EUonQoL

Quality of Life in Oncology: measuring what matters for cancer patients and survivors in Europe

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1. Introduction

Knowing patients' function and health-related quality of life (HRQoL) is pivotal in order to deliver true patient-centred healthcare (1–3). HRQoL can be defined as ''how well a person functions in their life and his or her perceived well-being in physical, mental, and social domains of health'' (4). Functioning refers to an individual's ability to carry out some pre-defined activities, while well-being refers to an individual's subjective feelings (4). However, due to its subjective nature, HRQoL is often inaccurately assessed by health care providers (HCPs) or poorly captured by medical tests and procedures (5–8). As such, patient involvement is now perceived as essential to HRQoL assessment. Patient-reported outcomes (PROs) are defined as "a measurement based on a report that comes directly from the patient about the status of a patient's health condition, without amendment or interpretation of the patient's response by a clinician or anyone else" (9). Patient-reported outcome measures (PROMs) refer to the tools used to measure PROs and are now preferred tools for the assessment of HRQoL in cancer care (10–18).

Traditionally, PROMs used in research and clinical practice are static standardized questionnaires developed through the classical testing theory (CTT) (19). CTT requires every single item in a PROM to be administered to all patients to obtain valid scores and allow for comparison between patients. However, when developing fixed-length questionnaires it is crucial to balance low response burden for patients whilst still obtaining sufficient measurement precision. All items are weighted equally, making the question responses equally important among items despite the possibility of large differences in item severity. This means that to achieve precise measurements for patients with heterogeneous HRQoL levels, CTT-based PROMs often require a substantial number of items. Although reduction of the number of items within a questionnaire might result in a PROM that is reliable enough to assess differences between study populations (i.e., EORTC QLQ-C15-PAL (20)), this approach partly neglects the between-patient variability while individual patients often face fluctuating multidimensional issues (21). If the main limitations to the use of these tools in clinical populations include the time required to complete PROMs and the perceived irrelevance of PROMs (22), finding the optimal balance between patient burden and measurement precision on the one hand, and ensuring that patients are presented with relevant items on the other, are essential challenges faced when developing new PROMs.

In this perspective, item response theory (IRT) was introduced as an alternative to CTT. IRT refers to a family of statistical models used to describe the psychometric properties of items in multi-item scales (23). It specifically defines the relationship between these properties, the respondent and the latent trait being measured (e.g., physical functioning). IRT accounts for the difficulty level of the items and enables discrimination between the various levels of the latent trait (24). For instance, when assessing physical functioning, an easy item would inquire about minimally demanding physical tasks while a difficult item would ask about highly demanding ones. IRT allows for locating the position of the respondent on the latent trait continuum depending on the answers provided. It provides an estimate of both the scale score (e.g., estimated level of physical functioning) and the uncertainty in that estimate, acknowledging that identical item sets are not equally informative across respondents. As such, the major benefit of IRT-based tools is that they do not necessarily need to display a fixed set of items but rather the combination of items expected to be the most informative and relevant to a specific respondent or population (25). Item banks are a prerequisite for the creation of IRT-based tools. Item banks can be defined as a set of items that are related to a specific latent trait or theme (26). Once an item bank has been developed using IRT, one can select item combinations from the bank to create unique measures of variable length, adapted to the individual's specific health status and needs (26). An additional advantage is that scores obtained from different instruments developed using the same calibrated item bank are directly comparable, regardless of the questions that have been displayed to the respondents.

Computerized adaptive testing (CAT) is the IRT-based tool that has received the greatest attention in recent years. CAT is a computer-based form of testing applying IRT and the respondent's previous input to select subsequent items to administer (24). The item selection process starts with the presentation of the initial item that is chosen from the item bank arbitrary or based on agreed-upon reasons (27,28). The estimation and selection process are repeated for each item until a predetermined number of items have been answered or until the measurement's standard error falls below a predetermined threshold. The standard error of measurement decreases after completion of each item, as increasing information is provided about the respondent's ability. This dynamic item administration makes it possible to decrease the number of items administered without undermining the measurement precision (26,29), thus minimizing patient burden. Additionally, due to the large number of items typically available in item banks, the content coverage of CATs, which are also designed to capture extreme (low or high) levels of the latent trait, also minimizes floor and ceiling effects (26,30,31), a recurrent issue faced by conventional PROMs (32–34).

In cases where the implementation of CAT is not feasible, short forms (SF) may be applied (35). Short forms are brief, static questionnaires that are developed for specific conditions or populations. These IRT-based tools also rely on calibrated item banks, but contrary to CATs for which the item selection is made in real-time, the most informative items for a given population are estimated a priori. As such, short forms are static instruments benefiting from the psychometric advantages of IRT that can be administered both in digital and paper formats. Their flexible administration mode can benefit patients who prefer paper-pen questionnaires and research or clinical settings lacking the infrastructure or resources to run computerized assessments.

While legacy measures such as the EORTC QLQ-C30 or the FACT-G have all been developed based on CTT, CATs and short forms open new approaches to potentially improve the assessment of HRQoL in oncology. However, contrary to the use of legacy measures, the emergence of IRT-based tools for HRQoL assessment in cancer patients is relatively recent and their application within research or clinical settings remains scarce despite their theoretical benefits. The primary objective of this scoping review is to provide an overview of the available IRT-based tools for the assessment of HRQoL among cancer patients and survivors, including the extent to which these tools have been validated and used. As a secondary objective, this review will also report on the evidence supporting the feasibility of the implementation of these tools in oncology.

2. Methodology

The protocol was registered with the Open Science Foundation (osf.io/7evdz). A scoping review was chosen as the most suitable approach considering the exploratory nature of this work, and aimed at providing a descriptive overview of the available evidence in the emerging field of IRT-based HRQoL measurement tools in oncology (36).

The scoping review followed the Joanna Briggs Institute guidelines (37) and reported findings in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for the Scoping Reviews Checklist (PRISMA-ScR) (38).

2.1 Literature search

The initial literature search was carried out in PubMed and Scopus from database inception until the 2nd of October 2023. The additional literature search was carried out in PubMed from database inception until the 12th of February 2024. No gray literature was considered.

The initial search strategy was developed for PubMed and subsequently adapted for Scopus. The search string was constructed based on the PICOM framework (39), where cancer patients and survivors represent the population, HRQoL represents the outcome and IRT-based measurement tools the methods. Both MeSH terms and free keywords were used. To limit the search to English articles encompassing humans, both the language and human filter were applied. A detailed overview of the search strategy is displayed in Appendix 1.

The additional search strategy was developed for PubMed only with a primary focus on capturing additional papers on development, psychometric properties, interpretability, feasibility and acceptability of the IRT-based PROMs that were identified during the initial search. The less restrictive search string was again built on the PICOM framework (39), in which the population was represented by cancer and the name of the PROM as the methods. Both MeSH terms and free keywords were used, with the application of two filters to limit the search to studies available in English and performed in humans. A detailed overview of the applied search string can be found in Appendix 2.

2.2 Selection process

The retrieved references of both searches were uploaded into the web-based software Rayyan (40) after removal of duplicates. All publications were initially screened independently for eligibility by title and abstract. Potentially relevant articles were further examined in full-text form.

The screening was done in a blinded standardized manner by two reviewers (L.L. and K.M.G.), who resolved disagreements in consensus meetings. In case of disagreements, a third reviewer was consulted to make the final decision (H.V.).

