REVISTA DE ENFERMAGEM REFERÊNCIA
homepage: https://rr.esenfc.pt/rr/
ISSNe: 2182.2883

RESEARCH ARTICLE (ORIGINAL)

Validation of an educational nursing intervention to promote the adaptation of cancer survivors

Validação de uma intervenção educacional em enfermagem para promover a adaptação dos sobreviventes de cancro

Validación de una intervención educativa de enfermería para promover la adaptación de los supervivientes de cáncer

Tiago André dos Santos Martins Peixoto[1,2,3]
https://orcid.org/0000-0003-4229-0205

Nuno Miguel dos Santos Martins Peixoto[1,2,3]
https://orcid.org/0000-0001-5221-9491

Cândida Assunção Santos Pinto[3]
https://orcid.org/0000-0003-4874-6728

Célia Samarina Vilaça de Brito Santos[3,4]
https://orcid.org/0000-0001-9198-2668

[1] University of Porto, Porto, Portugal, Institute of Biomedical Sciences Abel Salazar, Porto, Portugal

[2] Porto University Hospital Center, Porto, Portugal

[3] Nursing School of Porto, Porto, Portugal

[4] Center for Health Technology and Services Research (CINTESIS), Porto, Portugal

Corresponding author
Tiago André dos Santos Martins Peixoto
E-mail: tiago.andre.peixoto@hotmail.com

Received: 20.03.21
Accepted:19.01.22

Abstract

Background: Cancer survivors represent a major challenge for health systems due to the lack of care plans for these patients.
Objective: To validate the structure and content of an educational nursing intervention (complex intervention) to promote the adaptation of cancer survivors.
Methodology: The modified e-Delphi technique consisted of three rounds of online questionnaires.
Results: A group of 27 experts validated the inclusion of 33 items related to the structure and 177 items related to the content. The educational intervention should consist of five to eight individual (with the possibility of including a significant family member) and group sessions and focus on the four domains proposed: Adaptation, Attitude/Coping, Emotion/Anxiety, and Resources.
Conclusion: The consensus reached is essential to highlight nurses' role in this stage of cancer and assess the effectiveness of this educational intervention.

Keywords: nursing; neoplasms; survival; adaptation, psychological; patient education as topic; health education

Resumo

Enquadramento: Os sobreviventes de cancro representam um grande desafio para os sistemas de saúde, pela escassez de planos assistenciais a estas pessoas.
Objetivo: Validar a estrutura e o conteúdo de uma intervenção educacional em enfermagem (intervenção complexa) para promover a adaptação dos sobreviventes de cancro.
Metodologia: Utilizou-se a técnica e-Delphi modificada, ao longo de três rondas, através de questionários online.
Resultados: Um conjunto de 27 peritos validaram a inclusão de 33 itens relativos à estrutura e 177 itens relativos ao conteúdo. A intervenção educacional deve ser realizada ao longo de cinco a oito sessões, individualmente, com a possibilidade de integrar um familiar significativo, e de dinâmicas de grupo, integrando os quatro domínios propostos: Adaptação, Atitude/*Coping*, Emoção/Ansiedade e Recursos.
Conclusão: O consenso alcançado é essencial para evidenciar o papel dos enfermeiros nesta fase da doença oncológica e para viabilizar a avaliação da eficácia da intervenção educacional em desenvolvimento.

Palavras-chave: enfermagem; neoplasias; sobrevivência; adaptação psicológica; educação de pacientes como assunto; educação em saúde

Resumen

Marco contextual: Los supervivientes de cáncer representan un gran reto para los sistemas sanitarios, debido a la escasez de planes de atención para estas personas.
Objetivo: Validar la estructura y el contenido de una intervención educativa de enfermería (intervención compleja) para promover la adaptación de los supervivientes de cáncer.
Metodología: Se utilizó la técnica e-Delphi modificada, a lo largo de tres rondas, mediante cuestionarios en línea.
Resultados: Un conjunto de 27 expertos validó la inclusión de 33 ítems relacionados con la estructura y 177 ítems relacionados con el contenido. La intervención educativa debe realizarse a lo largo de cinco a ocho sesiones, de forma individual, con la posibilidad de incluir a un familiar significativo y en dinámicas de grupo, integrando los cuatro dominios propuestos: Adaptación, Actitud/*Coping*, Emoción/Ansiedad y Recursos.
Conclusión: El consenso alcanzado es esencial para destacar el papel de los enfermeros en esta fase del cáncer y para permitir la evaluación de la eficacia de la intervención educativa que se está desarrollando.

Palabras clave: enfermería, neoplasias; supervivencia; adaptación psicológica; educación del paciente como asunto; educación em salud

How to cite this article: Peixoto, T. A., Peixoto, N. M., Pinto, C. A., & Santos, C. S. (2022). Validation of an educational nursing intervention to promote the adaptation of cancer survivors. *Revista de Enfermagem Referência*, *6*(1), e21052. https://doi.org/10.12707/RV21052

Introduction

A range of physical, social, psychological, and existential stressors are associated not only with cancer diagnosis and treatment but also with the post-treatment phase. These multiple and frequent stressors can lead to distress, which is characterized by a variety of psychological responses, including shock, denial, depression, feelings of guilt, sadness, anxiety, fear, worry, helplessness, stigma, anger, or panic (Andrykowski et al., 2008). After a cancer diagnosis, these psychological responses are not unexpected because this discovery marks the beginning of a long and complex adaptation process caused by the changes associated with a severe chronic illness. It is also not surprising that this type of negative psychological responses marks the treatment phase because cancer and the side effects of cancer treatments (especially surgery, chemotherapy, and radiotherapy) cause significant changes in the individual's physical and psychosocial structure. However, the potential psychological suffering related to the cancer experience, even after successful completion of the treatments, is less recognized by both professionals and the scientific community. These negative psychological responses can directly interfere with cancer survivors' adaptation process and return to daily activities and substantially affect their health and well-being and, consequently, their quality of life.

Conversely, positive psychological responses include higher self-esteem, better ability to use coping strategies, greater appreciation of life, enhanced spirituality, and post-traumatic growth (Naus et al., 2009). In addition to prevention and treatment, health professionals should focus on risk monitoring and early detection of psychological distress throughout the disease trajectory, including the survivorship stage. With the purpose of contributing to the knowledge about the adaptation of cancer survivors and improving their quality of life and the professional response, more specifically nurses' response, to this population, this study aimed to develop an educational nursing intervention to promote the adaptation of cancer survivors. This educational intervention falls within the scope of complex interventions due to the challenges related to its standardization, organization, implementation, and evaluation. It consists of a wide range of specific contents and nursing interventions aimed at promoting the adaptation of cancer survivors, particularly in the domains of adaptation, attitude/coping, emotion/anxiety, and resources. Therefore, prior to this study, a literature review and a qualitative exploratory study using the focus group technique were conducted to understand the state of the art and outline the structure and content of an educational nursing intervention to promote the adaptation of cancer survivors (Peixoto et al., 2021a; Peixoto et al., 2021b). The present study follows from previous studies and aims to validate the structure and content of this intervention based on the opinion of a group of experts in this field.

Background

In recent decades, especially in developed countries, the number of cancer survivors has increased substantially due to advances in early diagnosis and therapeutic effectiveness. After completing treatment, cancer survivors continue to experience the effects, which may persist for an extended period, related to the disease, the treatments, the adaptation to the new condition, the redefinition of roles, and the fear of recurrence. These effects are a major challenge for health systems, which must guarantee the follow-up of this population, considering not only the number of years lived after the diagnosis but also the quality of life of those years. Several studies have investigated the follow-up of cancer survivors and identified key obstacles to their quality of life, namely poor coordination of care, lack of communication among health care providers, uncertainty about who is responsible for this follow-up, lack of response to some psychosocial needs, lack of care plans for survivors, lack of consensus regarding the content, format, management, and implementation of care plans, lack of human and financial resources, and lack of policies in this context (Albreht et al., 2017).

