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Styl życia kobiet z chorobą nowotworową. Część II. Styl odżywiania i aktywność fizyczna kobiet z chorobą nowotworową

Lifestyle of women with neoplastic disease. Part II. Dietary habits and physical activity of women with neoplastic disease

Streszczenie

Wprowadzenie. Styl odżywiania odpowiedni dla potrzeb organizmu w połączeniu z codzienną aktywnością fizyczną może podtrzymać lub polepszyć podstawowy potencjał zdrowotny i zmniejszyć ryzyko zachorowania na nowotwory. Zachorowanie na chorobę nowotworową wprowadza szereg zmian w życiu chorego i jego rodziny.

Cel. Postanowiono zbadać, czy choroba nowotworowa wpłynęła na styl odżywiania oraz aktywność fizyczną kobiet.

Material i metody. W badaniu uczestniczyło 331 kobiet, u których zdiagnozowano wystąpienie choroby nowotworowej. Narzędziem badawczym był kwestionariusz ankiety opracowany przez autorów badania. Ankieta została rozprowadzona wśród kobiet zgłaszających się na badania kontrolne do przychodni przyklinicznej SPSK4 w Lublinie w okresie od marca 2007 do kwietnia 2009 roku.

Wyniki. Przeprowadzone badanie wykazało, że choroba nowotworowa wpływa w sposób istotny na zmiany nawyków żywieniowych oraz na sposób spędzania wolnego czasu. Kobiety chętniej i częściej spotykają się z przyjaciółmi oraz preferują aktywny sposób spędzania wolnego czasu. Zwracają baczniejszą uwagę na sposób odżywiania, ponieważ czują się odpowiedzialne za zdrowie domowników. Respondentki są osobami zdyscyplinowanymi, stosującymi się do zaleceń lekarza, mającymi duże zaufanie do personelu medycznego, co jest bardzo istotne w procesie leczenia.

Abstract

Introduction. Dietary habits suitable for nutritional requirements of human organism together with everyday physical activity are likely to maintain or improve the basic health potential and reduce the risk of neoplasms. Cancer induces a variety of changes in the life of the affected individuals and their families.

Objective. The objective of the present study was to assess whether cancer influenced the dietary habits and physical activity of the affected women.

Material and methods. The study comprised 331 women diagnosed with neoplastic diseases. The research tool was the questionnaire designed by the authors. The questionnaire was distributed amongst women attending prophylactic examinations at the hospital outpatient clinic (Teaching Hospital No. 4) between March 2007 and April 2009.

Results. The study findings demonstrated that cancer significantly affected dietary habits and leisure activities. Women more eagerly and more frequently socialize and prefer active leisure pursuits. Moreover, they pay closer attention to the diet as they feel responsible for the health of family members. The respondents are disciplined, compliant with doctor's orders, and full of confidence in the medical personnel, which is extremely important for the treatment process and its outcomes.

Słowa kluczowe: choroba nowotworowa, odżywianie, aktywność fizyczna

Key words: neoplastic disease, dietary habits, physical activity.

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INTRODUCTION

In November 2007 the World Cancer Research Fund (WCRF) and American Institute for Cancer Research (AICR) published the extensive report on the effects of lifestyle on the risk of various neoplastic diseases. The report describes the present state of knowledge concerning relations between nutrition, body constitution, physical activity and various neoplastic diseases [1,2]. There is convincing evidence that physical activity protects against colon cancer; moreover, it is likely to be protective against uterine body and breast cancers in women after menopause. The collected data indicate beneficial effects of any type and any intensity of physical activity [3-5]. Nutrition patterns suitable for the body nutritional requirements in combination with regular everyday physical activity may maintain or improve the basic health potential and reduce the risk of cancers [6]. The current dietary guidelines should be followed, which recommend the consumption of high proportions of plant food products, limited intake of fats, animal fats in particular, and of alcoholic beverages [6,7].

Neoplastic diseases induce a variety of changes in the life of patients and their families. The present study was to determine whether neoplastic diseases influenced dietary patterns and physical activity of the affected women.

The major aim of the study was to analyse the effects of cancers on dietary habits and physical activity of women.

MATERIAL AND METHODS

The study involved 331 women diagnosed with cancer. The research tool was the questionnaire designed by the authors. The questionnaire was distributed amongst women attending prophylactic examinations at the hospital outpatient clinic of the Teaching Hospital No. 4 between March 2007 and April 2009. The effects of cancer on changes in dietary habits and leisure activities were analysed. The results were statistically analysed. The values of parameters measured in the nominal scale were characterized by number and percentage whereas the relations between the variables analysed were assessed using the χ^2 test of independence. The 5% error of deduction was assumed; $p < 0.05$ was considered as significant. The database and statistical analyses were based on the Statistica 8.0 software (StatSoft, Poland).

