

International Classification of Functioning, Disability, and Health in women with breast cancer: a proposal for measurement instruments

Classificação Internacional de Funcionalidade, Incapacidade e Saúde em mulheres com câncer de mama: proposta de instrumentos para mensuração

Clasificación Internacional de Funcionalidad, Incapacidad y Salud en mujeres con cáncer de mama: propuesta de instrumentos para medición

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Abstract

The International Classification of Functioning, Disability, and Health (ICF) aims at standardization, but its applicability requires consistent instruments. In Brazil, invasive therapeutic approaches are frequent, leading to functional alterations. The current study thus aimed to identify and discuss instruments capable of measuring ICF core set codes for breast cancer. The review included ICF studies in women with breast cancer diagnosis and studies with the objective of translating and validating instruments for the Brazilian population, and consistent with the codes. Review studies, systematic or not, were excluded. Eight instruments were selected, and the WHOQOL-BREF was the most comprehensive. The use of various instruments showed 19 coinciding codes, and the instruments as a whole covered 58 of the total of 81 codes. The use of multiple instruments is time-consuming, so new studies are needed to propose parsimonious tools capable of measuring functioning in women treated for breast cancer.

Breast Neoplasms; Quality of Life; Validation Studies; Questionnaires; International Classification of Functioning, Disability and Health

Resumo

A Classificação Internacional de Funcionalidade, Incapacidade e Saúde (CIF) objetiva uma normatização, entretanto sua aplicabilidade requer instrumentos compatíveis. No Brasil, abordagens terapêuticas invasivas são frequentes, levando a alterações funcionais. Nesse sentido, o presente estudo visa a identificar e discutir os instrumentos capazes de mensurar códigos do core set da CIF para câncer de mama. Foram incluídos estudos da CIF em mulheres com diagnóstico de câncer de mama e estudos com o objetivo de traduzir e validar instrumentos para a população brasileira, compatíveis com os códigos. Estudos de revisão sistemática ou não da literatura foram excluídos. Foram selecionados oito instrumentos, sendo o WHOQOL-BREF o mais abrangente. Com o uso de vários instrumentos observou-se 19 códigos coincidentes, sendo contemplados 58 do total de 81 códigos. A utilização de muitos instrumentos requer tempo, para tanto, novos trabalhos são necessários propondo ferramentas parcimoniosas, capazes de mensurar a funcionalidade entre mulheres tratadas de câncer de mama.

Neoplasias da Mama; Qualidade de Vida; Estudos de Validação; Questionários; Classificação Internacional de Funcionalidade, Incapacidade e Saúde

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Introduction

Functioning is a complex term, the definition of which involves both physical condition and the external conditions that influence it^{1,2}. In order to facilitate a common language and encourage studies and public policies, the World Health Organization (WHO) elaborated the *International Classification of Functioning, Disability, and Health* (ICF), the objective of which is to describe health and health-related states with a holistic view of the individual and society, allowing the characterization of a person's functional capacity, considering environmental and social factors. Application of the ICF in practice is complex, and since it is a classification rather than an evaluation instrument, it does not allow objectively grading functioning, which thus require a search for alternatives to allow measurement. The classification would thereby allow a more objective reading to achieve the proposed aims.

The data obtained from the ICF are summarized in codes that include anatomical and physiological changes; task performance in a standard and habitual setting; the facilitating or limiting impact of the physical and social world's characteristics and of attitude; and the impact of individual attributes¹. The contextual and personal factors involved in the definition of functioning vary between groups, and in order to guarantee the classification's comparability, translations of the ICF should preserve to the maximum its original reliability and accuracy, thereby allowing interaction between the biomedical and social models^{2,3}.

The ICF consists of the conceptual basis for determining functioning or disability in chronic health⁴ and the maintenance of functioning. In women diagnosed with breast cancer, treatment approaches should include issues that can favor independent performance of personal, professional, and leisure-time activities⁵. The context includes complications related to performance of activities of daily living (ADLs) and social roles, referring to the concept of functioning according to the WHO⁶. In Brazil, difficulties in access to the public healthcare system lead to diagnoses in more advanced stages of the disease and require more aggressive therapeutic approaches that can result in functional, emotional, and social sequelae^{7,8}.