On the one hand, the literature search shows that countries such as the United States of America, the United Kingdom, Canada, and Australia have recognized the importance of addressing the issue of cancer survivors and disseminated multiple guidelines and recommendations for clinical practice, particularly on the content and format of care plans for this population. The health institutions and organizations of these countries recognize that medical follow-up, management of late effects, tertiary prevention, psychological support, social rehabilitation/employment, empowerment, and self-management are priority areas of attention for health professionals. On the other hand, most European countries lack national plans, and psychosocial oncology is not specifically offered. In Portugal, although health professionals widely recognize the importance of psychosocial issues, intervention programs targeting cancer survivors are scarce. Although the literature shows that educational interventions effectively improve the quality of life and reduce the costs of health systems by addressing the psychosocial complications of cancer, the problem of underfunding these programs still outweighs the effectiveness of the interventions (Carlson & Bultz, 2004).

Research question

Which structure and content of an educational nursing intervention to promote the adaptation of cancer survivors are valid according to an expert panel?

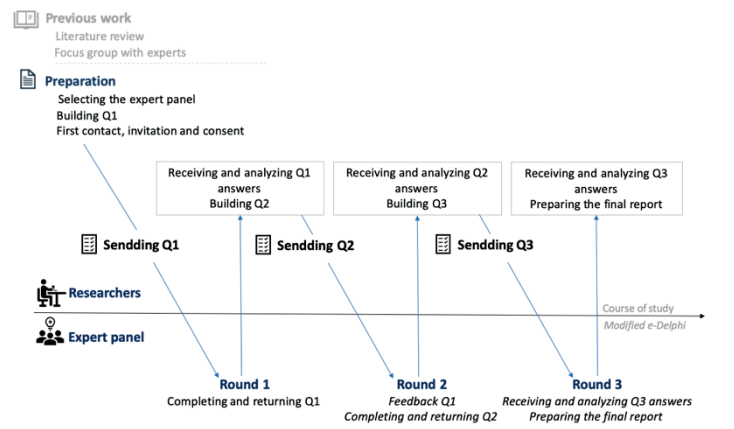
Methodology

A descriptive qualitative study was conducted using the Delphi technique to validate the structure and content of an educational nursing intervention to promote the adaptation of cancer survivors. This research technique consists of applying questionnaires over several rounds to obtain consensus on important issues of a group of experts in a given area (Keeney et al., 2011). For this particular study, the modified e-Delphi technique was used. Unlike the traditional method that is commonly used as a formal method with face-to-face interactions, e-Delphi assembles ideas online with participants. The choice of this method is related to multiple aspects, such as ease of use, interactivity, maximization of time and resources, simple data processing, and participant anonymity (Toronto, 2017).

Given that a literature review and a focus group study on the topic had been previously conducted, a structured questionnaire was applied in the first round, thus justifying the designation of modified technique (Keeney et al., 2011). The panel of experts was selected based on a set of inclusion criteria established following the methodological recommendations by Keeney et al. (2011). Participants had to be nurses with the title of specialist nurse from the *Ordem dos Enfermeiros* (Portuguese Nursing Regulator) and have at least one of the following criteria: a) being a head nurse of a unit providing care to cancer patients for at least 5 years; b) working with cancer patients for at least 5 years; c) teaching in the area of disease adaptation and/or disease management for at least 5 years; d) having conducted at least one research study in the area of disease adaptation; e) having conducted at least one research study in the area of disease management; or f) having conducted at least one research study in the area of oncology. As for the ethical considerations, participant confidentiality and anonymity were ensured throughout the study. To join the study, all participants had to give their informed consent by filling out a document designed for this purpose. This study (Reference 2020/CE/P019, P331/CETI/ICBAS) was approved on July 1, 2020, by the shared Ethics Committee of the Institute of Biomedical Sciences Abel Salazar of the University of Porto and the Porto University Hospital Center. The study was implemented over multiple phases, as shown in Figure 1.

Figure 1

Phases of the research process (Modified e-Delphi Technique)



The expert panel was selected through a purposive sample. Both clinical and academic experts were selected to obtain a heterogeneous sample. Initially, 30 experts were selected because, although there is no consensus in the literature on the optimal number of experts in a panel, Marques and Freitas (2018) indicate a minimum of 10 and a maximum of 30 experts. The researchers had previously established that each round had to have at least 15 participants to achieve consensus. Based on previous work, the first questionnaire (Q1) was divided into five categories: Socio-professional characterization of the sample; Structure of the educational intervention; Participant exclusion criteria; Focuses of nursing practice; and Nursing interventions. It should be noted that, in the last four items, an open text box was provided for experts to express their opinions about the topic under discussion, and the items *Focuses of nursing practice* and *Nursing interventions* were built using the International Classification for Nursing Practice (ICNP - ICNP browser 2019 release). The experts' opinion was rated on a Likert scale from 1 to 5, where 1 means *Strongly disagree* and 5 means *Strongly agree*. The first contact was made by email, through which an invitation to participate in the study was sent. Participants were explained the research procedures and asked to sign an informed consent if they accepted the invitation to participate in the study. Before Q1 was sent to the expert panel, it was pre-tested in two people who were not involved in the research and met the inclusion criteria for expert selection. The first questionnaire was sent simultaneously and in the same way

as the first contact on October 1, 2020, through which the experts received a link to access Google Docs and complete the first questionnaire. The participants could access Q1 during the three weeks after receiving it. After that period, the answers were analyzed qualitatively and quantitatively. Given that the experts could comment, justify, or suggest other response options to Q1 questions using free text, the short text excerpts were subjected to content analysis. Record/context units and categories were built to identify new items to be included in the following questionnaire (Bardin, 2011). With regard to quantitative analysis, the items were analyzed using the mean (M), Median (Mdn), Content Validity Index (CVI), Standard Deviation (*SD*), Percentage of responses 1 and 2, and Coefficient of Variation (CV). Given that the consensus criteria for the modified Delphi method are not universally defined, Table 1 shows the consensus criteria for this study (Osborne et al., 2003). Besides consensus (low divergence in the distribution of responses to a given item around a mean response), several authors advocate the importance of considering the analysis of stability, which means the absence of new contributions and little change in panel responses between rounds (Osborne et al., 2003). Thus, to determine the stability of responses to each item, the Coefficient of Variation (CV) (standard deviation/mean) was calculated as follows: low dispersion if CV < 15%, medium dispersion if CV > 15% and < 30%, and high dispersion if CV > 30%.

Table 1

Definition of consensus adapted from Havers et al. (2019)

Consensus	Definition of criteria
Consensus to include an item (cumulative)	• 80% of answers scoring ≥ 4 (1–5 Likert scale). (CVI x 100 ≥ 80%); • Median ≥ 4 (1–5 Likert scale); • None of the experts found that the item was ambiguous or difficult to understand.
Consensus to exclude an item (non-cumulative)	• 80% of answers scoring ≤ 2 (1–5 Likert scale); • Median ≤ 2 (1–5 Likert scale).
No consensus	The remaining items move on to next round.

Note. CVI = Content validity index.

After analyzing the data obtained through Q1, a report was prepared and sent to the experts. For the second questionnaire (Q2), the items that reached a consensus in Q1 were deleted, either for inclusion or exclusion, and new items were included that derived from the content analysis of the expert texts on the open-response items of Q1. Q2 was sent together with the report with the feedback from Q1, on November 1, 2020. The participants had access to Q2 during the first three weeks after it was sent. The answers were analyzed based on the procedures previously described for Q1. The third questionnaire (Q3) was built in the same way as previously described for Q2. Subsequently, Q3 was sent together with the report with the feedback from Q2, on December 1, 2020. Participants could access Q3 during the first three weeks after it was sent. The answers were analyzed based on the procedures previously described for Q1 and Q2. The rounds process ended when the desired levels of stability and consensus were reached. At the end of the three rounds, the answers that did not reach consensus, either for inclusion or exclusion, were excluded. Finally, a report was written to gather all the data obtained throughout the process.