2.2.1 PROM selection

To be included, PROMs had to meet the following criteria:

1) Being developed based on IRT, which encompasses calibrated item banks, SFs and CATs.
2) Assessing HRQoL, or one of the concepts covered under the theoretical framework of HRQoL applied in the EUonQOL project (41)

3) Evidence of development in cancer patients was found. If the PROM was not developed in cancer patients or in a mixed sample (e.g., cancer patients and non-cancer patients), there had to be some evidence regarding the psychometric properties, interpretability, feasibility or acceptability of the PROM in a sample of cancer patients.

2.2.2 Study selection

Publications fulfilling the following criteria were included:

1) Original articles, case reports, erratums, or correction papers published in English. Guidelines, protocol papers, congress abstracts and reports, books, book chapters, and dissertations were excluded. Reviews were retained until the full textual phase to check for additional references. Afterwards, they were excluded from the final sample of included papers.
2) Reporting on the development, psychometric properties, acceptability, interpretability, or feasibility of IRT-based tools for the assessment of HRQoL in cancer patients. Papers on mapping or the implementation of IRT-based tools were excluded.

2.3 Data extraction

During full-text review, data was extracted from included studies and inserted into an Excel sheet structured according to the expected outcomes. The data extraction sheet was further refined during the data extraction process as per JBI guidelines.

Data was extracted by two independent reviewers (K.M.G. & LL). A third reviewer (H.V.) was consulted in case of uncertainties. The following data were extracted when available:

1) Item banks general characteristics
   Item bank name, reference of the original development study, number of items, retrievable PROMs developed from this item bank (i.e., item bank [no evidence of use as SF or CAT was retrieved], SF or CAT), type of subscales (when applicable), recall period(s) and type of response option(s), available languages, availability of scoring manuals and/or reference values, copyright, pricing for non-profit research, technical requirements (when applicable).
2) Item banks development and content validity
   Item bank name, original development study characteristics (reference, original development language, target population [cancer site, cancer stage, age, gender]), reference(s) to content validity study.
3) IRT-based PROMs psychometric properties
   PROM name and type (CAT, SF and/or item bank), study characteristics (reference, target population [cancer site, cancer stage, age, gender]), psychometric properties (structural validity, reliability, cross-cultural validity/measurement invariance, construct validity, responsiveness). A detailed overview of the data extraction of psychometric properties is provided in Table 1.
4) IRT-based PROMS interpretability, acceptability and feasibility
   PROM name and type (CAT, SF and/or item bank), study characteristics (reference, target population [cancer type]), interpretability (measurement precision, floor/ceiling effects, cut-off – MIC/MID), acceptability and feasibility (patient's/healthcare provider's user experience, length of instrument, completion rate/time).

Table 1. Overview of the data extraction for the IRT-based PROMs psychometric properties

Psychometric property	Data extracted
Structural validity	- Number of factors used in suggested model - Final model fit indexes: AIC, CFI, ECV, GFI, IFI, NNFI, RMSEA, RMSR, SRMR, TLI, WRMR
Reliability	- Type of reliability: internal consistency, test-retest, parallel forms - Cronbach alpha (α), Intraclass correlation coefficient (ICC)
Cross-cultural validity/ Measurement invariance	- Group variable under investigation (e.g. country, age, gender,...) with its observed differences
Construct validity with other PROM	- Comparator - Correlation coefficients
Responsiveness	- Statistical approach - Indexes of responsiveness: effect size, mean change, SES, SRM

Abbreviations: AIC, Akaike's Information Criterion; AUC = area under the curve; CFA = Confirmatory Factor Analysis; CFI = Comparative Fit Index; DIF = Differential Item Functioning; IRT = Item Response Theory; NNFI, Non-Normed Fit Index ; RMSEA = Root Mean Square Error of Approximation; SDC = Smallest Detectable Change; SE (θ) = measurement error of the latent variable; SRMR: Standardized Root Mean Residuals; ; TCI, Thresholds for clinical importance; TLI: Tucker-Lewis Index; WRMR: Weighted Root Mean Residuals

2.4 Data analysis

Since this study is a scoping review following JBI guidelines, it did not involve quality assessment, risk of bias assessment or meta-analyses, and the exploratory data analysis was strictly descriptive.

1) Item banks general characteristics

PROMs were presented at an item bank-level. Item banks were categorized based on their content coverage as follows:

- Overall quality of life for item banks assessing HRQoL as a multidimensional construct
- Physical health for item banks assessing HRQoL domains related to the physical component of HRQoL
- Mental health for item banks assessing HRQoL domains related to the mental component of HRQoL
- Social health for item banks assessing HRQoL domains related to the social component of HRQoL

PROMs originating from several item banks were considered and presented separately.

2) Item banks development and content validity

PROMs were presented at an item bank-level. The development study and the item bank(s) whose development was reported, were categorized based on the item bank's content coverage (i.e., Overall quality of life, Physical health, Mental health, Social health) and further by the research group which conducted the study (i.e., PROMIS, EORTC, Other). In cases multiple development studies could be found, the characteristics of the original development study were reported.

3) Psychometric properties, interpretability, acceptability, and feasibility

Data were presented at a PROM/study level and categorized per type of PROM (i.e., item bank, SF or CAT) and content coverage (i.e., Overall quality of life, Physical health, Mental health, Social health). Quantitative data (psychometric properties) were not aggregated and were presented at a PROM/study level. Both quantitative and qualitive data regarding the interpretability and the feasibility of PROMs were categorized based on their content coverage and presented at a PROM/study level.

3. Results

3.1 Study selection

A total of 1,828 references were identified across PubMed and Scopus, out of which 394 were removed as duplicates. Following the screening of all titles and abstracts, the full-text review of the remaining 162 articles was conducted. Subsequently, 89 articles were additionally excluded, most of which due to the lack of relevant information on IRT-based PROMs (n = 68). Eighty-five articles were added manually based on screening the references of the captured reviews (n = 16), the specific search for development and content validity papers (n = 17) and the additional search performed for every captured PROM (n = 52). In total, 158 articles were included in this review.