The international scientific literature includes publications that have attempted to establish the relationship between the most prevalent ICF codes in given health conditions and instruments used in clinical practice^{9,10,11}. In Brazil, no studies have been found so far that have proposed validated instruments for mea-

suring functioning and disability in breast cancer patients.

The brief lists of ICF codes for specific health conditions can facilitate the applicability of the classification in clinical practice. Brach et al.¹² proposed the ICF Core Set for breast cancer. This list was produced by consensus among a group of 19 experts from five different countries, which included data based on training for application of the classification and preliminary studies. This was a summary of the ICF encompassing all its components according to the health condition under study, i.e., breast cancer.

The current study proposed to identify and review the measurement instruments that have already been translated and validated for the Brazilian population, consistent with the ICF Core Set for breast cancer patients.

Materials and methods

A literature review was conducted, and studies were selected in Portuguese, English, and Spanish based on the LILACS, MEDLINE, and SciELO databases with the following descriptors: breast cancer; international classification of functioning, disability, and health; quality of life; questionnaire; and validation studies. The literature search was conducted from December 2011 to May 2012.

Inclusion criteria were: studies including the ICF in populations with breast cancer diagnosis and published since 2001 (after approval of the international use of this classification); studies aimed at the translation and validation of instruments for the Brazilian general population and that were consistent with the most prevalent ICF codes for breast cancer. This study excluded literature reviews (systematic or not) since they did not meet the current objective.

Data extraction was based on the codes obtained with the ICF Core Set for breast cancer. This summary of the classification includes 81 codes covering all the components of the classification, that is, structure, function, activities, and participation and environmental factors¹² (Table 1). This was followed by an active and manual search of the instruments validated and translated for the Brazilian population, verifying which ICF codes they covered. In order to minimize possible biases in the identification of ICF codes and instruments, the list was conducted independently by two researchers. The final version was obtained by consensus.

The instruments were selected according to the number of ICF codes they included, avoiding insofar as possible the overlapping measurement

Table 1

Core set of codes for breast cancer in the *International Classification of Functioning, Disability, and Health* (ICF), according to Brach et al. ¹².

ICF code	Description of category	ICF code	Description of category	ICF code	Description of category	ICF code	Description of category
b126	Temperament and personality functions	s420	Structure of immune system	d177	Making decisions	e110	Products and substances for personal consumption
b130	Energy and drive functions	s4200	Lymphatic vessels	d230	Carrying out daily routine	e115	Products and technology for personal use in daily living
b134	Sleep functions	s4201	Lymph nodes	d240	Handling stress and other psychological demands	e165	Assets
b152	Emotional functions	s630	Structure of reproductive system	d430	Lifting and carrying objects	e225	Climate
b180	Experience of self and time functions	s6302	Breast and nipple	d445	Hand and arm use	e310	Immediate family
b1801	Body image	s720	Structure of shoulder region	d510	Washing oneself	e315	Extended family
b265	Touch function	s730	Structure of upper extremity	d520	Caring for body parts	e320	Friends
b280	Sensation of pain	s760	Structure of trunk	d530	Toileting	e325	Acquaintances, peers, colleagues, neighbors, and community
b2801	Pain in body part	s810	Structures of areas of skin	d540	Dressing	e340	Personal care providers and personal assistants
b435	Immunological system functions			d550	Eating	e355	Health professionals
b4352	Functions of lymphatic vessels			d560	Drinking	e410	Individual attitudes of immediate family members
b4353	Functions of lymph nodes			d570	Looking after one's health	e415	Individual attitudes of extended family members
b455	Exercise tolerance functions			d620	Acquisition of goods and services	e420	Individual attitudes of friends
b530	Weight maintenance functions			d630	Preparing meals	e425	Individual attitudes of acquaintances, peers, colleagues, neighbors, and community
b640	Sexual functions			d640	Doing housework	e440	Individual attitudes of personal care providers and personal assistants
b650	Menstruation functions			d650	Caring for household objects	e450	Individual attitudes of health professionals
b660	Procreation functions			d660	Assisting others	e465	Social norms, practices, and ideologies
b670	Sensations associated with genital and reproductive functions			d720	Complex interpersonal interactions	e540	Transportation services, systems, and policies
b710	Mobility of joint functions			d750	Informal social relationships	e555	Associations and organizational services, systems, and policies

