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Influence of the acquaintance of risk factors of breast cancer amongst women in the age of 50-69 years as for performing prophylactic examinations by them

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Abstract

Breast cancer is the most frequent as well as, at the same time, most dangerous of cancers affecting women with regard to diagnosing it in the advanced stage being also characterised with the top degree of mortality of female patients worldwide. At present, it is the most frequent malignant tumour affecting Polish women [9].

Awareness of women about risk factors and the early diagnostic testing consisting in self-examination of breasts and also regular performance of mammographic examinations in the appropriate age may reduce, in the significant way, mortality amongst women affected with this illness by its early detecting and curing. This study is aimed at presenting the state of knowledge of women in the age of 50 - 69 concerned with risk factors of breast cancer and the frequency of performing prophylactic examinations by them.

Background

Breast cancer appears to be the most frequent and most perilous of cancers affecting women as for diagnosing it in the late stage as well as high degree of women's mortality worldwide. In Poland, every year, 12 thousand Polish women are falling ill with breast cancer. Curing them will depend on the degree of the progress and the malignancy of their cancer. The forecast for 2010-2025 predicts the steady increase of breast cancers in all age groups. At women before the menopause increasing the incidence will probably be little. However, one should expect the greatest increase in the incidence of this illness in the group of women in the senior range between 50 and 69 [1, 2, 20].

Awareness of women about risk factors contributing to the occurrence of breast cancer and the early diagnostic testing consisting in carrying out by women of breasts self-examination as well as the systematic performance of mammographic examinations, in the

appropriate age, can all reduce in the significant way mortality amongst women. For a few years the health care and media have put emphasis peculiarly on both primary and secondary prevention; they have also informed women about the usefulness of performing prophylactic examinations [13].

An acquaintance with risk factors and avoiding them can contribute immensely to the prevention of breast cancer and its initiation. Risk factors are being defined as determinants which cause the increase in possibilities of falling ill with a given illness [8].

It is possible to divide risk factors predisposing to breast cancer into two groups. In the first group there are those which aren't subject to any alteration as: age in the range of 50 - 69, incidence of the early period - before 11 year of age, the late time of the menopause - after 54 and the incidence of breast cancer in the family, particularly at first degree female relatives. Some of endogenic factors are genetic predispositions including mutations within BRCA 1 and BRCA 2 genes. Experiencing endometrial carcinoma, ovarian cancer and colorectal cancer in the past will also constitute an endogenic factor. Falling ill with breast cancer at a young age in one breast is a factor increasing the risk of the incidence of cancer in the second breast [1].

The second group of risk factors are determinants which can be subject to alteration. The late time of first pregnancy after 35th year of life, lack or short breast-feeding, applying the oral contraceptive for more than 4 years before first pregnancy, applying the high-fat diet, incidence of the obesity particularly at the postmenopausal woman, regular consumption of alcohol, as well as the lack of the physical activity, exposing to X rays, exposing to stress, application of hormone replacement therapy for 10 years and more are all included in this group [5.16]. The acquaintance of women with above mentioned exogenous risk factors of breast cancer can contribute to changing certain attitudes and in this way to influencing lowering of the risk of falling ill with this illness. Therefore education about risk factors of the occurrence of breast cancer amongst all women worldwide is so important. Some authors pay attention to the fact that the lack of knowledge about risk factors of breast cancer can be a factor predisposing to cancer development [3, 6, 14]. Early recognizing of changes in nipples is one of effective methods of the fight against the cancer of the mammary gland. Fast identifying of changes is possible only thanks to the self-control of breast by women and by regular surrendering to preventive mammographic examinations. The independent breast check by women should be included in a periodic, comprehensive control of the state of breasts.

Mammography is an imaging method of breast cancer detection. Detected malignant tumours during screening procedure are in 70 - 80% changes with favourable prognosing with the possibility of applying less crippling treatment. From 2006 preventive mammographic examinations for women in age range of 50 - 69 are financed by the Department of Health which means that every woman in this the age of has a guaranteed mammographic examination free of charge in the interval of 2 years. The Polish Committee of Fighting Breast Cancer recommends performing the first mammographic examination between 35 and 39 year of life [11, 12, 20].

