

ORIGINAL ARTICLE

VALIDATION OF A GUIDANCE MANUAL FOR PATIENTS UNDERGOING BRACHYTHERAPY FOR GYNECOLOGIC CANCER

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ABSTRACT

Objective: to validate the content of a guidance manual for women undergoing brachytherapy for gynecologic cancer.

Method: methodological research conducted by 15 experts in the topic addressed in the manual, including nurses, doctors, psychologists and nutritionists. A minimum level of agreement of 80% between the experts was required for the validation of the manual.

Results: Of the 21 items assessed, three did not reach the minimum level of consensus established and were reformulated based on the suggestions of the participants and on the current literature. All other items were considered appropriate and/or totally appropriate in the three assessment domains: objectives - 81.3%, structure and presentation - 86.6%, and relevance - 94.6%.

Conclusion: the educational manual was validated for its content and can be used as a complement to the verbal guidelines provided during nursing consultations to promote self-care, and to facilitate communication between healthcare professionals and patients regarding the treatment.

DESCRIPTORS: Brachytherapy; Female Genital Cancers; Health Education; Nursing Care; Validation Studies.

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VALIDAÇÃO DE UM MANUAL DE ORIENTAÇÕES PARA PACIENTES SUBMETIDAS À BRAQUITERAPIA GINECOLÓGICA

RESUMO

Objetivo: validar o conteúdo de manual de orientações direcionado a mulheres com câncer ginecológico submetidas à braquiterapia.

Método: pesquisa metodológica, realizada por 15 peritos na área temática do manual, entre enfermeiras, médicos, psicólogas e nutricionistas. Para que o manual fosse considerado válido, era necessário atingir Índice de Concordância mínimo de 80% entre os peritos.

Resultados: dos 21 itens avaliados, três não alcançaram o índice mínimo estabelecido, e foram reformulados com base nas sugestões dos participantes e literatura atual. Todos os outros itens foram considerados adequados e/ou totalmente adequados nos três domínios avaliativos: objetivos - 81,3%, estrutura e apresentação - 86,6%, e relevância - 94,6%.

Conclusão: o manual educativo foi validado quanto ao conteúdo, podendo ser utilizado como complemento às orientações verbais fornecidas durante a consulta de enfermagem para promoção do autocuidado, e facilitar a comunicação entre profissional de saúde e paciente, no que concerne ao seu tratamento.

DESCRITORES: Braquiterapia; Neoplasias dos Genitais Femininos; Educação em Saúde; Cuidados de Enfermagem; Estudos de Validação.

VALIDACIÓN DE UN MANUAL DE ORIENTACIONES PARA PACIENTES SOMETIDAS A BRAQUITERAPIA GINECOLÓGICA

RESUMEN:

Objetivo: validar el contenido de manual de orientaciones para mujeres con cáncer ginecológico sometidas a braquiterapia.

Método: investigación metodológica, hecha por 15 expertos por área temática, entre enfermeras, médicos, psicólogas y nutricionistas. Para que el manual fuera válido, se necesita alcanzar el Índice de Concordancia mínimo de 80% entre los expertos.

Resultados: de los 21 ítems evaluados, tres no obtuvieron el índice mínimo establecido, siendo reformulados con base en las sugerencias de los participantes y de literatura actual. Todos los demás ítems se los consideraron adecuados y/o totalmente adecuados en los tres ámbitos evaluativos: objetivos - 81,3%, estructura y presentación - 86,6%, y relevancia - 94,6%.

Conclusión: se validó el manual educativo en cuanto al contenido y éste se puede utilizar como complemento a las orientaciones verbales fornecidas durante la consulta de enfermería para promoción del autocuidado y facilitar la comunicación entre profesional de salud y paciente acerca del tratamiento.

DESCRIPTORES: Braquiterapia; Neoplasias de los Genitales Femeninos; Educación en Salud; Cuidados de Enfermería; Estudios de Validación.

INTRODUCTION

Cancer is a major public health problem. According to the National Cancer Institute José Alencar Gomes da Silva (INCA) an estimated 600,000 new cases of cancer were expected in Brazil for the 2018-2019 biennium⁽¹⁾. Gynecologic cancers include endometrial cancer, ovarian cancer and cervical and vulvar cancers⁽²⁻³⁾. Cervical cancer is the fourth most common cause of cancer and the fourth most common cause of death from cancer in women⁽¹⁾.

