



Motivational interviewing in the social support of caregivers of patients with breast cancer in chemotherapy*

Entrevista motivacional no suporte social de cuidadores de pacientes com câncer de mama em quimioterapia

Entrevista motivacional en el soporte social de cuidadores de pacientes con cáncer de mama en quimioterapia

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ABSTRACT

Objective: To evaluate the effects of motivational interviewing for the change of social support behavior of caregivers of breast cancer patients in chemotherapy. **Method:** A quasi-experimental study conducted with women in chemotherapy for breast cancer and their respective caregivers. The intervention of Brief Motivational Interviewing was applied to the caregivers indicated by patients in four individual sessions with weekly intervals and duration of 30 minutes each. The social support behavior was evaluated by women before and after the intervention through the Social Support Scale. **Results:** Eighteen women and 18 caregivers participated in the study. The social support of women was higher for both the emotional and the instrumental dimensions of the Social Support Scale after the intervention of Brief Motivational Interviewing with caregivers. These findings contribute to the clinical practice of several professional categories in the use of low-cost intervention strategies for improvement of the quality of life during and after treatment of women with breast cancer. **Conclusion:** The intervention positively promoted behavioral change by improving the social support provided by caregivers to breast cancer patients undergoing chemotherapy.

DESCRIPTORS

Breast Neoplasms; Social Support; Motivational Interviewing; Caregivers; Drug Therapy; Oncology Nursing.

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INTRODUCTION

Breast cancer is associated with several risk factors, including aging, family history of cancer and late menopause (after age 50). Therefore, the modification in the population's lifestyle, especially the adoption of unhealthy living habits, significantly influences the increase of cancer in the world population. Of all types of cancer, breast cancer stands out among women⁽¹⁾.

Except for Asian countries, the incidence of breast cancer tends to increase progressively from the age of 40. According to Brazilian data, mortality also increases progressively with age. In the female population aged under 40 years, there are less than 20 deaths per 100,000 women, while in the age group from 60 years, the risk is more than doubled⁽¹⁾.

In recent years, there have been important advances in the approach to this disease, especially regarding less mutilating surgeries, and the search for treatment individualization. Generally, cancer treatment requires the combination of more than one therapeutic method, which increases the possibility of healing, decreases anatomical losses, and preserves the aesthetics and function of compromised organs⁽²⁾.

Chemotherapy represents progress in the cure and control of cancer by increasing expectations and quality of life of patients. However, it is essential that health professionals of this area provide effective guidance on the objectives and side effects of chemotherapy treatment, and above all, offer emotional support⁽³⁾.

During chemotherapy treatment, patients experience adverse symptoms such as depression and reduced self-esteem, physical and financial losses. They need to adapt to physical, psychological, social, family and emotional changes, and a social support network is necessary for better coping with the disease⁽⁴⁾.

Social support is the emotional or practical support given by family and/or friends in the form of affection, company, information, making individuals feel loved and safe⁽⁵⁾, with beneficial effects in those affected by the disease, particularly when it comes from friends and family. People who receive considerable social support in stressful situations have minor negative effects on their health and social well-being⁽⁶⁾.

Studies focused on social support tend to classify the conceptual definition in two aspects, namely the structural and the functional. The first is related to the presence of social support regardless of the occurrence of stressful events by valuing issues such as the number of people integrating the support network. The functional aspect is related to the availability and type of support received, and the recipient's level of satisfaction in relation to specific stressful situations and contexts⁽⁷⁾.

Understanding the emotional impact of diagnosis and treatment of breast cancer in women, and identifying and encouraging relationships of help and support may result in more integrated care to them. The observations and companion to patients and family members during this period showed the importance of the caregiver and/or social support in the treatment of this clientele after diagnosis, and during the chemotherapy period. The development of intervention strategies along with caregivers of patients with breast cancer in chemotherapy may allow the definition of more adequate ways to meet the social support needs of this clientele.