Results

Based on the criteria mentioned above, the panel consisted of 27 experts distributed over three rounds, corresponding to 58 complete answers (19 in Round 1, 18 in Round 2, and 21 in Round 3). In all rounds, we had more than 50% participation from the experts, which was one of the previously defined criteria for consensus. Three of the 30 invited experts did not participate in any round. The analysis of the socio-professional characteristics of the 27 participants distributed over the three rounds shows few participants with undergraduate degrees (only two in Round 1 and two in Round 3) and a large majority of them with a master's or doctoral degree. Nevertheless, in addition to the fact that all participants held the title of specialist from the *Ordem dos Enfermeiros* (Portuguese Nursing Regulator), which was one of the inclusion criteria, there was an average of more than 19.5 years of experience in all rounds, which, together with the data mentioned above, reinforces the participants' level of expertise. On the other hand, the heterogeneity of the sample was achieved due to the diversity of professional activities among the participants, from nurses working in clinical practice to nurses working in teaching. Table 2 shows the socio-professional characteristics of the participants.

Table 2

Socio-professional characteristics of the participants

Socio-professional data	Round 1	Round 2	Round 3
Total number of participants	19	18	21
Gender			
Male	2	4	3
Female	17	14	18
Age (mean)	42.2	43	43.5
Years of professional experience (mean)	19.5	20.3	20.8
Academic qualifications			
Undergraduate degree	2	-	2
Master's degree	10	12	10
Doctoral degree	7	6	9
Main activity			
Clinical Practice	13	12	13
Inpatient Unit	9	8	6
Day Hospital / Outpatient Unit	3	2	6
Community Care Unit	1	1	-
Healthcare Center / Family Health Unit	-	1	1
Management / Advisory	-	1	1
Teaching / Training	6	5	7
Research	-	-	-

Based on the consensus criteria, at the end of Round 1, 163 items were included, and 18 items were excluded (Table 3).

Table 3

Results of the quantitative analysis of Round 1

Item	*M*	*Mdn*	CVI (%)	*SD*	Answers 1 or 2 (%)	CV (%)	Decision
1 Structure of the educational intervention							
1.1 Intervention strategies							
Individual sessions	4.4	5	89.5	0.7	0	15.7	Included
Individual sessions with a significant family member	4.2	4	84.2	1	5.3	24.4	Included
Group sessions	4.2	4	78.9	0.9	5.3	21.6	Round 2
Group sessions with a significant family member	3.9	4	78.9	0.9	10.5	23.1	Round 2
Mixed sessions (individual and group)	4.4	5	89.5	0.7	0	15.7	Included
Mixed sessions (individual and group) with a significant family member	3.8	4	68.4	1.2	21.1	30.4	Round 2
1.2 Type of contacts to be established							
Home visits	4.4	5	89.5	1	5.3	23.2	Included
Face-to-face consultation in a Health Institution	4.7	5	100	0.5	0	10.2	Included
Contact by written message (email, text message, etc.)	3.7	4	57.9	1.1	15.8	29.4	Round 2
Telephone contact	4.3	4	89.5	0.7	0	15.5	Included
Flyer/brochure	3.9	4	68.4	1.1	15.8	28.2	Round 2
Video consultation	4.4	4	100	0.5	0	11.3	Included

1.3 Number of sessions/contacts							
1 session/contact	1.7	1	5.3	0.9	84.2	52.6	Excluded
2 sessions/contacts	2	2	21.1	1.2	73.7	60.1	Round 2
3-4 sessions/contacts	3.3	4	52.6	1.7	36.8	51.9	Round 2
5-6 sessions/contacts	3.5	4	57.9	1.3	21.1	36.4	Round 2
7-8 sessions/contacts	3.3	4	52.6	1.2	31.6	36.3	Round 2
9 or more sessions/contacts	2.5	2	15.8	1.2	52.6	48.2	Excluded
1.4 Duration of sessions/contacts							
Sessions/contacts of less than 15 minutes	1.7	1	5.3	0.9	84.2	52.6	Excluded
15-30 minute sessions/contacts	3.2	4	57.9	1.6	42.1	49.3	Round 2
30-45 minute sessions/contacts	3.6	4	63.2	1.5	26.3	42.3	Round 2
45-60 minute sessions/contacts	4.1	4	73.7	1	10.5	25.5	Round 2
60-90 minute sessions/contacts	1.7	1	5.3	0.9	84.2	52.6	Excluded
Sessions/contacts longer than 90 minutes	2.5	2	15.8	1.2	52.6	48.2	Excluded
1.5 Frequency of sessions/contacts							
1 session/contact once a month	2.5	2	31.6	1.3	52.6	53.4	Excluded
1 session/contact every two weeks	3.1	3	47.4	1.6	42.1	52.9	Round 2
1 session/contact once a week	3.8	4	68.4	1.4	21.1	36.9	Round 2
2 sessions/contacts per week	2.7	3	31.6	1.2	42.1	45.3	Round 2
3 sessions/contacts per week	2.3	2	21.1	1.2	68.4	54.8	Excluded
4 or more sessions/contacts per week	1.6	2	0	0.6	94.7	36.6	Excluded
1.6 Start of the intervention							
In the last sessions of cancer treatment	3.6	4	63.2	1.5	26.3	42.3	Round 2
In the last session of cancer treatment	2.5	2	36.8	1.3	57.9	50	Excluded
In the first week after the end of cancer treatment	3.1	3	36.8	1.4	47.4	46.9	Round 2
Between the second and the fourth week after the end of cancer treatment	2.9	3	42.1	1.2	42.1	42.9	Round 2
One month after the end of cancer treatment	2.4	2	15.8	1.3	63.2	53.1	Excluded
Two to three months after the end of cancer treatment	1.8	2	10.5	1	84.2	52	Excluded
Four to six months after the end of cancer treatment	1.7	2	5.3	1	89.5	57.1	Excluded
1.7 Nurses' preparation							
Allow nurses to participate in training sessions	4.6	5	100	0.5	0	10.7	Included
Develop guides for contacts/consultations/training	4.7	5	94.7	0.6	0	12.4	Included
Allow the researcher's supervision	4.1	4	73.7	1	10.5	25.5	Round 2
Enable the researcher's support	4.4	5	89.5	0.7	0	15.7	Included
Allow the nurse to explore individual aspects of the client/family	4.7	5	100	0.5	0	9.6	Included
Allow the nurse to design an individualized care plan	4.9	5	100	0.3	0	6.4	Included
Provide scientific information for nurses to provide to clients	4.6	5	94.7	0.8	5.3	16.8	Included
Allow the use of the nursing decision-making process	4.9	5	100	0.3	0	6.4	Included
2 Participant exclusion criteria							
Undergoing cancer treatment (chemotherapy or radiotherapy)	2.8	2	42.1	1.5	57.9	52.9	Excluded
Being in the palliative phase of cancer	3.2	4	57.9	1.6	42.1	49.3	Round 2
Existence of disease progression (metastases)	4.4	5	89.5	0.7	0	15.7	Included
Not being an adult (<18 years or >65 years)	2.8	2	36.8	1.5	57.9	54.2	Excluded
Being illiterate (unable to read and/or write)	4.9	5	100	0.3	0	6.4	Included
Being a caregiver of a dependent person	2.3	2	21.1	1.3	73.7	55.8	Excluded
Impaired cognitive capacity to make decisions and/or understand the information received	3.9	4	78.9	0.9	10.5	23.1	Round 2
Impaired physical ability to go to the hospital and/or walk unassisted for 15 minutes	2.3	2	21.1	1.3	78.9	56.7	Excluded

