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Participation of Nurses in Cancer Prevention Activities in the Slovak and English Health System

Andrea Obročníková, Ľudmila Majerníková

Department of Nursing, Faculty of Health Care, University of Presov

ABSTRACT

Aim: The aim of the research study was to determine the extent to which nurses are involved in primary health care in the cancer prevention, depending on nationality (working in the Slovak Republic and the United Kingdom – Wales).

Methods: The realized study was character of causal – comparative research, ex-post facto. The research sample consisted of 165 respondents (number 87 nurses in SR and 78 UK nurses) working in outpatient primary care. The data collection was gathered in the period from January to July 2012. We chose the exploratory research method – non-standardized questionnaire, which was submitted and voluntarily completed with personal consent by nurses. For statistical comparison of observed groups, we used two-dimensional inductive statistics, dualsamples Student's t-test.

Results: The statistical processing and analysis of the data showed a significant correlation between the participation of nurses in cancer prevention and nationality. In a group of British nurses were observed scoring with better results compared in group of Slovak nurses in leading documentation of present risk factors underlying oncogenesis, in the education of patient/client about the harmfulness of the identified risk factor and its recording, in demonstrating the body self examination techniques, in the implementation of physical examination with an emphasis the early signs in a patient and in active inviting patients to preventive examinations or vaccinations.

Conclusion: The results showed a higher rate in application of the preventive activities in British nurses, what it can be explained by licensed nurses to perform preventive inspections and by actively inviting patients to each screening examination according to national criteria, taking into account age, gender, risk families (NICE guidelines). These facts may be an incentive for eff ectiveness of preventive care in Slovakia, which will be carried out by nurses for recognition of their legitimate competencies by all stakeholders.

KEY WORDS

emotional intelligence, emotionality, students, nursing, geriatric patients

INTRODUCTION

Oncological diseases are lifestyle-related diseases of the 21st century with the increasing prevalence worldwide. Growing oncological incidence is related to the aging of the population, more stringent diagnostic criteria and in particular the health awareness of the population favoring unhealthy lifestyle (Pastoreková, 2012, p. 97). Malignant tumor diseases represent in all EU countries and throughout the European region (after the deaths from circulatory system diseases) the most common cause of death in the population (Diba, Pleško, Hlava, 2012, p. 10). They are also a burden on healthcare systems, patients and their families, who face financial, social and emotional demands of this type of disease. It is actual to face the question of prevention of cancer, which is financially less costly than treatment of already diagnosed cancer itself (Jurga et al., 2000, p. 68). As the global healthcare databases (GLOBOCAN, CI5, WHO) show a negative trend in the future development of cancer and many of the studies conductedin the prevention of cancer presents mostly knowledge level, lifestyle, attitude of the general public to their own health, for those reasons, in the spirit of the objectives of WHO (particularly Goal. 8 – reducing the incidence of non-communicable diseases) we focused on detection of differences in participation between nurse preventive interventions in outpati-

ent primary healthcare facilities in Slovakia and the United Kingdom (Wales).

The General Practitioner provides readily accessible, comprehensive, curative and preventive health care of the individual and his family. According to Fait et al. (2008, p. 300) the domain of general outpatient care is a preventive care. The author Rybárová (2008, p. 167) supports the view that nurses working in primary care facilities are unique, independent professionals, whose preventive and medical-educational activity is the dominant area of their job.

Prevention of cancer and its organization in a GP surgery comprises a systematic preventive activities carried out by prevention inspections, dispensarisation of patients with selected (cancer) diseases, educational interventions designed to promote and protect health, particularly in relation to identified risk factors causing the formation of the cancer (unhealthy eating habits, obesity, sedentary lifestyle, abuse of cigarettes, alcohol, sexual promiscuity, excessive exposure to sunlight and other), to gain knowledge about the possibilities of vaccination against cancer viral infections – hepatitis B, HPV infection (Fait et al., 2008, p. 305; Seifert, 2004, p. 24).

OBJECTIVE OF THE STUDY

The aim was to monitor, analyze and evaluate the real level of use of interventions of primary care nurses in cancer prevention the Slovak Republic and the UK within their professional competence.

