CANCER RISK AND PREVENTIVE BEHAVIOR: PERSUASION AS AN INTERVENTION STRATEGY[1]

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The effectiveness of interventions for health promotion, protection, and early diagnosis may include the process of persuasion employed. This study aims to evaluate the risk level of developing cancer, considering the pertinent risk factors, and the presence of persuasion and characteristics in communication regarding cancer prevention and early detection. It is an observational study, conducted among 110 inhabitants of a neighborhood in Ribeirao Preto, Sao Paulo, Brazil. It was confirmed that there are high risks for colon/rectum, cervical, and endometrial cancer; and moderate risks for the above as well as lung and breast cancer. In terms of persuasion, it was observed that cancer information was spread but not sustained for long periods. Moreover, there was no reinforcement. In view of cancer risk and the identified preventive behaviors, persuasion is considered a useful strategy to reduce these risks, as well as to encourage and sustain preventive behaviors, since it indicates routes to be followed.

DESCRIPTORS: persuasive communication; risk reduction behavior; primary prevention; secondary prevention

RIESGO DE CÁNCER Y COMPORTAMIENTOS PREVENTIVOS: LA PERSUASIÓN COMO UNA ESTRATEGIA DE INTERVENCIÓN

La efectividad de las intervenciones de promoción de la salud, protección y diagnóstico precoz puede depender del proceso de persuasión empleado. Este estudio buscó evaluar el grado de riesgo para la aparición de cáncer, contemplando los factores de riesgo pertinentes a cada tipo, así como la presencia y las características de la persuasión en la comunicación para su prevención y detección precoz. Se trata de un estudio observacional, de 110 habitantes de un barrio de Ribeirao Preto, San Pablo. Se constataron altos riesgos para el cáncer del colon/recto, de cervix y de endometrio; moderados riesgos para los ya descritos, además de pulmón y de mama. En cuanto a la persuasión, se observó el desencadenamiento de las informaciones sobre cáncer; sin embargo estas no consiguieron mantenerse por largos períodos, además de la inexistencia de refuerzo. Se considera la persuasión una estrategia útil para disminuir esos riesgos y de incentivo y manutención de comportamientos preventivos, adoptándose en todo su proceso, ya que apunta caminos a ser recorridos.

DESCRIPTORES: comunicación persuasiva; conducta de reducción del riesgo; prevención primaria; prevención secundaria

RISCO DE CÂNCER E COMPORTAMENTOS PREVENTIVOS: A PERSUASÃO COMO ESTRATÉGIA DE INTERVENÇÃO

A efetividade das intervenções de promoção da saúde, proteção e diagnóstico precoce pode contar com o processo de persuasão empregado. Este estudo buscou avaliar o grau de risco para apresentação de câncer, contemplando os fatores de risco pertinentes a cada tipo, bem como a presença e as características da persuasão na comunicação para a prevenção e detecção precoce. Trata-se de estudo observacional, de 110 habitantes de um bairro de Ribeirão Preto, SP. Constatou-se altos riscos para cânceres de cólon/reto, de cérvice e de endométrio; moderados riscos para os já descritos, além de pulmão e mama. Quanto à persuasão, constatou-se desencadeamento das informações sobre câncer, mas essas não conseguiram manter-se por longos períodos, além da inexistência de reforço. Considera-se a persuasão estratégia útil para diminuição desses riscos e de incentivo e manutenção de comportamentos preventivos, se adotado todo o seu processo, já que aponta caminhos a serem percorridos.

DESCRITORES: comunicação persuasiva; comportamento de redução do risco; prevenção primária; prevenção secundária

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Rev Latino-am Enfermagem 2008 setembro-outubro; 16(5):864-70
www.eerp.usp.br/rlae

Cancer risk and preventive behavior: persuasion...
Tonani M, Carvalho EC.

865

INTRODUCTION

*C*ancer has been classified as a chronic-degenerative disease, presenting a long and progressive development, in case it is not affected in any of its phases, and also as a common process of a heterogeneous group of diseases that differ in etiology, frequency and clinical manifestations[1-3].

It represents a severe problem for public health in developed and developing countries. In Brazil, it is the second cause of death by known causes[1]. In 2006, 472,050 new cases of cancer were registered. The most incident types were prostate and lung cancer in men, and breast and cervical cancer in women, which are in line with global magnitude levels[4]. This epidemiological information is essential for planning health promotion actions, early detection and care at all levels.