Having had tumor or tissue extraction surgery less than one month ago	2.6	3	21.1	1	47.4	36.3	Round 2
Having been diagnosed with a mental/psychiatric illness	3	3	31.6	1.1	36.8	36.9	Round 2
Having been diagnosed with more than one cancer	2.3	2	15.8	1.2	73.7	52	Excluded
Having a caregiver	2.1	2	10.5	0.9	73.7	44.5	Excluded
3 Focuses of nursing practice							
3.1 DOMAIN: Adaptation							
Acceptance (ICN code: 10000329)	4.5	5	89.5	0.8	5.3	18.6	Included
Acceptance of health status (ICN code: 10044273)	4.9	5	100	0.3	0	6.4	Included
Adaptation (ICN code: 10001741)	4.8	5	94.7	0.5	0	11.2	Included
Self-awareness (ICN code: 10017642)	4.7	5	100	0.5	0	9.6	Included
Self-control (ICN code: 10017690)	4.7	5	94.7	0.6	0	11.9	Included
Self-efficacy (ICN code: 10024911)	4.7	5	94.7	0.6	0	11.9	Included
Self-esteem (ICN code: 10017724)	4.8	5	100	0.4	0	8.7	Included
Self-management (ICN code: 10046837)	4.5	5	94.7	0.6	0	13.7	Included
Self-management of disease (ICN code: 10046844)	4.5	5	94.7	0.6	0	13.5	Included
Self-management of risk for disease (ICN code: 10035255)	4.1	5	68.4	1.1	10.5	26.8	Round 2
Self-image (ICN code: 10017776)	4.7	5	94.7	0.6	0	12.4	Included
Self-monitoring (ICN code: 10046987)	4.3	5	78.9	0.8	0	19	Round 2
Health knowledge (ICN code: 10008753)	4.6	5	100	0.5	0	10.7	Included
Knowledge of behavior change process (ICN code: 10024907)	4.5	4	100	0.5	0	11.5	Included
Knowledge of pathological process (ICN code: 10021956)	4.3	4	84.2	0.7	0	17.2	Included
Awareness (ICN code: 10003083)	4.5	5	94.7	0.8	5.3	17.1	Included
Health belief (ICN code: 10022058)	4.6	5	100	0.5	0	10.7	Included
Delusion (ICN code: 10005709)	4.2	4	84.2	0.8	5.3	20.1	Included
Spiritual belief (ICN code: 10018577)	4.1	4	78.9	0.9	5.3	21.3	Round 2
Religious belief (ICN code: 10016728)	3.6	4	63.2	1	10.5	27.9	Round 2
Readiness to learn (ICN code: 10016422)	4.7	5	100	0.5	0	9.6	Included
Readiness for self-management (ICN code: 10046863)	4.4	5	89.5	0.7	0	15.7	Included
Readiness for self-disclosure about health status (ICN code: 10038154)	4.3	4	89.5	0.7	0	15.5	Included
Resilience (ICN code: 10050402)	4.5	5	94.7	0.6	0	13.5	Included
Health care satisfaction (ICN code: 10040092)	4.3	4	84.2	0.7	0	17.2	Included
Volition (ICN code: 10020855)	4.3	5	89.5	1	5.3	23.2	Included
Will to live (ICN code: 10021113)	4.2	5	84.2	1.1	10.5	26.9	Included
3.2 DOMAIN: Attitude/Coping							
Ambivalence (ICN code: 10002205)	3.9	4	68.4	1	10.5	25.5	Round 2
Skill learning (ICN code: 10018225)	4.5	5	89.5	0.7	0	15.4	Included
Assimilation (ICN code: 10002845)	4.1	4	68.4	0.8	0	20.9	Round 2
Attitude (ICN code: 10002930)	4.4	5	84.2	0.9	5.3	20.4	Included
Attitude toward health status (ICN code: 10040627)	4.8	5	100	0.4	0	8.7	Included
Attitude to pathological process (ICN code: 10024747)	4.6	5	94.7	0.6	0	13.3	Included
Attitude toward care (ICN code: 10002948)	4.8	5	100	0.4	0	8.7	Included
Self-management of symptoms (ICN code: 10046859)	4.8	5	100	0.4	0	8.7	Included
Ability to adjust (ICN code: 10000047)	4.7	5	94.7	0.6	0	11.9	Included
Ability to communicate needs (ICN code: 10038183)	4.6	5	94.7	0.6	0	13.3	Included
Ability to communicate feelings (ICN code: 10026587)	4.6	5	89.5	0.7	0	15.1	Included
Ability to perform role (ICN code: 10000113)	4.4	5	84.2	0.8	0	17.4	Included
Ability to manage stress (ICN code: 10044124)	4.6	5	94.7	0.6	0	12.9	Included
Ability to perform health maintenance (ICN code: 10000081)	4.5	5	94.7	0.6	0	13.5	Included

Symptom control (ICN code: 10025812)	4.6	5	100	0.5	0	10.7	Included
Coping (ICN code: 10005208)	4.9	5	100	0.2	0	4.6	Included
Health belief (ICN code: 10022058)	4.6	5	100	0.5	0	10.7	Included
Delusion (ICN code: 10005709)	4.4	4	100	0.5	0	11.3	Included
Spiritual belief (ICN code: 10018577)	4.1	4	78.9	0.8	5.3	20.9	Round 2
Religious belief (ICN code: 10016728)	3.7	4	68.4	1	10.5	27.2	Round 2
Expectation (ICN code: 10023679)	4.5	5	89.5	0.7	0	15.6	Round 2
Unrealistic expectation (ICN code: 10024144)	4.3	4	84.2	0.7	0	17.4	Included
Managing stress (ICN code: 10044111)	4.6	5	89.5	0.7	0	14.8	Included
Denial (ICN code: 10005721)	4.6	5	89.5	0.7	0	15.1	Included
Psychological response to teaching (ICN code: 10024781)	4.5	5	94.7	0.6	0	13.7	Included
3.3 DOMAIN: Emotion/Anxiety							
Distress (ICN code: 10006118)	4.7	5	100	0.5	0	9.6	Included
Spiritual distress (ICN code: (10018583)	4	4	73.7	1	10.5	25	Round 2
Anxiety (ICN code: 1002429)	4.9	5	100	0.2	0	4.6	Included
Death anxiety (ICN code: 10041001)	4.5	5	89.5	0.8	5.3	18.6	Included
Self-management support (ICN code: 10046956)	4.5	5	94.7	0.6	0	13.7	Included
Helplessness (ICN code: 10008920)	4.2	4	78.9	0.9	5.3	21.8	Round 2
Despair (ICN code: 10005811)	4.2	4	73.7	1	5.3	23	Round 2
Emotion (ICN code: 10006765)	4.6	5	94.7	0.8	5.3	16.8	Included
Negative emotion (ICN code: 10012675)	4.4	5	84.2	1	10.5	23	Included
Mood equilibrium (ICN code: 10035785)	4.2	4	78.9	1	10.5	24.4	Round 2
Hope (ICN code: 10009095)	4.8	5	100	0.4	0	8.7	Included
Positive hope (ICN code: 10025353)	4.2	5	78.9	1	10.5	24.5	Round 2
Hopelessness (ICN code: 10009105)	4.3	5	78.9	1	10.5	24.5	Round 2
Frustration (ICN code: 10008252)	4.4	5	78.9	1	5.3	21.9	Round 2
Mood (ICN code: 10036241)	4.4	5	84.2	0.8	0	17.4	Included
Depressed mood (ICN code: 10005784)	4.1	4	73.7	0.9	5.3	22.8	Round 2
Insecurity (ICN code: 10010311)	4.5	5	94.7	0.6	0	13.5	Included
Fear (ICN code: 10007738)	4.7	5	100	0.5	0	10.2	Included
Fear about death (ICN code: 10026541)	4.3	5	84.2	1	10.5	23.2	Included
Nervousness (ICN code: 10013071)	4.2	4	78.9	0.8	0	18.4	Round 2
Preoccupation (ICN code: 10015466)	4.3	4	78.9	0.8	0	18.9	Round 2
Trauma response (ICN code: 10020114)	3.9	4	63.2	1.1	10.5	27.3	Round 2
Powerlessness (ICN code: 10015394)	4.4	5	89.5	0.7	0	15.7	Included
Meaninglessness (ICN code: 10023900)	4.4	4	89.5	0.7	0	15.7	Included
Suffering (ICN code: 10019055)	4.5	5	89.5	0.7	0	15.4	Included
Loneliness (ICN code: 10011417)	4.4	4	89.5	0.7	0	15.7	Included
Stress (ICN code: 10018888)	4.5	5	100	0.5	0	11.3	Included
Sadness (ICN code: 10040662)	4.6	5	89.5	0.7	0	15.1	Included
Shame (ICN code: 10046761)	4.2	4	78.9	0.8	0	18.4	Round 2
3.4 DOMAIN: Resources							
Family support (ICN code: 10023680)	4.9	5	100	0.2	0	4.6	Included
Emotional support (ICN code: 10027022)	4.7	5	94.7	0.6	0	11.9	Included
Spiritual support (ICN code: 10027033)	4.4	5	73.7	0.9	0	20.4	Round 2
Social support (ICN code: 10024074)	4.7	5	94.7	0.6	0	12.4	Included
Health-seeking behaviour (ICN code: 10008782)	4.5	5	94.7	0.8	5.3	17.3	Included
Social support role (ICN code: 10026979)	4.2	4	78.9	0.9	5.3	21.6	Round 2
Community service (ICN code: 10027359)	4.4	4	94.7	0.6	0	13.7	Included
Self-help service (ICN code: 10038760)	4.3	4	89.5	0.7	0	15.3	Included