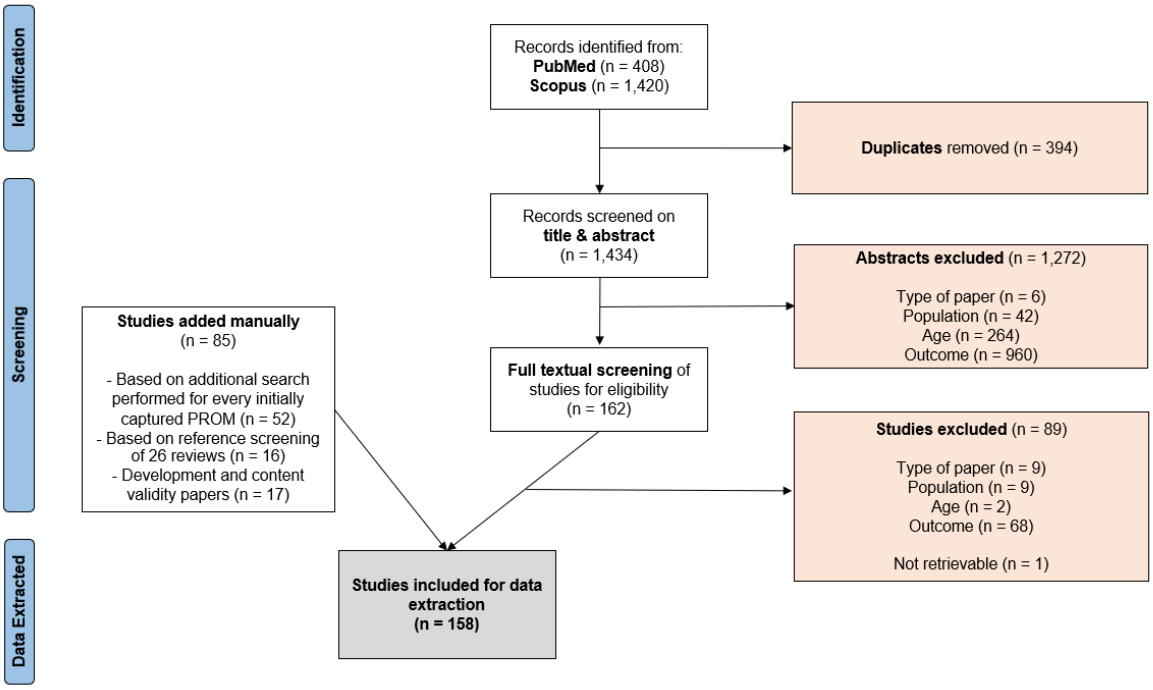

Figure 1: Flowchart of the study selection process

3.2 Item banks and PROMs characteristics

Tables 2a and 2b present an overview of the calibrated item banks and unique IRT-based PROMs which were identified in this review. Overall, 124 item banks were retrieved from which 257 unique PROMs were identified. These PROMs were used as either SF (n = 143; 55.6%), full item bank (n = 73; 28.4%), CAT (n = 34; 13.2%), or a collection of SFs originating from multiple item banks (n = 7; 2.7%). PROMs allowed for the assessment of HRQoL domains related to Physical Health (n = 151; 58.8%), Mental Health (n = 54; 21%), Social Health (n = 44; 17.1%) or Overall Quality of Life (n = 6; 2.3%).

Item banks were including on average 18.3 ± 28.2 items, varying in size from 1 to 240 items. For one item bank the number of items could not be retrieved. Most item banks used a recall period of one week (n = 75; 60.5%). Other item banks used a recall period of one month (n = 7; 5.6%), two weeks (n = 1; 0.8%), a combination of recall periods (n=1; 0.8%), or asked patients about their current or most recent state (n = 3; 2.4%) or since the last time they worked (n = 1; 0.8%). For the remaining item banks, the recall period was not specified (n = 31; 25%) or not available (n = 5; 4%). Most item banks used 4-point Likert scales (n = 50; 40.3%), 5-point Likert scales (n = 47; 37.9%), or 3-

point Likert scales (n = 12; 9.7%), and a minority used 6-point Likert scales (n = 2; 1.6%), 11-point numerical scales (n = 2; 1.6%), dichotomous scales (n = 1; 0.8%) or a combination of different types of rating scales (n = 3; 2.4%). No information was found on the type of scale used for 7 item banks (5.6%).

Table 2a. General characteristics of the item banks

Item bank	Number of items	Unique PROM(s) (n items)*	Subscales	Recall period	Response options	Available languages	Scoring Manuals	Reference values	Copyright	Pricing	Technical requirements
Overall Quality of Life - PROMIS											
PROMIS Global health (42)	10	SF (10) SF (2a) SF (2b)	Global health (1) Global quality of life (1) Global physical health (1) Global mental health (1) Global social health (1) Physical functioning (1) Pain (1) Fatigue (1) Ability to partipate to social activities (1) Emotional distress (1)	NS The past week	5-point Likert scale 11-point numerical scale	English (original language), French, German, Italian, Spanish (40 additional languages, see Appendix 3)	Available	Available	Yes	**	NA
Overall Quality of Life - Other											
THYCAT (29)	58	CAT	Physical Psychological Social Spiritual	NS	11-point numerical scale	English (original language)	NA	Available	NA	NA	a smartphone or computer to access the software
Physical health - PROMIS											
PROMIS Fatigue (43)	95	CAT SF (4) SF [REACT-F] (5) SF (7) SF (8) SF (9) SF (14) SF (17)	NA	The past week	5-point Likert scale	English (original language), French, German, Spanish (additional 5 languages, see Appendix 3)	Available	Available	Yes	**	e-mail address; Microsoft Vista or Windows 7 a HTML5 full compatible browser and Adobe Flash Player > 9.0; DSL internet access with a transfer rate of 1 Mb/sec or more.

		Item bank (CS)									
PROMIS Gastrointestinal – Diarrhea (44)	6	SF (6)	NA	The past week	5-point Likert scale	English (original language), French, German, Italian, Spanish (6 additional languages, see Appendix 3)	Available	Available	Yes	**	NA
PROMIS Pain Behaviour (45)	20	SF (7)	NA	The past week	6-point Likert scale	English (original language), French, Spanish (additional 6 languages, see Appendix 3)	Available	Available	Yes	**	NA
PROMIS Pain Intensity (43)	3	SF (3)	NA	The past week	5-point Likert scale	English (original language), French, German, Italian, Spanish (28 additional languages, see Appendix 3)	Available	Available	Yes	**	NA
PROMIS Pain Interference (46)	40	CAT SF (4) SF (6) SF (7) SF (8) SF (10) SF (11) Item bank (CS)	NA	The past week	5-point Likert scale	English (original language), French, German, Spanish (additional 6 languages, see Appendix 3)	Available	Available	Yes	**	e-mail address; Microsoft Vista or Windows 7 a HTML5 full compatible browser and Adobe Flash Player > 9.0; DSL internet access with a transfer rate of 1 Mb/sec or more.
PROMIS Physical Functioning (43)	173	CAT SF (4) SF (6) SF (10) SF (15) SF (16) SF (20) Item bank (CS)	NA	NS	5-point Likert scale	English (original language), French, German, Spanish (additional 8 languages, see Appendix 3)	Available	Available	Yes	**	e-mail address; Microsoft Vista or Windows 7 a HTML5 full compatible browser and Adobe Flash Player > 9.0; DSL internet access with a transfer rate of 1 Mb/sec or more.
PROMIS Sexual Function and Satisfaction (Erectile function) (47)	11	SF (7)	NA	The past month	5-point Likert scale 6-point Likert scale	English (original language), Spanish	Available	Available	Yes	**	NA

PROMIS Sexual Function and Satisfaction (Satisfaction with Sex Life) (47)	5	SF (5)	NA	The past month	5-point Likert scale 6-point Likert scale	English (original language), Spanish	Available	Available	Yes	**	NA
PROMIS Sexual Function and Satisfaction (Interest in Sexual Activity) (47)	2	SF (2)	NA	The past month	5-point Likert scale	English (original language), Spanish	Available	Available	Yes	**	NA
PROMIS Sexual Function and Satisfaction (Orgasm-Ability) (47)	1	SF (1)	NA	The past month	6-point Likert scale	English (original language), Spanish	Available	Available	Yes	**	NA
PROMIS Sexual Function and Satisfaction (Vaginal Lubrication) (47)	6	SF (2)	NA	The past month	NA	English (original language), Spanish	Available	Available	Yes	**	NA
PROMIS Sexual Function and Satisfaction (Vaginal Discomfort) (47)	11	SF (2)	NA	The past month	NA	English (original language), Spanish	Available	Available	Yes	**	NA
PROMIS Sexual Function and Satisfaction Vulvar Discomfort with Sexual Activity – Clitoral (48)	4	SF (4)	NA	The past week	5-point Likert scale	English (original language), Spanish	Available	Available	Yes	**	NA
PROMIS Sexual Function and Satisfaction Vulvar Discomfort with Sexual Activity – Labial (48)	4	SF (4)	NA	The past week	5-point Likert scale	English (original language), Spanish	Available	Available	Yes	**	NA