Materials and methods

For the purpose of obtaining information about the relation between the acquaintance of risk factors of breast cancer amongst women in the age of 50 - 69 years and performing prophylactic examinations by them, the method of the diagnostic survey was used. A technique of the interview, for which the questionnaire of authors' own structure, containing the metric was a main element to conducting research and the instruction for respondents was used. The research tool consisted in a set of closed and half open questions. The questionnaire was anonymous. It consisted of 33 questions on the risk factors concerning the acquaintance with both factors of the protection against breast cancer and the frequency and the technique of performing prophylactic examinations. The examinations were conducted in SALU Health Institution located in Tryńcza in the Podkarpackie Province, which is an individual centre of primary health care. The research was conducted at the turn of the February and March 2013. 150 women were examined in age range of 50 – 69, which constituted the 21% of the whole of women at this the age enrolled in this medical facility. Majority of the examined - 95 (63%) of women were in the the age of between 50 and 59, whereas 55 (37%) women - between 60 and 69. Little over the half of the respondents lived in the countryside 58% (n = 87) and 42% of the examined (n = 63) lived in a town. In a statistical analysis vettings of statistical hypotheses were used based on nonparametric tests: Pearson's Chi^2, Fisher's exactness test, bilateral. Significance of the dependence between studied features was stated at the level of $p < 0.05$. Drawing up findings was performed using "STATISTICA 10.0" software.

Results

The majority - over the 90% of questioned women had the knowledge about the risk factors of breast cancer associated with the genetic aspects, similar results were observed in both age groups of: 50 - 69 - 90.5% (n = 86), 60 - 69 - 92.7% (n = 51). In the younger age group - 73% (n = 69) of women recognised age the risk factor, 62% (n = 34) women in the older age group also marked such a reply. Over the half i.e. the 55% of respondents in the age of 50 - 59 years recognised the fact that exposing to X- rays was a factor of the threat of the coming into existence of this disease, a close value to 56% (n = 31) of women in the age of 60 - 69 years also gave such a reply. A little bit more respondents in the younger group, 34% of women, comparable with the number of 31% women in the older group – gave a reply that the obesity, peculiarly at the postmenopausal age, is a risk factor of breast cancer.

Drinking alcohol was given by minimally more, 32.7% of women in the age of 60 - 69, and in the age of 50 - to 59 years of age, this percentage amounted 32.6% of respondents. Much more often recognised by women in the younger age group was the factor of exposing to stress as the risk factor of breast cancer, stated by 61% of women, whereas the women at the age of 60 - 69 years recognised it as a factor in the number of 49%. Greater knowledge of risk factors of breast cancer associated with applying of hormone replacement therapy above 10 years (50%) and with taking pills above 4 years before first pregnancy (46%), was noticed in the younger age group compared with the acquaintance of this factor at an older women: appropriately the 36% and the 38%.

Acquaintance with such risk factors of breast cancer as: early period (before 11 y. of age), late menopause (after 54 y. of age), late first pregnancy (after 35 y. of age), absence of breast-feeding is higher in the younger age group one by the 10%, the 14%, the 17% and the 7% comparing with women in the age of 60 - 69. Tab. 1 presents the obtained results.

Tab. 1 The percentage of the questioned women aged 50-59 and 60-69 with regard to the knowledge of risk factors of breast cancer.

The level of knowledge – of risk factors of breast cancer		**Age**		
		50-59	**60-69**	**In total**
Age (50-69 years of life)	n	69	34	103
	%	72,6%	61,8%	
Obesity especially in those women after menopause	n	32	17	49
	%	33,7%	30,9%	
Consumption of alcohol	n	31	18	49
	%	32,6%	32,7%	
Genetic predisposition (the incidence of breast cancer in mum, sister, grandmother),	n	86	51	137
	%	90,5%	92,7%	
Early first period (before 11 year of life)	n	23	8	31
	%	24,2%	14,5%	
Late menopause (after 54 year of life)	n	32	11	43
	%	33,7%	20,0%	
Late first pregnancy (after 35 year of life),	n	29	7	36
	%	30,5%	12,7%	
Exposure to X-rays (frequent X-raying),	n	52	31	83
	%	54,7%	56,4%	
Exposure to stress	n	58	27	85
	%	61,1%	49,1%	
Application of hormone replacement therapy for more than 10 years	n	48	20	68
	%	50,5%	36,4%	
Application of contraceptive tablets for the period of above 4 years before the first pregnancy	n	44	21	65
	%	46,3%	38,2%	
Not breastfeeding	n	45	22	67
	%	47,4%	40%	
In total	n	555	272	816

* Values don't add themselves up to 100%, on account of the option of a few replies.

