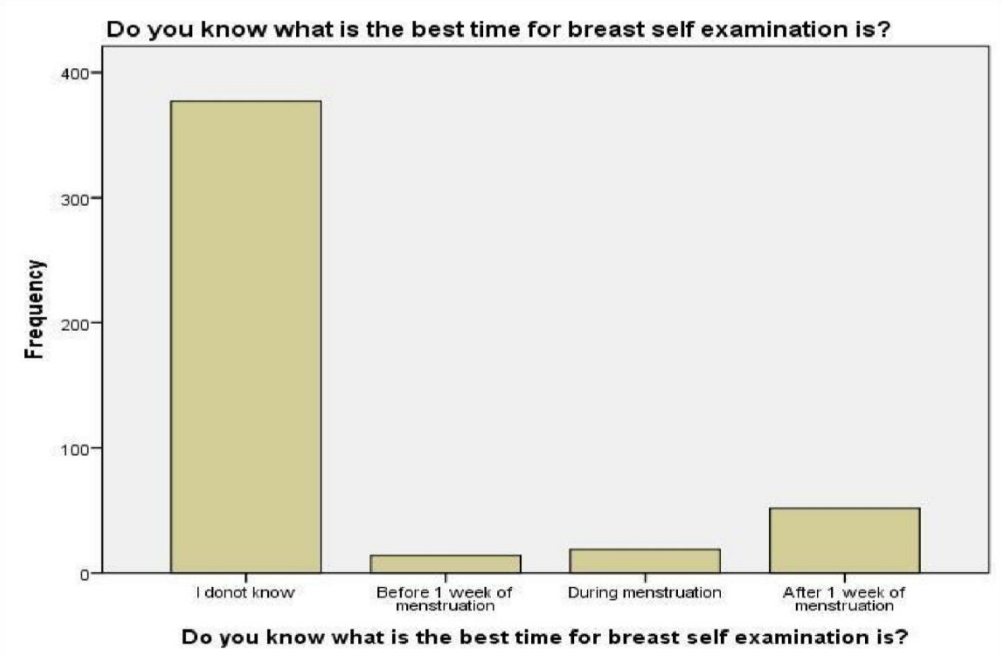

Table-29: Frequency of distribution of respondents those who had their clinical breast examination done and those who don't have with reasons

Ever had a clinical breast examination if not then why?	Frequency	Percent
I donot have any breast problem	362	78.4
I donot know should i go for or not	71	15.4
Yes, I go for it	29	6.3
Total	462	100.0

Table 29 shows that from total, 78.4% had not done because they think they don't have any breast problem, 15.4% had not done because they don't know that they should go for it, 6.3% go for it.

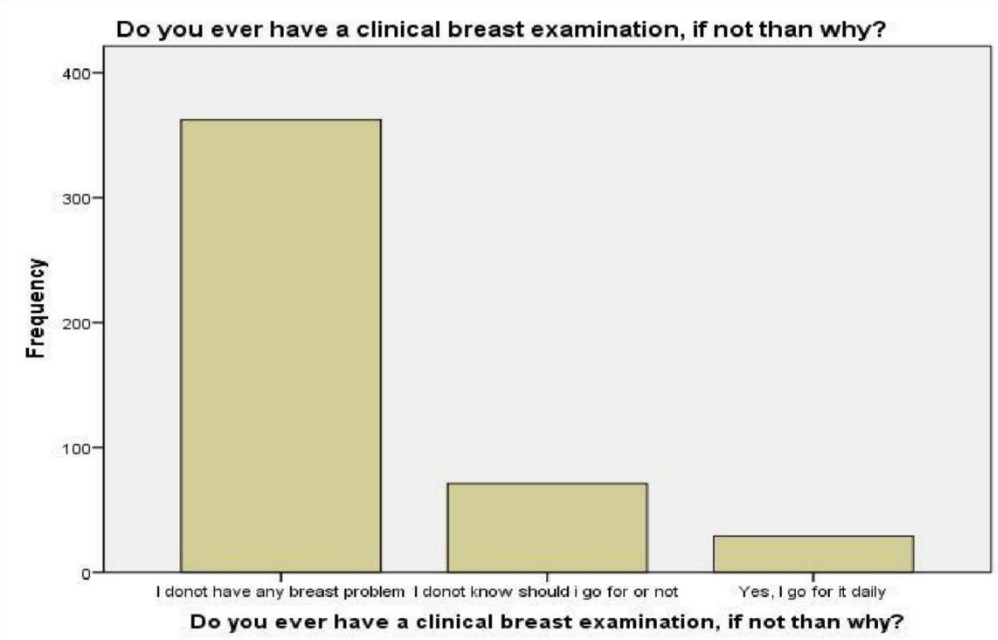

Figure illustrate the response of females about why not they go for clinical breast examination ,majority respond that they don't have any problem and some do not know that that either they should go for it or not due to lack of awareness and knowledge.