CHARACTERISTICS OF THE RESPONDENTS

The study involved 331 women aged 23 – 62 years. The mean age was 45.6 ± 8.9 years. The study population was divided into three age categories (Table 1). The respondents aged 41 – 50 years constituted the largest group – 41.4% while those < 40 years the smallest one – 90 patients (27.2%). Analysis of education of the respondents showed that the majority of women had secondary education – 41.7%; the lowest percentage had higher education – 4.2%. The majority of women lived in towns with <100 thousand inhabitants – 31.1%; 26.6% of the respondents lived in bigger towns >100 thousand inhabitants. The highest proportion of the respondents were married – 70.1%, followed by those

separated or divorced – 10.6% and single women – 7.9% (Table 1).

TABLE 1. Parameters.

	n	%
Age		
<40 years	90	27.2%
41-50 years	137	41.4%
> 50 years	104	31.4%
Education		
elementary	14	4.2%
vocational	85	25.7%
secondary	138	41.7%
higher	94	28.4%
Place of residence		
town - < 100 thousand inhabitants	140	42.3%
town - > 100 thousand inhabitants	88	26.6%
village	103	31.1%
Marital status		
single	26	7.9%
married	232	70.1%
separated, divorced	35	10.6%
widow	38	11.5%

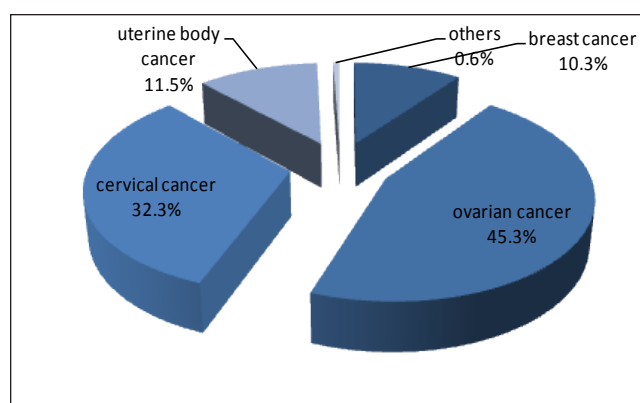


FIGURE 1. Types of cancer diagnosed in the respondents.

Neoplastic diseases most commonly listed by the respondents included ovarian cancer – 45.3%, cervical cancer – 32.3% and uterine body cancer – 11.5%. Breast cancer was diagnosed in 10.3% of the respondents (Figure 1).

RESULTS

The authors analysed the effects of cancer on leisure activities. The majority of the respondents more eagerly socialized (202 individuals – 61.03%); a high proportion of the respondents attached greater significance to physical activity (81 – 24.47%), a low percentage of patients (1.8%) tried

to rest more. The analysis of factors affecting leisure activities revealed that:

As far as **the type of cancer was concerned** ($\chi^2=98.3$ df=9; $p=0.0000$; Cramer's $V=0.316$) (Fig. 2), women with breast cancer declared more eager contacts with friends – 88.2%; a high proportion mentioned the need for rest (11.8%). Likewise, the patients with ovarian cancer preferred social meetings – 54.7%, yet a high percentage declared higher physical activity – 24.0%; moreover, some proportion of patients stated that cancer did not affect markedly their leisure activities. The patients with cervical cancer preferred meetings with friends (72.9%); a high proportion of them did not change their leisure activities (25.2%). In the majority of cases, uterine body cancer had no significant impact on leisure activities. Over 63% of the respondents chose this answer category; 26.3% declared more frequent meetings with friends whereas 10.5% increased their physical activity (Figure 2).

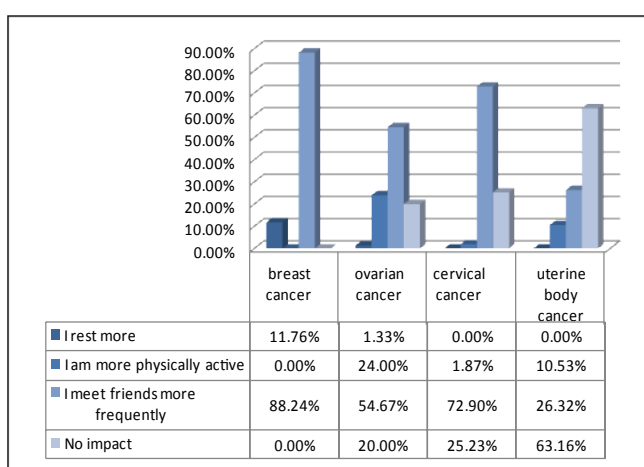


FIGURE 2. Leisure activities of women with various cancers.

The method of treatment had statistically significant effects on leisure activities of the respondents ($\chi^2=51.4$; df=6; $p=0.0000$; Cramer's $V=0.279$) (Figure 3). The patients who underwent chemotherapy more often and more eagerly met friends (48.8%); a substantial percentage declared higher physical activity (32.6%). The respondents after radiation therapy more eagerly took part in social meetings – 65.4%; a high proportion of them (29.5%) did not change their leisure activities.