(continues)

Table 1 (continued)

ICF code	Description of category	ICF code	Description of category	ICF code	Description of category	ICF code	Description of category
b720	Mobility of bone functions			d760	Family relationships	e570	Social security services, systems, and policies
b730	Muscle power functions			d770	Intimate relationships	e575	General social support services, systems, and policies
b740	Muscle endurance functions			d850	Remunerative employment	e580	Health services, systems, and policies
b780	Sensation related to muscles and movement functions			d920	Recreation and leisure	e590	Labor and employment services, systems, and policies
b810	Protective functions of the skin						
b820	Repair functions of the skin						
b840	Sensation related to the skin						

of the same codes by different instruments, since some questions were asked in a similar way in more than one validated instrument.

Results

The review found 15 instruments on functioning that had been validated for the Brazilian population and could be used since they covered the codes proposed by the ICF Core Set for breast cancer (Table 2). Of this total, eight studies reached the widest range of codes related to the most prevalent alterations in women diagnosed with breast cancer (Table 3).

The *World Health Organization Quality of Life* (WHOQOL-BREF) instrument was selected since it covers a total of 31 codes, nine of which refer to body functions, nine pertaining to the component on activities and participation, and 13 codes related to environmental factors.

Another instrument identified by the review that proved consistent with evaluation using the ICF Core Set for breast cancer was the *Disability of the Arm, Shoulder and Hand* (DASH) questionnaire. Although it has not been validated for a female population with diagnosis of breast cancer, the instrument allows measuring 20 codes, of which seven refer to body functions and 13 to the component on activities and participation. Of these, two core set codes on mental functions, two on sensory functions and pain, two on neuromusculoskeletal functions and movement, and one on skin and related structures can be

measured with this instrument. The ICF chapters related to activity and participation and covered by DASH are related to mobility, personal care, domestic living, interpersonal relations and interactions, the principal areas of life and community, social, and civic life.

The *Social Support Questionnaire* included a total of 13 codes from the ICF Core Set, referring to the chapters described as support and relationships and attitudes from the component on environmental factors. These codes relate to the amount of physical and emotional support to the individual by persons or animals and to the attitudes of persons external to the person whose situation is being described.

Of the instruments pertaining to specific physical examination for breast cancer, only four met the current study's criteria: computed photogrammetry, aesthesiometry (monofilaments), indirect volume, and handgrip dynamometry, encompassing 12 codes, of which nine pertaining to the body functions component and three to the body structure component.

Measurement of indirect volume is one of the components of clinical evaluation and fits the three codes in the classification described as functions of the immune system, lymphatic vessels, and lymph nodes.

Postural evaluation by computed photogrammetry is also an item of the physical examination and can provide data on mobility of joint functions and structures of the shoulder region, upper extremities, and trunk. Evaluation of functions related to exercise tolerance, muscle power,

Table 2

Instruments validated for the Brazilian population.

