Early Detection and Prevention of Breast Cancer among Urban and Rural Middle Aged Women in Selected Community areas of Bangalore With A View To Develop an Informational Booklet.

Tulasi Chaudhary[1], Sarita Nepal[2], Binita Poudel[3]

1Deparment of nursing, Shree Medical & Technical College, Bharatpur, Chitwan,Nepal
2School of Nursing, Chitwan Medical College, Bharatpur, Chitwan, Nepal
3Department of nursing, NarayaniSamudayik Hospital Ltd.CollegeofNursing,chitwan, Nepal
Corresponding auther; TulasiChaudhary, lecturer ,Shree Medical & Technical CollegelPurbanchalUniversity, Nepal;

Abstract
Background: *Cancer is a group of diseases characterized by the uncontrolled growth and spread of abnormal cells. Breast cancer is a disease in which cells in the breast grows out which is the most frequent cancer among women, caused by external factors, such as tobacco, infectious organisms, unhealthy diet, internal factors ,hormones, immune system and inherited genetic mutations, impacting 2.1 million women each year, and also causes the greatest number of cancer-related deaths among women in more developed regions, rates increasing in nearly every region globally. Educate the community people about diet, exercise, and early diagnosis strategies focus on providing timely access to cancer treatment by reducing barriers to care and improving access to effective diagnosis services. Screening consists of testing women to identify cancers screening like breast self-examination, clinical breast exam, and mammography. If diagnosed early and treated before its spreads, five-year survival rate for breast cancer is 98 percent. The aim of this study was to assess the knowledge regarding early detection and prevention of breast cancer among urban and rural middle aged women.**Material and Methods**: The research design for the study is a quantitative non experimental method was used for this study. In this study, the researcher has administered semi structured interview scheduled questionnaire among urban and rural middle aged women.**Results:** The findings of this study shows that knowledge with urban mean of 49.5% and standard deviation of 7.4% whereas rural mean knowledge score of 32.4% and standard deviation of 6.0% was significant different between urban and rural middle aged women. A significant association was found between socio-demographic variable such as age, type of family, family income, education, occupational status and heard a 60% in urban and 29% rural about breast cancer at 0.05 levels of significance.**Conclusion**: In the urban, 66 % of the subject had inadequate knowledge, 32% had moderate knowledge and 2% had adequate knowledge whereas in the rural, 100% of the subject had inadequate knowledge. Thus the study findings indicate that urban middle aged women had more knowledge then rural regarding early detection and prevention of breast cancer among middle aged women in selected community areas of Bangalore.*
Key Words: *breast cancer, information booklets, purposive sampling, non-experimental study, descriptive comparative design, breast self-examination*

I.   Introduction

Cancer is not one disease, It is a group of more than 100 different and distinctive diseases characterized by the uncontrolled growth and spread of abnormal cells which is caused by external factors, such as tobacco, infectious organisms, and an unhealthy diet, and internal factors, such as inherited genetic mutations, hormones, and immune conditions.[1]

Breast cancer is the second leading cancer in women both in the developed and the developing world. The incidence of breast cancer is increasing in the developing world due to increase life expectancy, increase urbanization and adoption of western lifestyles.[2]

World Health Organization, about one in every eight women born today in the U.S. will have breast cancer at some point during her life, according to the U.S. Department of Health and Human Services, making it the second most common kind of cancer among women after skin cancer National Breast Cancer awareness month is a chance to highlight the most effective treatment for the disease: early detection. The Centers for Disease Control and Prevention (CDC) recommend that women 40 to 49 should discuss risk factors like family

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history with their doctors in determining the best time to start breast self examination monthly and mammogram screening two yearly.[3]

Global statistics show that the annual morbidity and mortality of breast cancer are increasing, in which over 1.15 million women worldwide (representing 10 percent of all diagnosed cancers and 23 percent of cancers diagnosed in women) are diagnosed with breast cancer each year a of them die from this disease. The disease accounts for more than 1.6% of all female mortality worldwide. [4]

Breast cancer impact 2.1 million women each year, and also causes the greatest number of cancer-related deaths among women. In 2018, it is estimated that 627,000 women died from breast cancer – that is approximately 15% of all cancer deaths among women. While breast cancer rates are higher among women in more developed regions, rates are increasing in nearly every region globally. About 268,600 new cases of invasive breast cancer will be diagnosed in women. About 62,930 new cases of carcinoma in situ (CIS) will be diagnosed (CIS is non-invasive and is the earliest form of breast cancer). About 41,760 women will die from breast cancer in 2019.[5]