The attitudes of the respondents who underwent surgery were comparable. Another variable correlated with leisure

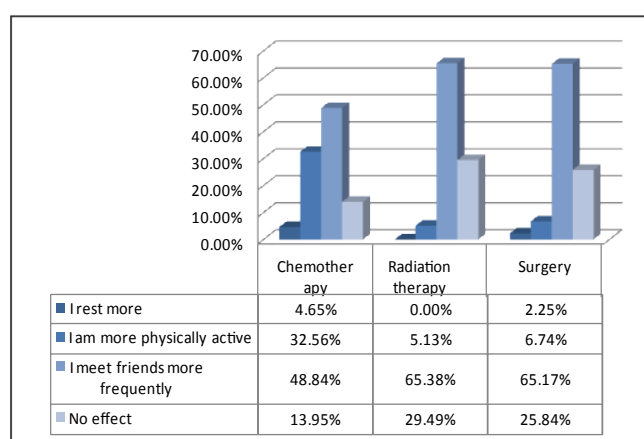


FIGURE 3. Effects of methods of treatment on leisure activities of the respondents.

activities was **age** ($\chi^2=52.99$; df=6; $p=0.0000$; Cramer's $V=0.283$). The respondents of younger age groups significantly more often declared higher physical activity; older women did not introduce any changes. Irrespective of age, the respondents attached great significance to more frequent social meetings with friends and family.

The level of education had statistically significant impact on behaviour patterns of the respondents. The patients with secondary and higher education significantly more often declared higher physical activity whereas those with elementary education did not introduce any changes in leisure activities ($\chi^2=32.702$ df=9; $p=0.0017$; Cramer's $V=0.299$).

As for **the marital status** of the respondents ($\chi^2=50.94$; df=9; $p=0.0007$; Cramer's $V=0.392$), the findings demonstrated that single women more often increased their physical activity whereas those married or widows mentioned meetings with friends and their families.

Oncologic prophylactics postulate that 35% of cancers are caused by diet and that this percentage may be markedly or completely reduced. The dietary habits suitable for body's nutritional requirements combined with physical activity are likely to maintain or improve the basic health potential and reduce the risk of cancers, cardiovascular diseases or other chronic diseases [2,6,7]. In our study, the respondents were asked whether cancer induced changes in dietary habits. The majority of the respondents changed their diets according to doctor's recommendations (227 – 68.6%) (Figure 4).

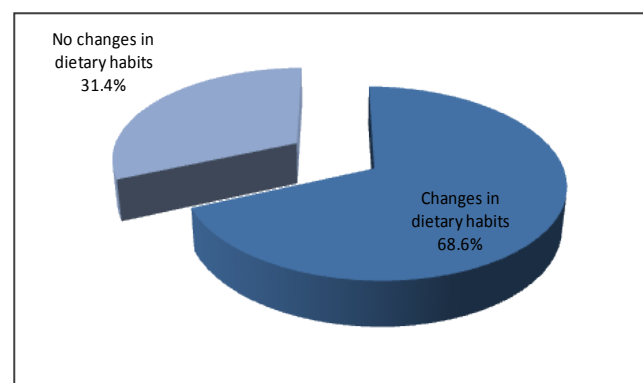


FIGURE 4. Effects of cancer on diets.

The respondents stressed they prepared meals for themselves and their families with greater care, paying attention to everyday intake of fruit and vegetables. They limited the consumption of fats, particularly animal fats. Moreover, the patients emphasized that before the disease they liked fried meals; currently they prefer to steam. They avoid heavy meals and watch their body weight. They do not drink carbonated, sweet beverages and prefer still mineral water. Additionally, they limited the intake of coffee and of alcoholic beverages. They try to promote healthy dietary patterns amongst their relatives.

We analysed the effects of age, place of residence, education, marital status, leisure activities on diet-related changes in the respondents involved in the study. Using the logistic model, the odds ratio (OR) was calculated, i.e. the probability of compliance with doctor's recommendations. The probability of changes in dietary habits doubled with age (OR=1.89; $p=0.0058$). Living in a town increased the chance to pay closer attention to meals and proper diets more than

5 times (OR=4.582; $p=0.0014$). Marital status is another variable affecting changes in dietary habits (OR=3.123; $p=0.0004$). Having a family tripled the probability of promoting healthy dietary patterns. The respondents with families believed they were responsible not only for their own health but mainly for the health of their families – children, husbands. The dietary habits were also influenced by leisure activities. The odds ratio calculated revealed that the respondents more physically active prepared meals more carefully according to doctor's orders. In patients who declared higher physical activity, the incidence of suitable diets was over two times higher (OR=2.45; $p=0.000$). According to the majority of authors, women are disciplined patients, follow doctor's instructions and have confidence in medical personnel. They more frequently and eagerly refer to medical literature to obtain more information about their disease and the ways of fighting it. The authors highlight that such attitudes most likely result from the fact that the family members, when affected by diseases, seek advice from women, mothers or wives [6,7].

CONCLUSIONS

The present study reveals that cancers affect markedly dietary habits and leisure activities. The respondents more eagerly and frequently socialize and prefer active leisure pursuits. They pay closer attention to diets as they feel responsible for the health of family members. The respondents are disciplined patients, follow doctor's instructions and have great confidence in medical personnel, which is essential for the process of treatment and its outcomes.

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