	Codes (n)	Population in instrument validation	Reference
Instruments			
WHOQOL-100	35	250 outpatients and inpatients, of which 104 clinical patients, 65 surgical, 29 gynecology, and 52 psychiatry; plus 50 healthy individuals representative of the general population.	Fleck et al. ³⁶
SF-36	12	50 individuals with rheumatoid arthritis	Ciconelli et al. ³⁷
WHOQOL-BREF	20	300 individuals, including 250 patients from a university hospital in Porto Alegre and 50 volunteer controls	Fleck et al. ¹⁹
Social support	19	50 women undergoing breast cancer treatment for at least 1 year and up to 11 years, treated at the Outpatient Mastology Department of a hospital in Minas Gerais State.	Sales et al. ¹⁸
IPAQ	4	257 adult Brazilian men and women	Matsudo et al. ³⁸
DASH	12	65 individuals with rheumatoid arthritis, ranging from 18 to 60 years and with no other disease involving the upper limbs.	Orfale et al. ²⁰
WHQ	1	87 women in peri-menopause or menopause, defined as at least one year without menstruation, treated at the Outpatient Clinic for Menopause at a university hospital in the city of São Paulo	Silva Filho et al. ³⁴
HAD	2	Patients that came to the Pain Clinic from March 2002 to July 2003	Castro et al. ³⁹
EORTC QLQ C-30	19	100 women with routine consultations at the Outpatient Mastology Department of the AC Camargo Hospital, 27 to 90 years of age, with breast cancer diagnosis, treated or in treatment, in any stage of the disease	Silva ⁴⁰
BR-23			
FACT-B	11	96 women that underwent surgical treatment for breast cancer with axillary lymph node dissection (48) or sentinel lymph node biopsy (48), currently in adjuvant therapy or recovery, and that had not received physical therapy prior to the data collection	Paim ⁴¹
FACT-F	7	270 patients with different types of cancer	Ishikawa ⁴²
Physical examination			
Dynamometer	2	100 healthy individuals (50 men and 50 women), from 20 to 50 years of age, without cognitive alterations, physical disabilities, neuromuscular or orthopedic dysfunctions, or history of lesions in upper limbs.	Reis & Arantes ⁴³
MF	2	122 patients with breast cancer diagnosis that underwent breast-sparing surgery or mastectomy with axillary lymph node dissection or sentinel lymph node biopsy from March 2005 to June 2006.	Ferreira ¹³
Indirect volume	3	394 women that underwent surgical treatment for breast cancer from April to August 2000	Bergmann et al. ¹⁴
Photogrammetry	6	122 individuals from 19 to 45 years of age	Ferreira ²¹

DASH: *Disability of the Arm, Shoulder and Hand*; EORTC QLQ: *European Organization for Research and Treatment of Cancer, Quality of Life Questionnaire*; FACT: *Functional Assessment of Cancer Therapy (B = breast; F = fatigue)*; HAD: *Hospital Anxiety and Depression*; IPAQ: *International Physical Activity Questionnaire*; MF: *Semmes-Weinstein monofilaments*; SF-36: *Medical Outcomes Study 36 – Item Short-Form Health Survey*; WHOQOL: *World Health Organization Quality of Life*; WHQ: *Women's Health Questionnaire*.

and muscle endurance can be measured with handgrip dynamometry. The physical examination also includes aesthesiometry, covering one of the ICF codes related to touch function. This instrument also evaluates the code called sensation related to the skin, since it refers to sensations such as itching and numbness.

Concluding the list of codes validated for the Brazilian population, body mass index (BMI) can

also be used (based on self-reported weight and height) as a measurement instrument that provides data on weight maintenance functions.

According to the eligibility criteria defined for this study, only evaluation tools used in clinical practice and validated for the Brazilian population could be included. Thus, 23 codes did not match the instruments that were identified (b650; b660; b720; b780; b810; b820; s420; s4200;

Table 3

Instruments validated for the Brazilian population and respective *International Classification of Functioning, Disability, and Health* (ICF) core set of codes for breast cancer.