Lack of early diagnosis of breast cancer may kill 76,000 Indian women in a year by 2020. It also revealed that theaverage age of death from the disease has shifted from 30 years to 50 years. [6]

II. Material and Methods:

Study design:. The research was used in comparative study design. In non experimental design, the investigator selected the sample by non probability purposive sampling technique. In this study the base measure was structure knowledge questionnaire used to assess the knowledge regarding early detection and prevention of breast cancer among urban and rural middle aged women in selected community areas of Bangalore with a view to develop an informational booklet.The administration of semi structured interview scheduled. **Study location:** The study was conducted among middle aged women in selected community areas of Bangalore (urban , HegdeNagar) and (rural,Kadusonaphnahalli) communities.

Study duration: 08-02-2019 to 30-02-2019

Sampling procedure

Non probability purposive sampling technique was used to draw the sample. Purposive sampling is in which subjects are selected because of their feasibility and proximity to the researcher.

Sample size

The sample of the study would comprise of 100 (urban 50 and rural 50) middle aged women inselected community areas of Bangalore fulfilling inclusion criteria.

Inclusion criteria

The participants, who are willing to participate in the study, who are middle age women in the age group of 40-59 years of age and able to communicate Hindi, English and kanada.

Exclusion criteria

All students who are not willing to participate in the study, have undergone health education programme on early detection and prevention of breast cancer and already diagnosed with breast cancer.

Operational definitions

Breast cancer: breast cancer is an uncontrolled growth of breast cells which is second leading cancer in women both in the developed and the developing world.

Assess:

In this study, it refers to the process of identifying the knowledge regarding early detection and prevention of

breast cancer among urban and rural middle aged women in selected community areas of Bangalore

Knowledge: It refers to awareness of early detection and prevention of breast cancer among middle aged among selected community areas of Bangalore.

In current study, level of knowledge regarding through self-constructed questionnaire. . With 76 maximum and 50 minimum score from the questionnaire, level of knowledge regarding early detection and prevention of breast cancer.classified into following 3 categories as shown in the table below:

Inadequate knowledge: < 50 % score

Moderate: 51-75% Score

Adequate: >76% Score

Early detection and prevention of breast cancer:

In this study, it refers to a procedure to accelerate the ability of a woman to physically examine herself and locate a breast tumor. Screening activities aimed at early detection of a malignancy tumor originating in the

breast. In this study it refers to knowledge of breast cancer risk factors and screening guidelines, and skill in carrying out a breast Examination

Middle aged women:
In this study middle age means who are in the age group between 40 to 59 years.

Urban Community:
In this study that is a town/city which has more facilities and crowed. And community is agrouping together several municipalities that are joined together so as to develop and manage a joint urban development project for their territory.

Rural community:
In this study that is a place not having many facilities and away from the city/town and open swath of land that has few homes or other building and population density is very low.

Informational booklet:
It refers to a bulletin booklet prepared by the investigator and validated by experts which contains the information regarding early detection and prevention of breast cancer.

Ethical clearance
The research proposal was approved by Faran College of Nursing ethical review board. Prior permission was obtained from urban (HegdeNagar) and rural (Kadusonaphnahalli) primary health care center and respective communities keeping in mind the ethical aspect of the research. Data were collected after obtaining informed consent from the respondents and were assured of the anonymity and confidentiality of the information provided by them.

Descriptive statistics are useful for summarizing empirical information. Inferential statistics which are based on laws of probability provide a means of drawing conclusions about the population from which data was obtained. Data will be analyzed by following steps:
 Data was entered and analysed through IBM SPSS V. 20
 Frequency and percentage, mean was calculated for describing the socio-demographic variable.
 Chi-square test was used to find the association between with socio-demographic variable selected baseline variables.