Assessing the scope of knowledge of respondents about the acquaintance with risk factors of breast cancer, the following scale of the evaluation was accepted - out of twelve available correct answers, if the respondents marked from 12 to 9 risk factors, the scope of their knowledge was determined as high, if their replies were located in a range from 8 to 5 factors it is the scope of it knowledge they categorised to the average level and when only marked 4 or fewer risk factors their knowledge was being regarded as low. Tab. 2 presents these results.

Tab. 2 The scope of one's knowledge about risk factors of breast cancer at women aged 50 - 59 and 60 - 69.

The level of knowledge – in the subject of risk factors of breast cancer		**Age**		
		50-59	**60-69**	**In total**
Low level of knowledge (1-4)	n	35	30	65
	%	36,8%	54,5%	
Average level of knowledge (5-8)	n	40	20	60
	%	42,1%	36,4%	
High level of knowledge (9-12)	n	20	5	25
	%	21%	9,1%	
In total	n	95	55	150
Statistical analysis: $Chi^{2=}$ 5,79, p=0,06				

Analysing results presented in Tab 2, it is possible to state that the low scope of one's knowledge about risk factors related to breast cancer is more often characteristic of individuals in age range of 60 - 69 (55%), than individuals in the younger age group (37%). However the highest level of knowledge about such factors, is more often characteristic of a knowledge of women in the age of 50 - 59, as 21% of them have such knowledge and it is characteristic of fewer than a half of older women (9%). Based on a statistical analysis where p = 0.06 was obtained, there was stated a tendency of incidence of essential relations between compared groups as for age and the knowledge about risk factors.

The next, consecutively researched element was acquaintance of women with prevention factors of breast cancer. It resulted from the conducted examinations that the highest level of the acquaintance with factors of prevention of breast cancer was characteristic of women in the age of 50 - 69 as for all five factors of the protection against breast cancer. Such a conclusion was arrived at, since 74% of women from this age group emphasized the healthier lifestyle, while in the older group such a reply was granted only by 60% of respondents. The larger difference is also noticed in ‘not-applying hormone replacement therapy’ question observed at 50% of respondents in the younger age group and at the 40% of older women. 6% more women in the age of 50 - of 59 marked giving birth to a few children, breast-feeding and not-taking contraceptives, as compared to women in age group of 60 - 69 years. Achieved results were presented in Table. 3.

Table. 3. The percentage of questioned women aged 50-59 and 60-69 as for the knowledge about factors protecting against breast cancer.

The level of knowledge - about factors protecting against breast cancer.		**Age**		
		50-59	**60-69**	**In total**
Having a few children	n	38	19	57
	%	40%	34,5%	
Breastfeeding	n	54	28	82
	%	56,8%	50,9%	
Not applying hormonal replacement therapy	n	48	22	70
	%	50,5%	40%	
Not applying contraceptives	n	44	22	66
	%	46,3%	40%	
Healthy nutrition	n	70	33	103
	%	73,7%	60%	
In total	n	257	126	378

* Values aren't adding themselves up up to the 100% on account of the option of a few replies

Assessing the scope of knowledge of respondents about the acquaintance of factors of protection against breast cancer, the following scale of the evaluation was accepted, depending on the number of given replies to 5 questions. If the respondents marked from 5 to 4 factors of protections then the scope of their knowledge was determined as high, if their replies were located in a period from 3 to 2, the scope of knowledge was categorised as average level, and when they emphasized only one factor, their scope of one's knowledge was recognised as low. Assessing every questionnaire with the described above scale, the results were presented in Tab. 4.

Tab. 4. The scope of one's knowledge about factors of the protection against the incidence of breast cancer at women aged 50 – 59 and 60 - 69.

The level of knowledge – in the subject of PROTECTION against breast cancer		**Age**		
		50-59	**60-69**	**In total**
Low level of knowledge (1)	n	18	13	31
	%	18,9%	23,6%	
Average level of knowledge (3-2)	n	53	35	88
	%	55,8%	63,6%	
High level of knowledge (5-4)	n	24	7	31
	%	25,3%	12,7%	
In total	n	95	55	150
Statistical analysis: Chi^2 =3,38 p=0,18				

It results from the research conducted that the low knowledge about factors of prevention against breast cancer is more often characteristic of women in the age of 60 - 69 (24%), than of the younger women (19%). Of twice more of the questioned women in the age of 50 - 59 have the highest level of the knowledge on this subject (25%) compared with older women (13%). Performing a statistical analysis, that a weak statistical relation is incidence among compared groups in the matter of the age and the knowledge about factors of the protection against breast cancer was observed, since $p > 0.1$.

