Young Adult Women's intention regarding breast and cervical cancer screening in Beni-Suef

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Abstract- **The present study was carried to investigate Women's intention regarding breast and cervical cancer screening in Beni-Suef City. Subject and methods: A descriptive study was carried out on 223 women who are admitted gynecological and obstetric inpatient wards & attending outpatient clinics at (University and general Hospital) and health care centers in Beni - Suef City during four months from the starting of data collection. Results: The study revealed a highly significant relation between total score of women's knowledge regarding cervical cancer and breast cancer with education level, occupation and setting (p ≤ 0.05). Also there is a statistically significant relation between women' s intentions to be screened for cervical cancer with cervical cancer data. Additionally, most women appear to obtain information through the mass media. Conclusion: Based on the results of present study we can concluded that there are women lacked of critical knowledge needed to understand their gynecologic cancer risk , screening methods as Breast self examination , Pap tests as well as risk factors and symptoms associated with various gynecologic cancers.**

Index Terms— **Breast cancer, cervical cancer, young women, and early diagnosis**

I. INTRODUCTION

Breast cancer is considered the leading cause of cancer death among females in economically developing countries. Prevalence of breast carcinoma is high in Egypt and the cases of breast cancer constitute 29% of cancer cases treated at the national cancer institute and the most frequent malignant tumor in women worldwide. In Egypt, it is the most common cancer among women, representing 18.9% of total cancer cases (35.1% in women and 2.2% in men) among the Egypt National Cancer Institute's (NCI) series of 10,556 patients during the year 2001, with an age-adjusted rate of 49.6 per 100,000 people.
(Centers for Disease Control and Prevention, 2013).

Breast cancer is by far the most frequent cancer of women (23% of all cancers), ranking second overall when both sexes are considered together. It is the leading cause of cancer mortality in women and constitutes 14% of female cancer deaths. Incidence rates are increasing in most countries, and the changes are usually greatest where rates were previously low. In Saudi Arabia, while it had once been presumed that the incidence of breast cancer was low; more recent data have indicated that it is a significant disease in this community, as elsewhere in the world. (*Alharbi et al ,2012*)

Cervical cancer is the third most common cancer in the world, with 2.3 million prevalent cases and 510 000 incident cases each year .Annually, 288 000 women die of cervical cancer and 80% of these deaths occur in low-resource countries .Nearly two thirds of healthy years lost by women in developing countries are lost because of cervical cancer and not, as is often supposed, because of problems related to reproductive health . This is particularly disturbing because cervical cancer is a preventable disease. (*Abdul-Aziz , 2012*)

Important advances have been made in the strategies of early detection and therapeutic interventions of breast cancer which may contribute to a more favorable development of its natural history. Inappropriate therapy is a major aspect of inequity in health that exists in many developing countries. Low health budgets may not be the only causative factor. Other factors such as the limited diffusion of practice guidelines and lack of continuous education of health-care providers may also be implicated in such inappropriate care. However, the quality of breast -cancer management seems to be unsatisfactory in both developed and developing countries. (*World Health Organization, 2003*)

In addition, cervical cancer is caused mainly by infection with certain strains of human papilloma virus (HPV), that infects the epithelial cells of the cervix uteri and can result in precancerous lesions and invasive cancer (*Hoque , 2009*). Currently, over 120 different HPV types have been identified, of which at least 38 primarily infect the genitalia. Four high-risk types (HPV-16, -18 , -31 and -45) account for about 80% of invasive cancer cervix collected from around the world (*Bekar , 2013*).

The prevalence of HPV is very high among young, sexually active adult women .The other known risk factors are the early onset of sexual activities, multiple sex partners, long use of oral contraceptives, immunosuppressant's, smoking and specific dietary factors. The National Institutes of Health in America stated that HPV is transmitted through sexual intercourse, with peak Prevalence in women of the 22-25 year age group (*Hoque , 2009*).

Cancer of the cervix is a preventable disease, and a key aspect of its prevention is the detection of the premalignant form by cervical screening (*Abdul-Aziz , 2012*).

