Attendance of the Public in the Prevention of Colorectal Cancer

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Abstract

Participation of population in screening of colorectal carcinoma in two selected regions Slovakia did not exceed (32 %) (p-0.819) and it is not statistically different in spite of distinct rate of the colorectal carcinoma incidence. Passive approach to the screening, conditioned by feeling of health, and lack of time are main reasons of low compliance. The only motivational factor of the approach to prevention is coming-down the close man with cancer.

Keywords: Colorectal cancer; Prevention; Health; Research

Introduction

Incidence and mortality of people from CRCa (colorectal carcinoma) is health problem at the European and worldwide level. The highest incidence of CRCa in Central Europe is recorded in the Czech Republic, Hungary, Poland and Slovakia. The lowest one is in Greece, Romania and Cyprus. The worldwide results of studies confirm an increase of CRCa whereby the factors of family predisposition, ethnicity and life style like the main causes of incidence come to the fore first of all in connection with consumerism [1]. The increase of CRCa incidence was distinctively enhanced also with Asian ethnical subgroups of population, however, they differ with regard to age in time of diagnosis and to socio-economic rank [2]. Malignant tumours of colorectum C 18 – C 21 became the second most frequent cause of death from malignant tumours in Slovakia [3]. The highest incidence of CRCa in values of gross incidence (2014) is recorded also in regions of West Slovakia 159.64 n/100,000 and the lowest one in regions of East Slovakia 92.64 n/100.000 (Slovakia – oncology register). There is a possible to effectively prevent elimination of CRCa by prevention and propagation of knowledgeableness of population in given problems [4]. Health service has important task in secondary prevention of late and immedicable stages of malignant tumours of colorectum in that way that it recommends, prepares and performs vast actions focused on finding early, asymptomatic and curable stages [5].

However, effectiveness of the screening programme focused on CRCa prevention is conditioned at the very minimum by (50 %) participation of population in the screening alone [4].

Research Target

To find out reasons of low compliance of population on the screening of colorectal carcinoma.

Research Hypotheses

- Is there a relation between screening effectiveness and knowledgeableness?
- Is there a relation between screening effectiveness and participation?
- Is there a relation between screening effectiveness and attitude to the screening?

Methods

Research File

2000 persons from two regions of Slovakia have been ranked into the research. From Nitra region where the highest rate of CRCa incidence is statistically kept on file

and from Prešov region where the lowest rate of colorectal carcinoma incidence is kept on file.

Stratified selection was made by lots. Respondent has been ranked into the research, who agreed with participation in research, with an age of 40 years old and more and he drew a ticket from ballot box on which last 4 numbers with a less value than 1000 have been indicated. After inclusion into the research the respondent filled-out questionnaire which he handed-over to the assistant of research.

Instruments

A structured questionnaire with 26 questions with utilization of Likert´s scale for measuring the attitudes has been measuring instrument.

A structured questionnaire, in which respondents were asked twenty-six questions, was used as the method for collecting empirical data. Each question was measured by a 5° interval range, examining the values of quantity (not at all - maximum), capacity (not at all - fully), frequency (never - ever), rating (very dissatisfied - very satisfied), and quality (very bad - very good). To interview the intended number of two-thousand participants, a research group of 50 research assistants, comprising of professional nurses studying the external master study programme at the Faculty of Health, Slovak Medical University, Bratislava, with the residence in Banská Bystrica, was formed.

Procedure

Public places, malls, ambulances of primary contact have been a place of data collection. The time presumption of data collection has been in range of 1 year.

Data Analysis

For hypotheses verification we used the Student´s t-test for independent samples which is testing a hypothesis on difference of arithmetic averages of two groups.

Results and Discussion

Division by Age	Count	%
40 - 55	715	36%
56 - 60	502	25%
61 - 65	366	18%
66 - 70	287	14%
> 70	130	7%
Together	2000	100%

Table 1: Age.

Division by Sex	Count	%
women	1060	53%
men	940	47%
together	2000	100%

Table 2: Sex.

Awareness of screening: confrontation and knowledge about screening

Type of Confrontation with Prevention	Median	Standard Deviation
Waiting room ambulance	3.03	0.92
Doctor, Nurse	2.97	0.88
Television	2.92	0.89
Twitter, Internet	2.92	1.06
Radio	2.82	0.98

Table 3: Confrontation.

Knowledge about Screening	Median	Standard Deviation
Kind of Food	3.31	1.05
Passive Sport	3.28	1.15
Polyps in the Intestine	3.25	1.01
Family Genetics	2.93	0.99
Early Prevention	3.17	1.07
The Need for Prevention in the 50 year of Life	3.08	1.18
Examination of Stool	3.03	1.31
The Fear of the Outcome	2.99	1.15
Incidence of Slovakia	2.64	1.07
The National Screening	1.99	0.51

Table 4: Knowledge about the cause of the occurrence of colorectal cancer.

Prevention by Regions of Colorectal Cancer off Regions	Presov Region	Nitra Region	Together
Median	3.04	2.94	2.99
Spread	0.53	0.36	0.45
Count	1000	1000	2000
p-value	0,001		

Table 5: Prevention by regions.

The 3-median value prevails. (53 %) have not been directly confronted with prevention. (50 %) have been sanitarians. Promotional materials on prevention of colorectal carcinoma were read by (32 %) respondents.

Promotion of prevention by means of television, radio, internet and in media has been from (35 % to 50 %) (Tables 1-5).