The consecutive, crucial element which was evaluated in the course of the conducted examinations was the scope of women's knowledge related to the acquaintance of respondents with methods of performing self-examination of breast. With the technique of conducting a survey an evaluation of the scope of their knowledge about the self-examination of breast was made. Respondents had to answer 12 questions included in the questionnaire of concerning a way, frequency, changes in breasts, to which one's attention should be attracted during palpation and the knowledge of the very technique of self-examination. Next judging these responses a three degree scale was accepted correlating evaluations with the amount of correct answers. If the respondents gave from 12 for the 9 right answers, then the scope of their knowledge was classified as high, when the gave from 8 to 5 right answers, then the scope of their knowledge was characterised as one on an average level, and when they granted 4 or fewer correct answers the knowledge was regarded as low. The obtained results were presented in Tab. 5.

Tab. 5. The scope of one's knowledge about the self-examination of breast at women aged 50 - 59 and 60 - 69.

The level of knowledge in the subject of breast self-examination - term, mode, changes in breasts and techniques		**Age**		
		50-59	**60-69**	**In total**
Low level of knowledge (1-4)	n	11	15	26
	%	11,6%	27,3%	
Average level of knowledge (5-8)	n	57	26	83
	%	60%	47,3%	
High level of knowledge (9-12)	n	27	14	41
	%	28,4%	25,5%	
In total	n	95	55	150
Statistical analysis: Chi2 =6,08 p=0,047				

It results from the analysis of conducted examinations that low knowledge about the self-examination of breast is over two-fold more often characteristic of older women (28%) than of younger women (12%). The average level of the knowledge definitely has also more often concerned younger women, since it is noticeable at over half - 60% of the examined, and at older women it ranges around 47%. The highest level of the knowledge about the self-examination of breast is also more often characteristic of younger women, where it was stated at the level of 28% of the examined, than in the group of older women where the highest level of knowledge about the self-examination of breast was characteristic of a 25% of the examined. It results from a statistical analysis that there exists a relation among compared groups in the matter of the scope of its knowledge about the self-examination of breast and the age of respondents, since $p < 0.05$ *. In the course of research analysis an evaluation was made of the relation between the level of knowledge of the examined women about the risk factors of breast cancer and performing prophylactic examinations by them. Achieved results were presented in Table 6.

Tab. 6. Connection between the scope of one's knowledge about risk factors and with frequency of performing self-examination of breast by the examined women.

The level of knowledge – in the subject of RISK factors		**The frequency of breasts self-examination by the respondents**					
		Every 2 weeks	**Once a month**	**Once in 3 months**	**Less frequently**	**Not at all**	**In total**
Low level of knowledge (1-4)	n	4	17	8	26	10	65
	%	6,2%	26,2%	12,3%	40%	15,4%	
Average level of knowledge (5-8)	n	3	24	17	9	7	60
	%	5%	40%	28,3%	15%	11,7%	
High level of knowledge (9-12)	n	0	16	2	4	3	25
	%	0%	64%	8%	16%	12%	
In total	n	7	57	27	39	20	150
Statistical analysis: Chi2= 23,5 p=0,0027							

Based on the achieved results presented in Table 4, it was stated that at the 64% of the questioned women as for the highest level of the knowledge about risk factors of breast cancer a correct monthly frequency of performing the self-examination of breasts had been noticed, however at women with the average knowledge of risk factors the percentage is falling to the 40% of respondents. In the group of women with the low knowledge only a 26% of women perform the self-examination of breast correctly once a month. It results from achieved results that the 40% of women with the low scope of their knowledge about risk factors perform the self-examination of breast more rarely than once in the quarter of the year, however 15% of the examined do not carry out any self-examinations of their breast. However the 16% of respondents with the high knowledge of factors increasing the risk of breast cancer perform the self-examination of breasts more rarely than once for the quarter and the 12% of women with the highest level of the knowledge to this subject do not perform this examination at all.

The most numerous group which performs self-examination of breast once in the year's quarter are women with the average level of knowledge (28%), next - over half a smaller group (12%) is constituted by the women with the low level of knowledge. However the 8% of women with the highest level of the knowledge about risk factors of breast cancer performs this self-examination once in the year's quarter.

From a conducted statistical analysis, an essential link was established between the scope of knowledge about risk factors and with frequency of carrying out self-examinations by the researched women $p<0,003$**.