Marked decreases in cervical cancer incidence and deaths have been achieved by systematic population-based cytology screening programs in developed nations, from as early as the 1960s .The screening techniques often used are Pap smear test visual inspection of the acetic acid painted cervix (VIA), cryotherapy for moderate cervical dysplasia and HPV DNA test .The Pap test is one of the most reliable and effective cancer screening tests available. About 75% of women in industrialized countries have been screened for cervical cancer in the previous five years, compared to less than 5% in developing countries (*Abdul-Aziz , 2012*).

However, cervical cancer, if diagnosed early is treatable, but the challenge is that most rural women in the developing countries seek medical care after they have developed signs and symptoms. Literature show that over 80% of women with cervical cancer in developing countries are diagnosed at advanced stages (*Hami , 2012*).

The health care services provided by nurses and obstetricians to maintain, sustain and advance the health status, have an important role on preventing gynecological cancer, on the early diagnosis of these diseases and the needs that may occur depending on the process of the disease. The role of nurses and obstetricians in providing the information and awareness about gynecological cancer is crucial (*Bekar , 2013*).

Finally, Women's intentions to undergo breast cancer screening have been explained as a function of individual and contextual influences. So, Strong intentions have been associated with a greater likelihood of Breast self examination and mammography behaviours (*Bener t al ,2009*)

Aim of the Study

The present study was carried to investigate Women's intention regarding breast and cervical cancer screening in Beni-Suef City through:

- Assess women beliefs of breast cancer screening
- Assess women beliefs of cervical cancer screening
- Find out the relationship between women perception of breast cancer and sociodemographic characteristics
- Find out the relationship between women perception of cervical cancer and sociodemographic characteristics

Research Questions:
- What are the women beliefs toward breast and cervical cancer screening?

- Is there a relation between women intention of cervical cancer screening with their education level, occupation and setting?
- What is women perception toward breast cancer screening?
- What is women perception toward cervical cancer screening?
- Are there a relation between women's intentions to be screened for breast and cervical cancer with their beliefs?
- Are there a relation between Women's intentions to be screened for breast and cervical cancer and source of obtaining information's?

Significance of study:

The use of risk-reducing behaviors for breast cancer is important for women with a family history of breast cancer. With the exception of age, family history is the strongest known risk factor for development of disease. Family history and age, together with reproductive history, risk can be readily assessed and risk reduction is possible . However, there is evidence that a significant minority of women at increased risk for breast cancer do not use risk reduction strategies as recommended (*Botkin et al., 2003; Lerman et al., 2000*). Although there are obvious advantages to using risk-reducing behaviors such as assessment (e.g., calculated risk estimates and genetic testing), early detection (e.g., mammography, clinical breast exam, and self breast exam), and in some cases prevention strategies (e.g., chemoprevention and risk-reducing surgeries), several barriers have been identified that prevent women from taking full advantage of these strategies. These barriers include demographic variables, healthcare communication and knowledge, and physiological and psychological distress that might result from the use of risk-reducing strategies. (*omers, 2006*)

A survey in Malawi on the cervical cancer morbidity showed that 80% of women who sought help between 2001 and 2002, were at an inoperable stage, thus in the terminal stages of the disease . The delay is due to both the patients' own reasons and those of the health providers. Consequently, every year, 2316 women are diagnosed with cervical cancer and 1621 die from the disease . (*Chadza etal ,2012*)

Cervical cancer is responsible for more than 230 000 deaths annually (Globocan database, 2000) . In developing countries, it is the leading cause of cancer mortality in women. The average age-adjusted mortality rate is twice as high in developing as in developed countries (9.8 compared to 4.1 per 100 000 women). In Eastern Africa, the mortality is as high as 24.2, in Central America and the Caribbean 17.0 per 100 000 women (*Ferlay et al , 2001*) (figure 2)

Operational definitions:
Intention: Intention is Outcomes that are not anticipated and not foreseen are known as unintended consequences. Purpose or attitude toward the effect of one's actions or conduct: a bungler with good intentions.