Brief Motivational Interviewing (BMI) is one of these strategies. It is focused on changing people's behaviors, especially

those who do not want to change or follow directions, or are in an ambivalent situation between changing and not changing. When BMI is applied to caregivers of breast cancer patients, it can help to identify intrinsic stimuli for behavioral change in relation to the offer of social support, regardless of the manifestation or ambivalence in providing support to these patients. BMI has been proposed and used in Brazil for changing unhealthy behaviors and maintaining healthy behaviors⁽⁸⁻¹¹⁾. However, in the literature there were no data of studies using BMI for modification of behavior of social support offer.

Therefore, the aim of the present study was to evaluate the effects of BMI on behavioral changes related to social support offered by caregivers to breast cancer patients in chemotherapy.

METHOD

This was a quasi-experimental study of the before-after type in a single group⁽¹²⁾. The population of the study were patients diagnosed with breast cancer undergoing chemotherapy at the Integrated Regional Oncology Center (Portuguese acronym: CRIO – *Centro Regional Integrado de Oncologia*) and their respective caregivers who met the eligibility criteria.

Inclusion criteria for women were the following: to be literate, with breast cancer and undergoing chemotherapy, aged above 18 years, and no previous medical diagnosis of psychiatric illness. For caregivers, inclusion criteria were: to be assigned by the patient as their caregiver, literate, aged over 18 years, no previous medical diagnosis of psychiatric disorder, and being an informal caregiver. There was no need of showing ambivalent behavior in relation to social support, since BMI could contribute to behavior change and to maintain the healthy behavior. For sample size definition, was used the calculation for finite populations, and were obtained 18 patients and 18 caregivers, considering that each woman assigned a caregiver to participate in the study.

The study was conducted at a Reference Oncology Center in the state of Ceará, Brazil and in the residence of caregivers when they could not come to the Oncology Center. After accepting to participate, patients initially signed the Informed Consent (IC) form, then answered the questions of the Social Support Scale (SSS), and designated the caregiver. Patients were informed that the intervention would be applied to the caregiver, and at the end of the study, women (patients) would respond to the SSS questions again.

The next step was a personal approach to caregivers when they were at the Oncology Center, or by telephone with the invitation to participate in the study. They signed the IC and were explained about the need to participate in three or four future meetings, according to the literature recommendations for Motivational Interviewing⁽⁸⁾.

As recommended in most studies using BMI, the researcher participated in a specific theoretical and practical training for BMI application lasting 40 hours. Training addressed theoretical aspects, concepts and forms of applying the Motivational Interviewing technique. Subsequently, there was a practical approach of the technique through simulations of situations involving patients in which simple and advanced tools of Motivational Interviewing could be applied.

BMI includes between one to three sessions with motivational impact that precipitate behavior change. It contains six elements: return; patient's personal responsibility; clear advice for change of habit; selection of a specific treatment approach, but offering alternative strategies; therapist's empathy; and strengthening of the self-efficacy of patient's hope^(8,13).

The BMI meeting happened in a private room in presence of the caregiver only. When caregivers were not at the Oncology Center, the meeting was arranged in a place of their preference that was usually their residence.

For statistical analysis of data, the social support measured by the SSS was used as an outcome. Patients' responses were compared to identify the difference in measures of social support scores before and after interventions performed with the caregivers. The instrument structure was analyzed⁽⁷⁾ by means of the adaptation of a Canadian instrument that had its psychometric properties validated⁽¹⁴⁾.

The Brazilian instrument is divided into two factors. Factor 1, instrumental social support: perception and satisfaction regarding the availability of support in the management or resolution of operational issues of treatment or health care, of practical daily activities, of material and/or financial help. It contains ten questions, of which five are primary (analysis of perception) and five are secondary (analysis of satisfaction); $\alpha = (0.84)$. Factor 2, emotional social support: perception and satisfaction regarding the availability of listening, attention, information, esteem, companionship and emotional support in relation to the pathology. It contains 12 questions, of which six are primary (analysis of perception) and six are secondary (analysis of satisfaction); $\alpha = (0.92)$.