Brachytherapy is a type of radiation therapy that involves placing radioactive material directly inside or next to the tumor to be treated, through specific applicators inserted into the vaginal canal. Despite its significant benefits, this treatment produces adverse effects that can become irreversible if not handled properly⁽⁴⁻⁵⁾. The main complications caused by brachytherapy are burning, pain, nausea, vomiting, urinary tract infection, weakness, constipation, diarrhea, vaginal bleeding, tiredness, vulvar hypersensitivity and vaginal stenosis^(3,6).

As nurses spend more time with patients than any other health care professionals, they can also play an educational role. When nurses effectively communicate with the patients, they understand the weaknesses and fears experienced by these individuals regarding the disease and treatment, and thus can answer their questions in order to provide more efficient and adequate care⁽⁷⁾.

Printed educational materials increase patients' knowledge about the disease, improve self-care, patient satisfaction and adherence to the medication regimen⁽⁸⁻⁹⁾. However, it is necessary to validate the content and the appearance of these materials⁽¹⁰⁻¹¹⁾. Content validity is one of the most important forms of validation. It certifies whether an instrument properly reflects the content about the domain of interest⁽¹²⁾. That is, it is a process that verifies the adequacy with which the content is reflected in the printed material^(9,13).

Given the importance of validating educational material before its use, the present study aimed to validate the content of a guidance manual for patients undergoing brachytherapy for gynecologic cancer.

METHOD

The present study adopted the Pasquali's Psychometric Theory, which proposes a validation method based on three major axes or procedures: theoretical (concerns the development and validation of the manual), empirical (pilot tests the validated manual in a small sample of the target population to evaluate the results) and analytical (analysis of the experiment)⁽¹⁴⁾. The study presents the steps related to the development of the theoretical axis.

The recommendations of Echer⁽¹⁵⁾ regarding the development of healthcare guidelines were followed. A bibliographic research was conducted about gynecological cancer, gynecologic brachytherapy, its adverse effects and management of signs and symptoms, as well as other information relevant to the selected theme. The material developed was titled: Guidance Manual: Gynecologic Brachytherapy. With 36 pages, the manual addresses gynecologic cancer and brachytherapy, treatment steps, general guidelines, immediate care following brachytherapy, adverse effects, vaginal stenosis and its treatment. Useful telephone numbers and the bibliographic references used are also included.

According to Pasquali's Psychometric Theory, at least six professional experts in the domain of interest are required for content validation. The criteria for the selection of the experts were adapted from the model proposed by Fehring⁽¹⁶⁾. The experts should obtain at least 5 points to participate in the analysis and validation of the instrument. Academic

degrees, specialization, scientific production, knowledge and length of experience in the field were evaluated. The search for experts who met the inclusion criteria included analysis of Lattes CV of oncology professionals available on the website of the National Council for Scientific and Technological Development. The experts who failed to submit the evaluation of the guidance manual even after extension of the deadline were excluded.

The invitation letter to the experts was sent by email, together with the Free and Informed Consent Form, the educational manual and the assessment instrument, adapted from a pre-existing questionnaire⁽¹⁷⁾ and divided into two parts. The first part concerns information about the characterization of the experts, such as gender, age, profession, field of activity, qualification, professional experience, length of time working in the field and scientific production. The second part includes items that will be specifically used to evaluate the guidance manual, with modules about objective, structure and presentation, and relevance. The professionals were allowed to provide suggestions and make comments on the material.

Data was collected from August to December 2017. The sample consisted of 15 professionals, as follows: 8 nurses, 3 radiation oncologists, 2 psychologists and 2 nutritionists.

Analysis of expert characterization data was performed using descriptive statistics. Regarding the evaluation of the guidance manual, a 5-point Likert-type scale was used. The response options were 1- inappropriate, 2- partially appropriate, 3- I am not sure, 4- appropriate, 5- totally appropriate. A minimum level of agreement of 80% between the experts regarding the adequacy of the material was required for the validation of the manual, as proposed by Pasquali⁽¹⁴⁾. Therefore, the items assessed should obtain at least 80% of answers Appropriate and Totally Appropriate for their validation. The items that did not reach the required level were reviewed and compared with literature findings, in order to reach their validity. The data were tabulated, processed and analyzed using descriptive statistics. The research project was submitted to the Research Ethics Committee of Faculdade de Ciências da Saúde da Universidade de Brasília (CEP/FS-UnB), as recommended by Resolution 466/2012, of the National Health Council and approved on August 31, 2017, under Protocol no 2.250.804.