Screening: undesirable material that has been separated from usable material by means of a screen or sieve: screenings of imperfect grain.

Conceptual Framework:
The Health Belief Model (HBM) remains one of the most widely recognized conceptual frameworks for understanding

health behavior. The HBM identifies four factors that influence the likelihood of preventive health behavior: perceived susceptibility (perceived vulnerability to a disease or the risks of contracting it); seriousness (perceived severity of the consequences of contracting a disease); benefits (positive results of steps taken to avoid contracting the disease); and barriers (perceived negative aspects of undertaking health behaviors). (**Subramanian et al, 2013**) (Figure 1)

II. SUBJECT AND METHODS

Descriptive research design was used to conduct this study, convenience sampling of 223 females were admitted to gynecological and obstetric wards and / or   attending outpatient clinics at (University and general Hospital) and health care centers in Beni - Suef City with the following criteria:

- Female patients in age group between 20 – 40 years.
- Women agree to participate in this study

  Exclusion criteria :

  Women with breast or cervical cancer .

  Tool of data collection:

  A structured interview questionnaire sheet was modified by the researcher which based on **Amin , 2008 and Abu-Shmais , 2010** and literature review after modified them to simple Arabic language for the women to suit their level of understanding. Data were collected through using one tool which includes 3 main parts as follows:

  Part I :

  Includes socio-demographic characteristics, gynecological and obstetrical history of young women as age, level of education and income, involved family planning methods, breast feeding, child data.

  Part II: women's intention regarding breast cancer screening sheet

  Includes 31 questions to assess women's beliefs and knowledge towards screening methods of breast cancer

  Part III: women's intention regarding cervical cancer screening and their source of information's sheet:

  Includes 23 questions to assess women's beliefs, knowledge towards screening methods of cervical cancer and source of their information towards breast and cervical cancer

  Methods of data collection:

  This study was covered in four phases:-

  1-validity of tool:-. 5 experts were review the content validity of the tool from maternity and gynecological, medical-surgical nursing, medicine professor and community health nursing professor in the field.

  2- Reliability:

  Was carried out through using Cronbach alpha test = 0.084

  3- Ethical considerations:

  Approval was taken from hospital director before starting the research and data were collected after explaining the aim of the study to all young women who participated in the study .

  4- Pilot study: - assess women abilities to participate in filling questionnaire, and any modifications were done. it is approximately 10% of study sample.

  5- Field work : data were collected from gynecological and obstetric wards and outpatient clinics at (University and general Hospital) in Beni - Suef City at four months from September 2013 until December 2013 for three days weekly mainly Saturday ,Sunday and Thursday, each week according

to time available to women and their attendance schedule for clinic as doctor ordered and their needs. Each woman takes time approximately between 30-45 minutes to fill a questionnaire, also researcher of study help illiterates' women in filling their questionnaire.

  Statistical analysis:

  Data were analyzed using statistical package for social sciences (SPSS). ANOVA and Student t-test were used. The P-value < 0.05 was used as the cut off value for statistical significance and the following statistical measures were used.

III. RESULTS

Table (1): shows that more than tow- third (82.5%) of sample were in age group between 20-25 years and (85.2%) were married , (80.3%) house wife ,More than half (58.3%) had primary level of education , finally , the most (98.2%) were from rural area .

Table (2) : Shows that near half of women (47.5%) were recommended   mammogram for early detection of breast lymph while (65.5%)of them believed that the examination is Increase the women chance of treatment . unfortunately , (88.8%) of women doesn't made mammogram . finally (66.4%) the doctor doesn't order or instructed them to make mammogram and they didn't know the reason of the doctor didn't order it.

Table (3): revealed that there are a significant relation were found between women all items of women believed towards breast and cervical cancer screening, p= (0.001).

Table (4) : revealed that there is a significant relation only were found between women occupation and their intention of cervical cancer screening , p= (0.003).

Table (5): Shows that there is a significant relation only were found between women occupation and their intention of breast cancer screening , p= (0.001).