The scale has two stages of questions, primary and secondary. For the classification of responses, was used a Likert scale with the following variations:

Primary questions: (1) never, (2) rarely, (3) sometimes, (4) frequently and (5) always.

Secondary questions: (1) very dissatisfied, (2) dissatisfied, (3) neither satisfied nor dissatisfied, (4) satisfied and (5) very satisfied. Therefore, higher scores indicate reports of greater perception of availability and satisfaction with social support.

The Record and Self-Monitoring Form (Portuguese acronym: FRAM – *Ficha de Registro e Automonitoramento*) was used during BMI meetings. It is an adapted checklist⁽¹⁵⁾ on the provision of social support or not by the caregiver during a seven-day period. It is answered by caregivers themselves.

Data were collected from August to October 2015. For data collection, were used different materials and instruments for patients and caregivers at three moments.

Moment 1 – After signing the IC, patients assigned a caregiver to participate in the intervention. Then, they answered the interview, starting with the socioeconomic questionnaire, followed by the SSS. This stage had an average duration of 30 minutes, and recorded data corresponded to the baseline.

Moment 2 – Intervention (1st to 4th session): The BMI intervention with caregivers was held in each of the four individual sessions lasting approximately 30 minutes each. **1st session:** The objectives and relevance of the intervention were presented individually to the caregiver. The understanding of the social support concept and the caregiver's role in

the social support to breast cancer patients in chemotherapy was investigated through the previously described BMI. Thus, according to patients' responses in the Social Support Scale, the first contact with caregivers and the BMI, it was started the development of the individual Record and Self-Monitoring Form (FRAM). It was performed within seven days and handed at the following meeting. **2nd session:** In this session (seven days after the first session), were explained to caregivers the concepts of social support to breast cancer patients in chemotherapy, and how they could provide it in a compatible way with patients' needs for meeting the individual requirements of social support. The FRAM and social support behaviors (compatible or not with patients' needs) occurring during the week were verified. A new FRAM was handed (complementing the form already prepared in the first session) to be filled in a seven-day interval. **3rd session:** The FRAMs were checked seven days after the second session by discussing the caregivers' responses and demands, and the cases in which they should adopt certain behaviors or not. In this BMI meeting, were defined the support behaviors to be adopted by the caregiver according to the categories emerging from the SSS: support in facilitating the completion of health treatment, financial issues, day-to-day practical activities, health care, making the patient feel valued as a person, support for pouring out feelings or talking about issues related to the illness, health information, making the patient feel socially integrated, support to improve mood and spirits, company for fun and leisure. **4th session:** The intervention was completed seven days after the third session with a similar procedure to the third session, in which caregivers gave feedback about the intervention received. After the end of the intervention, patients were immediately contacted to proceed with the third and final moment of data collection.

Moment 3 – At this moment, a month after the first application of the Social Support Scale, it was reapplied in all patients of the study after the intervention with caregivers.

The signal test was used for analysis of dependent samples as an alternative to the t test for dependent samples. It is based on assigning '+' values when the difference is positive, and '-' values when the difference is negative. The level of significance in the study was set at 5%. The study was approved by the Ethics and Research Committee of the Universidade Federal do Ceará – Complexo Hospitalar Walter Cantídio under number 0965.281/2015.

RESULTS

Eighteen women in chemotherapy for breast cancer and 18 caregivers of the respective interviewed women participated in the study. Regarding distribution of patients' socioeconomic variables, there was variation between 35 and 74 years (SD=11.3), mean of 52.2 years; 50% (n=9) of the sample had two to four children, 55% (n=10) did not work, and 39% (n=7) were retired.

Table 1 shows the 11 primary questions of the Social Support Scale that patients answered before and after the intervention, choosing between five items (never, rarely, sometimes, often and always).