RESULTS

The sample consisted of 15 experts with an average age of 35.1 years, (minimum 27 and maximum 43 years). As for their profession, there were 8 nurses (53.33%), 3 radiation oncologists (20%), 2 psychologists (13.33%) and 2 nutritionists (13.33%). Of these, 12 (80%) were women and three (20%) were men.

As for their area of knowledge, all professionals (100%) had training in oncology. It should be noted that three participants (20%) also had teaching activities. The average length of time in professional training was 11.4 years, ranging from 4 to 19 years. As for the average length of time working in the field it was 9.2 years. Regarding their academic degree, two professionals were specialists, seven had master degree and six had doctoral degree. However, in the analysis of the results, the maximum degree of each expert was considered. The average score of the experts based on criteria adapted from the model proposed by Fehring⁽¹⁶⁾ was 9.6 points, with a minimum score of 6 and a maximum score of 13 points.

Table 1 shows the responses of the experts grouped by the domains assessed in the manual, as well as the level of agreement reached for each item, and in general for each group. In domain 1 (Objective), the items that assessed whether the manual met the objectives of the health institutions that performed brachytherapy and promoted changes in behavior and attitudes did not reach the minimum level of agreement of 80%. The agreement obtained between the experts was 73.3%. In domain 2 (Structure and Presentation), only the item related to the clarity and objectivity of the information included

in the manual obtained a level of agreement below 80%. In domain 3 (Relevance), all items reached a minimum level of agreement of 80%. The average level of agreement for each assessed domain was higher than 80%, reaching the minimum level required.

Table 1 - Expert assessment for each domain analyzed in the guidance manual. Brasília, DF, Brazil, 2017

Evaluation Items	n= 15					
	I [†]	PA [‡]	N [§]	A ^{††}	TA ^{††}	% ^{§§}
Objective						
A. It is consistent with the needs of patients undergoing brachytherapy	0	1	0	5	9	93.3
B. It is consistent from the point of view of the teaching-learning process	0	1	1	5	8	86.6
C. Promotes changes in behavior and attitudes	0	0	4	5	6	73.3
D. Can be circulated in the scientific environment in the oncology field	0	2	1	4	8	80.0
E. Meets the objectives of institutions that perform brachytherapy	0	2	2	5	6	73.3
Total	0	6	8	24	37	81.3
Structure and presentation						
A. The manual is appropriate for patients undergoing brachytherapy for gynecologic cancer.	0	1	0	6	8	93.3
B. The content is clearly and objectively presented	0	4	0	3	8	73.3
C. The information presented is scientifically correct	0	1	0	5	9	93.3
D. The material is appropriate to the social and cultural level of the proposed target audience	0	1	1	5	8	86.6
E. The proposed content has a logical sequence	0	0	1	7	7	93.3
F. The information is well structured (agreement and spelling)	0	2	0	6	7	86.6
G. The writing style is consistent with the level of knowledge of the target audience	0	1	1	5	8	86.6
H. Information on the cover, back cover, summary, acknowledgments and or presentation is consistent	0	1	0	6	8	93.3
I. Title and topic size is appropriate	0	1	1	6	7	86.6
J. The illustrations are adequate and in sufficient quantity	1	1	1	7	5	80.0
K. The number of pages is appropriate	0	0	3	6	6	80.0
Total	1	13	8	62	81	86.6
Relevance						
A. Depicts key aspects that must be reinforced	0	0	0	4	11	100
B. The manual allows the transfer and generalization of learning in different contexts	0	1	0	8	6	93.3
C. The manual proposes that the patient acquire knowledge to perform self-care	0	0	1	6	8	93.3
D. The manual addresses issues that are relevant for patients with gynecologic cancer undergoing brachytherapy	0	0	0	3	12	100

E. It is suitable for use by any health professional as an educational technology	0	2	0	5	8	86.6
Total	0	3	1	26	45	94.6

I[†] - Inappropriate; PA[‡] – Partially appropriate; N[§] - I am not sure; A^{††} Appropriate; TA^{†††} Totally Appropriate. % ^{§§} - Level of agreement calculated by adding the appropriate and totally appropriate responses considered by the experts: TA + A x 100 / total responses.