PROMIS Sleep Disturbance (49)	27	CAT SF (4) SF (8)	NA	The past week	5-point Likert scale	English (original language), French, German, Italian, Spanish (additional 10 languages, see Appendix 3)	Available	Available	Yes	**	e-mail address; Microsoft Vista or Windows 7 a HTML5 full compatible browser and Adobe Flash Player > 9.0; DSL internet access with a transfer rate of 1 Mb/sec or more.
PROMIS Sleep Related-Impairment (49)	16	CAT SF (8)	NA	The past week	5-point Likert scale	English (original language), French, Spanish (additional 5 languages, see Appendix 3)	Available	Available	Yes	**	e-mail address; Microsoft Vista or Windows 7 a HTML5 full compatible browser and Adobe Flash Player > 9.0; DSL internet access with a transfer rate of 1 Mb/sec or more.
Physical health - EORTC											
EORTC CAT Core Appetite (50)	7	CAT SF (3a) SF (3b) SF (4) SF (5a) SF (5b) SF (6)	NA	The past week	4-point Likert scale	English (original language), French, German, Italian, Spanish (5 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or CHES)
EORTC CAT Core Constipation (51)	10	CAT SF (3a) SF (3b) SF (4) SF (5) SF (6) SF (8)	NA	The past week	4-point Likert scale	English (original language), French, German, Italian, Spanish (5 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or CHES)
EORTC CAT Core Diarrhea (51)	13	CAT SF (3a) SF (3b) SF (4) SF (6a) SF (6b) SF (7)	NA	The past week	4-point Likert scale	English (original language), French, German, Italian, Spanish (5 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or CHES)

EORTC CAT Core Dyspnea (51)	32	CAT SF (4a) SF (4b) SF (4c) SF (7a) SF (7b) SF (7c)	NA	The past week	4-point Likert scale	English (original language), French, German, Italian, Spanish (5 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or CHES)
EORTC CAT Core Fatigue (52)	34	CAT SF (5a) SF (5b) SF (5c) SF (8a) SF (8b) SF (8c)	NA	The past week	4-point Likert scale	English (original language), French, German, Italian, Spanish (5 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or CHES)
EORTC CAT Core Insomnia (53)	8	CAT SF (3a) SF (3b) SF (3c) SF (6a) SF (6b) SF (6c)	NA	The past week	4-point Likert scale	English (original language), French, German, Italian, Spanish (5 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or CHES)
EORTC CAT Core Nausea & Vomiting (54)	19	CAT SF (4a) SF (4b) SF (4c) SF (8a) SF (8b) SF (9)	NA	The past week	4-point Likert scale	English (original language), French, German, Italian, Spanish (5 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or CHES)
EORTC CAT Core Pain (55)	16	CAT SF (4a) SF (4b) SF (5) SF (8a) SF (8b) SF (8c)	NA	The past week	4-point Likert scale	English (original language), French, German, Italian, Spanish (5 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or CHES)
EORTC CAT Core Physical Functioning (56)	31	CAT SF (5a) SF (5b) SF (5c) SF (9a)	NA	NS	4-point Likert scale	English (original language), French, German, Italian, Spanish (5 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or CHES)

		SF (9b) SF (9c)									
Physical health – Q-tools											
BREAST-Q Breast conserving therapy – Adverse effects of radiation (57)	6	Item bank	NA	The past week	Dichotomous	English (original language), German, Italian, Spanish (additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
BREAST-Q Breast conserving therapy – Physical Well-being (chest) (57)	10 (pre) – 9 (post)	Item bank	NA	The past week	5-point Likert scale	English (original language), French, German, Italian, Spanish (additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
BREAST-Q Breast conserving therapy – Satisfaction with breast (57)	4 (pre) – 11 (post)	Item bank	NA	The past week	4-point Likert scale	English (original language), French, German, Italian, Spanish (additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
BREAST-Q Breast conserving therapy – Sexual Well-being (57)	6	Item bank	NA	The past week	5-point Likert scale	English (original language), French, German, Italian, Spanish (additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
BREAST-Q Breast Reconstruction – Animation deformity (58)	12	Item bank	NA	The past week	3-point Likert scale	English (original language), German, Italian, Spanish (additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
BREAST-Q Breast Reconstruction – Back appearance (59)	8	Item bank	NA	The past week	5-point Likert scale	English (original language), French, Italian, Spanish (additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
BREAST-Q Breast Reconstruction – Breast sensation (60)	9	Item bank	NA	The past week	5-point Likert scale	English (original language), (additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
BREAST-Q Breast Reconstruction – Breast symptoms (60)	15	Item bank	NA	The past week	4-point Likert scale	English (original language), Italian, Spanish (additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)

BREAST-Q Breast Reconstruction – Physical Well-being (abdomen) (61)	4 (pre) – 7 (post)	Item bank	NA	The past week	5-point Likert scale	English (original language), French, German, Italian, Spanish (additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
BREAST-Q Breast Reconstruction – Physical Well-being (back & shoulder) (59)	11	Item bank	NA	The past week	5-point Likert scale	English (original language), French, Italian, Spanish (additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
BREAST-Q Breast Reconstruction – Physical Well-being (chest & upper body) (61)	10 (pre) – 11 (post)	Item bank	NA	The past week	5-point Likert scale	English (original language), French, German, Italian, Spanish (additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
BREAST-Q Breast Reconstruction – Quality of life impact (60)	8	Item bank	NA	The past week	4-point Likert scale	English (original language), (additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
BREAST-Q Breast Reconstruction – Satisfaction with abdomen (61)	1 (pre) – 3 (post)	Item bank	NA	The past week	4-point Likert scale	English (original language), French, German, Italian, Spanish (additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
BREAST-Q Breast Reconstruction – Satisfaction with breasts (61)	4 (pre) – 15 (post)	Item bank	NA	The past week	4-point Likert scale	English (original language), French, German, Italian, Spanish (additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
BREAST-Q Breast Reconstruction – Satisfaction with outcome (61)	7	Item bank	NA	NA	NA	NA	NA	NA	NA	NA	NA
BREAST-Q Breast Reconstruction – Sexual Well-being (61)	6	Item bank	NA	The past week	5-point Likert scale	English (original language), French, German, Italian, Spanish (additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)

BREAST-Q Fatigue (62)	10	Item bank	NA	The past week	4-point Likert scale	English (original language) (3 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
BREAST-Q Mastectomy – Nipple Sparing (63)	14	Item bank	NA	The past two weeks	4-point Likert scale	NA	NA	NA	NA	NA	NA
BREAST-Q Mastectomy – Physical Well-being (chest) (61)	10 (pre) – 11 (post)	Item bank	NA	The past week	5-point Likert scale	English (original language), French, German, Italian, Spanish (additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
BREAST-Q Mastectomy – Satisfaction with breasts (61)	4	Item bank	NA	The past week	4-point Likert scale	English (original language), French, German, Italian, Spanish (additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
BREAST-Q Mastectomy – Sexual Well-being (61)	6	Item bank	NA	The past week	5-point Likert scale	English (original language), French, German, Italian, Spanish (additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
BREAST-Q Satisfaction with Breasts (61)	4	CAT	NA	The past week	4-point Likert scale	English (original language), French, German, Italian, Spanish (17 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
BREAST-Q Sexual Well-being (61)	6	Item bank	NA	The past week	5-point Likert scale	English (original language), French, German, Italian, Spanish (additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
FACE-Q Head & neck cancer – Facial appearance - Appearance (64)	10	Item bank	NA	The past week	4-point Likert-scale	English (original language), French (6 additional languages)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
FACE-Q Head & neck cancer – Function – Eating & drinking (64)	8	Item bank	NA	The past week	3-point Likert scale	English (original language), French (5 additional languages)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)