Table (6): revealed that there are a significant relation were found between women's intentions to be screened for breast and cervical cancer with their beliefs namely in items related to breast and cervical cancer fair, breast and cervical cancer for early discovering, causes of not done breast and cervical tests , and doctor recommended cervical cancer test, p= (0.001, 0.003, .0.15 ,0.027).

Table (7): Shows that there are a significant relation were found between women's intentions to be screened for breast and cervical cancer with their source of information's namely Television , radio , magazines, internet , journals , educational classes, and friends , p= (0.001).

IV. DISCUSSION:

The benefits of cancer screening include the diagnosis and treatment of disease in pre-invasive stages, as well as a shift in incidence of invasive disease from advanced to early (treatable) stages. Therefore, regular screening affects reduction of cancer incidence. Although the evaluation of the effectiveness of the

screening programs varies in terms of relative risk reduction, specialists agree that the cytological smears have convincingly shown to reduce the mortality rates. It is usually recommended to start cervical cancer screening between age of 18 and 30 (*Luszczynska et al, 2011*).

Intention to seek medical help for a potential breast-cancer symptom may be mediated, partly, by cognitive representations of the identity and consequences of breast cancer and by attitudes towards help-seeking and perceived behavioral control. Delays in seeking help for symptoms have been found to be associated with poorer outcome in breast-cancer patients. This study explores symptom perceptions and health beliefs as predictors of intentions to seek medical help in a general female population. The utility of the self-regulation model of illness cognition and the theory of planned behavior were examined in predicting help-seeking intentions for potential symptoms of breast cancer in a general population sample. *(Hunter et al , 2003)* . For these benefits, the aim of the current study was to investigate Women's intention regarding breast and cervical cancer screening.

Regarding sociodemographic characteristics the present study revealed that more than tow- third of women were in age group between 20-25 years and the majority of them were married and house wife ,More than half had primary level of education , finally , the most of women were from rural area . Based on *Donnelly , 2004* Although 70% of breast cancers occur in women over 50 with no risk factors (i.e., family history of breast cancer, not having children, having first baby after age 30), regular mammography is recommended for women according to their age/risk group or at least every 2 years after the age 50 . Cervical cancer is much less common than breast cancer, largely because of the success of cervical cancer screening. Pap tests are recommended at least every 2 years by the BC Cancer Agency for all sexually active women until age 69. Women over 69 may stop having regular Pap smear if all their previous smears have been normal (BC Cancer Agency, 2004).

Concerning women beliefs of breast cancer screening, the present findings revealed that near half of women were recommended mammogram for early detection of breast lymph while more than half of them believed that the examination is increase the women chance of treatment . Unfortunately, the majority of women don't made mammogram. Finally more than half of women clarified that the doctor doesn't order or instructed them to make mammogram and they didn't know the reason of the doctor didn't order it. These findings go in the same line with *Bener et al , 2009* who mentioned that although Qatari women had adequate general knowledge about breast cancer, while the screening rates for breast self examinations and mammography were low, these being performed most frequently by young Qatari women with a higher level of education.

In Nigeria, only 32% knew that a breast lump was a warning sign of cancer, 58.5% were not aware of most warning signs, 9.8% knew of methods of detecting cancer and 50% did not know that cancer was curable when detected early. This low level of knowledge of warning signs and detection may be responsible for late presentation, with as many as 64% of patients presenting 6 months after the onset of symptoms. While in the UK to asses women's knowledge about breast cancer risk and their views of the purpose and implications of breast screening found out that 45% of the women believed

that screening prevents breast cancer. Women were of the opinion that screening helps early detection, could result in less invasive treatment. 63% had no concerns about breast screening. 36% of women knew the lifetime risk of developing breast cancer, and the interpretation of numeric risks varied among women. (*Ekong , 2009*)

Concerning the relationship between women intention of breast cancer screening and sociodemographic characteristics, the present study revealed that there is a significant relation only were found between women occupation and their intention of breast cancer screening this finding goes in the same line with *Jeanros and Fargnoli , 2013* who mentioned there are some barriers related to the social context could limit their screening attendance. These included taboos related to sexuality, religion, partners' beliefs in regards to screening as well as a lack of "gynecologist socialization". This last argument was more frequent among women over 50 and some migrant women. Also, *Bener et al, 2009* stated that sociodemographic factors have been found in their study as a strong effect on screening intentions.