Cancer is often diagnosed when already in advanced phases, which not only worsens its prognosis but also increases mortality. Prevention, in this case, is essential for reducing morbidity and mortality and improving patients' quality of life[5]. Thus, its control mainly depends on actions in the areas of health promotion, specific protection and early diagnosis of the disease.

Information regarding the contribution of a risk factor to global rates of the disease in populations, and not only in exposed individuals, is useful to decide which risk factors are particularly important, and which are not so important for global community health. It can provide information to health policymakers on how to choose priorities for the use of health resources. A relatively weak risk factor, but highly prevalent in the community, can be responsible for a higher incidence of the disease than a stronger factor of lower prevalence level[6].

Further studies in this area are needed, so that the population can use the information to adopt healthier life styles, especially studies that aim to assess not only a population's risk of cancer, but also the effective persuasion of information about these risk factors and their prevention.

The probability of an undesirable event to occur is considered a risk[7], an association to a higher risk of becoming ill. Even if it does not cause the disease, its presence allows us to predict the probability that a certain disease will occur[6].

The etiology of cancer is multi-causal, that is, it results from the interaction of several factors, which increase, to a greater or lesser extent, the probability that an individual will be affected by the disease, that is, the risk factors related to cancer. On the other hand, factors that grant the body a lower probability of acquiring a disease are called protection factors[7].

Thus, to reduce the impact of cancer, it is first necessary to reduce the prevalence of behavioral and environmental factors that increase its risk. Screening programs and treatment protocols based on available evidence should be guaranteed, especially to populations with precarious access to health services. For this purpose, persuasive communication can be used.

The word persuasion originates from the Latin word *persuasione*, which means act or effect of persuading. Persuade (*persuadere*) is to lead one to persuasion or to conviction; is to induce one to do something, consent, believe, advise, admit as true, trust, convince[8].

Health, as well as other fields, needs communication strategies that meet the goals of a persuasive message, taking into account that it depends on differentiated approaches and appeals in relation to its objectives, language and public receiving the message.

The process of persuasion, in the adopted model[9], refers to the effects a message causes on the receiver, relevant and useful for the achievement of the source's desired goal. Some criteria are related to this definition: 1) relevance of effects for the source's objectives; 2) persuasion instrumentality, that is, the means or actions used to reach the goal, with possible actions being adoption, permanence, dissuasion and discontinuity; 3) the importance of messages, which can be verbal and non-verbal or a combination of both; 4) the involvement of choice, that is, the illusion of choice; and 5) the personal and interpersonal nature of the persuasion, keeping in mind that the source develops a message to achieve the goal, involving more than a receiver[10].

The persuasion process occurs in five stages: a message is sent to a receiver; the message is perceived and identified by the receiver; the interpreter (receiver) attributes a meaning to the message; the meaning, inside the receiver, acts as a stimulus to any effects that might occur; and the effects in the receiver generate an action that can be related to the persuader's desired goal. The main important concept in this model is that the stimulus for change is the meaning aroused in the receiver[10].

Cancer risk and preventive behavior: persuasion...
Tonani M, Carvalho EC.

Rev Latino-am Enfermagem 2008 setembro-outubro; 16(5):864-70
www.eerp.usp.br/rlae

866

Persuasive communication, as a generator of relevant and useful effects in the receivers, can be used as a strategy to diminishing the risk of cancer in a population, that is, the use of this process in communicating cancer prevention and early detection can lead to preventive behaviors. Studies have shown that publicity campaigns can be successful when directed to a target public using appropriate language[11-12]. In this perspective, this study used this framework with the following objectives: evaluate the risk of presenting cancer, including relevant risk factors, evaluate the presence and characteristics of persuasion in communication for cancer prevention and early detection.

METHOD

This is a cross-sectional and observational study, carried out in a district (Jardim Paiva I) in Ribeirao Preto, São Paulo, Brazil, where the University delivers community services. This choice is due to the fact that this study can favor the planning of effective strategies in the district through the implementation of a Health Unit. The project was submitted and approved by the Research Ethics Committee at the University of São Paulo at Ribeirão Preto College of Nursing (EERP-USP). Only those who voluntarily agreed to participate in the study and signed the free and informed consent term, after receiving information about the study objectives and after guaranteeing their anonymity, were included in this study.

The study population was composed of the district residents, with the random selection (draw) of 25% from a total of 440 households, obtaining a sample of 110 households. When there was nobody in the household and contact was not possible, after two attempts, the house on the left or right, in this sequence, would replace the original choice. In case this strategy was not successful, a new draw was performed for the sake of replacement.