WHOQOL-BREF (n = 31)	DASH (n = 21)	Social Support Questionnaire (n = 13)	Physical examination (n = 12)			MF (n = 2)	BMI (n = 1)
			Photogrammetry (n = 4)	Direct Volume (n = 3)	Dynamometry (n = 3)		
b126	b126	e310	b710	b435	b455	b265	b530
b130	b134	e315	s720	b4352	b730	b840	
b134	b265	e320	s730	b4353	b740		
b152	b2801	e325	s760				
b180	b710	e340					
b1801	b730	e355					
b280	b840	e410					
b640	d430	e415					
b670	d445	e420					
d230	d510	e425					
d240	d540	e440					
d430	d550	e450					
d720	d630	e465					
d750	d640						
d760	d650						
d770	d720						
d850	d750						
d920	d760						
e110	d770						
e165	d850						
e225	d920						
e315							
e320							
e325							
e355							
e415							
e420							
e425							
e455							
e540							
e580							

BMI: body mass index; MF: Semmes-Weinstein monofilaments; WHOQOL-BREF: *World Health Organization Quality of Life Brief Questionnaire*;

DASH: *Disability of the Arm, Shoulder and Hand*;

Note: "b" for *body*, code for function component; "s" for *structure*, for structure component; "d" for *domain*, for activities and participation component; "e" for *environment*, for environmental factors component.

s4201; s630; s6302; s810; d177; d520; d530; d560; d570; d620; d660; e115; e555; e570; e575; and e590) (Table 1).

However, it was observed that data contained in the hospital patient chart and items from the physical examination represented by inspection and specific tests also serve as measurement instruments.

The mobility of bone functions (b720) relate to the evaluation of scapular stability in the

shoulder joint complex using the Hoppenfeld maneuver. The evaluation of wounds and scar tissue includes the codes pertaining to the protective functions of the skin (b810), repair functions of the skin (b820), and structures of areas of skin (s810). The investigation of lymphatic cording (axillary web syndrome) can be related to structure of immune system such as lymphatic vessels (s4200) and lymph nodes (s4201). Evaluation of the use of external breast prosthesis can

be related to products and technology for personal use in daily living (e115).

Data collection from the patient chart covers six codes, including three from the body structure component (lymph nodes, structure of the reproductive system, and breast and nipple) and two referring to environmental factors (social security services, systems, and policies and labor and employment services, systems, and policies). Data collection from the patient chart on the use of medicines for the target disease may be related to the code called products or substances for personal consumption (e110).

The study showed that seven codes referring to environmental factors (e315, e320, e325, e355, e415, e420, e425) that are covered by WHOQOL-BREF were also found in the *Social Support Questionnaire*. Two codes were also found in WHOQOL-BREF belonging to the body functions component (b126 and b134) and seven from the activities and participation component (d430, d720, d750, d760, d770, d850, d920), coinciding with the results obtained in DASH. Two codes, from the touch function component (b265) and sensation related to the skin (b840) can be measured by both DASH and aesthesiometry (monofilaments). Mobility of joint functions (b710) is a code that can be evaluated by DASH and physical examination, using photogrammetry. Likewise, the code called muscle power functions (b730) can be measured by DASH and by another component of the physical examination, dynamometry. The codes for structure of the shoulder region (s720) and structure of upper extremity (s730) are included in indirect volume and photogrammetry, since they allow concurrent observation of edema and injuries in these structures. After counting and excluding the coinciding codes, the validated instruments as a whole managed to capture a total of 58 codes from the ICF Core Set for breast cancer (Table 3).

Discussion

All the instruments that were identified and selected in the current study have been validated for the Brazilian population, but only three are limited to the psychometric properties tested for the population of Brazilian women with breast cancer diagnosis, which may pose a certain limitation.

Among the instruments validated for diagnosis of altered sensation threshold in women that undergo breast cancer treatment, aesthesiometry or evaluation of tactile sensation with Semmes-Weinstein monofilaments is used for those that

have undergone surgery¹³. Indirect volume of the upper limb is another instrument validated specifically for women with breast cancer¹⁴.

Several instruments identified as equivalent to the ICF codes are questionnaires that aim to measure quality of life, defined by the WHO as the individuals' self-rated position in life, within the context of the culture and value systems in which they live and in relation to their goals, expectations, standards, and concerns¹⁵. Functioning is one of the domains in many of these instruments, thus explaining its affinity with the ICF^{16,17}.