Chart 1 presents the summary of the suggestions and comments made by the experts regarding the manual elaborated and the conduct adopted by the authors on whether or not to accept such changes. All the suggestions presented, related or not to the items that obtained a level of agreement lower than 80%, were analyzed and assessed as to their relevance for better development and improvement of the manual.

Chart 1 - Summary of comments and suggestions from experts and conduct adopted by the authors. Brasília, DF, Brazil, 2017

Pages	Experts' suggestions	Conduct
Cover	Remove data about the institution Change the title of the guidance manual	Suggestion not accepted Suggestion accepted
Page 6	Add the theme "understanding your body" Remove the theme "gynecologic cancer" Add info on vaginal cancer Change the spelling of the types of gynecologic cancer	Suggestion not accepted Suggestion not accepted Suggestion accepted Suggestion not accepted
Page 7	Suggested spelling: "but you will need a companion over 18 if anesthesia is indicated for you" Change topic title Suggested spelling: the treatment is, in most cases, performed once a week"	Suggestion accepted Suggestion accepted Suggestion accepted
Page 8	Maintain chronological order of treatment steps Add information about physical therapy care	Suggestion accepted Suggestion accepted
Page 9	Add explanation about the regular shaver	Suggestion accepted
Page 10	Add guidance on sun, sea water or swimming pool baths	Suggestion accepted
Page 11	Add guidance on adornment and dental prosthesis Add information on antihypertensive use	Suggestion accepted Suggestion not accepted
Page 12	Suggested spelling: "brachytherapy card" Replace the word "pee" with "urinate"	Suggestion accepted Suggestion accepted
Page 13	Add information: "the applicator is inserted before the x-ray" and "depending on the type of applicator, the probe will only be introduced in the first session"	Suggestion accepted
Page 15	Replace "patient positioning" with "treatment planning", "pee canal" with "urethra" and "x-ray" with "radiography"	Suggestion accepted
Page 16	Remove the images of applicators as they generate anxiety	Suggestion not accepted
Page 17	Remove arrow pointing to the applicator as a radiation source	Suggestion accepted
Page 21	Suggested spelling: "it is important that you hydrate yourself to prevent dysuria (burning and painful urination) "	Suggestion accepted

Page 22	Replace "pee" with "urinate"	Suggestion accepted
Page 26	Replace "bring infection" to "cause infection"	Suggestion accepted
Page 27	Remove the theme "adverse effects" Add information on nutrition in diarrhea	Suggestion not accepted Suggestion accepted
Page 28	Change image related to "weakness"	Suggestion accepted
Page 29	Add guidance on the use of lubricant	Suggestion accepted
Page 30	Suggested spelling: small amount of bleeding, involving less blood loss than menstruation, is normal"	Suggestion accepted
Page 32	Explain use of condom without lubricant Add guidance on sex	Suggestion accepted Suggestion accepted
Page 33	Replace "at the end of treatment" with "at the first nursing consultation"	Suggestion accepted
Other suggestions	Replace photos with drawings Add topic about symptoms Add explanation about psychological care	Suggestion accepted Suggestion accepted Suggestion not accepted

DISCUSSION

Educational technologies, such as guidance manuals or booklets, are key tools for the empowerment of users of healthcare services. These technologies can provide greater access to knowledge about the health condition of these users, improving self-care and cooperation with the assistance of health professionals regarding the treatment⁽¹⁸⁻¹⁹⁾. Thus, the validation of a guidance manual in plain language that addresses relevant topics about the treatment and the health condition of users is necessary to assist nurses and other professionals in the care of patients with gynecologic cancer undergoing brachytherapy.

In general, there was agreement in the responses of the experts, as shown in Table 1. In the "Objective" domain, two items achieved an agreement level of 73.3%, i.e. below the minimum level required. In order to verify if the manual was pertinent and relevant to institutions that perform gynecologic brachytherapy, could be easily understood by the patients and met the needs of different health care services and/or institutions, experts from the Federal District and other Brazilian states were selected.

In the item that assessed this aspect, one of the experts selected the response "partially appropriate", claiming that the material meets the needs of the institution where the study was conducted, but that its suitability to other health institutions should be verified. The experts made a positive assessment of the manual and confirmed that it can be used in other health institutions, though changes in spelling and layout and the inclusion of topics relevant to each health institution are necessary.