Inclusion criteria: voluntarily agreed in participating in the study, signed the free and informed consent term after the study objectives had been informed; age equal to or older than 18 years; was a resident of the district (regardless of how long), and had cognitive abilities. Exclusion criteria: under cancer treatment or in the remission phase of the disease.

The following two instruments were used for data collection:

1 - *Cancer: assessing your risk* was developed by the American Cancer Society to evaluate the presence of risk factors for several types of cancer. Its translation and adaptation was carried out to meet the Brazilian reality; the method[13] of this procedure included translation, back translation, comparison between three versions by a group of experts, with agreement between 99% and 80%. This way, the instrument was considered as having the same meaning as the original, resulting in an adapted instrument. Its items were related to lung, colon and rectum, skin, breast and cervical cancers, and include: personal data (gender, age), life style, previous history of respondent and family, exams, signs and symptoms.

2 - Questionnaire to identify the elements of persuasion contained in the persuasive communication. The literature[14] principles were followed in its construction, including items to meet the adopted theory of persuasion[9]. Each question was evaluated by a group of experts regarding clarity, sensibility to the psychological state of the respondent, impartiality, level of reading and sequence of questions. It was applied to 20 subjects from a nearby district, with characteristics similar to the study subjects, to verify the relevance and achievement of the objectives. The instrument was considered adequate given the results of the face and content validation. Its main items included: identification of information on cancer prevention and early detection, content of information, type of cancer, source of information, stimulus for action, and behavior adopted because of the information.

The data collected by the researcher, through interviews, were registered in a database, using SPSS version 15.0, and analyzed with descriptive statistics (frequency and percentage). To analyze relevant variables for persuasion, the principles of the adopted theory were used[9].

RESULTS

Regarding the characteristics observed in the sample (110 subjects), 81.8% were female and 18.2% male. Age varied between 18 and 75 years, with an average of 38.1 years and median of 36 years. In relation to socio-demographic data, an average of

Rev Latino-am Enfermagem 2008 setembro-outubro; 16(5):864-70
www.eerp.usp.br/rlae

Cancer risk and preventive behavior: persuasion...
Tonani M, Carvalho EC.

867

four residents per household was obtained, with at least one and at most eight residents in each household, with a variance of 2.14. Married people (55.5%) predominated, and the most frequent occupations were housewife and maid (58.2%).

Thus, the subjects' profile: female, with average age of 38 years, basic education, married, housewives, and living in a household with four people. The risk scores in the study sample, varied according to the type of cancer (Table 1).

Table 1 – Distribution of cancer risk according to type of cancer

| Type | Cancer risk | | | | | | Total | |
| | Low or mild | | Moderate | | High | | | |
	N	%	N	%	N	%	N	%
Lung	100	90.9	10	9.1	-	-	110	100
Colon/rectum	59	53.6	48	43.6	3	2.7	110	100
Breast	74	66.7	16	14.4	-	-	90	100
Cervical	75	68.2	11	10.0	4	3.6	90	100
Endometrium	66	60	17	15.5	7	6.4	90	100

The risk for lung cancer was predominantly observed in the low or mild risk classification (90.9%), that is, when individuals presented low risk or were considered mild smokers with good chances of quitting. Those with moderate risk, with increased chances of lung and respiratory tract cancer, were not very predominant (9.1%); for them, quitting smoking becomes really important.

For colon and rectum cancer, 2.7% were identified at high risk, whose impact of factor considered was family history with cancer or colon polyps. In this case, periodical evaluation is indicated for follow up. Moderate risk, considered for 43.6% of subjects, is due to their age, older than 40 years, which by itself puts the subject at moderate risk. The majority, though, presented low risk for this type of cancer.

In relation to breast cancer, 14.4% of the subjects presented moderate risk; for 87.5% of these, the main impact factor was age, older than 50 years, and for the remainder, between 40 and 49 years old, the absence of mammography or breast clinical exams. It is stressed that the majority (66.7%) presented low risk.

The risk of cervical cancer was identified as high in 3.6% of the interviewees and as moderate in 10%. The main determinant factors were: age, between 40 and 54 years old, early sexual activity, and no realization of the Pap smear. The latter was a

factor present in all participants considered at high risk. This indicator was also determinant of risk for endometrium cancer, since it was present in the subjects at high and moderate risk; for this risk level, age older than 50 years and obesity were also predominant.