III. Result

Table no 1: shows that majority of respondents 60% belongs to the age 40-44 years followed by16% belongs to age group of 50-54, 14% belongs to45-49 years, and 10% belongs to the age group of 55-59 years. In rural area the majority of respondents 70% belongs to the age 40-44 years followed by 10% belongs to 45-49 years, 10% belongs to age group of 50-54 and 8% belongs to the age group of 55-59 years.Similarly majority of respondents 80% are belongs to nuclear family, 12% are belongs to joint family and 8% belongs to extended family. In rural area the majority of respondents 765 are belongs to nuclear family, 16% are belongs to joint family and 8% are belongs to extended family. Majority of respondents 40% were private, 20% were self employed, 20% were government and 20% were housewife. In rural area the majority of respondents 80% were housewife, 18% were self employed and 2% were private and majority of respondents 30% are getting information from health professional,26% are getting information from social media and 4% are getting information from friends. In rural area majority of respondents 30% are getting information from social media, 20 % are getting information from health professional and 8% are getting information from friends.

Table 1 Distribution of respondents according to Socio-demographic variables

Characteristics		Urban		Rural	
		Frequency	Percentage(%)	Frequency	Percentage (%)
Age in years	40-44	30	60	35	70
	45-49	7	14	5	10
	50-54	8	16	6	12
	55-59	5	10	4	8
Types of family	Nuclear	40	80	38	76
	Joint	6	12	8	16
	Extended	4	8	4	8
	Blended	0	0	0	0
Occupational ststus	Self employed	10	20	9	18

	Prvate	20	40	1	2
	Government	10	20	0	0
	Housewife	10	20	40	80
Heard about breast cancer	Yes				
	Health professional	10	0	4	6
	Friends	4	0	0	4
	Social media	15	0	1	14
	Others	0	0	0	0
	No	21		0	21

Table 2: Over all and aspect wise mean urban and rural knowledge scores of responding knowledge regarding early detection and prevention of breast cancer

Overall Urban and Rural Knowledge Scores					
Aspects	Max Score	Knowledge Score			
		Mean	SD	Mean%	SD%
Urban	30	14.84	2.226	49.5	7.4
Rural	30	9.72	1.796	32.4	6.0
Enhancement	30	5.12	2.318	17.1	7.7

Above table shows the distribution of respondents based on their mean urban and rural knowledge score. It is found that the mean urban knowledge score was 49.5% (SD=7.4%). Whereas the mean rural knowledge score was found 32.4% (SD=6.0%) the enhancement of mean knowledge was 17.1% (SD= 7.7%

Table 3.Comparison Aspect wise mean Urban and Rural knowledge scores early detection and prevention of breast cancer

NO	Knowledge Aspects	Respondents Knowledge (%)						Paired 'T' Test
		Urban		rural		Enhancement		
		Mean	SD	Mean	SD	Mean	SD	
1	General information regarding breast cancer	15	4	8	3	7	5	9.667
2	Risk factors and causes	10	3	8	3	2	4	3.622
3	Symptoms and Diagnosis	10	3	9	3	1	4	1.95
4	Prevention and Complication	15	3	8	3	7	4	12.16
5	Combined	49	7	32	6	17	8	15.619

* Significant at0.05 levels   t (0.05, 49df) = 2.0096

The data depicted in the above table shows that the aspect wise comparison of the urban mean knowledge score of the respondents regarding early detection and prevention of breast cancer. A paired "t" test was done to compare the mean urban and rural test on each aspect. For on general information on early detection and prevention of breast cancer, the obtained "t" value 9.667 which is found to be significant at 0.05 level (t= 2.0096). Regarding risk factors and causes, the obtained "t" value 3.622 which is also found to be significant at 0.05 level (t= 2.0096) , For symptoms and diagnosis the obtained "t" value 1.95 which is found to be significant at 0.05 level (t= 2.0096). In the area of prevention and complication, the obtained "t" value 12.16 which is significant at 0.05 level (t= 2.0096) . The obtained 't' value 15.619 is found to be more than the table

value 't' (2.0096 with 49 df) at 0.05 level of significant. From this it is evident that 't'value is found to be significant, based on the statistical significant the research hypothesis is accepted which says there is a significant difference between the mean urban and rural knowledge scores of middle aged women regarding early detection and prevention of breast cancer.