Attitude Towards the Screening	Median	Standard Deviation
Education of the Individual	3.72	0,92
Individual Interview	3.68	1,01
Negative Motivation	3.49	1,06
Family Doctor	3.4	1,03
The Feeling of Health	3.21	0,93
The Fear of Potential Disease	2.83	1,15
I don't have Time for a Doctor	2.08	1,20

Table 6: Attitude towards the screening.

Attitude Towards Prevention of Colorectal Cancer	Presov Region	Nitra Region	Together
median	3.54	3.39	3.46
spread	0.25	0.26	0.26
count	1000	1000	2000
p-value	3,2E-11		

Table 7: Attitude towards prevention.

A higher rate of knowledgeableness and attitude proved significantly to be true in the region with lower rate of CRCa incidence (colorectal carcinoma) than in the region with higher rate of knowledgeableness. The respondents expected that they will be called by doctor to prevention. The cancer with close man is motivation to prevention of colorectal carcinoma. Difference of medium values presents (0.15). They would agree with a type of family doctor. Passive attitude to prevention predominates over active approach by reason of feeling of health in both regions and over the lack of time for prevention (Tables 6 & 7).

Participation in Screening of Colorectal Cancer	Presov Region	Nitra Region	Summary
Median	2.87	2.86	2.87
Spread	1.42	1.33	1.37
Count	1000	1000	2000
p-value	0,819		

Table 8: Participation in screening.

The difference in participation in screening with inhabitants of Prešov and Nitra regions is not statistically relevant.

Participation in Screening by Gender	Women	Men	Summary
Median	2.98	2.74	2.87
Spread	1.4	1.32	1.37
Count	1048	952	2000
p- value	**5.9E-06**		

Table 9: Participation in screening by gender.

Difference between sexes is higher than in previous comparison. It is equal to (0.24) in absolute value. The calculated p-value (5.9E-06) confirms higher significance of the difference (Tables 8 & 9).

Discussion

The screening is a method of secondary prevention. It concerns goal-directed finding the asymptomatic early stages of oncologic diseases by method which has high sensitivity and specificity [6]. Primary prevention of colorectal carcinoma lies in way of life style of the individual and in attitude to his own health [4]. Factors of food, which with greatest probability enhance the risk of CRCa genesis, are highly energetic food, high sugar intake, red meat and low intake of vegetable and fruit. It is recommended to put in practice legislative as well educational measures for support of healthy nutrition directing towards stoppage of growing trend of colorectal carcinoma all over the world [7]. Migration studies have confirmed that if people moved from country where there is a low occurrence of some type of tumour into another country with high occurrence of it after a time how they adapt to new dietary habits the incidence of tumours is equal to incidence of tumours in given country [7]. Reaching such state when the citizens will acquire so much knowledge, erudition, attitudes and habits that they will develop active and conscious activity necessary for individual and collective protection of health of the individual, family and society is the aim of upbringing to health. It was proved that consumption of red meat, processed meat a total consumption of meat are risk factors for development of polyps of colorectal carcinoma. Influence of obesity as a separate meaningful risk factor for genesis of malignant tumours of various organs, including cancer of large intestine, is confirmed also by authors of study of Corea [8] who dealt with some mechanisms of obesity genesis on the basis of potential insulin equilibrium. It was found-out in connection with genesis of CRCa that consumption of strong distillates and big quantity of alcoholic drinks is detrimental. Cho [9] describes influence of alcohol as one of further risk factors of CRCa genesis and he proved it on the sample 87 861 women and 47 290 men followed-up during the twenties in Boston in USA. Higher alcohol consumption has been connected with enhanced incidence of CRCa, although, the associations have been significant only for highest user´s categories of alcohol > 30 g/d without more distinct linear trend. Also family anamnesis of colorectal carcinoma, however, was taken into consideration. In developed countries the lack of physical activity participates in genesis of CRCa in about (15 %) [9,10]. Active energetic balance if it is on account of redundant intake or insufficient expenditure of energy increases risk of CRCa genesis. At BMI between 26 and 30 is risk of CRCa genesis with women and men by (50%) higher than with people with normal weight. Therefore it is estimated that about (10%) CRCa is assigned to overweight in Europe. Meaning of preventive medical checkups is based on reduction of disease causes, on decrease in their occurrence and as a final consequence on prolongation of life age and especially on improvement of life quality. For the screening programme to be focused on CRCa prevention in risk population (> 50 years) and effective the screening must be accepted by as great as possible part of adult population i.e. at least by (50 %) people one time in two years [11]. To know causes, which impede people to behave preventively, is first presumption for reaching the aim. We are aware that there is on the one hand something in colorectal carcinoma prevention that can save life to citizens in a simple way, on the other hand there is uninterest of part of public which is concerned. Education as educational process in prevention of colorectal carcinoma must provoke changes in sphere of knowing and comprehension of information in mutual connections [12]. Effectiveness of practical steps will be conditioned by participation of selected part of population in prevention [13] which prove that screening methods are available already for many years; however, application in all-population programmes remains a great problem.

Conclusion

Effectiveness of the screening of colorectal carcinoma is provably positive in both medicinal and nursing levels and negative in layman´s level [4]. The respondents expect a stimulus from outside: doctor or nurse shall initiate the respondent to the screening; personal activity of the individual is passive. The feeling of health exceeds reality of view on objective reality. The only motivation factor to active approach is confrontation with colorectal carcinoma with close man.

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