The risk for skin cancer is measured based on positive or negative answers provided regarding the risk factors. Thus, the average observed was 1.58 risk factor in the subjects interviewed, with a minimum of no factor and a maximum of five factors. Among the factors considered, when the subject provided only one positive answer, this was related to: fair skin, excessive solar exposure before 18 years old, current solar exposure, family history, and the presence of skin modifications.

To evaluate the characteristics and presence of persuasion involved in cancer, the subjects were asked about the existence of information on known prevention and early detection, in order to get to know their capacity to identify the message sent, that is, if it was perceived by the subjects. It was identified that 80% of them were able to acknowledge its existence, and 55.5% of them related it to breast cancer, 37.3% to cervical cancer, 21.8% to skin cancer, 20.9% to prostate, 3.6% to colon, 0.9% to rectum, 2.7% to lung and 1.8% to mouth cancer, whereas it could be related to more than one type of cancer.

All subjects who identified the presence of information were also able to identify where it was transmitted: TV (58.2%), posters (13.6%), health unit (10.9%), booklets (8.2%), health professionals (7.3%), magazines (3.6%), newspapers (2.7%) and relatives (1.8%). When they were asked about the content of messages, 61% managed to remember it. Among them, 53.7% reported being encouraged to practice an activity related to the information presented.

The content of information on cancer prevention and early detection, reported by the interviewees, is the same as the activities they perform. For instance, a person identifies the breast self-exam as a piece of information, which may have persuaded her, encouraging her to practice this activity (84.2%). However, even when one was not able to identify the content, the activity could still be performed. For instance, in this study, the periodical mammography exam reported by one of the participants in the sample (Table 2) was taken without the persuasive stimulus. Therefore, the subjects

Cancer risk and preventive behavior: persuasion...
Tonani M, Carvalho EC.

Rev Latino-am Enfermagem 2008 setembro-outubro; 16(5):864-70
www.eerp.usp.br/rlae

868

perform some activities that are not directly related to the stimulus they identified.

Table 2 - List of information content on cancer prevention and early detection and the existence of stimulus given this information

Content of Information	Existence of stimulus				Total	
	Presence		Absence			
Breast self-exam	16	84.2%	3	15.8%	19	100%
Routine pap smear	8	61.5%	5	38.5%	13	100%
Periodical mammography exam	0	0%	1	100%	1	100%
Perception of modifications on the body	7	77.7%	2	22.3%	9	100%
Search for professionals when changes are found	6	60%	4	40%	10	100%
Importance of prevention	3	50%	3	50%	6	100%
Importance of early diagnosis	0	0%	1	100%	1	100%
Use of sunscreen means	2	100%	0	0%	2	100%

The subjects' motivation to perform cancer prevention and early detection activities was due to the importance of information for 16.4%; to fear of being affected by the disease for 9.1%, to the effects promoted by preventive actions and early detection for 8.2%, and to own decision for 3.6%.

Among the subjects identified as being encouraged to perform a cancer prevention and early detection activities through information provided, 58.6% kept up this activity for up to a month, and 27.5% from one to six months. It shows the discontinuity the source does not desire in the practice of these actions. Also, none of them acknowledged the existence of stimulus and reinforcement in the continuity of the adopted practices.

DISCUSSION

The classification of lung cancer risk, according to the questionnaire, includes items recommended by the INCA/MS (Brazilian Cancer Institute/Ministry of Health), such as gender, age, exposure to agents, carcinogens inhaled, mainly smoking, relating several aspects involved, length, type and quantity[15].

Smoking is the primary avoidable risk factor, not only for lung cancer, but also for cardiovascular and respiratory diseases[7]. In this study, all subjects with moderate risk were smokers, with a long history of smoking; half of them had smoked for more than 25 years, and the other half between 15 and 25 years.

Although all subjects at moderate risk were smokers, 15 smokers were considered at mild risk.

That is because the main factor in this classification was considered the shorter time of smoking. Additionally, 40% of the 25 smokers were younger than 30, that is, young adults who can either increase their risk over time or undergo interventions that can diminish their risk factor.

The markers for risk groups of colon and rectum cancer are[15]: older than 50 years; history of adenomas or colon and rectum cancer in first-degree relatives; previous personal history of ovarian, endometrium, or breast cancer; affected by chronic ulcerative colitis or Crohn's disease, and also some congenital conditions, such as familial adenomatous polyposis and hereditary non-polyposis colorectal cancer, which is related to the factors addressed in this study. The INCA/MS[15] consensus for the prevention and control of this type of cancer includes: annual (preferably) or biennial screening by fecal occult blood testing for the population aged 50 years or older; colonoscopy for those with positive fecal occult blood test result; endoscopy methods must have priority and be performed annually in risk groups; primary prevention should be based on the adoption of a healthy diet, rich in fibers, fruits and vegetables, and poor in animal fat.