A relation between the scope of knowledge of mammography and performing of this examination by women was consecutive element of the present study. Assessing the scope of the knowledge of respondents about mammography (its frequency, availability, costs) a scale of the evaluation was accepted which concerned the evaluation of the reply out of seven available questions about this subject. If the questioned marked from 7 to 6 correct answers, the scope of their knowledge was determined as high. When their correct answers ranged from 5 to 4, a scope of their knowledge was categorised at an average level, and when the examined marked 3 or fewer correct answers then the scope of their knowledge was recognised as low. Assessing every questionnaire with the above described method the results were achieved which are presented in Table 7.

Tab. 7 Connection between the scope of one's knowledge about mammography and frequency of performing this examination at the respondents.

The level of knowledge as for mammography - frequency, availability, costs		**The frequency of performing mammography by the respondents**				
		Every year	**Every second year**	**Every third year**	**Never**	**In total**
Low level of knowledge (1-3)	n	0	0	6	4	10
	%	0%	0%	13,3%	11,1%	
Average level of knowledge (4-5)	n	1	6	11	13	31
	%	16,7%	9,5%	24,4%	36,1%	
High level of knowledge (6-7)	n	5	57	28	19	109
	%	83,3%	90,5%	62,2%	52,8%	
In total	n	6	63	45	36	150
Statistical analysis: Chi2= 22,44 p<0,001***						

Analysing the achieved results, it is possible to state that the highest level of the knowledge about mammography was characteristic of a 91% of examined individuals who determined the correct frequency of the examination i.e. in the interval of two years. However from this group 83% of women stated that the mammogram was more often made, and 62% of women, assessed that the mammogram was performed every three years and over the half of the 53% of women did not perform mammography at all. The average level of knowledge was observed at the 36% of women who don't perform this examination and at the 24% of respondents who more rarely, than it is recommended perform this examination. Only 10% of women with the average scope of their knowledge perform this examination every two years. The lowest knowledge was observed at women who perform the mammogram every three years (13%) and at those who don't perform this examination at all (11%).

It results from a statistical analysis that a strong statistical relation exists between compared groups in the matter of the scope of their knowledge on mammography and the frequency of performing this examination by the respondents $p < 0{,}00001$***.

Assessing the influence of the acquaintance of women with risk factors as for performing the mammographic examination it was stated that the majority of women (64%) with the high knowledge of risk factors perform mammographic breast cancer examination with the correct frequency. Women with the medium scope of their knowledge constitute the less numerous group (47%), but only 30% of women with the low knowledge of this subject declare to perform this examination every two years.

However the 34% of women with the low acquaintance of factors increasing the risk of breast cancer do not perform the mammography. Every fifth woman (22%) with the medium knowledge of these factors announced that she didn't perform this examination. In the group of women with the highest level of knowledge about risk factors of breast cancer only one person (4%) stated that she wasn't making the mammogram. Most numerous group, performing this examination every third year, was the group with the medium scope of their knowledge about risk factors, which constituted the 32% of all the examined. It results from a statistical analysis that a relation exists among compared groups in the matter of the scope of their knowledge about risk factors of breast cancer and the frequency of the performance of mammography by the examined $p < 0{,}01$**. The obtained results are presented in Table 8.

Tab. 8. Connection between the scope of one's knowledge about risk factors of breast cancer and with frequency of making the mammogram by examined women.

The level of knowledge – in the subject of RISK factors		**The frequency of performing mammography by the respondents**				
		Every year	**Every second year**	**Every third year**	**Never**	**In total**
Low level of knowledge (1-4)	n	4	19	20	22	65
	%	6,2%	29,2%	30,8%	33,8%	
Average level of knowledge (5-8)	n	0	28	19	13	60
	%	0%	46,7%	31,7%	21,7%	
High level of knowledge (9-12)	n	2	16	6	1	25
	%	8%	64%	24%	4%	
In total	n	6	63	45	36	150
Statistical analysis: Chi2= 17,16 p=0,008						

Discussion

In the population of Polish women breast cancer is one of most frequent cancers. It constitutes about 17.4% of the whole of falling ill to this illness and as far as 22.2% of the direct causes of deaths. Every year in Poland over 11 new thousand of breast cancer cases are being registered and this number is continually rising. Cancer prevention, in the form of primary and secondary prevention is a crucial factor reducing mortality. As part of the primary prevention, actions are directed against the elimination or the reduction in aetiological factors and risk factors by propagating health behaviour and popularising the knowledge concerning reasons for falling ill with this cancer.