In addition to the above instruments, the study found the *Social Support Questionnaire* validated for the population of women with breast cancer in Brazil¹⁸.

The other instruments identified in the study had been validated for the Brazilian population with other health conditions. The WHOQOL-Bref, translated into Portuguese and validated in Brazil¹⁹, used as its study population adults with major depression and contains 26 questions covering 31 of the 81 codes in the ICF Core Set. The DASH instrument, which covers 20 ICF codes, was translated and validated in Brazil²⁰ in 65 individuals ranging from 18 to 60 years of age, with rheumatoid arthritis and without any other condition affecting the upper limbs.

For postural evaluation, the instruments validated for the Brazilian population include computed photogrammetry, which combines digital photography with programs such as SAPo (<http://sapo.incubadora.fapesp.br>), a postural evaluation software designed specifically to measure angles and horizontal and vertical distances²¹. This low-cost, non-invasive method is used for both static evaluation and quantification of limitations in range of motion (ROM) in the shoulder²², which allows recording subtle changes and interrelations between different parts of the human body that are difficult to record by other means²³. In women with breast cancer, various postural alterations have been observed using computed photogrammetry, while the main ones are forward head posture ($p = 0.001$) and protrusion of the shoulder ipsilateral to the surgical intervention ($p = 0.001$)²⁴.

Manual hydraulic dynamometers were evaluated for concurrent validity and intra-examiner reliability in 100 healthy individuals, obtaining results for the handgrip test²⁵. This instrument has proven capable of measuring total muscle power, even serving as an indicator of overall health^{26,27}. Dynamometry is a rapid, easy-to-perform, and reliable procedure, used by various health professionals, aimed at obtaining practical and objective information on muscle, joint,

and nerve disorders²⁸. Several studies in the Brazilian population with diverse health conditions and age brackets have corroborated this assessment^{29,30}. BMI with self-reported weight and height was validated for individuals over 20 years of age from 48 sectors and proved as reliable as directly measured weight and height³¹.

The Hoppenfeld maneuver allows evaluating the function of the anterior serratus muscle and characterizing the presence of winged scapula, which is consistent with ICF code b720. Patients need to be standing with their hands spread on the wall at the level of the sternum, shoulders flexed at 90° and elbows flexed such that the shoulders are close to the hands. When an alteration is present, patients are asked to extend their elbows, pushing their hands against the wall, and the medial edge of the shoulder blade bulges on the same side as the breast cancer^{32,33}. Although widely used in clinical practice, this evaluation instrument has not been validated for the Brazilian population and thus does not meet the current study's inclusion criteria.

Other components of the physical examination allow evaluating given codes pertaining to protective and repair functions and structures of the skin (b810, b820, and s810), but since such components are not validated instruments, they were not analyzed in the current study. The same was true for evaluation of the presence or absence of lymphatic cording (s4200). Inspection for presence of external breast prosthesis (e115) was not included, since it was not found in any of the instruments consistent with the international core set.

As observed in the results, various instruments can evaluate the same code. Temperament and personality functions (b126) and sleep functions (b134) can be measured by both the WHOQOL and the DASH. Muscle power functions (b730) can be measured by DASH and dynamometry. The functions are related to the force generated by the contraction of a muscle or groups of muscles¹, and it is thus believed that the dynamometer is the instrument that provides the most trustworthy measurements. Touch function (b265) and sensation related to the skin (b840) can be evaluated by either DASH or aesthesiometry (monofilaments). Considering sensation related to the skin as a subjective measurement, physical examination is believed to be the most accurate, through evaluation of sensation.

The activity of lifting and carrying objects (d430) can be measured by WHOQOL-BREF and DASH. Both instruments refer to moving and carrying things from one place to another, but DASH provides information that is more consis-

tent with the respective code, related to moving while carrying light and heavy objects, greater than five kilos.