Thus, In order to improve screening rates and decrease the morbidity and mortality rates of cervical cancer, it is important to understand the underlying factors associated with the likelihood of getting screened. Research based on the Health belief model (HBM) to assess the beliefs, barriers, and perceptions of women who are at risk for cervical cancer, has been crucial in further developing the knowledge base (*Fouda and Elkazeh , 2013*)

Concerning the relationship between women intention of breast and cervical cancer screening and their beliefs, the present study revealed that there are a significant relation were found between women's intentions to be screened for breast and cervical cancer with their beliefs namely in items related to breast and cervical cancer fair, breast and cervical cancer for early discovering, causes of not done breast and cervical tests , and doctor recommended cervical cancer test . These findings go in the same way with *Dei, 2013* who suggests that the factors that influence intentions towards breast cancer screening may be likely to also influence screening behaviors. Thus, identifying the factors that influence screening intentions among Ghanaian women may be useful in developing health promotion interventions to improve women's intentions towards the uptake of breast self examination and mammography screening, and this may help to reduce the late presentation for treatment and the high mortality rates from breast cancer in Ghana.

While intention of cervical cancer clarified with *Waller , 2013* who mentioned that poor intention might be related to emotional factors such as concern about embarrassment and pain may be less predictive of attendance for cervical screening than has previously been suggested. This is encouraging, and points to the need for interventions aimed at minimizing practical barriers to attendance. Attendance was predicted by more practical barriers including 'not getting round to it', difficulty arranging a convenient appointment and by trust in the smear test.

Although knowledge is not a direct predictor of health behavior, health behavior theories posit that it is a distal factor .The Health Belief Model (HBM, 2002) posits that a person's intention to perform a given preventative behavior is influenced by one's knowledge of a disease threat and one's attitudes regarding that disease . In particular, a person's

attitudes regarding a particular disease threat involve one's perceptions regarding their individual susceptibility to the disease, the severity of the disease, the benefits of performing the preventative behavior and the barriers that may place constraints on performing the preventative behavior. (***Holguin, 2009***)

Furthermore, Knowledge plays an important role in improvement of health seeking behavior. Not only that knowledge might dramatically improve the attitude, disbelieve, and misconception and consequently enhance screening practice. That's why, to reduce the number of deaths from breast cancer, there was a shift in emphasis from breast self-examination to breast awareness after 1994Beside this, several studies also shows that knowledgeable women are more likely to adhere to recommended breast cancer screening (***MIA , 2007***)

As regard , the relationship between women intention of breast and cervical cancer screening and their source of obtaining information's , the present study shows that there are a significant relation were found between women's intentions to be screened for breast and cervical cancer with their source of information's namely television , radio , magazines, internet , journals , educational classes, and friends . In contrast, ***Thorburn et al ,2013*** highlighted on both health care providers and the Internet were considered as the most frequently cited sources of information about breast and cervical cancer, including screening. Other sources were family, friends, and other media. Over half of the participants indicated that nothing would prevent them from seeking information about these topics. Additionally, health care providers and the Internet may be important sources of information about breast and cervical cancer screening for Hmong women. Thus, research is needed to examine further among women's health literacy needs and preferences with regards to breast and cervical cancer screening.

V. CONCLUSION

From the forgoing discussion we can concluded that there are women lacked of critical knowledge needed to understand their gynecologic cancer risk , screening methods as breast self examination , Pap tests as well as risk factors and symptoms associated with various gynecologic cancers.