FACE-Q Head & neck cancer – Function – Oral competence (64)	5	Item bank	NA	The past week	3-point Likert scale	English (original language), French (5 additional languages)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
FACE-Q Head & neck cancer – Function – Salivation (64)	8	Item bank	NA	The past week	3-point Likert scale	English (original language), French (5 additional languages)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
FACE-Q Head & neck cancer – Function – Smiling (64)	7	Item bank	NA	The past week	3-point Likert scale	English (original language), French (5 additional languages)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
FACE-Q Head & neck cancer – Function – Speaking (64)	7	Item bank	NA	The past week	3-point Likert scale	English (original language), French (5 additional languages)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
FACE-Q Head & neck cancer – Function – Swallowing (64)	8	Item bank	NA	The past week	3-point Likert scale	English (original language), French (5 additional languages)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
FACE-Q Skin Cancer – Appraisal of scars (65)	8	CAT	NA	The past week	3-point Likert scale	English (original language), French, German, Italian, Spanish (30 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
FACE-Q Skin Cancer – Satisfaction with facial appearance (65)	9	CAT	NA	The past week	4-point Likert-scale	English (original language), French, German, Italian, Spanish (3 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
FACE-Q Skin cancer – Sun protection behaviour (65)	5	Item bank	NA	NS	5-point Likert scale	English (original language), French, German, Italian, Spanish	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
FACE-Q Skin cancer – Symptom checklist (65)	10	Item bank	NA	The past week	3-point Likert scale	NA	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
LYMPH-Q Appearance (66)	10	Item bank	NA	Currently	4-point Likert scale	English (original language), German, Italian (7 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)

LYMPH-Q Arm sleeve (66)	10	Item bank	NA	The most recent	4-point Likert scale	English (original language), German, Italian (7 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
LYMPH-Q Function (66)	12	Item bank	NA	The past week	4-point Likert scale	English (original language), German, Italian (7 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
LYMPH-Q Symptoms (66)	15	Item bank	NA	The past week	4-point Likert scale	English (original language), German, Italian (7 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
Physical health – Other											
Ambulatory Post Acute Care (AM-PAC-CAT) (67)	240	CAT	Personal & Instrument/ Daily activity Movement & Physical/ Basic mobility Applied cognitive	Currently	4-point Likert scale	Danish (original language), English, French, German, Italian, Spanish (8 additional languages, see Appendix 3)	Available	NA	Yes	Fees	AM-PAC CAT Software
Cancer-related fatigue (68)	6	SF (6)	NS	The past week	5-point Likert scale	English (original language)	NA	NA	NA	NA	NA
European Palliative Care Research Collaborative-Computerised Symptom Assessment (EPCRC-CSA) Mobility (69)	21	Item bank	NA	NS	4-point Likert scale	English (original language)	NA	NA	NA	NA	NA
FACIT Fatigue Scale (70)	9	Item bank	NS	The past week	5-point Likert scale	English (original language), French, Italian, German, Spanish (60 additional languages, see Appendix 3)	NA	NA	NA	NA	NA
Quality of Life in Neurological Disorders (NEURO-QoL) Lower extremity function	19	CAT SF (8)	NA	NS	5-point Likert scale	English (original language), French, German, Italian, Spanish (5 additional languages, see Appendix 3)	Available	Available	Yes	Free	NA

(71)											
Mental Health - PROMIS											
PROMIS Cognitive Function (72)	32	SF (8)	NA	The past week	5-point Likert scale	English (original language), French, German, Italian, Spanish (11 additional languages, see Appendix 3)	Available	Available	Yes	**	NA
PROMIS Cognitive Function – abilities (72)	31	Item bank	NA	The past week	5-point Likert scale	English (original language), French, German, Italian, Spanish (11 additional languages, see Appendix 3)	Available	Available	Yes	**	NA
PROMIS Emotional Distress – Anger (73)	22	CAT SF (8)	NA	The past week	5-point Likert scale	English (original language), French, German, Italian, Spanish (4 additional languages, see Appendix 3)	Available	Available	Yes	**	ePRO system for online assessment (e.g., REDCap or Epic)
PROMIS Emotional Distress – Anxiety (73)	29	CAT SF (4) SF (6) SF (7) SF (8) SF (9) SF (11) Item bank (CS)	NA	The past week	5-point Likert scale	English (original language) (6 additional languages, see Appendix 3)	Available	Available	Yes	**	ePRO system for online assessment (e.g., REDCap or Epic)
PROMIS Emotional Distress – Depression (73)	28	CAT SF (4) SF (6) SF (8) SF (10) Item bank (CS)	NA	The past week	5-point Likert scale	English (original language), French, German, Italian, Spanish (7 additional languages, see Appendix 3)	Available	Available	Yes	**	ePRO system for online assessment (e.g., REDCap or Epic)
PROMIS – General Life Satisfaction (74)	34	Item bank	NA	NS	5-point Likert scale	English (original language), French, Italian, Spanish (4 additional languages, see Appendix 3)	Available	Available	Yes	**	NA
PROMIS – General Self-Efficacy	10	Item bank	NA	NS	5-point Likert scale	English (original language), French, Italian, Spanish	Available	Available	Yes	**	NA

(74)						(4 additional languages, see Appendix 3)					
PROMIS – Meaning and Purpose (75)	37	Item bank	NA	NS	5-point Likert scale	English (original language), French, Italian, Spanish (4 additional languages, see Appendix 3)	Available	Available	Yes	**	NA
PROMIS – Positive affect (74)	34	Item bank	NA	NS	5-point Likert scale	English (original language), French, Italian, Spanish (4 additional languages, see Appendix 3)	Available	Available	Yes	**	NA
PROMIS Psychosocial Illness Impact – Negative (76)	32	SF (8)	NA	NA	NA	English (original language), French	Available	NA	Yes	**	NA
PROMIS Psychosocial Illness Impact – Positive (76)	39	SF (8)	NA	NA	NA	English (original language), French	Available	NA	Yes	**	NA
Mental Health - EORTC											
EORTC CAT Core Cognitive Functioning (77)	34	CAT SF (4a) SF (4b) SF (4c) SF (8a) SF (8b) SF (8c)	NA	The past week	4-point Likert scale	English (original language), French, German, Italian, Spanish (5 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or CHES)
EORTC CAT Core Emotional Functioning (78)	24	CAT SF (5a) SF (5b) SF (5c) SF (8a) SF (9a) SF (9b)	NA	The past week	4-point Likert scale	English (original language), French, German, Italian, Spanish (5 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or CHES)
Mental Health – Q-tools											
BREAST-Q Breast conserving therapy – Psychosocial Well-being (57)	10	Item bank	NA	The past week	5-point Likert scale	English (original language), French, German, Italian, Spanish (additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)