The codes on interpersonal relations and interactions (Chapter 7) in the component on activities and participation, measured by WHOQOL, also coincided with DASH. However, in WHOQOL the codes are concentrated in a single question, while DASH is a more specific instrument for measuring each code separately. Remunerative employment (d850) was also consistent with the two questionnaires. While WHOQOL aims to measure individual work satisfaction, DASH attempts to determine whether the problem with the limb has affected the individual's work. Although this involves two important aspects, specific studies are needed to verify which measure is more reliable.

The activities of recreation and leisure (d920) can also be measured with the two previously mentioned instruments, but DASH proved to be closer to this code, since this instrument allows observing the individual's capacity to participate in a leisure-time activity.

In the WHOQOL-BREF, which is consistent with codes from the component on contextual factors measured concurrently by the *Social Support Questionnaire*, the study showed lack of discrimination between the individuals providing the support. The *Social Support Questionnaire* was also more informative in relation to the ICF itself, since it determines what kind of support the various individual provide. This instrument is believed to be closer to the measurement of codes for support, relationships, and attitudes. Even so, it is not possible to determine what kind of support is provided by third parties to the individual under evaluation.

Five codes related to the functions of menstruation (b650), procreation (b660), making decisions (d177), toileting (d530), and assisting others (d660) are not possible to be measured by any of the selected instruments. The first can be measured by the *Women's Health Questionnaire*, validated in Brazil³⁴ and by the *Common Toxicity Criteria*, translated by Saad et al.³⁵. The findings of the *Common Toxicity Criteria* agree with the evaluation of code b660. Codes d177 and d660 can be evaluated by WHOQOL-100³⁶. Although there are alternatives to cover the above-mentioned codes, the application of several instruments with numerous questions becomes costly in clinical practice. Eleven codes (b720, b780, b810, b820, s420, s4200, s4201, s630, s6302, s810, and e115) are covered by components of the physical evaluation and patient chart data, which are non-validated instruments and were thus not included in this study.

The amount of instruments to be used requires the availability of patient consultation time and thus becomes a barrier to application and requires the elaboration of a single tool capable of covering as many codes as possible that describe functioning in breast cancer patients. Further research is thus important for constructing and validating an instrument that allows a single language in the field of functioning.

Conclusion

In order to obtain an objective language for functioning, the current study identified eight instruments that have been validated for the Brazilian population, covering 58 codes from the ICF Core Set for breast cancer. This strategy could allow the applicability of the ICF in health professionals' daily practice and allow comparison between populations from different locations, thus facilitating future studies. New studies are needed to propose a single instrument covering the Core Set of codes for breast cancer in Brazil.

Resumen

La Clasificación Internacional de Funcionalidad, Incapacidad y Salud (CIF) tiene por objetivo una normatización, sin embargo, su aplicabilidad requiere instrumentos compatibles. En Brasil, los enfoques terapéuticos invasivos son frecuentes, conduciendo a alteraciones funcionales. En este sentido, el presente estudio tiene por objetivo identificar y discutir los instrumentos capaces de medir los códigos del core set de la CIF para el cáncer de mama. Se incluyeron estudios de la CIF en mujeres con diagnóstico de cáncer de mama y estudios con el fin de traducir y validar instrumentos para la población brasileña, compatibles con los códigos. Los estudios de revisión sistemática o no referentes a la literatura relacionada se excluyeron. Se seleccionaron ocho instrumentos, siendo el WHOQOL-BREF el más englobador. Con el uso de varios instrumentos se observaron 19 códigos coincidentes, siendo contemplados 58 de un total de 81 códigos. La utilización de muchos instrumentos requiere tiempo, por ello, se necesitan nuevos estudios proponiendo herramientas parsimoniosas, capaces de medir la funcionalidad entre mujeres tratadas de cáncer de mama.

Neoplasias de la Mama; Calidad de Vida; Estudios de Validación; Cuestionarios; Clasificación Internacional del Funcionamiento, de la Discapacidad y de la Salud

Contributors

F. N. Carvalho participated in the data analysis and interpretation and writing of the article. R. J. Koifman and A. Bergmann contributed to the study conceptualization and project, critical revision, and final approval.

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