Table-30: Frequency of distribution of respondents who know how often should they get screened for breast cancer after the age of 40 years

How often you screened for breast cancer after age of 40 yrs	Frequency	Percent
Every 6 months	149	32.3
Every year	80	17.3
Every 2 years	23	5.0
No need for screening	210	45.5
Total	462	100.0

Table 30 shows that from total, 32.3% think that it should be done every 6 months, 17.3% think that it should be done every year, 5% think that it should be done every 2 years and 45.5% think that there is no need for screening.

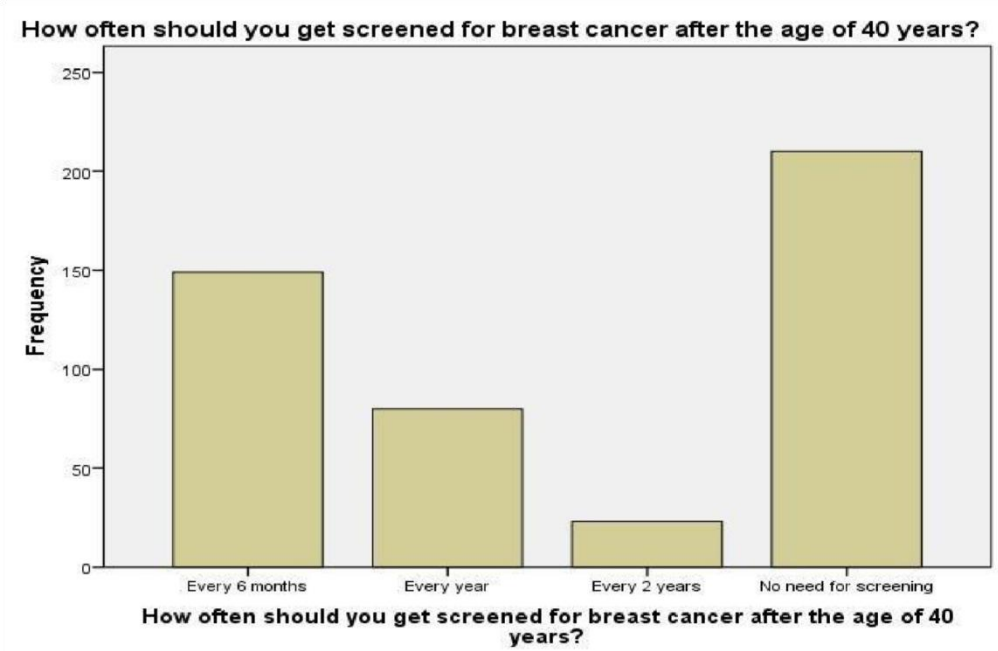

Figure illustrate the response of females about frequency of screening of breast after age of 40 ,majority do not go for it as majority of respondents are under 40 years of age, of after 40 ; majority go for it every 6 month ,some after every year and some after every 2 years.

Cross-tabulation Table 31:

What is your occupation? * Do you have knowledge about risk factors of breast cancer?

What is your occupation?	Do you have knowledge about risk factors of breast cancer?				Total
	Yes	No	Donot know	To some extent	
Student	196	76	25	79	376
Housewife	17	7	3	4	31
Working woman	31	6	3	15	55
Total	244	89	31	98	462

Table 31 shows the comparison between two variables i.e occupation of respondents and knowledge about risk factors of breast cancer,comparison shows that most of the students have knowledge about risk factors of breast cancer due to their education and awareness ,working women also know about this but not so many housewives have knowledge about it. **Table 32**

Residence? * Do you have knowledge about risk factors of breast cancer? Crosstabulation

Residence?	Do you have knowledge about risk factors of breast cancer?				Total
	Yes	No	Don't know	To some extent	
Urban	177	54	20	69	320
Rural	67	35	11	29	142
Total	244	89	31	98	462

Table 32 shows the comparison of two variables I.e residence and awareness of risk factors of breast cancer,comparison shows that urban residents have good knowledge about risk factors of breast cancer due to their internet access and other social activities while rural know less about this cause they have less internet access and lack of knowledge.
NOTE:Our responses have more urban than rural because due to lockdown we upload questionnaire in google form and as urban have more easy access to it than rural residents.

Table-33:

What is your occupation? * Do you think that breast self examination can help in early detection of abnormal changes in breast?