Table 1 – Distribution of patients' responses to the Social Support Scale before and after the intervention (BMI) – Fortaleza, Ceará, Brazil, 2016.

Questions	Before		Depois		p
	N	%	N	%	
Q1– Have you received support from someone in concrete situations, making it easier to undergo your health treatment?					0.687
Sometimes	3	16.7	0	0.0	
Often	12	66.7	14	77.8	
Always	3	16.7	4	22.2	
Q2– Have you received support from someone in financial matters such as sharing household expenses, given or borrowed money?					<0.001
Never	1	5.6	0	0.0	
Rarely	1	5.6	0	0.0	
Sometimes	6	33.3	0	0.0	
Often	9	50.0	7	38.9	
Always	1	5.6	11	61.1	
Q3– Have you received support from someone in practical activities of daily life?					<0.001
Sometimes	9	50.0	0	0.0	
Often	7	38.9	6	33.3	
Always	2	11.1	12	66.7	
Q4– Have you received support from anyone regarding your own health care?					<0.001
Rarely	2	11.1	0	0.0	
Sometimes	4	22.2	0	0.0	
Often	12	66.7	3	16.7	
Always	0	0.0	15	83.3	
Q5– Have you received support from someone with whom you can count on in case of need?					0.001
Rarely	3	16.7	0	0.0	
Sometimes	2	11.1	0	0.0	
Often	9	50.0	1	5.6	
Always	4	22.2	17	94.4	
Q6– Have you received support from someone who makes you feel valued as a person?					0.002
Sometimes	9	50.0	0	0.0	
Often	6	33.3	8	44.4	
Always	3	16.7	10	55.6	
Q7– Have you received support from someone with whom you can pour out feelings or talk about issues related to your illness?					<0.001
Rarely	1	5.6	0	0.0	
Sometimes	9	50.0	0	0.0	
Often	8	44.4	5	27.8	
Always	0	0.0	13	72.2	
Q8– Have you received support from someone who gives you information by improving your level of knowledge about your health problem?					<0.001
Never	1	5.6	0	0.0	
Sometimes	9	50.0	0	0.0	
Often	8	44.4	12	66.7	
Always	0	0.0	6	33.3	
Q9– Have you received support from someone who makes you feel socially integrated?					<0.001
Rarely	2	11.1	0	0.0	
Sometimes	9	50.0	0	0.0	
Often	6	33.3	7	38.9	
Always	1	5.6	11	61.1	
Q10– Have you received support from someone who helps you to improve your mood, your spirits?					<0.001
Rarely	2	11.1	0	0.0	
Sometimes	8	44.4	0	0.0	
Often	7	38.9	5	27.8	
Always	1	5.6	13	72.2	
Q11– Have you received support from someone when you need company to have fun or do leisure activities?					<0.001
Rarely	3	16.7	0	0.0	
Sometimes	9	50.0	0	0.0	
Often	6	33.3	7	38.9	
Always	0	0.0	11	61.1	

Source: Elaborated by the authors.

Questions 1 to 5 of the SSS address the perception of structural social support, and questions 6 to 11 address emotional social support. These questions were considered as categories of analysis to measure the social support behavior of caregivers.

Table 1 shows that after the intervention (BMI), women chose the options 'often' and 'always', with significant reduction in the options 'never' and 'rarely'.

When questions were correlated, there was a statistically significant result ($p < 0.001$), except for Question 1 ($p = 0.687$), showing the positive impact of the intervention.

DISCUSSION

The results showed a higher social support to women after the intervention for both the emotional and instrumental dimensions. These results were similar to those obtained with individuals with HIV/AIDS in a study that used the same evaluation scale in Brazil⁽⁷⁾.

In short, the measures of this modality of support analyze the level of integration versus the level of isolation of the person in a social network. It can be understood as the support offered to the individual through practical attitudes (such as assistance) or affections capable of making one feel loved, safe and protected⁽¹⁶⁾.