In the item related to the promotion of changes in behavior and attitudes, which also obtained a level of agreement of 73.3%, one expert explained that the teaching-learning process and the promotion of changes in behavior are very complex aspects, especially regarding the population of patients assisted by the Unified Health System (SUS). Therefore, it cannot be affirmed that the manual developed is capable of causing such a change in its users, since it must also undergo changes in its visual language to be suitable for the target population.

A previous study demonstrated the importance given by patients to effective communication with health professionals, to the promotion of more humanized care based, among other aspects, on the recognition of their feelings and doubts, facilitating

the changes in behavior and attitudes, in order to cope with the disease⁽²⁰⁾. It is also known that factors intrinsic to the patient, such as educational level, religious beliefs and lifestyle habits, impact treatment adherence⁽²¹⁾. Therefore, the healthcare team must be trained to use the manual during the consultations, using clear communication and taking into account psychosocial factors associated with the patients, that impact their behavior and hence treatment adherence.

In domain 2, "Structure and Presentation", only the item related to the clarity and objectivity of the information presented in the manual obtained a level of agreement lower than 80%. The experts suggested changes in the visual part of the manual, as this could facilitate its understanding by the patients. This aspect was also demonstrated in a previous study on the validation of an educational manual, in which most criticisms and suggestions of the experts concerned the type of language of the manual, which should be clearer and appropriate to the educational level of the target population⁽¹⁷⁾. The suggestion was accepted and the color of the layout was modified to make reading easier. Also, the spelling was revised and the images were aligned to the text, to improve the understanding of the information and encourage the use of the manual as complementary information to the guidelines offered in nursing consultations.

In domain 2, again, it should be noted that the items related to the number of pages and illustrations of the manual obtained a borderline agreement rate of 80%. Regarding the number of pages, only one expert suggested adding a page regarding possible symptoms at the time of treatment, such as discomfort, colic and urge to urinate. As for the number of illustrations of the manual, an expert commented that there were few images and too much written information, and suggested modifications. The suggestions were accepted, and the written part of the material was modified, so that the language became more succinct, objective, clear and easy to understand. In addition, images were replaced by reliable drawings. Such changes are justified by the need to make the manual easier to understand by the target population, as observed in a study on the validation of an educational manual on nutrition during pregnancy⁽⁹⁾.

In domain 3, "Relevance", the item related to the presence of key aspects that should be reinforced in the manual obtained a level of agreement of 100%. In the aforementioned guidance manual, guidelines and information on the procedure itself, side effects of the treatment, sexual life and post-treatment recommendations were included, among others. Such themes are relevant and essential for an appropriate preparation of the patient, as observed in a previous study⁽²²⁾ about the knowledge that patients undergoing gynecologic brachytherapy considered important and essential for an appropriate treatment.

This domain obtained an absolute level of agreement of 94.6%, similar to the one found in a study on the development of educational material for patients undergoing orthognathic surgery⁽²³⁾, in which such domain was validated with a level of agreement of 97.2%, and in a study on the validation of an educational manual for the care of children with gastrostomy⁽²⁴⁾, where a similar value (93.18%) was obtained, demonstrating a high level of agreement among the experts, with the content of this manual being considered valid.

As shown in a previous study⁽¹⁹⁾, when patients use an educational manual, they are able to recognize behaviors considered harmful to them and that impact the success of the treatment, promoting changes in attitudes necessary to modify and/or improve the course of their disease, to increase their survival rates.

As it can be seen in Chart 1, some suggestions of the experts were not fully accepted. A point that deserves further consideration is related to the suggestion to remove the "Adverse effects" theme, and the justification was that this theme is not related to gynecologic brachytherapy. However, previous studies^(3,6) corroborate that the adverse effects in the guidance manual are also caused by gynecologic brachytherapy, and thus are not restricted to external radiation therapy, as suggested by the expert. The suggestion of adding the information "ingestion of a minimum amount of water" for patients who use antihypertensive medication was also not accepted, since such guidance is given during

nursing consultations, in a verbal communication between health provider and user, to patients who will be sedated and require fasting, according to the protocol of the institution.

Thus, the final level of agreement for each evaluation group was higher than the minimum level of agreement of 80%. Therefore, after the modifications related to the design of the manual, corrections in spelling and in scientific information are carried out, as suggested by the experts, the manual can be considered valid to be circulated and used by patients undergoing gynecologic brachytherapy.