4 Nursing interventions							
Counselling about spiritual distress (ICN code: 10026231)	4.2	4	73.7	0.9	0	20.3	Round 2
Counselling about hopes (ICN code: 10026212)	4.6	5	89.5	0.7	0	15.1	Included
Counselling about fears (ICN code: 10026208)	4.6	5	94.7	0.6	0	12.9	Included
Supporting beliefs (ICN code:10026458)	4.6	5	89.5	0.8	5.3	18.3	Included
Supporting family (ICN code: 10032844)	4.8	5	100	0.4	0	7.7	Included
Supporting positive body image (ICN code: 10044531)	4.5	5	89.5	0.7	0	15.4	Included
Supporting family coping process (ICN code: 10032859)	4.7	5	100	0.5	0	9.6	Included
Supporting decision-making process (ICN code: 10024589)	4.9	5	100	0.3	0	6.4	Included
Supporting family decision-making process (ICN code: 10026462)	4.6	5	94.7	0.6	0	12.9	Included
Supporting spiritual rituals (ICN code: 10024591)	3.7	4	57.9	1	10.5	26.5	Round 2
Supporting psychological status (ICN code: 10019161)	4.5	5	89.5	0.8	5.3	18.8	Included
Comforting (ICN code: 10004664)	4.6	5	100	0.5	0	10.7	Included
Contracting for positive behaviour (ICN code: 10035771)	4.5	5	94.7	0.6	0	13.5	Included
Demonstrating relaxation technique (ICN code: 10024365)	4.6	5	100	0.5	0	10.7	Included
Encouraging positive affirmations (ICN code: 10024377)	4.7	5	94.7	0.6	0	11.9	Included
Encouraging rest (ICN code: 10041415)	4.3	4	84.2	0.7	0	17.4	Included
Teaching self-monitoring (ICN code: 10046994)	4.7	5	100	0.5	0	9.6	Included
Teaching family about health-seeking behaviour (ICN code: 10033119)	4.7	5	94.7	0.6	0	11.9	Included
Teaching family about disease (ICN code: 10021719)	4.6	5	94.7	0.6	0	13.3	Included
Teaching family about community services (ICN code: 10036130)	4.6	5	94.7	0.6	0	13.3	Included
Teaching about health-seeking behaviour (ICN code: 10032956)	4.8	5	100	0.4	0	8.7	Included
Teaching about impulse control (ICN code: 10036148)	4.2	4	84.2	0.7	0	16.9	Included
Teaching about symptom control (ICN code: 10038080)	4.7	5	100	0.5	0	9.6	Included
Teaching about disease (ICN code: 10024116)	4.4	5	94.7	0.8	5.3	17.4	Included
Teaching about stress management (ICN code: 10038681)	4.8	5	100	0.4	0	7.7	Included
Teaching about clinical pathway (ICN code: 10050977)	4.4	4	94.7	0.6	0	13.7	Included
Teaching about family process (ICN code: 10036153)	4.5	5	89.5	0.7	0	15.6	Included
Teaching about treatment regime (ICN code: 10024625)	4.7	5	94.7	0.6	0	11.9	Included
Teaching about normal psychological response (ICN code: 10051028)	4.5	5	94.7	0.6	0	13.5	Included
Teaching about community service (ICN code: 10050983)	4.6	5	94.7	0.6	0	12.9	Included
Teaching about self-help service (ICN code: 10038773)	4.5	5	94.7	0.6	0	13.7	Included
Teaching about health service (ICN code: 10050965)	4.5	5	94.7	0.6	0	13.5	Included
Teaching about diversional therapy (ICN code: 10043536)	4.1	4	78.9	0.7	0	18	Round 2
Teaching about reality orientation therapy (ICN code: 10043768)	3.9	4	68.4	1	10.5	26	Round 2
Teaching about use of supporting device (ICN code: 10040909)	4.4	5	84.2	0.8	0	17.4	Included
Teaching relaxation technique (ICN code: 10038699)	4.5	5	89.5	0.7	0	15.4	Included
Teaching progressive muscle relaxation technique (ICN code: 10040555)	4.1	4	68.4	1	5.3	23.9	Round 2
Teaching adaptation techniques (ICN code: 10023717)	4.6	5	94.7	0.8	5.3	16.8	Included
Involving in decision-making process (ICN code: 10026323)	4.7	5	94.7	0.7	5.3	16	Included
Establishing trust (ICN code: 10024396)	4.7	5	94.7	0.6	0	12.4	Included
Presencing (ICN code: 10015575)	4.3	5	78.9	0.8	0	19	Round 2
Facilitating learning (ICN code: 10051139)	4.7	5	94.7	0.6	0	12.4	Included
Facilitating self-diversional activity (ICN code: 10051160)	4.4	4	94.7	0.6	0	13.7	Included
Facilitating family ability to participate in care plan (ICN code: 10035927)	4.5	5	84.2	0.8	0	17.1	Included
Facilitating ability to communicate needs (ICN code: 10038196)	4.6	5	89.5	0.7	0	15.1	Included
Facilitating ability to communicate feelings (ICN code: 10026616)	4.6	5	89.5	0.7	0	14.8	Included