BREAST-Q Breast Reconstruction – Psychosocial Well-being (61)	10	Item bank	NA	The past week	5-point Likert scale	English (original language), French, German, Italian, Spanish (additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
BREAST-Q Cancer Worry (62)	10	Item bank	NA	NS	4-point Likert scale	English (original language), Italian, Spanish (3 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
BREAST-Q Mastectomy – Psychosocial Well-being (61)	10	Item bank	NA	The past week	5-point Likert scale	English (original language), French, German, Italian, Spanish (additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
BREAST-Q Psychosocial Well-being (61)	10	Item bank	NA	The past week	5-point Likert scale	English (original language), French, German, Italian, Spanish (additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
FACE-Q Head & neck cancer – Distress – Appearance (64)	6	Item bank	NA	The past week	4-point Likert scale	English (original language), French (5 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
FACE-Q Head & neck cancer – Distress – Cancer worry (64)	8	Item bank	NA	The past week	5-point Likert scale	English (original language), French (5 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
FACE-Q Head & neck cancer – Distress – Drooling (64)	6	Item bank	NA	The past week	3-point Likert scale	English (original language), French (5 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
FACE-Q Head & neck cancer – Distress – Eating (64)	7	Item bank	NA	The past week	3-point Likert scale	English (original language), French (5 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
FACE-Q Head & neck cancer – Distress – Smiling (64)	5	Item bank	NA	The past week	3-point Likert scale	English (original language), French (5 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)

FACE-Q Head & neck cancer – Distress – Speaking (64)	7	Item bank	NA	The past week	5-point Likert scale	English (original language), French (5 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
FACE-Q Skin Cancer – Distress - Appearance (65)	8	CAT	NA	The past week	4-point Likert scale	English (original language), French, German, Italian, Spanish (30 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
FACE-Q Skin Cancer – Distress – Cancer Worry (65)	10	CAT	NA	The past week	4-point Likert scale	English (original language), French, German, Italian, Spanish (30 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
LYMPH-Q – Psychological (66)	12	Item bank	NA	The past week	4-point Likert scale	English (original language), German, Italian (7 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
Mental health - Other											
Psychological Distress (79)	80	Item bank	NA	NA	NA	English (original language)	NA	NA	NA	NA	NA
Psychological distress for cancer survivors (80)	NA	Item bank	NA	NA	NA	English (original language)	NA	NA	NA	NA	NA
Social health - PROMIS											
PROMIS Ability to participate in Social Roles and Activities (81)	35	SF (10)	NA	NS	5-point Likert scale	English (original language), French, German, Spanish (additional 3 languages, see Appendix 3)	Available	Available	Yes	**	e-mail address; Microsoft Vista or Windows 7 a HTML5 full compatible browser and Adobe Flash Player > 9.0; DSL internet access with a transfer rate of 1 Mb/sec or more.
PROMIS Satisfaction with Participation in Discretionary Social Activities (82)	12	CAT	NA	NS	5-point Likert scale	English (original language), Spanish, Dutch	Available	Available	Yes	**	NA

PROMIS Satisfaction with Participation in Social Roles (82)	14	CAT	NA	NS	5-point Likert scale	English (original language), Spanish, Dutch	Available	Available	Yes	**	NA
PROMIS Satisfaction with Social Roles and Activities (82)	44	SF (4)	NA	NS	5-point Likert scale	English (original language), Spanish, Dutch	Available	Available	Yes	**	NA
PROMIS Emotional support (82)	16	SF (NS)	NA	NS	5-point Likert scale	4a; 6a English (original language), Spanish (1 additional language, see Appendix 3) 8a English (original language) (2 additional languages, see Appendix 3)	Available	NA	Yes	**	NA
PROMIS Informational support (82)	10	SF (NS)	NA	NS	5-point Likert scale	4a; 6a; 8a English (original language), German, Spanish (1 additional language, see Appendix 3)	Available	NA	Yes	**	NA
PROMIS Instrumental support (82)	11	SF (NS)	NA	NS	5-point Likert scale	4a; 6a; 8a English (original language), German, Spanish (1 additional language, see Appendix 3)	Available	NA	Yes	**	NA
Social health - EORTC											
EORTC CAT Core Financial Difficulties (51)	9	CAT SF (3) SF (4a) SF (4b) SF (5) SF (6) SF (8)	NA	The past week	4-point Likert scale	English (original language), French, German, Italian, Spanish (5 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or CHES)
EORTC CAT Core Role Functioning (83)	10	CAT SF (4a) SF (4b) SF (4c)	NA	The past week	4-point Likert scale	English (original language), French, German, Italian, Spanish	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or CHES)

		SF (7a) SF (7b) SF (7c)				(5 additional languages, see Appendix 3)					
EORTC CAT Core Social Functioning (51)	13	CAT SF (4a) SF (4b) SF (4c) SF (7a) SF (7b) SF (7c)	NA	The past week	4-point Likert scale	English (original language), French, German, Italian, Spanish (5 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or CHES)
Social health – Q-tools											
BREAST-Q Breast conserving therapy – Satisfaction with information (57)	12 (surgeon) 11 (radiation oncologist)	Item bank	NA	NS	4-point Likert scale	English (original language), German, Italian, Spanish (additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
BREAST-Q Breast Reconstruction – Satisfaction with information (61)	15	Item bank	NA	NS	4-point Likert scale	English (original language), French, German, Italian, Spanish (additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
BREAST-Q Impact on Work (62)	8	Item bank	NS	Last time working	4-point Likert scale	English (original language) (3 languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
BREAST-Q Satisfaction with medical team (61)	7	Item bank	NA	NS	4-point Likert scale	English (original language), French, German, Italian, Spanish (additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
BREAST-Q Satisfaction with office staff (61)	7	Item bank	NA	NS	4-point Likert scale	English (original language), French, German, Italian, Spanish (additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
BREAST-Q Satisfaction with surgeon (61)	12	Item bank	NA	NS	4-point Likert scale	English (original language), French, German, Italian, Spanish (additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)

FACE-Q Head & neck cancer – Satisfaction with information (64)	10	Item bank	NA	NS	4-point Likert scale	English (original language), French (6 additional languages)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
FACE-Q Skin cancer – Satisfaction with clerical staff (84)	10	Item bank	NA	NS	4-point Likert scale	NA	NA	NA	NA	NA	NA
FACE-Q Skin cancer – Satisfaction with information (84)	10	Item bank	NA	NS	4-point Likert scale	NA	NA	NA	NA	NA	NA
FACE-Q Skin Cancer – Satisfaction with information - appearance (65)	6	CAT	NA	NS	4-point Likert-scale	English (original language), French, German, Italian, Spanish (30 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
FACE-Q Skin cancer – Satisfaction with surgeon (84)	10	Item bank	NA	NS	4-point Likert scale	NA	NA	NA	NA	NA	NA
FACE-Q Skin cancer – Satisfaction with ward team (84)	10	Item bank	NA	NS	4-point Likert scale	NA	NA	NA	NA	NA	NA
LYMPH-Q – Information (66)	9	Item bank	NA	NS	4-point Likert-scale	English (original language), German, Italian (7 additional languages, see Appendix 3)	Available	Available	Yes	Free	ePRO system for online assessment (e.g., REDCap or Epic)
Social health – Other											
Communicative Participation (CPIB-10) (85)	10	SF (10)	NA	NS	4-point Likert scale	English (original language)	Available	NA	NA	NA	NA
Economic Strain and Resilience is Cancer (ENRICH) (86)	15	CAT SF (4)	Depletion of coping resources Material burden Psychological burden	The past month	11-point numerical scale	English (original language)	NA	NA	NA	NA	CAT delivery platform-Concerto

Abbreviations: CAT = Computerized Adaptive Testing; CS = Cancer-specific; EORTC = European Organisation for Research and Treatment of Cancer; NA = Not available; NS = Not specified; PROMIS = Patient-Reported Outcomes Measurement Information System; SF = Short-form; SF (Xa, X…) = different versions of a SF with similar number of items for the same HRQoL domain were retrieved.

* The table presents an overview of versions captured in our search. Other versions might be available outside of this review.