The limitation of this study is the fact that the manual was not assessed by an expert in pelvic physiotherapy. E-mails requesting an assessment of the content of the manual were sent and several attempts were made to approach these professionals to obtain their contribution, but they were unsuccessful.

CONCLUSION

The validation performed by experts made it possible to improve the manual and, after the suggested changes were implemented, the final version of the material is considered valid in terms of its content, which is based on the needs of patients with gynecologic cancer undergoing brachytherapy.

A new study aimed to pursue the process of validation of the manual to the target population will be conducted. It is expected that after this stage is concluded the manual can be widely used during nursing consultations of the Radiation Therapy Outpatient Unit of Hospital Universitário de Brasília, and, subsequently, adapted to the specificities inherent to each healthcare unit for use in other health services that offer radiation therapy.

REFERENCES

1. Ministério da Saúde (BR). Estimativa 2018: incidência de câncer no Brasil. Rio de Janeiro: INCA; 2017.
2. Rutledge TL, Heckman SR, Qualls C, Muller CY, Rogers RG. Pelvic floor disorders and sexual function in gynecologic cancer survivors: a cohort study. *Am. J. Obstet. Gynecol.* [Internet]. 2010 [access 10 fev 2017]; 203(5):514-7. Available at: <https://dx.doi.org/10.1016%2Fj.ajog.2010.08.004>.
3. Toriy AM, Pires SA, Zomkowski K, Luz CM da, Krawulski E, Sperandio FF. Processo de recuperação físico-emocional no pós-câncer ginecológico. *Cad. Ter. Ocup. UFSCar.* [Internet]. 2015 [access 13 fev 2017]; 23(4):747-56. Available at: <http://dx.doi.org/10.4322/0104-4931.ctoAO0584>.
4. Jensen PT, Froeding LP. Pelvic radiotherapy and sexual function in women. *Transl. Androl. Urol.* [Internet]. 2015 [access 03 out 2018]; 4(2):186-205. Available at: <https://dx.doi.org/10.3978%2Fj.issn.2223-4683.2015.04.06>.
5. Soares MLCA, Trezza MCSF, Oliveira SMB de, Melo GC de, Lima KR da S, Leite JL. The healing cost: comfort and discomfort experiences of women undergoing brachytherapy. *Esc Anna Nery.* [Internet]. 2016 [access 28 mar 2017]; 20(2):317-23. Available at: <http://dx.doi.org/10.5935/1414-8145.20160043>.
6. Dallabrida FA, Loro MM, Rosanelli C de LSP, Souza MM de, Gomes JS, Kolankiewicz ACB. Quality of life of women undergoing treatment for cervical cancer. *Rev. RENE.* [Internet]. 2014 [access 28 mar 2017]; 15(1):116-22. Available at: <https://doi.org/10.15253/2175-6783.2014000100015>.
7. Peterson AA, Carvalho EC de. Therapeutic communication in Nursing: difficulties for the care of elderly people with cancer. *Rev. bras. enferm.* [Internet]. 2011 [access 24 abr 2017]; 64(4):692-7. Available at: <http://dx.doi.org/10.1590/S0034-71672011000400010>.