VI. RECOMMENDATIONS

There are an obvious needs for design health education program to women regarding most common cancer among females, to elevate their level of awareness, enhancing beliefs and attitude regarding risk factors, early diagnosis and treatment. Also early detection of breast and cervical cancer are great importance to improve women's health and to decrease the cost related to cancer death**.**

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Table (1): Distribution of young adult women according to their demographic data

	No.	%
Age		
20 -	184	82.5
25-30	39	17.5
Marital status		
Single	33	14.8
Married	190	85.2
Education level		
Illiterate	8	3.6
Primary	130	58.3
Secondary	82	36.8
University	3	1.3
Occupation		
House wife	179	80.3
Employee	42	18.8
students	2	0.9
Husband work		
Have not husband	10	4.5
Yes	188	84.3
No	25	11.2
Husband Education		
Have not husband	10	4.5
Illiterate	27	12.5
Primary	14	6.3
Secondary	115	52.6
University	54	24.2
Postgraduate	2	0.9
Setting		
Rural	219	98.2
Urban	4	1.8

Table (2): women 'perception regarding breast cancer screening.

	No.	%
Breast Lymph Detected By		
Doctors	49	22.0
Self examination	68	30.5
Mammograms	106	47.5
Examination Increase Chance of treatment		
Increase the chance	146	65.5
May be Affect	67	30.0
No Effect	10	4.5
Make Mammogram		
Yes	25	11.2
No	198	88.8
Doctor Recommended Mammogram		
Yes	75	33.6
No	148	66.4
Last Time Of Done Exams		
Don't done	148	66.4
Below 6 Months	43	19.3
6 Months to 1 year	5	2.2
More than 2 years	12	5.4
More than 3 years	15	6.7
Causes For Done Mammogram		
Don't done	148	66.4
Doctor orders	21	9.4
Routine checkup	38	17.0
Others	16	7.2

Table (3): women beliefs toward breast and cervical cancer screening

	I don't believe that		Little		Small chance		Big chance		χ^2	p
	No.	%	No.	%	No.	%	No.	%		
I believe that my chance for cancer disease	118	52.9	63	28.3	32	14.3	10	4.5	118.112[*]	<0.001
Women with family history of cancer had	138	61.9	36	16.1	45	20.2	4	1.8	178.453[*]	<0.001
When women screening for cervical cancer they has big chance for early treatment	48	21.5	34	15.2	97	43.5	44	19.7	42.561[*]	<0.001
When women screening for breast cancer they has big chance for early treatment	29	13.0	65	29.1	70	31.4	59	26.5	18.202[*]	<0.001

Table (4): Relation between total score of women intention of cervical cancer screening with their education level, occupation and setting

	Total score of women intention of cervical cancer screening		Test of Sig.	p
	Min. – Max.	Mean ± SD.		
Education level				
Illiterate	2.0 – 6.0	4.25 ± 1.28		
Primary	2.0 – 4.0	3.0 ± 1.0	F=0.965	0.410
Secondary	1.0 – 7.0	4.52 ± 1.54		
University	0.0 – 9.0	4.65 ± 1.96		
Occupation				
House wife	2.0 – 8.0	5.40 ± 1.50		
Employee	1.0 – 7.0	4.50 ± 1.89	F=4.780[*]	0.003[*]
Workers	2.0 – 3.0	2.50 ± 0.71		
Others	0.0 – 9.0	4.36 ± 1.78		
Setting				
Rural	0.0 – 9.0	4.58 ± 1.79	t=0.359	0.720
Urban	2.0 – 6.0	4.25 ± 2.06		

F: F test (ANOVA)
t: Student t-test
*: Statistically significant at $p \leq 0.05$

Table (5): Relation between total score of women intention of breast cancer screening with their education level, occupation and setting

	Total score of women intention of breast cancer screening		Test of Sig.	p
	Min. – Max.	Mean ± SD.		
Education level				
Illiterate	2.0 – 6.0	5.0 ±1.51		
Primary	1.0 – 5.0	3.0 ± 2.0	F= 1.969	0.120
Secondary	2.0 – 9.0	5.63 ± 1.43		
University	0.0 – 9.0	5.55 ± 2.23		
Occupation				
House wife	2.0 – 9.0	6.45 ± 1.61		
Employee	2.0 – 8.0	5.50 ± 1.58	F=6.333[*]	<0.001[*]
Workers	1.0 – 3.0	2.0 ± 1.41		
Others	0.0 – 9.0	5.30 ± 2.05		
Setting				
Rural	0.0 – 9.0	5.56 ± 1.95	t=1.838	0.067
Urban	1.0 – 6.0	3.75 ± 2.06		