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Table 2b. General characteristics of the short-form collections

SF collections*	Number of items	Subscales (n items)	Recall period	Response options	Available languages	Scoring Manuals	Reference values	Copyright	Pricing	Technical requirements
Overall Quality of Life - PROMIS										
PROMIS 3D (87)	12	Fatigue (4) Physical function (4) Social function (4)	NS	5-point Likert scale	English (original language)	Available	NA	Yes	**	NA
PROMIS-29 (43)	29	Ability to participate in social roles and activities (4) Anxiety (4) Depression (4) Fatigue (4) Pain intensity (1) Pain interference (4) Physical function (4) Sleep disturbance (4)	The past week NS	5-point Likert scale 11-point numerical scale	English (original language), French, Italian, Spanish (additional 61 languages, see Appendix 3)	Available	Available	Yes	**	NA
PROMIS-57 (43)	57	Ability to participate in social roles and activities (8) Anxiety (8) Depression (8) Fatigue (8) Pain intensity (1) Pain interference (8) Physical function (8) Sleep disturbance (8)	The past week NS	5-point Likert scale 11-point numerical scale	English (original language), French, German, Italian, Spanish (additional 17 languages, see Appendix 3)	Available	NA	Yes	**	NA
PROMIS Global health (42)	10	Global health (1) Global quality of life (1) Global physical health (1) Global mental health (1) Global social health (1) Physical functioning (1) Pain (1) Fatigue (1) Ability to partipate to social activities (1) Emotional distress (1)	The past week	5-point Likert scale 11-point numerical scale	English (original language), French, German, Italian, Spanish (40 additional languages, see Appendix 3)	Available	NA	Yes	**	NA
Physical health - PROMIS										

PROMIS Sexual Function and Satisfaction v1.0 (Female) (47)	14	Interest in sexual activity Orgasm Anal discomfort Sexual activities Therapeutic aids for sexual activity Interfering factors Lubrication Vaginal Discomfort	The past month	5-point Likert scale	English (original language), Spanish	Available	Available	Yes	**	NA
PROMIS Sexual Function and Satisfaction v1.0 (Male) (47)	10	Interest in sexual activity Orgasm Satisfaction with sex life Erectile function	The past month	5-point Likert scale	English (original language), Spanish	Available	Available	Yes	**	NA
PROMIS Sexual Function and Satisfaction Brief Profile 2.0 (Female) (48)	14	Global Satisfaction with Sex Life Interest in Sexual Activity Lubrication Vaginal Discomfort Erectile Function Orgasm Sexual Activities Interfering Factors Therapeutic Aids Anal Discomfort Screener Items	The past month	NS	English (original language), French, German, Italian, Spanish (8 additional languages, see Appendix 3)	Available	NA	Yes	**	NA

Abbreviations: NA = Not available; NS = Not specified; SF = Short-form.

* The table presents an overview of versions captured in our search. Other versions might be available outside of this review.

** Licensing or royalty fees apply to some PROMIS measures. For more information visit PROMIS website (Obtain & Administer Measures (healthmeasures.net). Profit users should contact BREAST-Q tools for information about fees (qotdtrm@mskcc.org)

3.3 Item banks development and content validity

Table 3 provides an overview of the studies reporting on the development and content validity of the 124 item banks identified.

Evidence regarding development was retrieved for all item banks while information on their content validity was retrieved for 94.3% of them (n = 117). Most item banks were developed with cancer patients (n = 118; 95.2%). Among them, 54.2% included patients with a unique type of cancer (n = 64) and 28% included patients with different cancer types (n = 33). This information was not available for 17% the item banks developed with cancer patients (n = 21). Only 16.9% of these development studies reported including patients at different cancer stages (n = 20) but this information was often not available (n = 98; 83.1%).

Table 3. Overview of the development studies and content validity of the item banks

Item bank	Original development study	Population in which PROM was developed			Content validity
		Cancer type	Cancer stage	Gender Age (mean ± SD years)	
Overall Quality of Life - PROMIS					
PROMIS Global Health	Hays et al., 2009 (42)	**General population (n = 13,250; 62.7%)** **Non-cancer patients (n = 6,129; 29%)** **Cancer patients (n = 1,754; 22.4%)**	NS	Female (n = 10,989; 52.0%) Male (n = 10,143; 48.0%) < 65 (n = 15,213; 72.0%) ≥ 65 (n = 5,917; 28.0%)	(88)
Overall Quality of Life - Other					
THYCAT	Aschebrook-Kilfoy et al., 2018 (29)	**Cancer patients/survivors (n = 1,077)** Thyroid cancer (n = 1,077; 100%)	Stage I (n = 320; 29.7%) Stage II (n = 182; 16.9%) Stage III (n = 158; 14.7%) Stage IV (n = 81; 7.5%) Missing (n = 288; 26.7%)	Female (n = 923; 85.7%) Male (n = 106; 9.8%) 51.7 ± 17.0 years	NA
Physical health - PROMIS					
PROMIS Fatigue	Cella et al., 2010 (43)	**Sample 1** General population (n = 13,250; 62.7%) Non-cancer patients (n = 6,129; 29%) Cancer patients (n = 1,754; 22.4%) **Sample 2** Non-cancer patients (n = 967) **Sample 3** General population (n = 1,259; 63.2%) Non-cancer patients (n = 734; 36.8%)	NS	**Sample 1** Female (n = 10,989; 52.0%) Male (n = 10,143; 48.0%) < 65 (n = 15,213; 72.0%) ≥ 65 (n = 5,917; 28.0%) **Sample 2** Female (n = 783; 81.0%) Male (n = 184; 19.0%) 48.2 ± 11.1 years **Sample 3** Female (n = 876; 44.0%) Male (n = 1,116; 56.0%) Median = 52.0 years	(88,89)
PROMIS Gastrointestinal – Diarrhea	Spiegel et al., 2014 (44)	**Sample 1** Non-cancer patients (n = 130) **Sample 2**	NS	**Sample 1** Female (n = 66; 51.0%) Male (n = 64; 49.0%)	(44)

		Non-cancer patients (n = 865)		59.0 (range 24 - 86) years **Sample 2** Female (n = 502; 58.0%) Male (n = 363; 42.0%) 48.0 ± 16.0 years	
Pain Behaviour	Revicki et al., 2009 (43,45)	**Sample 1** General population (n = 13,250; 62.7%) Non-cancer patients (n = 6,129; 29%) Cancer patients (n = 1,754; 22.4%) **Sample 2** Non-cancer patients (n = 967)	NS	**Sample 1** Female (n = 10,989; 52.0%) Male (n = 10,143; 48.0%) < 65 (n = 15,213; 72.0%) ≥ 65 (n = 5,917; 28.0%) **Sample 2** Female (n = 783; 81.0%) Male (n = 184; 19.0%) 48.2 ± 11.1 years	(45,88,89)
PROMIS Pain Intensity	Cella et al., 2010 (43)	**Sample 1** General population (n = 13,250; 62.7%) Non-cancer patients (n = 6,129; 29%) Cancer patients (n = 1,754; 22.4%) **Sample 2** Non-cancer patients (n = 967) **Sample 3** General population (n = 1,259; 63.2%) Non-cancer patients (n = 734; 36.8%)	NS	**Sample 1** Female (n = 10,989; 52.0%) Male (n = 10,143; 48.0%) < 65 (n = 15,213; 72.0%) ≥ 65 (n = 5,917; 28.0%) **Sample 2** Female (n = 783; 81.0%) Male (n = 184; 19.0%) 48.2 ± 11.1 years **Sample 3** Female (n = 876; 44.0%) Male (n = 1,116; 56.0%) Median = 52.0 years	(89)
PROMIS Pain Interference	Amtmann et al., 2010 (43,46)	**Sample 1** General population (n = 13,250; 62.7%) Non-cancer patients (n = 7,883; 37.3%) Cancer patients (n = 1,754; 22.4%) **Sample 2** Cancer patients (n = 532) **Sample 2** Non-cancer patients (n=523)	NS	**Sample 1** Female (n = 10,989; 52.0%) Male (n = 10,143; 48.0%) 54 ± 16.0 years (range = 18-100) **Sample 2** Female (n = 390; 73.3%) Male (n = 139; 26.1%) 55 ± 18.0 years (range = 18-87) **Sample 3**	(46,88,89)