The caregiver family needs two types of social support: emotional/instrumental (affection, esteem, company/counseling, practical help, or financial assistance), and daily support focused on problem orientation⁽¹⁷⁾. Studies show a change in lives of women with breast cancer after diagnosis. They stop doing what used to be routine, avoid social activities and work, and feel abandoned by people of their lives⁽¹⁸⁾. They appear to use various strategies of adaptation to the illness and treatment, such as performing household chores on the eve of chemotherapy sessions, or requesting work leave by citing other reasons for going to the hospital. Support may be incipient or even ambivalent, depending on individuals' clinical conditions, and their family dynamics, which can make the family a source of support or stress⁽¹⁹⁻²⁰⁾.

Throughout results, before the intervention, the profile of interviewed women showed the axis of emotional social support was affected, there were negative responses involving aspects about how they felt or the emotional support received, like to feel valued, support to talk, social integration, among others. After the intervention (motivational interviewing), there was a significant increase of satisfactory answers, demonstrating its effectiveness for the change of support behavior. Therefore, the increase of satisfactory answers is associated with psychological resources obtained in the coexistence with social networks, that is, the amount of emotional support received in the scope of family and work⁽¹⁹⁾. The importance of caregivers as disseminators of information and support behaviors is noteworthy. It extends their influence to other members of the family, and in the long term, enables their influence to closest social networks by acting as drivers of change.

Family support refers to emotional encouragement shown, for example, in comforting conversations that lessen family tension⁽¹⁷⁾. This social support category is called

functional or emotional. It refers to individuals' beliefs about the existence of trustworthy and committed people who care about each other, as in the case of caregivers with affective bonds. On several occasions, caregivers became emotional during intervention sessions. According to them, it is easier to offer help by "accompanying the chemotherapy sessions" or "buying medication" than by accepting that the mother/wife has breast cancer and adjust the care relationship without reducing the person to the diagnosis.

A recent study mentions the family as a fundamental support of care. They become an informal support network since they provide care voluntarily and are partners of formal social support networks that include trained professionals in providing care to cancer patients in chemotherapy. The person being cared for recognizes the family caregiver as someone doing something out of obligation, despite the pleasure shown in helping. Providing care to a dependent individual involves considerable biopsychosocial commitment, in addition to the financial burden that commonly falls on caregiver families⁽²¹⁾.

The care provided goes beyond the family environment, considering that nursing care focused on offering comfort to women with breast cancer also includes providing information. The effective interaction between professionals and patients is necessary in this perspective as a foundation of the trust relationship leading to the expression of their fears, questions and doubts about procedures and situations that should be faced during treatment⁽²²⁻²³⁾.

Regarding the support related to mood and spirits improvement, there was a consubstantial increase in the 'always' response (from 5.6% to 72.2%) after the intervention. A study on T lymphocytes, important in immunity against tumors, has shown the effects of programs stimulating laughter and good mood for the increased activity of these cells of the immune system the same way depressive states weaken this aspect of organic defense⁽²⁴⁾.

In summary, the brief motivational interviewing technique encouraged and motivated the adoption and change of behaviors of social support promotion by developing the reflection exercise and the critical attitude of caregivers on the social support provided to women with breast cancer. It

produced successful consequences that were explicitly proven by the results of the present study.

The limitations of the study were the following: lack of a specific tool to assess social support in breast cancer patients; lack of an initial perception of caregivers about their current social support behavior provided to the person they cared for; and the type of study used, since by having a control and a randomization group, the statements of behavior change can be confirmed as a result of the intervention used. The present study brought advances to health by using the low cost technology of behavior change that is easily accessible and executable by nurses and other health professionals through capacity building.

CONCLUSION

The intervention used, Brief Motivational Interviewing, positively promoted the behavioral change for improvement of the social support provided by caregivers to breast cancer patients in chemotherapy treatment.