F: F test (ANOVA)

t: Student t-test

*: Statistically significant at $p \leq 0.05$

Table (6): Relation between women's intentions to be screened for breast and cervical cancer with their beliefs

	Women's intentions to be screened for cervical cancer		Test of Sig.	p
	Min. – Max.	Mean ± SD.		
Breast and cervical cancer fair				
Never	9.0 – 14.0	12.18 ± 1.47		
Rarely	9.0 – 15.0	12.62 ± 1.28	F= 6.353*	<0.001*
Sometimes	6.0 – 15.0	11.55 ± 1.65		
Usually	9.0 – 15.0	11.42 ± 1.50		
Breast and cervical Cancer for early discovering				
Yes	9.0 – 15.0	12.04 ± 1.25		
Little investigations	9.0 – 14.0	11.15 ± 1.79	F= 6.080*	0.003*
No	6.0 – 15.0	11.77 ± 1.88		
Breast and cervical Cancer Tests				
Yes	9.0 -15.0	11.80 ± 1.57	t= 0.188	0.851
No	6.0 – 15.0	11.76 ± 1.58		
Time For Breast and cervical Tests				
Not Done	6.0 – 15.0	11.76 ± 1.58		
Below 6 months	9.0 – 15.0	11.91 ± 1.69		
6 months to 1 year	9.0 – 12.0	11.0 ± 1.46	F= 1.227	0.300
More than 2 Years	9.0 – 13.0	11.80 ± 1.40		
More than 3 years	10.0 – 15.0	12.11 ± 1.37		
Causes of Not Done Breast and cervical tests				
I don't know	6.0 – 14.0	11.55 ± 1.94		
Not important	11.0 – 15.0	12.62 ± 1.71		
Afraid of it	9.0 – 14.0	11.50 ± 1.30	F= 3.244*	0.015*
I Can't because my religious	12.0 – 12.0	12.0 ± 0.0		
Others	12.0 – 14.0	13.33 ± 0.82		
Doctor Recommended cervical tests				
Yes	9.0 -15.0	11.70 ± 1.69	t= 1.070	0.286
No	6.0 – 15.0	11.92 ± 1.32		
Doctor Recommended cervical cancer test				
Don't Ordered	9.0 – 15.0	11.92 ± 1.32		
Doctor Orders	9.0 – 14.0	11.88 ± 1.62	F= 3.131*	0.027*
Routine Checkup	6.0 – 15.0	11.77 ± 1.63		
Others	9.0 – 14.0	10.57 ± 1.95		
Evaluate breast and Cervical cancer Tests				
Comfortable	9.0 – 14.0	11.60 ± 1.55		
Not important	6.0 – 15.0	11.80 ± 1.61	F= 0.113	0.894
Un comfortable	9.0 – 14.0	11.75 ± 1.44		

F: F test (ANOVA)

t: Student t-test

*: Statistically significant at $p \leq 0.05$

Table (7): Relation between total score of Women's intentions to be screened for breast and cervical cancer and their source of information

	Women's intentions to be screened for breast and cervical cancer		F	p
	Min. – Max.	Mean ± SD.		
Source of information				
TV	0.0 – 7.0	4.25 ± 2.07		
Radio	2.0 – 9.0	5.62 ± 1.51		
Magazines	2.0 – 8.0	6.42 ± 1.71		
Internet	0.0 – 9.0	5.71 ± 1.75	4.901^{*}	$<0.001^{*}$
Journals	0.0 – 9.0	4.30 ± 3.16		
Education Classes	4.0 – 4.0	4.0 ± 0.0		
Friends	0.0 – 9.0	5.70 ± 2.36		