What is your occupation?	Do you think that breast self examination can help in early detection of abnormal changes in breast?				Total
	Yes	No	Don't know	To some extent	
Student	231	35	69	41	376
Housewife	21	2	6	2	31
Working woman	34	3	5	13	55
Total	286	40	80	56	462

Table 33 shows the comparison between two variables I.e occupation and who are in favour of BSE helps in early detection of abnormal changes in breast,comparison shows that students are in favour of this fact due to their education and awareness of breast self examination,many workingwomen also agree but not so many housewives are in this favour **Table 34:**

Count

Do you have a family history of breast cancer?	Do you have knowledge about risk factors of breast cancer?				Total
	Yes	No	Don;t know	To some extent	
Yes	30	4	2	6	42
No	210	82	25	89	406
Don't know	4	3	4	3	14
Total	244	89	31	98	462

Do you have a family history of breast cancer? * Do you have knowledge about risk factors of breast cancer?

Table-35:

Do you have a family history of breast cancer? * Do you have any knowledge regarding screening methods of breast cancer?

Do you have a family history of breast cancer?	Do you have any knowledge regarding screening methods of breast cancer?			Total
	No idea at all	To some extent	Yes, I know about FNAC and Mammography	
Yes	14	7	21	42
No	174	93	139	406
Don't know	8	3	3	14
Total	196	103	163	462

DISCUSSION

Misconception is our social dilemma, our society regards cancer to be scary and negative. It is a taboo in the culture and society whereby people prefer to keep things silent in spite of strong positive family history.All the factors sought by us were noted to be significantly associated with Breast cancer.of these lack of Brest feeding was most statistically significant risk factor.It is considered to be protective against development of breast cancer as confirmed by other studies.Some what different results have been obtained in other Pakistani studies. In one study breastfeeding was associated with risk of developing breast cancer, while another concluded that breast cancer has no statistically significant relation with Breast cancer.

Having fewer children was the second most significant risk factor in our study. Nulliparity increases lifetime incidence of breast cancer.It was associated with 30% increase in risk compared to parous women in a meta-analysis from Nordic countries.Child bearing two to three times reduces chances of developing breast cancer. A 7% risk reduction is noted with each successive birth. This risk reduction is most prominent when child birth occurs before 30 years of age.In a Pakistani study, it was noted that breast cancer was common in women who had no issue (12.06%) or in whom children were born after the age of 30 years (9.37%).13Parity's protective effects is considered to be due to, 1) terminal differentiation occurring in breast tissue, temporary break from ovulation, greater transcription of BRCA or other genes, and mutagen elimination in breast milk.

Cigarette smoking is not consistently associated with risk of breast cancer.Currently it is not considered very important in the etiology of breast cancer, however opposite findings have also been noted. Women who start smoking as teenagers and continue to smoke for at least 20years may increase their breast cancer risk.Certain gen-types like SULT1A1 in combination

with NAT2 fast acetylator status may increase breast cancer risk in women exposed to tobacco smoke.Smoking was significantly associated with breast cancer in our study and its role needs to be further evaluated.

We observed a relationship between postmenopausal status and risk of breast cancer. High levels of serum estrogens, particularly estradiol, have been shown in multiple studies to increase the risk of breast cancer in post-menopausal women.Significantly increased risk of breast cancer have been associated with natural menopause after the age of fifty four.Early age at menopause is also important determinant of breast cancer risk which seems relevant in our subjects.

Five percent of breast cancer cases are familial.One third of familial breast cancer cases are considered to be due to a mutation in the BRCA1 gene on long arm of chromosome 1710 in Pakistani breast cancer patients, 4-47.3% have been noted to have positive family history.Risk of

devel-oping breast cancer increases two or more times if a woman has a first degree relative (mother, sister, or daughter) with breast cancer.This risk further increases if relative had

developed breast cancer before the age of 50 years.Twenty five percent of our patients had positive family history.

Unmarried women had significant risk for breast cancer in our study. Various studies have shown that single and nulliparous married women have a similar increased risk for breast cancer as compared with parous women of the same age.Risk reduction in married women probably results from early first full-term pregnancy.Conflicting views exist regarding role of oral contraceptives as risk factor for breast cancer. Oral contraceptives increase risk in BRCA1 mutation carriers. There is a small increase in relative risk of developing breast cancer in women on contraceptives and for 10 years after stopping them.

An increase in risk of premenopausal breast cancer is noted in younger women who use oral contraceptives for four years or more before first term pregnancy.In one study significant inverse association between oral contraceptive and breast cancer was noted.8Our finding that oral contraceptive use is significantly associated with breast cancer has also been documented in another Pakistani study.In females, chances of getting breast cancer increase with age. The risk doubles every 10 years until menopause when the rate of increase slows.

Females over 60 years age are at greatest risk. Breast cancer patients in our study were relatively young. Similar results have been noted from other Asian subgroups i.e., Iranian and Vietnamese.We do not have a specific reason for this, but it has been postulated that a relatively high pro-portion of young breast cancer cases in our region are due to young population structure, protective effect of high age at menarche and low age at first pregnancy on development of breast cancer in later life..