Facilitating ability to participate in care planning (ICN code: 10040501)	4.6	5	89.5	0.7	0	15.1	Included
Facilitating impulse control (ICN code: 10035716)	3.9	4	68.4	1	10.5	25.5	Round 2
Managing negative responses to treatment (ICN code: 10024429)	4.4	5	89.5	0.8	5.3	19	Included
Identifying obstruction to communication (ICN code: 10009683)	4.4	5	89.5	0.7	0	15.7	Included
Identifying psychological status (ICN code: 10044241)	4.3	4	89.5	0.7	0	15.3	Included
Implementing cluster care (ICN code: 10039693)	4.1	4	84.2	0.6	0	15.3	Included
Promoting acceptance of health status (ICN code: 10037783)	4.6	5	100	0.5	0	10.7	Included
Promoting family support (ICN code: 10036078)	4.6	5	100	0.5	0	10.7	Included
Promoting spiritual support (ICN code: 10038300)	4.4	4	89.5	0.7	0	15.7	Included
Promoting social support (ICN code: 10024464)	4.5	5	94.7	0.6	0	13.7	Included
Promoting self-awareness (ICN code: 10036097)	4.4	5	89.5	0.7	0	15.7	Included
Promoting self-efficacy (ICN code: 10035962)	4.5	5	89.5	0.7	0	15.6	Included
Promoting self-esteem (ICN code: 10024455)	4.5	5	94.7	0.6	0	13.7	Included
Promoting self-management of symptom (ICN code: 10038469)	4.7	5	100	0.5	0	10.2	Included
Promoting ability to socialize (ICN code: 10050898)	4.3	4	84.2	0.7	0	17.2	Included
Promoting health seeking behaviour (ICN code: 10032465)	4.5	5	94.7	0.6	0	13.5	Included
Promoting effective family communication (ICN code: 10036066)	4.4	4	89.5	0.7	0	15.7	Included
Promoting effective coping (ICN code: 10035936)	4.7	5	94.7	0.6	0	12.4	Included
Promoting hope (ICN code: 10024440)	4.4	4	89.5	0.7	0	15.7	Included
Promoting limit setting (ICN code: 10026334)	4.2	4	84.2	0.8	5.3	20.1	Included
Promoting resting behaviour (ICN code: 10050912)	4.4	4	94.7	0.8	5.3	17.4	Included
Promoting effective family process (ICN code: 10036084)	4.4	5	84.2	0.8	0	17.4	Included
Promoting positive relationships (ICN code: 10035759)	4.6	5	100	0.5	0	10.7	Included
Promoting positive psychological status (ICN code: 10032505)	4.3	4	89.5	0.8	5.3	19	Included
Promoting activity therapy (ICN code: 10050908)	4.2	4	94.7	0.5	0	12.7	Included
Promoting diversional therapy (ICN code: 10036045)	4.3	4	89.5	0.7	0	15.3	Included
Providing use of memory technique (ICN code: 10024472)	4.1	4	78.9	0.9	5.3	21.3	Round 2
Providing use of progressive muscle relaxation technique (ICN code: 10040564)	4.2	4	78.9	0.9	5.3	21.6	Round 2
Providing emotional support (ICN code: 10027051)	4.6	5	94.7	0.6	0	12.9	Included
Providing spiritual support (ICN code: 10027067)	4.7	5	100	0.5	0	10.2	Included
Providing self-management support (ICN code: 10046960)	4.6	5	94.7	0.6	0	13.3	Included
Providing social support (ICN code: 10027046)	4.6	5	94.7	0.6	0	12.9	Included
Providing instructional material (ICN code: 10024493)	4.7	5	100	0.5	0	10.2	Included
Providing family anticipatory guidance (ICN code: 10026375)	4.3	5	78.9	0.9	5.3	21.9	Round 2
Referring to health care provider (ICN code: 10032567)	4.6	5	89.5	0.7	0	14.8	Included
Reinforcing self-efficacy (ICN code: 10022537)	4.7	5	94.7	0.6	0	11.9	Included
Reinforcing capabilities (ICN code: 10026436)	4.7	5	94.7	0.6	0	12.4	Included
Reinforcing positive behaviour (ICN code: 10036176)	4.7	5	94.7	0.6	0	11.9	Included
Reinforcing communication (ICN code: 10050309)	4.7	5	89.5	0.7	0	14.3	Included
Reinforcing achievements (ICN code: 10026427)	4.6	5	89.5	0.7	0	15.1	Included
Reinforcing impulse control (ICN code: 10036107)	4.1	4	73.7	0.9	5.3	22.8	Round 2
Reinforcing priority setting (ICN code: 10026188)	4.5	5	89.5	0.7	0	15.6	Included
Reinforcing personal identity (ICN code: 10026443)	4.4	5	84.2	0.9	5.3	20.5	Included
Reinforcing behavioural regime (ICN code: 10039002)	4.4	5	84.2	0.9	5.3	20.4	Included
Reassuring (ICN code: 10016480)	4.7	5	94.7	0.6	0	12.4	Included

Note. M = Mean; *Mdn* = Median; CVI = Content validity index; *SD* = Standard deviation; CV – Coefficient of variation.

The remaining 56 items that did not gain consensus moved on to the next round. In Round 2, in addition to the items from the previous round, 8 items were added. After the analysis of Round 2, 45 items were included, and 8 items were excluded (Table 4).

Table 4

Results of the quantitative analysis of Round 2

Item	*M*	*Mdn*	CVI (%)	*SD*	Answers 1 or 2 (%)	CV (%)	Decision
1 Structure of the educational intervention							
1.1 Intervention strategies							
Group sessions	4.3	5	83.3	0.9	5.6	20.9	Included
Group sessions with a significant family member	2.9	3	44.4	1.6	38.9	54.3	Round 3
Mixed sessions (individual and group) with a significant family member	3.2	4	50	1.7	38.9	53.8	Round 3
1.2 Type of contacts to be established							
Contact by written message (email, text message. etc.)	4.4	5	88.9	1.1	11.1	26.1	Included
Flyer/brochure	3.1	3	50	1.8	50.0	57.2	Round 3
1.3 Number of sessions/contacts							
2 sessions/contacts	2	2	5.6	1	66.7	48.5	Excluded
3-4 sessions/contacts	2.3	2	33.3	1.6	61.1	67.4	Excluded
5-6 sessions/contacts	4.3	5	83.3	1	11.1	23.7	Included
7-8 sessions/contacts	4.6	5	83.3	0.8	0	17.2	Included
1.4 Duration of sessions/contacts							
(New) 15-30 minute sessions/contacts (if individual)	4.4	5	83.3	0.9	5.6	20.9	Included
(New) 30-45 minute sessions/contacts (if individual)	4.1	4	88.9	1.2	11.1	29.9	Included
(New) 45-60 minute sessions/contacts (if individual)	2.3	2	27.8	1.5	61.1	64.1	Excluded
(New) 15-30 minute sessions/contacts (if group)	2.1	2	16.7	1.4	72.2	67.7	Excluded
(New) 30-45 minute sessions/contacts (if group)	3.4	4	66.7	1.3	33.3	39.4	Round 3
(New) 45-60 minute sessions/contacts (if in group)	4.4	5	83.3	0.9	5.6	20.9	Included
1.5 Frequency of sessions/contacts							
1 session/contact every two weeks	2.6	2	33.3	1.5	55.6	57.3	Excluded
1 session/contact per week	4.6	5	88.9	0.7	0	15.5	Included
2 sessions/contacts per week	2.9	2	38.9	1.6	55.6	52.7	Excluded
1.6 Start of the intervention							
In the last sessions of cancer treatment	4.6	5	88.9	1.1	11.1	24.8	Included
In the first week after the end of cancer treatment	4.5	5	94.4	0.6	0	13.7	Included
Between the second and fourth week after the end of cancer treatment	3.2	4	50	1.6	38.9	49.9	Round 3
1.7 Nurses' preparation							
Allow the researcher's supervision	4.3	5	83.3	1.1	5.6	25	Included
2 Participant exclusion criteria							
Being in the palliative phase of cancer	4.6	5	88.9	1	11.1	21.6	Included
Impaired cognitive capacity to make decisions and/or understand the information received	4.8	5	100	0.4	0	7.9	Included
Having had tumor or tissue extraction surgery less than one month ago	4.4	5	83.3	1	11.1	23.6	Included
(New) Not being an adult (<18 years)	4.5	5	88.9	1	11.1	21.9	Included
(New) Having being diagnosed with decompensated mental/psychiatric illness	4.8	5	100	0.4	0	9	Included