F: F test (ANOVA)
*: Statistically significant at $p \leq 0.05$

Figures:
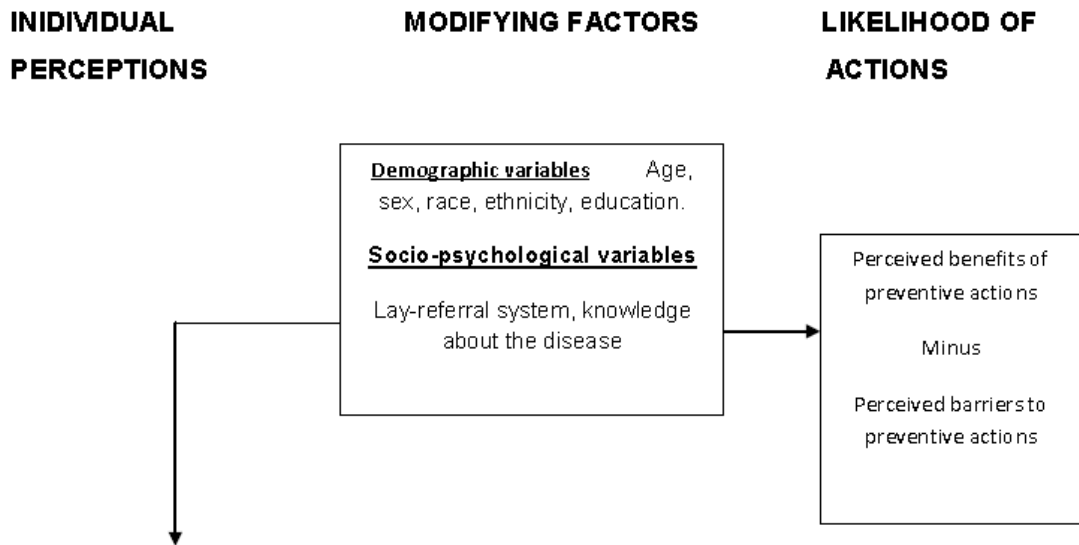
Figure 1.1: Conceptual framework of the Health Belief Model (HBM)

Source: Glanz, Rimer and Lewis 2002:52
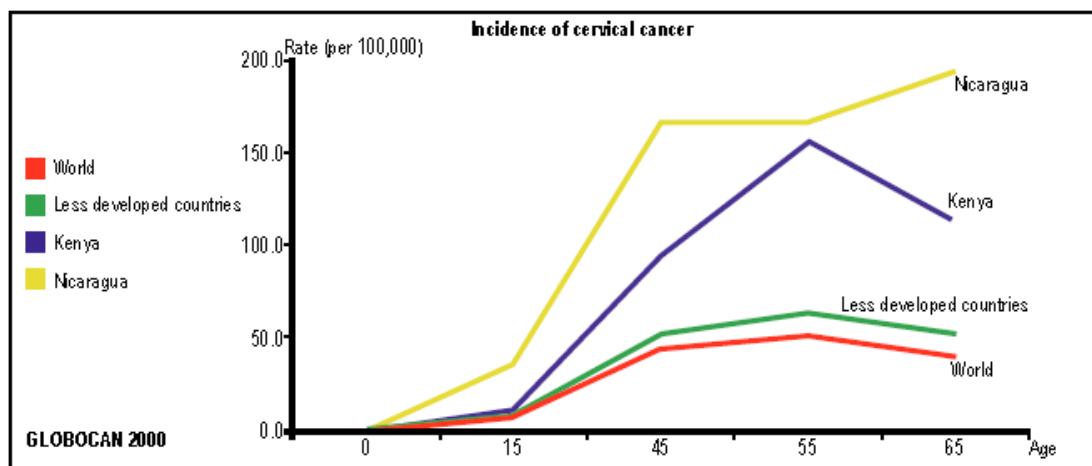
Cited In (*HAMI, 2012*) [7]

Figure 2: Cervical cancer incidence rate in different regions and age-groups[1]

Authors Column

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