Table 4.Association between Demographic Variable and pre-test knowledge level of respondent on Knowledge regarding face book addiction

N=100

Demo-graphic Variables	Category	Sample		Respondents Knowledge						X^2 urban rural		Df Value Urban rural	
		Urban	rural	Adequate Urban Rural		Moderate Urban Rural		Inadequate Urban Rural					
Age	40-44	30	35	0	0	0	13	21	22	9.821 **	10.02 **	3	3
	45-49	7	5	0	0	0	4	2	1				
	50-54	8	6	0	0	0	0	2	6				
	55-59	5	4	0	0	0	0	1	4				
Religion	Hindu	5	30	0	0	2	2	3	28	0.963 NS	2.02 NS	2	2
	Christian	7	10	0	0	2	2	5	8				
	Muslim	38	10	0	0	8	2	30	8				
	Others	0	0	0	0	0	0	0	0				
Educational level	no formal	5	30	0	0	3	12	2	18	17.214 **	8.42 **	6	2
	Primary	25	15	0	0	18	0	7	15				
	Secondary	15	5	0	0	4	1	11	4				
	Graduation	5	0	1	0	2	0	2	0				
Occupational status	self employed	10	9	0	0	6	0	4	9	10.956 **	24.61 **	3	2
	private	20	1	0	0	2	1	18	0				
	government	10	0	0	0	2	0	8	0				
	Housewife	10	40	0	0	1	1	9	39				
Family income	<10,000	5	36	0	0	4	1	1	35	14.985 **	14.032 **	6	3
	10,001-20,000	13	88	0	0	9	1	4	7				
	20,001-30,000	10	5	1	0	2	1	7	4				
	>30,000	22	1	1	0	4	1	17	0				
Type of family	Nuclear	40	38	0	0	5	25	35	13	10.907 **	9.53 **	2	2
	Joint	6	8	0	0	4	2	2	6				
	Extended	4	4	0	0	2	0	2	4				
	Blended	0	0	0	0	0	0	0	0				
heard about breast cancer	Yes			0						11.851 **	12.963 **	3	3
	health professional	15	10	0	0	3	4	12	6				
	Friends	2	4	0	0	0	0	2	4				
	social media	13	15	0	0	6	1	7	14				
	Others	0	0	0	0	0	0	0	0				
	No	20	21	0		0	0	20	21				

** Significant at 0.05 level   **NS : Non significant**
Note: Figures in the parenthesis indicate table value
Significant at 5% level,   NS: Non significant

        From the above table -17, it is evident that with regard to age variables the obtained (x^2) value in urban 9.821 and rural 10.02 is more than table value, (3df, p<0.05) at 5% level of significant based on this the research hypothesis is accepted and null hypothesis is rejected therefore there is significant association between the age and knowledge level of the middle aged women on early detection and prevention of breast cancer.
        Regarding the education variables the obtained (x^2) value in urban 17.214 and rural 8.42 is more than table value ,(6df, urban and 2df,rural, p<0.05) at 5% level of significant based on this the research hypothesis is accepted and null hypothesis is rejected therefore there is significant association between the education and knowledge level of the middle aged women on early detection and prevention of breast cancer.
        Regarding the occupational variables the obtained (x^2) value in urban 10.956 and rural 24.61is more than table value (3df,urban and 2dfrural, p<0.05) at 5% level of significant based on this the research hypothesis

is accepted and null hypothesis is rejected therefore there is significant association between the occupation and knowledge level of the middle aged women on early detection and prevention of breast cancer.

Regarding the family income variables the obtained ($x^{2)}$) value in urban14.985 and rural 14.032 is more than table value, (6df, urban and 3df rural, p<0.05) at 5% level of significant based on this the research hypothesis is accepted and null hypothesis is rejected therefore there is significant association between the family income and knowledge level of the middle aged women on early detection and prevention of breast cancer.

Regarding type of family variables the obtained ($x^{2)}$) value in urban10.907 and rural 9.58 is more than table value, (2df urban and rural, p<0.05) at 5% level of significant based on this the research hypothesis is accepted and null hypothesis is rejected therefore there is significant association between the type of family and knowledge level of the middle aged women on early detection and prevention of breast cancer.

Regarding the source of information variables the obtained ($x^{2)}$) value in urban 11.851 and rural 12.963 is more than table value ,(3df urban and rural, p<0.05) at 5% level of significant based on this the research hypothesis is accepted and null hypothesis is rejected therefore there is significant association between the source of information and knowledge level of the middle aged women on early detection and prevention of breast cancer.

IV. Discussion

In the present study it is observed that the majority of the sample 33(66 %) had in adequate knowledge, 16(32%) had moderate knowledge and 1(2%) had adequate knowledge in urban communities where as sample 50(100%) had inadequate knowledge regarding early detection and prevention of breast cancer.