According to our results, women are slightly incognizant that female gender is a risk factor for BC. Our study shows a good awareness on dietary factor. High alcohol consumption has a very strong association towards developing BC because drinking leads to enhanced

permeability of membranes to carcinogens thus escaping from detoxification .

Unfortunately, public awareness on radiation therapy is less ideal. Women with younger age and treated with radiation therapy to the chest for previous or another cancer have a significantly higher risk for BC [25–27], but radiation treatment after forty (40) year-old does not increase BC risk [28]. A sedentary lifestyle with lack of physical activity and practising an unhealthy diet potentially lead to BC, but public is unwitting on this particular fact in our study.

Breast self examination is a procedure for early diagnosis of Brest cancer , In our study about 50% females do not know about it and some who know they do not perform it due to lack of

knowledge and awareness.

Screening for Brest cancer is another factors , because lack of screening lead to end stages of Brest cancer , many of our respondents do not have any idea about screening procedures like mammography FNAC etc though they have positive family history.In our study, public is unperceptive on potential risk factors of BC.

CONCLUSION

In summary lack of breast-feeding, less parity, smoking, post-menopausal status, family history of breast cancer, unmarried status, and use of contraceptive pill are risk factors for breast cancer in patients , public still have spaces for improvement on awareness of BC. They may need further knowledge, but promotion in early detection is essential because there are many risk factors and clinical presentations. Social taboo among women themselves on discussing matters of BC or unsuccessful promotion of BC by health care providers may be possible obstacles. Women may be reluctant or choose to be ignorant on knowing BC in depth albeit.

There are many massive BC awareness campaigns in the country, they should focus on the dangers on ignoring BC instead of promoting the knowledge of presentation in BC. Both women and health care providers should work hand in hand to combat against the mortality and morbidity of BC.

REFERENCES

1 Ebtesam E.H et al(2016) conducted a study about awareness of breast cancer and it's screening among rural Egyptian women population http://journal.waocp.org.Availableonline and assessed on 5 sep 2020 at http://journal.waocp.org/article_47532_f24ff9274

2 Fatma A.T (2019) presented study aims to assess the breast cancer awareness and its screening measurements among the common population in Jeddah Saudi Arabia which is available online and assessed on 5 sep 2020 at https://www.alliedacademies.org/articles/assessment-ofknowledge-attitudesand-practices-of-women-on-breast-cancerdetection-screening-and-breastselfexamination.

3 Z.Heidari et al(2008)conducted a study about breast cancer screening awareness and self practice among women of Iran is available online and assessed on 6 at https://www.researchgate.net/publication/237283476on 5 September 2020.

4 Mun-Seng.L et al (2019) conducted a study about screening awareness among Malaysian women which is available online and assessed at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6711317on 5 September 2020.

5 M.Faheem et al(2005)conducted a study about breast cancer risk factors patients treated at NORI hospital Islamabad is available online and was assessed on 5 September 2020 on website www.researchgate.net › publication

6 Farhan B. et al(2013-2015) conducted at the Shaukat Khanum Memorial Cancer Hospital and Research Center, Lahore is available online and was assessed on 5 September 2020 on website https://www.researchgate.net/publication/6266676

7 Paul S. et al Epidemiological Study on Breast Cancer Associated Risk Factors and Screening Practices among Women in the Holy City of Varanasi, Uttar Pradesh, India. Asian Pac J Cancer Prev. 2015; 16(18):8163-71.

8 Dr Freddie B. et al Global cancer transitions according to the Human Development Index (2008–2030): a population-based study.

9 WHO: http://www.who.int/cancer/detection/breastcancer/en/index1.html

10 Mamoona N. et al Knowledge and Awareness about Breast Cancer and its Early Symptoms among Medical and Non-Medical Students of Southern Punjab, Pakistan

11 Rasheed R. (2013). Breast cancer. J Coll Physicians Surg Pak, 23, 766-7.

12 Gillani G.M et al (2003). A differential study of breast cancer patients in Punjab, Pakistan. J Pak Med Assoc, 53, 478-81

13 Dina N. K. et al Awareness of Breast Cancer among Female Students at Ain Shams University, Egypt. **14**Okobia M.N et al (2006). Knowledge, attitude and practice of Nigerian women towards breast cancer: a cross-sectional study. World J Surg Oncol,4, 11.

15 Vafiadis P. Breast self-examination: should general practice bother? (Australian Study)

16 Practice and effectiveness of breast self-examination: a selective review of the literature (1977-1989). Coleman EA (author). American Cancer Society. Detailed Guide: Breast Cancer. 2014. Accessed at www.cancer.org/Cancer/BreastCancer/DetailedGuide/index on September 3, 2020.