SUBJECTS AND METHODS

Participants were 165 nurses working in an outpatient primary care of general practitioner. With the prior approval of the ethics committee of Self-governing region of Prešov in Prešov, sample consisted of the 87 Slovak nurses (hereinafter SN). Questionnaires were distributed personally to outpatient facilities (in Prešov, Sabinov, Bardejov, Lipany and Vranov nad Topľou). Research conducted in the UK – Wales (Cardiff), with the prior personal oral consent of the English nurses (hereinafter EN) working in an outpatient primary care of general practitioner, was completed in the 78 questionnaires.

The age limit of all our respondents was mostly formed by nurses up to 30–39 years (31%) and nurses aged 40–49 years (29%). In terms of educational attainment of the respondents, in SN group there was predominant the percentage of nurses (55%) with completed secondary education and advanced vocational studies (graduated) in 24%, bachelor degree in nursing 21%. English nurses reached a graduate degree of study in 50%, 46% of them received their first degree – Bachelor and 4% the master's degree. English nurses reached specialized study at a higher rate (57%) against group of SN (31%). In view of the length of professional experience there was mostly represented a longstanding practice over 20 years in the SN the group (52%). Similarly, the EN group consisted mostly of nurses with professional experience over 20 years (35%).

To obtain the necessary characteristics of respondents (nurses) we used the created non-standardized questionnaire. The questionnaire was anonymous, divided into two parts: containing categorization items in order to obtain the characteristics of the sample and research items aimed to verify or refute established hypotheses. The questionnaire consisted of 39 items of research divided into 7 areas. Among the studied fields of involvement of nurses in cancer prevention there was included: utilization rate of professional nurses interventions in oncology prevention, implementation of the nursing anamnesis assessment of risk factors conditioning the genesis of cancer, implementation of screening procedures in selected cancers through nurses, identifying barriers in implementing prevention and detection interventions through nurses, attitudes of nurses to the application of nursing activities in the field of prevention, educational action of nurses in the context of cancer prevention, continuous education of nurses in the cancer prevention and detection. Closed type of questions was used.

In this paper we present the results of the implementation of professional nurses interventions taking into account their preventive effect. The frequency of implemented interventions was evaluated in the individual items based on the use of Likert scale signed in: 1 – always 3 – sometimes 5 – never, while lower scores meant a higher rate of implementation of preventive interventions in terms of cancer prevention.

The data were processed using the statistical program SPSN 15.0. For statistical comparison of the focus groups, we used the t-test (Student's t distribution), serving to test the diversity and identity of the mean values of the two choices. The statistical methodology allowed us to to detect statistically significant differences between groups in measured parameters. All tests were performed at a significance level of 5%.

RESULTS

Systematic preventive care in the clinic of practitioner/family doctor is performed by complex prevention inspections (health checks), according to clearly defined

criteria taking into account age, gender, risk level of personal and family history in both EU countries.

The US study focused on finding the necessary time to carry out preventive examinations by physicians of primary health care of their registered patients (average clientele consisted of 2500 patients). According to the prescribed time range, thus, the frequency of their implementation, the practitioners would need 1774 hours per year and specifically 7.4 hours of his working hours to dedicate to the implementation of preventive services to fully meet the recommended of clinical guidelines elaborated by U.S. Preventive Services Task Force (US PSTF) in the USA, which are also similar in our country (Yarnall, et al., 2003, p. 636). The required time allocations limits the posibility of physicians to perform preventive services recommended by US PSTF, which is the work incentive for applying professional competencies of nurses.

In terms of job description of nurses working in outpatient settings we focused on the detection of frequency of specific work activities performed.

Rate and statistical differentiation of realized preventive interventions of nurses of the two compared groups show tables 1, 2.

DISCUSSION

The statistical results can state that EN (M 2.11) participate actively on search for risk factors, recorded in nursing documentation (p = 0.000***) compared to the SN (3.68 M). Subsequently EN educate the patients to help eliminate identified health risks in higher rate (p = 0.021*). English nurses keep a written record about that educational activities in the relevant documentation (p = 0.000***). The educational activities of nurses in self-investigative techniques is realized and statistically significant in three tumor diseases in a manner of demonstrating breast self-examination (for SN – 3.06 ± 1.44 and EN – 1.88 ± 1.21) observed at p = 0.0016**, testicular SN – 3.79 ± 1.26 and EN – 2.69 ± 1.73 at p = 0.010* and skin SN – 3.37 ± 1.29 and EN – 2.65 ± 1.35 detected by the coefficient p = 0.047**, with better scores in the EN group. However, in the demonstration of self-screening techniques of oral cavity did not show a statistically significant difference, despite the better average value in the EN group. We assumed that this fact may be related to organization and system of providing primary health care, because in both English and Slovak system there are established medical