A similar study conducted by.**Subramanian P, Oranye N O, Masri A M, Taib N A, Ahmad N**breast self examination (BSE) was 21% and woman has not sufficient level of knowledge about breast self examination, clinical breast examination, and mammography. They believed significantly that bloody discharge from the nipple, presence of masses in the breast, abnormal arm swelling, nipple retraction and discoloration of the breast were signs and symptoms of breast cancer. About 35% of practicing women in the current study performed correctly $\leq$ 6 steps out of 12 steps. Only 21% of women attending Primary Health Care (PHC) had ever practiced BSE. The results showed that there was a significant association between knowledge and selected demographic variables.[7]

A similar study supported by**Marahatta SB, Sharma S** was conducted on Knowledge And Practice Of Breast Self Examination Among Women Of Reproductive Age In Butwal Sub Metropolitan City using cluster random sampling on 2018. Among 219 respondents, only 42(19.2 %) had ever performed Breast Self Examination and among those, only 37 (88.1 % of 42)were performing it in current days, (72.9%), they didn't know how to do it(7.3%), forgetfulness(2.3%) and they didn't feel it necessary(17.5%) for not ever performing it. Among current BSE practitioners, maximum number of respondent 70.3% practice it occasionally and only 10.8% of respondents followed the recommended frequency of BSE performance monthly. Only 32.4 % of current practitioners followed all the standard steps during its practice while majority of them 67.6% didn't follow it.[8]

A similar study supported by was conducted on onBreast cancer knowledge and screening behavior among women in Malaysia from 2013. The sample was 131 purposive sampling technique and data was collected on self-administered questionnaire was used for data collection The result shows that (71%) had poor knowledge of the risk factors for breast cancer. Practice of breast cancer screening predicted performance of mammography, R2=0.467, F=12.568, p<0.0001. The study concluded that screening practice among women with family history of breast cancer on breast self examination and mammography and breast screening behavior is vital for developing more targeted breast health promotion.[9]

A similar study supported by **Madhukumar S, Thambiran U R, Basavaraju B, Bedadala M R.** among women (91%) were not aware about the risk factors of breast cancer and only 7.5% knew that lesser duration of breast feeding for<6 months is an important risk factors of breast cancer.89.5 % were not aware about the symptoms of breast cancer and 92.5% were not aware about the preventive measure of breast cancer.[10] The results shows that the mean urban knowledge score were 49.5% as compairedto the mean rural knowledge score were 32.4% with an enhancement of mean knowledge was 17.1% when a paired t test was applied, the value of 9.667 was found to be significant at 0.05 level, hence the research hypothesis (H $_1$) is accepted which says that there is a significant difference between the mean urban and rural knowledge score knowledge regarding early detection and prevention of breast cancer.

A significant association was found between urban and rural knowledge level of respondents regarding early detection and preventionof breast cancer and their socio demographic variables such as age (x^2= 9.821,urban/10.02, rural),types of family as (x^2= 10.907,urban/9.58,rural), educational status of father (x^2=17.214,urban/8.42,rural), occupational status (x^2=10.956,urban/24.61,rural), family income

(x^2=14.985,urbab/14.032,rural), heard about breast cancer (x^2=11.851,urban/12.963,rural) at 0.05 level of significant.

V. Conclusion

The study findings revels that, in knowledge score 33(66 %) had in adequate knowledge, 16(32%) had moderate knowledge and 1(2%) had adequate knowledge in urban communities where as sample 50(100%) had inadequate knowledge in rural commmuities regarding early detection and prevention of breast cancer.
This shows that urban middle aged women had more knowledge then rural women on early detection and prevention of breast cancer

Nursing Implications The findings of the study show that the urban middle aged women has more knowledge regarding early detection and prevention of breast cancer among rural middle aged community women. The study has several implications in areas of nursing practice, nursing administration, nursing education and nursing.

Implications for Nursing Practice
Nurses are the key persons of the health team, who play a major role in health promotion and maintenance, the teaching program, can be conducted by the nursing personnel in the hospitals which will improve the knowledge on nurses on early detection and prevention of breast cancer. As a nursing advisor she can conduct individual screening and group counseling for early detection and prevention of breast cancer. Health education can be given on clinical breast self examination, breast self examination and mammography can be given during community health program in relation to prevent breast cancer.