In the framework of the secondary prevention actions is taken to prevent consequences of illness through its early detection and curing. In case of breast cancer recommended methods of the secondary prevention are self-examination of breast, breast check by the doctor and mammography. Having knowledge which is necessary for carrying out preventive action is one of indicators of health behaviour of people. Therefore making aware of women of incidence of risk factors of breast cancer will matter greatly, since many women aren't conscious of the fact that behaving in the determined way may perhaps contribute to the increase in the risk of falling ill with cancer.

In this study, based on conducted examinations, it was stated that there exists a link between the scope of knowledge of the examined women of risk factors of breast cancer and the performing of prophylactic examinations by them. It was observed that the 64% of questioned women with the highest level of the knowledge about risk factors carried out a self-examination of breasts with the correct frequency, however in the group of women with the low knowledge only every fifth of the examined (26%) has performed the self-examination of breast correctly once in the month.

Based on conducted analyses it was also stated that the majority of women (64%) with the high knowledge of risk factors perform with the correct frequency a mammographic examination in the interval of two years, where the percentage of women with the low knowledge was already half fewer (30%). Moreover, as many as 34% of women with the low acquaintance of risk factors of breast cancer, did not perform the mammogram. In the group of women with the highest level of the knowledge about factors increasing the risk of breast cancer only one person (4%) stated that she wasn't performing the mammogram. From the studies of Przysada et al., it results that the knowledge of women in the prevention of breast cancer is limited, since at as many as 41% of respondents the level of the knowledge was assessed as very low, and at remaining 59% of respondents it was described as fragmentary. Undoubtedly, the largest shortages of knowledge occur in the acquaintance of risk factors of breast cancer [9].

Comparing findings of conducted examinations it is possible to state that the low knowledge about risk factors was diagnosed at the 43% of women aged 50-69, and at the 40% of respondents the level of knowledge was determined as average. However scarcely 17% of respondents had the highest level of the knowledge about risk factors. Analysing the obtained findings of this study, it is possible to state that women determined that main factors

increasing the risk of breast cancer as: genetic inheritance (91%), age 50 - 69 years (69%), stress (57%), late first pregnancy (24%) and incidence of the early first periods (21%). Comparing it to Turczak's studies, it is possible to state that achieved results pointing out that risk factors of breast cancer most often repeated by women are: heredity (90%), alcohol and tobacco(65%), age (21%), primiparity after 30(15%) and beginning of menstruating in the late age (12%) [19].

Similarly were findings conducted by Zych et al. on causes of breast cancer. Women gave genetic factors as most often mentioned risk factor – indicated by 85% of the examined, next was stress - 53% of respondents, the stage of pubescence - 50.3% of respondents, hormonal disorders - 42% examined, obesity - 31% of women [21]. A consecutive element which was mentioned based on replies given by women in the age of 50 -69 and in the present study it is possible to state that only 42% of the examined systematically in the two-year interval, performed the mammogram, and every fourth of the questioned (25%) never performed such an examination.

However from observational studies of Łacko and Matkowski it results that aging women have participated in the screening exams to a little extent, therefore breast cancer is diagnosing at older women in the top degree of the progress[10]. Analysis of the obtained findings allows saying that there still exists a need of the education of women in every age range as for the prevention of breast cancer. Elevation of the level of education on cancer at fully mature women will allow develop the habit of the systematic breast check (self-examination, mammographic examination, examining by the doctor).

Increasing the level of knowledge about symptoms of illness, risk factors and the accessibility of free of charge mammographic examination, will cause it that women will more often take action aspiring for the control and the evaluation of their medical condition, also for the elimination of risk factors of falling ill. The cancer knowledge is improving correct health habits from the scope of the prevention of breast cancer, motivating women to protecting of their own health [16].

Conclusions

Basing on the conducted research, the following conclusions could be drawn:

1. The level of knowledge on risk factors of breast cancer has a significant influence on the systematic performance of prophylactic examinations.

2. The scope of one's knowledge about mammography will establish the essential link with the systematic performance of this examination by respondents.

3. The acquaintance of risk factors of the incidence of breast cancer influences indeed the acquaintance of principles of conducting mammography and its regular implementation as part of the prophylaxis practice.

4. In the group of women in the age of 50 – 69, breast cancer risk factors are: genetic inheritance, age, late first pregnancy and the incidence of the late first period.

5. Analysis of conducted examinations shows to a need of cancer education in the group of women directed at the need of systematic and effective self-examination of breasts, the availability of prophylactic examinations and the identification of risk factors predisposing to breast cancer formation.

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