In future studies, it is suggested the construction of a tool with these characteristics, since multidisciplinary assistance to patients would benefit from it, providing a broader understanding about the effects of social support, and promoting individualized, effective interventions to meet patients' needs. However, the scale used in the present study was adequate and satisfactory as a measure of social support based on the proposed objectives.

The present study results have considerable reach in the area of multiprofessional health by allowing the use of the technique by several professional categories in order to sensitize behavior change. They also raise the discussion on the importance of the social support network for the quality of life of women with cancer and their caregivers, who should view the support provision in a compatible way with patients' needs, resulting in improved care relationships.

The objective of the present study was reached, but the diverse psychosocial contexts of patients and caregivers may require different skills and intervention strategies. In this approach, further research is suggested for the long-term longitudinal evaluation of the intervention in different contexts.

RESUMO

Objetivo: Avaliar os efeitos da entrevista motivacional para mudança de comportamento de suporte social junto a cuidadores de pacientes com câncer de mama em quimioterapia. **Método:** Estudo quase experimental, realizado com mulheres em quimioterapia para câncer de mama e com os cuidadores das respectivas mulheres entrevistadas. A intervenção foi a Entrevista Motivacional Breve, aplicada aos cuidadores indicados pelas pacientes em quatro sessões individuais, com intervalos semanais e duração de 30 minutos cada. O comportamento de suporte social foi avaliado pelas mulheres antes e depois da intervenção pela Escala de Suporte Social. **Resultados:** Participaram do estudo 18 mulheres e 18 cuidadores. O suporte social das mulheres se mostrou elevado tanto para a dimensão emocional quanto para a instrumental da Escala de Suporte Social, após intervenção utilizada com os cuidadores pela Entrevista Motivacional Breve. Os achados contribuem para a prática clínica de diversas categorias profissionais, na utilização de estratégias de intervenção de baixo custo para melhoria da qualidade de vida durante e após o tratamento de mulheres com câncer de mama. **Conclusão:** A intervenção utilizada promoveu de forma positiva a mudança comportamental, melhorando o suporte social prestado pelos cuidadores às pacientes com câncer de mama e em realização de quimioterapia.

DESCRITORES

Neoplasias da Mama; Apoio Social; Entrevista Motivacional; Cuidadores; Tratamento Farmacológico; Enfermagem Oncológica.

RESUMEN

Objetivo: Evaluar los efectos de la entrevista motivacional para cambio de comportamiento de soporte social junto a cuidadores de pacientes con cáncer de mama en quimioterapia. **Método:** Estudio casi experimental, llevado a cabo con mujeres en quimioterapia para cáncer de mama y con los cuidadores de las respectivas mujeres entrevistadas. La intervención fue la Entrevista Motivacional Breve, aplicada a los cuidadores indicados por las pacientes en cuatro sesiones individuales, con intervalos semanales y duración de 30 minutos cada. El comportamiento de soporte social lo evaluaron las mujeres antes y después de la intervención por la Escala de Soporte Social. **Resultados:** Participaron en el estudio 18 mujeres y 18 cuidadores. El soporte social de las mujeres se mostró elevado tanto para la dimensión emotiva como para la instrumental de la Escala de Soporte Social, tras intervención utilizada con los cuidados por la Entrevista Motivacional Breve. Los hallazgos contribuyen a la práctica clínica de diversas categorías profesionales en la utilización de estrategias de intervención de bajo costo para la mejora de la calidad de vida durante y después del tratamiento de mujeres con cáncer de mama. **Conclusión:** La intervención utilizada promocionó de modo positivo el cambio de comportamiento, mejorando el soporte social prestado por los cuidadores a las pacientes con cáncer de mama y en quimioterapia.

DESCRIPTORES

Neoplasias de la Mama; Apoyo Social; Entrevista Motivacional; Cuidadores; Tratamiento Farmacológico; Enfermería Oncológica.

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