3 Focuses of nursing practice							
3.1 DOMAIN: Adaptation							
Self-management of risk for disease (ICN code: 10035255)	4.9	5	100	0.2	0	4.8	Included
Self-monitoring (ICN code: 10046987)	4.6	5	88.9	1.1	11.1	24.8	Included
Spiritual belief (ICN code: (10018583)	4.6	5	94.4	1	5.6	21.6	Included
Religious belief (ICN code: 10016728)	4.4	5	88.9	0.7	0	15.9	Included
3.2 DOMAIN: Attitude/Coping							
Ambivalence (ICN code: 10002205)	4.3	5	88.9	1.1	11.1	26.3	Included
Assimilation (ICN code: 10002845)	4.2	5	77.8	1.2	11.1	28.8	Round 3
Spiritual belief (ICN code: 10018577)	4.4	5	83.3	1.1	5.6	24.7	Included
Religious belief (ICN code: 10016728)	4.2	5	77.8	1.1	5.6	26.4	Round 3
3.3 DOMAIN: Emotion/Anxiety							
Distress (ICN code: 10006118)	4.3	5	83.3	1.2	11.1	27.5	Included
Helplessness (ICN code: 10008920)	4.6	5	94.4	1	5.6	21.6	Included
Despair (ICN code: 10005811)	4.7	5	94.4	0.8	5.6	16.4	Included
Mood equilibrium (ICN code: 10035785)	4.6	5	94.4	1	5.6	21.6	Included
Positive hope (ICN code: 10025353)	4.3	5	83.3	1.2	11.1	27.5	Included
Hopelessness (ICN code: 10009105)	4.7	5	100	0.5	0	9.8	Included
Frustration (ICN code: 10008252)	4.4	5	88.9	1	5.6	23.4	Included
Depressed mood (ICN code: 10005784)	4.4	5	83.3	1.1	5.6	24.7	Included
Nervousness (ICN code: 10013071)	4.6	5	88.9	0.7	0	15.1	Included
Preoccupation (ICN code: 10015466)	4.8	5	100	0.4	0	7.9	Included
Trauma response (ICN code: 10020114)	2.5	2	33.3	1.6	55.6	64.7	Excluded
Shame (ICN code: 10046761)	2.6	2	33.3	1.7	55.6	66.1	Excluded
3.4 DOMAIN: Resources							
Spiritual support (ICN code: 10027033)	4.6	5	88.9	0.7	0	15.1	Included
Social support role (ICN code: 10026979)	4.9	5	100	0.3	0	6.6	Included
4 Nursing interventions							
Counselling about spiritual distress (ICN code: 10026231)	4.5	5	83.3	0.9	5.6	20.5	Included
Supporting spiritual rituals (ICN code: 10024591)	4.4	5	83.3	1.1	5.6	24.9	Included
Teaching about diversional therapy (ICN code: 10043536)	4.7	5	94.4	0.6	0	12.2	Included
Teaching about reality orientation therapy (ICN code: 10043768)	4.3	5	83.3	1.3	16.7	29.8	Included
Teaching progressive muscle relaxation technique (ICN code: 10040555)	4.7	5	94.4	1	5.6	20.3	Included
Presencing (ICN code: 10015575)	4.9	5	100	0.3	0	6.6	Included
Facilitating impulse control (ICN code: 10035716)	4.6	5	88.9	0.9	5.6	18.8	Included
Promoting use of memory technique (ICN code: 10024472)	4.4	5	88.9	1.1	11.1	26.1	Included
Promoting use of progressive muscle relaxation technique (ICN code: 10040564)	4.7	5	94.4	1	5.6	20.8	Included
Providing family anticipatory guidance (ICN code: 10026375)	4.9	5	100	0.3	0	6.6	Included
Reinforcing impulse control (ICN code: 10036107)	4.6	5	94.4	0.8	5.6	17.2	Included

Note. M = Mean; *Mdn* = Median; CVI = Content validity index; *SD* = Standard deviation; CV = Coefficient of variation.

The remaining 7 items that did not gain consensus in this round moved on to the next round. No new items were added to Round 3. At the end of the third and final round, 2 items were included, and 2 items were excluded (Table 5). At the end of the three rounds, 3 items did not reach any consensus and were excluded.

Table 5

Results of the quantitative analysis of Round 3

Item	*M*	*Mdn*	CVI (%)	*SD*	Answers 1 or 2 (%)	CV (%)	Decision
1 Structure of the educational intervention							
1.1 Intervention strategies							
Group sessions with a significant family member	2.6	3	28.6	1.3	57.6	50.1	No consensus
Mixed sessions (individual and group) with a significant family member	3.0	2	42.9	1.8	57.1	60.6	Excluded
1.2 Type of contacts to be established							
Flyer/brochure	2.6	2	33.3	1.5	57.1	58.4	Excluded
1.4 Duration of the sessions/contacts							
30-45 minute sessions/contacts (if in group)	4.5	5	95.2	0.6	0	13.3	Included
1.6 Start of the intervention							
Between the second and fourth week after the end of cancer treatment	3.0	3	42.9	1.3	38.1	44.8	No consensus
3 Nursing focuses							
3.2 DOMAIN: Attitude/Coping							
Assimilation (ICN code: 10002845)	3.7	4	52.4	0.7	0	19.9	No consensus
Religious belief (ICN code: 10016728)	4.1	4	85.7	0.9	9.5	21.7	Included

Note. M = Mean; *Mdn* = Median; CVI = Content validity index; *SD* = Standard deviation; CV = Coefficient of variation.

After the three rounds, a consensus was reached on the inclusion of 33 items on the structure and 177 items on the content.

Discussion

The heterogeneity of the sample, which included professionals from different areas of clinical practice, provided an insight into the intervention context and cancer survivors' actual needs. In turn, the inclusion of academic professionals provided an external perspective but one closer to the latest scientific evidence. With regard to the intervention strategy, the results point to both an individual and a group approach. Studies indicate that significant outcomes can be obtained through individual and group sessions, as reported by Krouse et al. (2016), or even mixed sessions, as reported by Faithfull et al. (2010). It can be inferred that the appropriateness of the strategy should be based on the health professional's clinical judgment in the identification of patients' needs. Another important aspect is that the group of experts believes that contacts with cancer survivors should not only occur face-to-face in health institutions, but also through other types of resources, such as telephone consultations, video consultations, home visits, or even text messages. These data align with the growing trend of making health services available through digital platforms. This resource has a huge economic potential, is easily accessible, offers comfort, and has equal efficacy to traditional care (Agochukwu et al., 2018). With regard to nurses' preparation (pre-intervention training, provision of scientific information, and guides for consultation/session), the findings of this study highlight gaps in professionals' knowledge about cancer survivors' needs, namely training related to caring for emotional issues, surveillance, screening, anxiety management, and fear of recurrence. Therefore, the professional should overcome this difficulty through well-accepted, feasible methods, such as participation in classes/training, conferences, and online courses (Lester et al., 2014). The analysis of the participant exclusion criteria that obtained expert consensus shows that the following individuals should not participate in the intervention: under the age of 18, illiterate, with cognitive impairment, diagnosed with decompensated mental or psychiatric illness, in the palliative phase of the disease, and with disease progression. These data corroborate the available literature to the extent that an educational intervention has specificities when applied to individuals with the aforementioned characteristics. Concerning the content of the intervention, the experts found it essential to include almost all the focuses proposed for each of the four domains (Adaptation, Attitude/Coping, Emotion/Anxiety, and Resources), confirming the high acceptability of these domains. Although there is no intervention in the literature that simultaneously examines the proposed domains, some studies consolidate the relevance of these individual areas (Antoni, 2013; Towsley, et al., 2007; Yi & Syrjala, 2017).

It should be noted that Shame (ICN code: 10046761) and Trauma Response (ICN code: 10020114) focuses were excluded by consensus from the Emotions/Anxiety domain. and the Assimilation (ICN code: 10002845) focus was excluded from the Attitude/Coping domain

after reaching no consensus after three rounds. This aspect may be related to the emotion of shame, a negative feeling about oneself, or self-blame that individuals experience when they fail to meet social standards, requiring an intervention that focuses on maintaining realistic expectations through psychoeducational techniques, cognitive-behavioral therapies, or cognitive dissonance (Castonguay et al., 2017). Similarly, trauma response falls under the scope of mental/psychiatric disorders, so it must have a similar approach to the one mentioned above. All of the interventions under analysis in the questionnaires reached a consensus for inclusion. These interventions include teaching, supporting, identifying, encouraging, reinforcing, and promoting, reflecting the wide variety of interventions available to nurses that are internally validated by the experts in this field and supported by the literature. However, another key aspect is that the experts were able to capture the meaning of each of the items under analysis, which may have been due to the use of standardized language (International Classification for Nursing Practice - ICNP). This classification is widely spread in Portugal, both in academic/research and clinical settings.