Implications for Nursing Education
Nurse educators are the primary health educators in community. Nurse educators provide community health promotion services in a designated region in accordance with the philosophy and objectives of the authority and to promote and maintenance of health and wellbeing of the community. The study had proved that improving knowledge of people regarding early detection and prevention of breast cancer to impart the knowledge to the community, the Nursing personnel need to be equipped with adequate knowledge, post graduate level to develop skills. Nursing personnel working in various health setting should be given in service education to update the knowledge and abilities in identifying the learning needs of the people living in the community and planning for appropriate intervention and cost effectiveness screening program.

Implications for Nursing Administration
The nursing administrator should take an initiative increasing health policy making and developing protocols in providing education program and strategies on early detection and prevention of breast cancer. Nurse administrators should review the institutions policies and practices related to work environment and their contribution and efforts on their own health .The Nurse administrator should plan for the budget and utilize the resources for training of staff, health education for adult people in the community and providing regular education, training, follow up and optimal level of care for the vulnerable and high risk group of people in the community.

Implications for Nursing Research
The study helps the nursing researchers to develop appropriate health education tools for educating the people early detection and prevention of breast cancer. Research should be conducted on early detection and prevention of breast cancer for better knowledge of public for effective quality of study.
Popularity of information could be disseminated like newspaper, magazines posters, pamphlet, video, television and internet. Necessary administrative support may be provided to conduct such activities.*aya*

Limitation:
* The study was conducted only in one selected urban area namely Hegde Nagar and in one selected rural area namely Kaduswanapanahalli. Hence generalization is possible only to the selected settings..
* The study has design constraints in the form of threats to internal validity such as effects of history, maturation and instrumentation.
* Using non probability purposive sampling technique.
* Study is limited to assessment of knowledge of middle aged women in selected community areas of Bangalore Regarding early detection and prevention of breast cancer.

Recommendation:

❖ The study can be replicated on a larger sample; thereby findings can be generalized for a larger population.
❖ A video assisted teaching programme can be prepared to enhance the knowledge of people regarding early detection and prevention of breast cancer.
❖ Regular educational programmes can be conducted among community people regarding early detection and prevention of breast cancer.
❖ A similar study can be conducted to compare the knowledge and practice level of people between urban and rural communities.

Reference

[1]. Americian Cancer Society. https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/breast-cancer-facts-and-figures/breast-cancer-facts-and-figures-2017-2018.pdf. [Online]. Atlanta; 2017-2018 [cited 2019 Jan Wednesday.
[2]. Cancer. Geneva SCFS[2J2Af. http://www.who.int/mediacentre/factsheets/fs297/en/. [Online].; 2017 [cited 2018 December Friday.
[3]. Closkey KM. https://www.breastcancer.org/symptoms/understand_bc/statistics. [Online].; 2019 [cited 2019 February Monday.
[4]. Tazhibi M, Feizi A. Awareness Levels about Breast Cancer Risk Factors, Early Warning Signs, and Screening and Therapeutic Approaches among Iranian Adult Women. Biomed Research International. 2014 September 11; 14.
[5]. Society AC. https://www.cancer.org/cancer/breast-cancer/about/how-common-is-breast-cancer.html. [Online].; 2019 [cited 2019 February 2.
[6]. Pereira S V. Indian Government, University of wollongong Dubai. https://www.hindustantimes.com/health/breast-cancer-may-kill-76-000-indian-women-every-year-by-2020/story-pDCzwzehn5jft6uxSTawxM.html. [Online].; 2017 [cited 2019 January Wednesday.
[7]. Saadoon F, Al-Azmy A, Ali Alkhabbaz B, Hadeel A, Almutawa. Practicing Breast Self-Examination Among Women. Alexandria Journal of Medicine. 2013 February 18; 49: p. 281-286
[8]. Marahatta SB, Sharma S. Knowledge And Practice Of Breast Self Examination Among Women Of Reproductive Age In Butwal Sub Metropolitan City. JMMIHS.2018;4(1):117-129
[9]. Subramanian P, Oranye N O, Masri A M, Taib N A, Ahmad N. Breast Cancer knowledge and Screening Behaviour Women With a Positive Family History. Asian Pacific Cancer Prevention. 2013; 14(11): p. 6783-90.
[10]. Madhukumar S, Thambiran U R, Basavaraju B, Bedadala M R. Atudy on awareness About Breast Carcinoma and Practice of Breast Self-Examination Among Basic Sciences' College Students, Bengaluru. Journal of Family Medicine and Primary Care. 2015 September; 6(3): p. 487-490.