Table 1 Statistical results of the investigation of significant differences among investigated groups in realization of nursing interventions in terms of cancer prevention determined by Student's t-test

Implementation of nursing interventions	SN		EN		P
	M	SD	M	SD	
I lead a nursing anamnestic record of risk factors	3.68	1.17	2.11	1.27	0.000***
I educate patients about the harmful effects of the identified risk factor	2.44	1.21	1.76	0.91	0.021*
I lead a nursing record of the realized education of the patient in identifying risk factor	3.79	1.42	2.07	1.09	0.000***
I suggest the possibility of using counseling services in facilities for coping with risk factors	3.06	1.19	2	1.17	0.0014**
Breast self-examination demonstrating techniques, demonstrating techniques of testicular self-examination, demonstrating techniques of self-examination of the oral cavity, demonstrating techniques of skin self-examination	3.06 3.79 3.48 3.37	1.44 1.26 1.43 1.29	1.88 2.69 2.88 2.65	1.21 1.73 1.68 1.35	0.0016** 0.010* 0.163 0.047*

Key to the statistical significance of the results * p < .05; ** p < .01; *** p < .001

Table 2 Statistical results of the investigation of significant differences among investigated groups in realization of nursing interventions in terms of cancer prevention determined by Student's t-test

Implementation of nursing interventions	SN		EN		P
	M	SD	M	SD	
I execute physical assessment for each patient, with emphasis on early signs	3.51	1.12	1.96	1.28	0.000***
I analyze personal and family medical history in order to include among high-risk group	3.27	1.39	2.15	1.37	0.004**
I order / call patients to screening tests	2.62	1.59	1.84	0.83	0.026*
I monitor and record patient participation on cancer screening	2.96	1.40	1.96	1.11	0.004**
I follow vaccination dates (hepatitis B, C, HPV)	2.27	1.25	1.65	0.89	0.037*

Key to the statistical significance of the results * p < .05; ** p < .01; *** p < .001

facilities providing specialized outpatient dental--medical care (dental ambulance/ dental surgery). Such facilities, in addition to diagnostic and therapeutic care, provide a systematic preventive examinations to individuals, involving examination of the state of dentition, mucous membranes, jaw and soft tissues of the oral cavity, control of dentures, control of dental hygiene and hygiene habits, acquisition of techniques of introspection of the oral cavity.

Risk assessment and provision of information about risk factors does not affect the risk of cancer in the individual. However, relevant information on risks may affect the patient's thinking and decision related to the regular completion of screening. Cancer risk assessment can improve the health and quality of life in the future, only in the case of medically conscious proceeding (Mahon, 2006, p. 102).

The focus of British primary care, in the context of community care, consists in providing interventions and support at the community level in order to reach the highest possible degree patient self-sufficiency and control over their lives. Key providers in primary care are practical / family doctor, practice nurse or nurse parctitioner, health visitor, distric nurse and other healthcare professionals (health asistent), receptionists (Janečková, Hnilicová, 2009, p. 112). For an objective comparison of the pre-set variables we focused on the nature of the work of Slovak nurses on the English general practice nurses in the UK (Wales).

The established model of primary care physician in the UK is the family doctor. In addition to providing health care to the adult population, he provides preventive and therapeutic, diagnostic care to pediatric population and preventive gynecological care, which requires highly erudite not only doctors, but also nurses with all pertinent professional competences. The diversity of concept of primary health care in Slovakia consists in the separation of care between general ambulatory care for children and adolescents, general outpatient care for adults, specialized outpatient gynecologic care. We can meet similar features of primary care in the neighboring Czech Republic, Slovenia, Spain, Austria and Switzerland (Vojtíšková, 2011, p. 3).

In terms of the cancer detection (tab. 2), nurses perform a physical examination of the patient focusing on early signs of cancer in the more frequent rate EN (M 1.96) detected at a level ($p = 0.000^{***}$) in comparison to the second group. Nurses analyze personal and family medical history in order to include the patient into a risk group, which requires special attention from health professionals. This activity is carried out more frequently by the English sisters, which was confirmed at a level ($p = 0.004^{**}$), which is related to their authority to monitor ($p = 0.004^{**}$) and regularly invite patients to screening examination ($p = 0.026^{*}$). Similarly, the English nurses are authorized to monitor vaccination dates and invite patients to vaccination observed at a level $p = 0.037^{*}$.