8. Hoffmann T, Warrall L. Designing effective written health education materials: considerations for health professionals. *Disabil. rehabil.* [Internet]. 2004 [access 11 abr 2017]; 26(9):1166-73. Available at: <http://dx.doi.org/10.1080/09638280410001724816>.
9. Oliveira SC de, Lopes MV de O, Fernandes AFC. Development and validation of an educational booklet for healthy eating during pregnancy. *Rev Lat-Am Enfermagem.* [Internet]. 2014 [access 26 jun 2017]; 22(4):611-20. Available at: <http://dx.doi.org/10.1590/0104-1169.3313.2459>.
10. Cruz FO de AM da, Ferreira EB, Vasques CI, Mata LRF da, Reis PED dos. Validation of and educative manual for patients with head and neck cancer submitted to radiation therapy. *Rev. Rev Lat-Am Enfermagem.* [Internet]. 2016 [access 02 abr 2017]; 24:e2706. Available at: <http://dx.doi.org/10.1590/1518-8345.0949.2706>.
11. Cruz FO de AM da, Reis PED dos, Vasques CI, Ferreira EB, Bontempo PSM. Face validation of and educative manual for head and neck cancer patients submitted to radiation therapy. *Biosci. J.* [Internet]. 2017 [access 02 abr 2017]; 33(6):1688-95. Available at: <http://www.seer.ufu.br/index.php/biosciencejournal/article/view/34674/21215>.
12. Medeiros RK da S, Ferreira Júnior MA, Pinto DP de SR, Vitor AF, Santos VEP, Barrichello E. Modelo de validação de conteúdo de Pasquali nas pesquisas de enfermagem. *Rev. Enf. Ref.* [Internet]. 2015 [access 06 out 2018]; 4:127-35. Available at: <http://dx.doi.org/10.12707/RIV14009>.
13. Polit DF, Beck CT. The Content Validity Index: are you sure you know what's being reported? Critique and Recommendations. *Res. nurs. health.* [Internet]. 2006 [access 11 abr 2017]; 29(5):489-97. Available at: <https://doi.org/10.1002/nur.20147>.
14. Pasquali, L. *Psicometria: teoria e aplicações*. Brasília: Editora Universidade de Brasília; 1997.
15. Echer IC. The development of handbooks of health care guidelines. *Rev Lat-Am Enfermagem.* [Internet]. 2005 [access 05 jan 2017]; 13(5):754-7. Available at: <http://dx.doi.org/10.1590/S0104-11692005000500022>.
16. Melo RP, Moreira RP, Fontenele FC, Aguiar ASC de, Joventino ES, Carvalho EC de. Criteria for selection of experts for validation studies of nursing phenomena. *Rev RENE.* [Internet]. 2011 [access 27 ago 2017]; 12(2):424-31. Available at: <http://periodicos.ufc.br/rene/article/view/4254/3285>.
17. Oliveira MS de, Fernandes AFC, Sawada NO. Educational handbook for selfcare in women with mastectomies: a validation study. *Texto contexto- enferm* [Internet]. 2008 [access 13 jul 2017]; 17(1):115-23. Available at: <http://dx.doi.org/10.1590/S0104-07072008000100013>.
18. Hammerschmidt KS de A, Lenardt MH. Innovative educational technology for empowering the elderly with diabetes mellitus. *Texto contexto-enferm.* [Internet]. 2010 [access 01 jul 2017]; 19:358-65. Available at: <http://dx.doi.org/10.1590/S0104-07072010000200018>.
19. Berardinelli LMM, Guedes NAC, Ramos JP, Silva MGN e. Educational technology as a strategy for the empowerment of people with chronic illnesses. *Rev. enferm. UERJ.* [Internet]. 2014 [access 02 ago 2017]; 22(5):603-9. Available at: <http://dx.doi.org/10.12957/reuerj.2014.15509>.
20. Rennó CSN, Campos CJG. Interpersonal communication research: valorization of the oncological patient in a high complexity oncology unit. *Rev RENE.* [Internet]. 2014 [access 15 set 2017]; 18(2):106-15. Available at: <http://www.dx.doi.org/10.5935/1415-2762.20140009>.
21. Tavares NUL, Bertoldi AD, Thumé E, Facchini LA, França GVA de, Mengue SS. Factors associated with low adherence to medication in older adults. *Rev. Saúde Públ.* [Internet]. 2013 [access 12 jan 2017]; 47(6):1092-101. Available at: <https://dx.doi.org/10.1590%2FS0034-8910.2013047004834>.
22. Long D, Friedrich-nels HS, Joubert G. Patient's informational needs while undergoing brachytherapy for cervical cancer. *Int. j. qual. health care.* [Internet]. 2016 [access 23 fev 2019]; 28(2):200-8. Available at: <https://doi.org/10.1093/intqhc/mzv119>.
23. Sousa CS, Turrini RNT. Validação de constructo de tecnologia educativa para pacientes mediante

aplicação da técnica Delphi. Acta Paul Enferm. [Internet]. 2012 [access 25 fev 2019]; 25(6):990-6. Available at: <http://dx.doi.org/10.1590/S0103-21002012000600026>.

24. Lima PS de, Blanes L, Ferreira LM, Gomes HF de C. Manual educativo de cuidados à criança com gastrostomia: construção e validação. Rev RENE. [Internet]. 2018 [access 24 fev 2019]; 22:e-1123. Available at: <http://www.dx.doi.org/10.5935/1415-2762.20180068>.

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