



Assessing Breast and Ovarian Cancer Risk Perception Among Nursing Students

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Aim

In the U.S. 1 in 8 women will develop breast cancer over the course of their lifetime (ACS, 2020). Screening and health behaviors are important for detecting and preventing breast and ovarian cancer.

The aim of this study was to assess perceived risk for breast and ovarian cancer and its association with health behaviors among young adults, as this is a crucial age for creating habits and developing routines that impact one's health for the rest of their life.

Methods

Descriptive/cross-sectional survey research design. Total of 73 nursing students studying at the University of Massachusetts Amherst were included in the study. A socio-demographic survey; risk factor assessment survey; family history of cancer survey; risk perception survey; and health behaviors survey were used to collect data. Data was collected online.

Conclusions

The young adults in this study believe their risk of breast cancer is higher than their risk of ovarian cancer. The most common relative with a cancer diagnosis was the grandmother of the participant, and the most common form of cancer was breast. Further analysis needs to be done to determine how health behaviors are impacted by personal family history and perceived risk. There was no statistical relationship between smoking and exercise and risk perception of breast and ovarian cancer. Participants behaviors (smoking and exercise) are not affected by their perception on chance of developing breast and ovarian cancer (preliminary results). Health promotion data showed that patients are performing BSE and attending gynecologist less than recommended by Mayo Clinic and ACOG, respectively.

Results

Table 1. Sociodemographic Characteristics of Participants

	Mean ± SD
Age	24.082 ± 7.380
Height	65.610 ± 3.731
Weight	151.290 ± 42.041
	n %
Race/ Ethnicity	
Asian	6 8.33
Black or African American	2 2.78
White	62 86.11
Other	2 2.78
Hispanic or Latino	
Yes	7 9.72
No	65 90.28
Gender/ Sex	
Female	64 88.89
Male	8 11.11
Non-binary	0 0.00
Other	0 0.00
Preferred not to Answer	0 0.00
Marital Status	
Married or in a Domestic Partnership	13 18.06
Single	58 80.56
Divorced/Separated	0 0.00
Other	1 1.39
Education	
Some college, technical school, or an Associate Degree	4 5.26
College graduate and above	20 26.32
Current college student	52 68.42
Partner's Education	
Some high school (9 to 11 years)	1 7.69
High-school graduate (12 years)	2 15.38
Some college, technical school, or an Associate Degree	5 38.46
College graduate and above	5 38.46
Employment Status	
Full time student	64 70.33
Employed outside of home full time	2 2.20
Employed outside of home part time	25 27.47
Partner's Employment Status	
Employed outside of home full time	11 84.62
Unable to work	2 15.38
Health Insurance	
State health insurance (Medicaid/Medicare)	11 15.28
Private health insurance	61 84.72
Perceived Family Income Level	
Sufficient	63 87.50
Insufficient	8 11.11
Other	1 1.39

Family History of Cancer

	n	%
Number of Relatives with Cancer		
One	21	56.75
Two	7	18.92
Three	4	10.81
Four	3	8.12
Five	0	0.00
Six	2	5.41
Relatives Kinship		% of participant
Mother	17	45.95
Father	7	18.92
Aunt	7	19.92
Uncle	3	8.11
Grandmother	18	48.65
Grandfather	17	45.95
Other (great relative)	2	5.41
Cancer Types		% of reported cases
Blood	4	5.33
Breast	17	22.67
Breast with thyroid	3	17.6
Breast with colon	1	5.89
Cervical	2	2.67
Colon	6	8.00
Esophageal	3	4.00
Kidney	1	1.33
Lung	11	14.67
Ovarian	3	4.00
Pancreatic	3	4.00
Prostate	4	5.33
Skin	15	20.00
Thyroid	5	6.67
Uterine	1	1.33
Age at Diagnosis		
10-19	1	1.39
20-29	2	2.78
30-39	4	5.56
40-49	10	13.89
50-59	16	22.22
60-69	17	23.61
70-79	9	12.50
80-89	4	5.56
Unknown	9	12.50
Present Status of Relative		
Alive	29	40.28
Not alive	40	55.56
Blank	3	4.17

Table 3. Health related behaviors

	n	%
Exercise		
Never	3	5.17
Not regularly	19	32.76
Regularly	36	62.07
Tobacco use		
Yes	12	15.19
No	67	84.81
Alcohol use		
Yes	52	68.42
No	24	31.58
Self-breast exams		
At least once a month	6	10.53
Less than once a month	13	22.81
Less than 6 times a year	26	45.61
Not at all	11	19.30
Other	1	1.75
Gynecologist visits		
Annually	30	52.63
Not at all	19	33.33
Other	8	14.04

Table 4. Breast and Ovarian Cancer Risk Perception

	Mean ± SD, (%)
Perceived chance of developing breast cancer in lifetime	34.43 22.09
	n %
Perceived Chance of developing breast cancer	
Very low	12 19.67
Moderately low	17 27.87
Neither high nor low	20 32.79
Moderately high	10 16.39
Very high	2 3.28
Perceived chance of developing breast cancer compares to the average woman same age	
Much lower	9 15.00
About the same	40 66.67
Much higher	11 18.33
Perceived chance of developing ovarian cancer in lifetime	25.75 17.00
Perceived Chance of developing ovarian cancer	
Very low	14 22.95
Moderately low	26 42.62
Neither high nor low	17 27.87
Moderately high	4 6.56
Very high	0 0.00
Perceived chance of developing ovarian cancer compares to the average woman same age	
Much lower	11 18.33
About the same	43 71.67
Much higher	6 10.00

Table . Comparison of smoking and exercise behaviors and perception on the chance of developing breast and ovarian cancer.

	Exercise		Smoking	
	never	Yes, but not regularly	Yes, regularly	yes no
Perception on change of developing ovarian cancer				
Very low	2(15.4)	7(53.8)	4(30.8)	1(7.1) 13(92.9)
Moderately low	1(4)	7(28)	17(68)	4(15.4) 22(84.6)
Neither high nor low	-	5(38.5)	8(61.5)	3(17.6) 14(82.4)
Moderately high	-	-	4(100)	1(25) 3(75)
	$\chi^2=9.716 / P=.137$		$\chi^2=1.100 / P=.777$	
Perception on change of developing breast cancer				
Very low	1(9.1)	5(45.5)	5(45.5)	- 12(100)
Moderately low	-	6(40)	9(60)	2(11.8) 15(88.2)
Neither high nor low	2(10.5)	2(10.5)	15(78.9)	6(30) 14(70)
Moderately high	4(50)	4(50)	1(10)	9(90)
Very high	-	-	-	2(100)
	$\chi^2=12.099 / P=.147$		$\chi^2=6.420 / P=.170$	

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