In terms of the British health system each patient is entitled to a new preventive examination after registration in a GP's surgery. New registered patient is notified by letter (invitation) about the exact date and time, sent to his address of permanent residence. After receiving the invitation he is obliged to notify and book an appointment with a doctor, usually with a nurse, who receives all the necessary information about the patient / client (anamnestic assessment of health status, including health risks). English nurses occupy their professional role in preventive examinations, in consulting at stopping smoking, alcohol, optimizing of body weight, or the need to increase physical activity and awareness of self-examination of the body conducted in educational rooms. Nurses maintain health in the relevant community by leading the database – register of their patients and in the prevention of lifestyle diseases invite patients to preventive examinations, screening examinations, to vaccination and educational activities supporting the preservation of good health. They keep a written record in the patient's medical records about all preventive interventions.

The results show a higher rate of application of prevention activities by English nurses, which can be explained by their authorization to carry out preventive examinations. Their duty is to provide a wide range of work activities depending on the specialty. The nurses have usually more specializations for the provision of extensive preventive nursing care. Therefore, the scope of work activities include care in following areas:

- ***wound management,***
- ***health screening,***
- ***health promotion,***
- ***vaccination and immunization,***
- ***family planning,***
- ***crisis management,***
- ***mental health,***
- ***child protection,***
- ***women's health,***
- ***men's health,***
- ***according to the specialization, they carry out the management of care for patients with diabetes mellitus, cardiovascular disease, asthma, chronic obstructive pulmonary disease*** (Core competencies for practice nursing, 2004).

Their level of competence is conditioned by higher professional qualifications, accruing in the local educational institutions, acknowledged by the NMC (Nursing and Midwifery Council), in the Slovak Republic by professional organization – Slovak Chamber of Nurses and Midwives. For providing quality nursing care in the primary sector they are further educated postgraduate in accredited specialized study programs, after completing either a bachelor's or master's degree of nursing study. In the context of continuing education of nurses, English educational institutions offer a wide range of *specializations for clinical practice*, which includes a variety of applied clinical nursing courses, range of *specializations for medical-community studies a qualified of nurse specialist*, range of *specializations for community work*. The general requirement for applying for postgraduate education is conditioned by registration of nurses at NMC with the a minimum of 1 year of professional experience. Educational institutions offer *post-graduate training in the advanced practice*, *in the community nursing and public health* at the master's degree. In addition to these, they offer *certified training programs*, which are conditional on previous studies and more than three years of professional experience. Nurses broaden the professional competencies by improving their qualification, which are fully accepted by doctors.

CONCLUSION

According to Ayers (2009, p. 65) nurses represent the largest group of health professionals, whose current education focused on health, not only on disease (as in the past), places them in a unique position. Generally, all nurses perform significant role in the the cancer prevention and detection, irrespective of the specialization and location of performance of nursing practice.

For the visibility of the Slovak nurses in the preventive care it is necessary:

- establish a documentation for nurses in outpatient primary care, which will be an integral part of medical documentation,
- clearly specify the working activities of nurses working in outpatient facilities resulting from the legislative document Health Ministry Decree 364/2005 about the range of nursing practice provided by the nurse alone,
- standardize nurse's preventive practices in primary health care,
- create a single nurse's anamnestic record for health and risk assessment of the patient,
- motivate nurses to increase professional qualifications in accredited specialized fields (nursing care in the community, in internal medicine and health education),
- initiate training activities for nurses, which will serve to the acquisition of skills of physical examination of the patient due to greater exposure to onco-detection procedures
- define the proportionality pf competencies between doctor and nurse, to prevent their substitution especially in the field of preventive care in outpatient facilities,
- implement the evidence-based nursing research, supporting the development of community nursing and defining new forms of nursing education at postgraduate level.

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CONTACT DETAILS OF MAIN AUTHOR

PhDr. Andrea Obročníková, PhD.
Department of Nursing
Faculty of Health Care
University of Presov, Slovak Republic
Partizánska 1
SK-080 01 PREŠOV
andrea.obrocnikova@unipo.sk