The impact factors related to breast cancer, appointed by the study, corroborate with the markers established in risk groups[15]: age, main risk group marker, since incidence levels rapidly increase with age; family history of breast cancer in pre-menopause (mother or sister); reproductive factors, such as late menopause, early menarch, first pregnancy at advanced age or nulliparity; obesity, alcohol and exposure to ion radiation.

These markers are multi-factorial and, thus, hardly susceptible to primary prevention. Screening, in this case, is the main strategy public health can use to control breast cancer. Mammography is recommended for women between 50 and 69 years old on a yearly basis, and clinical breast exam from the age of 40. The self-exam should not be an isolated strategy, which is why it does not replace the clinical exam[15]. The interviewees with increased risk did not comply with this recommendation.

Remarkably, among the interviewees, 76.6% performed the breast self-exam, and 42.2% the clinical exam or mammogram. All participants older than 50 years and 68.1% of those between 40 and 49 years old underwent clinical breast exam or mammography.

Among the markers of risk groups for cervical cancer, the following are identified: age, infection by

Rev Latino-am Enfermagem 2008 setembro-outubro; 16(5):864-70
www.eerp.usp.br/rlae

Cancer risk and preventive behavior: persuasion...
Tonani M, Carvalho EC.

869

HPV; early sexual activity; multiple sexual partners; low socioeconomic level; HIV and smoking. The Pap smear is a screening strategy, though there are no precise data on its sensitivity and specificity, estimated around 60% and 90-99%, respectively[15]. However, this is still the most used and recommended method for women aged 18 or older or starting sexual activity.

The observation of risk factors for skin cancer confirms the main markers to identify risk groups: fair skin, excessive solar exposure; advanced age; family history of skin cancer; exposure to chemical agents. The primary prevention factors, among the interviewees, were: 57% examine the skin looking for changes, 19.7% use sun protection lotion, and 18.3% use external protection, for instance, hats to protect from solar exposure, which reduce the risks for this type of cancer. Specifically, the estimated reduction of mortality with the skin self-exam is 63%.

In general, a population with diminished cancer risks was found, because the higher risk levels of some subjects resulted from inherent factors, such as advanced age. Also, some preventive measures had already been adopted, which might have been influenced by prior information on risks obtained by the subjects. In this perspective, data related to persuasion will corroborate with this analysis.

The presence and characteristics of persuasion through information related to cancer prevention and early detection were identified. The majority of the interviewees (80%) acknowledged the existence of information regarding cancer prevention and early detection, in agreement with a previous study[16], in which nurses, working in this same city, reported participating in cancer prevention actions, either as part of programs and campaigns or on their own initiative. Regarding cancer prevention and control in their place of work, the majority (86.4%) reported programs related to cervical, breast, skin, mouth and prostate cancer. Therefore, the types of cancer mentioned by the participants in this study but not acknowledged by the professionals are: cervical, colon and rectum, and lung cancer.

TV was observed as the main means of information dissemination on prevention and early detection. The persuasive messages used a combination of verbal and non-verbal[9] elements and reached the respondents more persuasively, showing itself as an important and efficient means to reach a goal in a campaign, for instance.

Nevertheless, it is important to stress the role of health professionals, especially nurses, as one of the health education agents in the multi-professional team. Nurses' actions should be integral and participative; should not waste opportunities and always be directed to the development of health actions and educative practices aiming to prevent diseases, including cancer.

Therefore, the observed persuasion process appoints that the message (cancer prevention and early detection) was sent, that the receivers (interviewees) attributed a meaning to it and that the message acted as a stimulus to produce an effect in the receivers (53.7% of the respondents). It is important to stress that the stimulus for change, in this case, the behavioral actions of cancer prevention and early detection, desired by the source, is the meaning aroused in the receiver.

Thus, according to the theory used, the aroused effects were: affective (feeling level), cognitive (knowledge, opinion, beliefs) and manifested behavioral effects, which are those planned by the source, in this case the persons responsible for sending preventive messages. The decision of the individual him(er)self can be attributed to the persuasion criterion, in which the individual has the illusion of making choices, that is, (s)he believes to perform an activity without external interference.