Like all those using the Delphi technique, this study has known limitations. In addition to using a non-randomized sample, there is no consensus in the literature about the criteria to define the number and characteristics of participants and the number of rounds, as well as the criteria to define the consensus, potentially interfering with the analysis of the results (Keeney et al., 2011). The fact that the study was conducted in Portugal may be another limitation, requiring caution in the generalization of the results to countries with different health contexts. On the other hand, the modified e-Delphi technique allowed using a structured questionnaire divided into five categories in the first round. This decision can be a limitation, given that the first round in the classical technique consists of a set of open-ended questions to help design rather than impose the structure of the questionnaire.

Conclusion

This study, with a sample of 27 experts, validated 210 items on the structure and content of an educational nursing intervention to promote adaptation in cancer survivors, specifically in the following domains: Adaptation, Attitude/Coping, Emotion/Anxiety, and Resources. Cancer survivors are a growing population with pressing needs, and this study highlights that much work remains to be done to assess these often-underdiagnosed needs and improve their psychological response, reduce their emotional distress, and improve their quality of life. One of the most important contributions of this study to clinical practice is the identification of a large number of autonomous nursing interventions, valid and consensual among experts, which can be used to provide care to cancer survivors, thus reinforcing the importance of nurses' role in this stage of the disease. The results of this study will be useful to assess the applicability, acceptability, and effectiveness of this educational intervention in a pilot study and, then, a controlled randomized study. Nurses play a critical role in all aspects of cancer survivorship, both in caring for the individual and supporting the family, and further support is needed to expand education and research in this area to ensure the quality of care in the future.

Author contributions

Conceptualization: Peixoto, T. A., Peixoto, N. M.
Data curation: Peixoto, T. A., Peixoto, N. M.
Formal analysis: Peixoto, T. A., Peixoto, N. M.,
Investigation: Peixoto, T. A., Peixoto, N. M., Pinto, C. A., Santos, C. S.
Methodology: Peixoto, T. A., Peixoto, N. M., Pinto, C. A., Santos, C. S.
Supervision: Pinto, C. A., Santos, C. S.
Validation: Pinto, C. A., Santos, C. S.
Project administration: Peixoto, T. A.,
Writing – original draft: Peixoto, T. A.
Writing – review and editing: Pinto, C. A., Santos, C. S.

References

Agochukwu, N. Q., Skolarus, T. A., & Wittmann, D. (2018). Telemedicine and prostate cancer survivorship: A narrative review. *mHealth*, *4*, 45–45. https://doi.org/10.21037/mhealth.2018.09.08

Albreht T., Kiasuwa, R., van den Bulcke, M. (2017). *European guide on quality improvement in comprehensive cancer control.* National Institute of Public Health, Scientific Institute of Public Health. https://cancercontrol.eu/archived/uploads/images/Guide/pdf/CanCon_Guide_FINAL_Web.pdf

Andrykowski, M. A., Lykins, E., & Floyd, A. (2008). Psychological health in cancer survivors. *Seminars in Oncology Nursing*, *24*(3), 193–201 https://doi.org/10.1016/j.soncn.2008.05.007

Antoni, M. H. (2013). Psychosocial intervention effects on adaptation, disease course and biobehavioral processes in cancer. *Brain, Behavior, and Immunity*, *30*, S88–S98. https://doi.org/10.1016/j.bbi.2012.05.009

Bardin, L. (2011). *Análise de conteúdo*. Edições 70.

Carlson, L. E., & Bultz, B. D. (2004). Efficacy and medical cost offset of psychosocial interventions in cancer care: Making the case for economic analyses. *Psycho-Oncology*, *13*(12), 837–849. https://doi.org/10.1002/pon.832

Castonguay, A., Wrosch, C., Pila, E., & Sabiston, C. (2017). Body-related shame and guilt predict physical activity in breast cancer survivors over time. *Oncology Nursing Forum*, *44*(4), 465–475. https://doi.org/10.1188/17.onf.465-475

Faithfull, S., Hearne-Cockle, J., & Khoo, V. (2010). Self-management after prostate cancer treatment: Evaluating the feasibility of providing a cognitive and behavioral programme for lower urinary tract symptoms. *British Journal Urology International*, *107*(5), 783-790. https://doi.org/10.1111/j.1464-410X.2010.09588.x

Havers, S. M., Martin, E., & Wilson, A. (2019). Implementation of government-directed policy in the hospital setting: A modified Delphi study. *Health Research Policy and Systems, 17(*91). https://doi.org/10.1186/s12961-019-0500-8

Keeney, S., McKenna, H. & Hasson, F. (2011). The Delphi technique in nursing and health research. *Wiley-Blackwell*. https://doi.org/10.1002/9781444392029

Krouse, R. S., Grant, M., McCorkle, R, Wendel, C. S., Cobb, M. D., Tallman, N. J., Ercolano, E., Sun, V., Hibbard, J. H., & Hornbrook, M. C. (2016). A chronic care ostomy self-management program for cancer survivors. *Psychooncology*, *25*(5), 574-581. https://doi.org/10.1002/pon.4078

Lester, J. L., Wessels, A. L., & Jung, Y. (2014). Oncology nurses' knowledge of survivorship care planning: The need for education. *Oncology Nursing Forum, 41*(2), E35–E43. https://doi.org/10.1188/14.onf.e35-e43

Marques, J. B., & Freitas, D. (2018). Método DELPHI: Caracterização e potencialidades na pesquisa em educação. *Pro-Posições*, *29*(2), 389-415. https://doi.org/10.1590/1980-6248-2015-0140

Naus, M. J., Ishler, M. D., Parrott, C. E., & Kovacs, S. A. (2009). Cancer survivor adaptation model: Conceptualizing cancer as a chronic illness. *Journal of Clinical Psychology*, *65*(12), 1350–1359. https://doi.org/10.1002/jclp.20622

Osborne, J., Collins, S., Ratcliffe, M., Millar, R., & Duschl, R. (2003). What ideas-about-science should be taught in school science? A Delphi study of the expert community. *Journal of Research in Science Teaching*, *40*(7), 692-720. https://doi /10.1002/tea.10105

Peixoto, T. A., Peixoto, N. M., Pinto, C. A., & Santos, C. S. (2021a). Nursing strategies to support psychological adaptation in adult cancer patients: A scoping review. *Revista Da Escola De Enfermagem Da USP, 55*, e03690. https://doi.org/10.1590/s1980-220x2019039203690

Peixoto, T. A., Peixoto, N. M., Pinto, C. A., & Santos, C. S. (2021b). Elementos-chave de uma intervenção educacional em enfermagem promotora da adaptação dos sobreviventes de cancro. *Revista de Enfermagem Referência, 5*(5), e20078. https://doi.org/10.12707/RV20078

Toronto, C. (2017). Considerations when conducting e-Delphi research: A case study. *Nurse Researcher*, *25*(1), 10–15. https://doi.org/10.7748/nr.2017.e1498

Towsley, G. L., Beck, S. L., & Watkins, J. F. (2007). "Learning to live with it": Coping with the transition to cancer survivorship in older adults. *Journal of Aging Studies*, *21*(2), 93–106. https://doi.org/10.1016/j.jaging.2006.08.003

Yi, J. C., & Syrjala, K. L. (2017). Anxiety and depression in cancer survivors. *Medical Clinics of North America*, *101*(6), 1099–1113. https://doi.org/10.1016/j.mcna.2017.06.005