The evaluation of the risk and protection factors involved in cancer is an activity in constant transformation in the researchers' field, due to scientific advancements and behavioral changes in human beings. Therefore, the verification of cancer risks and preventive behaviors involved is submitted to these inherent transformations.

CONCLUSION

This study sought to verify the reality presented by the studied population, identifying the presence of determinant risk factors for different types of cancer, aiming to work on these factors when appropriate actions are possible.

The process of information persuasion related to cancer prevention and early detection is not very effective yet, since there is dissemination, reception and understanding of information, but adoption for longer periods has not been observed.

Cancer risk and preventive behavior: persuasion...
Tonani M, Carvalho EC.

Rev Latino-am Enfermagem 2008 setembro-outubro; 16(5):864-70
www.eerp.usp.br/rlae

870

Therefore, given the risk of cancer and identified preventive behaviors, persuasion is considered a useful strategy for diminishing these risks and also for encouraging and maintaining preventive behaviors, since it already appoints strategies to be used in order to achieve success. However, all stages of this persuasive process need to be used, especially strategies that permit maintaining behavior for longer periods.

This study is expected to favor the progress of measures involved in cancer and, moreover, to favor the nurses who participate in this process, granting them a base for measures aimed at diminishing morbidity and mortality and increase the population's quality of life.

Even though this study was carried out with a specific population, which limits its generalization, it contributes to the analysis of the district status regarding strategies to be adopted for cancer control, a perspective that has not been much explored. It can also be a stimulus to test the efficiency of the use of persuasion, in all its stages, which can be later expanded to other communities.

REFERENCES

1. Instituto Nacional de Câncer [Página na Internet]. Rio de Janeiro: Ministério da Saúde; 2005. [acessado em 14 de novembro de 2005]. Disponível em http://www.inca.gov.br.

2. Carvalho EC, Tonani M, Barbosa JS. O uso da comunicação na prevenção e detecção precoce do câncer. In: Mendes IAC. Comunicação em Enfermagem na Era Digital: 9° Simpósio Brasileiro de Comunicação em Enfermagem; 2004 maio 27–28; Ribeirão Preto, São Paulo. Ribeirão Preto: FIERP; 2004. p.103.

3. Teixeira JB, Nogueira MS. Câncer gástrico: fatores de risco em clientes atendidos nos serviços de atenção terciário em um município do interior paulista. Rev Latino-am Enfermagem, 2003; 11(1):43-8.

4. Instituto Nacional de Câncer [Página na Internet]. Rio de Janeiro: Ministério da Saúde; 2005. [acessado em 08 de setembro de 2006]. Disponível em http://www.inca.gov.br

5. Stewart BW, Coates AS. Cancer prevention: a global perspective. J Clin Oncol 2005 January; 23(2):392-403.

6. Fletcher RH, Fletcher SW, Wagner EH. Epidemiologia Clínica. Porto Alegre: Artes Médicas; 1996. p. 103-19.

7. Ministério da Saúde (BR). Ações de Enfermagem para o controle do câncer: uma proposta de integração ensino-serviço. Rio de Janeiro (RJ): Instituto Nacional de Câncer; 2002.

8. Michaelis: moderno dicionário da língua portuguesa. São Paulo: Companhia Melhoramentos; 1998.

9. Fotheringham WC. Perspectives on persuasion. Boston: Allyn & Bacon; 1966.

10. Littlejohn SW. Fundamentos teóricos da comunicação humana. Rio de Janeiro: Guanabara Koogan; 1988.

11. Ward B, Bertera EM, Hoge P. Developing and evaluating a Spanish TEL-MED message on breast câncer. J Commun Health 1997; 22 (2):127-35.

12. Cohen L, Dobson H, Mcguire. Promoting breast screening in Glasgow. Health Bull 2000; 58(2):127-32.

13. Brislin RN. Back-translation for cross-cultural research. J Cross-Cultural Psycol 1970; 1(3):185-216.

14. Polit DF, Beck CT, Hungler BP. Fundamentos de pesquisa em enfermagem. São Paulo: Artmed; 2004.

15. Ministério da Saúde (BR). Instituto Nacional de Câncer. Normas e Recomendações do INCA. Rev Bras Cancerol 2002; 48(3):317-32.

16. Carvalho EC, Tonani M, Barbosa JS. Ações de enfermagem para combate ao câncer desenvolvidas em unidades básicas de saúde de um município do estado de São Paulo. Rev Bras Cancerol 2005; 51(4):297-303.