				Female (n = 425; 81.7%) Male (n = 95; 18.3%) 48 ± 11.0 years (range = 21-86)	
PROMIS Physical Functioning	Cella et al., 2010 (43,90)	**Sample 1** General population (n = 13,250; 62.7%) Non-cancer patients (n = 6,129; 29.0%) Cancer patients (n = 1,754; 22.4%) **Sample 2** Non-cancer patients (n = 967) **Sample 3** General population (n = 1,259; 63.2%) Non-cancer patients (n = 734; 36.8%)	NS	**Sample 1** Female (n = 10,989; 52.0%) Male (n = 10,143; 48.0%) < 65 (n = 15,213; 72.0%) ≥ 65 (n = 5,917; 28.0%) **Sample 2** Female (n = 783; 81.0%) Male (n = 184; 19.0%) 48.2 ± 11.1 years **Sample 3** Female (n = 876; 44.0%) Male (n = 1,116; 56.0%) Median = 52.0 years	(88,89,91)
PROMIS Sexual Function and Satisfaction (Erectile function) **PROMIS Sexual Function and Satisfaction (Global Satisfaction with Sex Life)** **PROMIS Sexual Function and Satisfaction (interest in Sexual Activity)** **PROMIS Sexual Function and Satisfaction (Orgasm-Ability)** **PROMIS Sexual Function and Satisfaction (Vaginal Lubrication)** **PROMIS Sexual Function and Satisfaction (Vaginal Discomfort)**	Flynn et al., 2013 (47,48)	**Cancer patients/survivors (n = 819)** Bone/muscle cancer (n = 14; 2%) Breast (n = 252; 35%) Colorectal (n = 98; 13%) Lung (n = 56; 8%) Patients (n = 726; 92.0%): Prostate (n = 146; 20%) Other (n= 160; 26.0%)	NS	Female (n = 430; 52.5%) Male (n = 389; 47.5%) 58.5 ± 11.8 years	(92–94)

PROMIS Sexual Function and Satisfaction Vulvar Discomfort with Sexual Activity – Clitoral **PROMIS Sexual Function and Satisfaction Vulvar Discomfort with Sexual Activity – Labial**	Weinfurt et al., 2015 (48)	**Sample 1** Non-cancer patients (n = 59) **Sample 2** Non-cancer patients (n = 48) **Sample 3** Non-cancer patients (n = 2,665; 96.0%) Cancer patients (n = 106; 4.1%)	NS	**Sample 2** Female (n = 28; 58.3%) Male (n = 20; 41.7%) **Sample 3** Female (n = 1,202; 45,1%) Male (n = 1,463; 54,9%) < 60 (n = 2,160; 81.1%) ≥ 60 (n = 504; 18.9%)	(48)
PROMIS Sleep Disturbance **PROMIS Sleep-Related Impairment**	Buysse et al., 2010 (49)	**Sample 1** Non-cancer patients (n = 36) **Sample 2** Non-cancer patients (n = 20) **Sample 3** Non-cancer patients (n = 150) General population (n = 150) **Sample 4** Non-cancer patients (n = 2,252)	NS	**Sample 1** Female (n = 21; 64.0%) Male (n = 15; 44.0%) 13.8 (range 23-80) years **Sample 2** Female (n = 11; 55.0%) Male (n = 9; 45.0%) 51.9 ± 11.0 years **Sample 3** Female (n = 153; 51.0%) Male (n = 147; 49.0%) **Sample 4** Female (n = 986; 43.8%) Male (n = 1,269; 56.2%)	(88,89,95)
Physical health - EORTC					
EORTC CAT Core Appetite	Thamsborg et al., 2015 (50)	**Cancer patients (n = 49)** Breast (n = 8; 16.0 %) Gastrointestinal (n = 10; 20.0 %) Genitourinary (n = 5; 10.0 %) Gynaecological (n = 6; 12.0%) Head and neck (n = 5; 10.0%) Lung (n = 3; 6.0%) Other (n = 9; 18.0 %) Missing (n = 3; 6.0%)	Stage I-II (n = 18; 37.0 %) Stage III-IV (n = 25; 51.0%) Missing (n = 6; 12.0 %)	Female (n = 28; 57.0%) Male (n = 21; 43.0%) 56.0 years	(50)
EORTC CAT Core Constipation **EORTC CAT Core Diarrhea** **EORTC CAT Core Dyspnea**	Petersen et al. 2010 (51)	**Cancer patients (n = NS)**	NS	NS	(51)

EORTC CAT Core Fatigue	Petersen et al., 2013 (52)	**Cancer patients (n = 1321)** Breast (n = 299; 23%) Gastrointestinal (n = 191; 15%) Haematological (n = 150; 11%) Urogenital (n = 150; 11%) Head & neck (n = 113; 9%) Lung (n = 87; 7%) Other (n = 156; 12%)	Stage I-II (n = 612; 46%) Stage III-IV (n = 538; 41%) Missing (n = 171; 13%)	Female (n = 778; 59%) Male (n = 537; 41%) 59 (range 18-99) years	(96)
EORTC CAT Core Insomnia	Dirven et al., 2021 (53)	**Sample 1** **Cancer patients (n = 49)** Breast (n = 8; 16.3%) Gastrointestinal (n = 10; 20.4%) Genitourinary (n = 5; 10.2%) Gynaecological (n = 6; 12.2%) Head & Neck (n = 5; 10.2%) Lung (n = 3; 6.1%) Other (n = 9; 18.4%) Missing (n = 3; 6.1%) **Sample 2** **Cancer patients (n = 1,094)** Breast (n = 224; 20.5%) Gastrointestinal (n = 116; 10.6%) Gynaecological (n = 151; 13.8%) Head & Neck (n = 128; 11.7%) Other (n = 475; 23.5%)	**Sample 1** Stage I-II (n = 18; 36.7%) Stage III-IV (n = 25; 51.0%) Missing (n = 6; 12.2%) **Sample 2** Stage I-II (n = 580; 53.0%) Stage III-IV (n = 485; 44.3%) Missing (n = 29; 2.7%)	**Sample 1** Female (n = 28; 57.1%) Male (n = 21; 42.9%) 56.0 ± NS years **Sample 2** Female (n = 552; 50.5%) Male (n = 541; 49.5%) Missing (n = 1; 0.1%) 61.0 ± NS years	(53)
EORTC CAT Core Nausea/Vomiting	Puskulluoglu et al., 2022 (54)	**Cancer patients (n = 31**) Breast (n = 3; 10.0%) Gastrointestinal (n = 10; 32.0%) Genitourinary (n = 2; 6.0%) Gynaecologic (n = 7; 23.0%) Hematologic (n = 2; 6.0%) Head and neck (n = 2; 6.0%) Lung (n = 2; 6.0%) Other (n = 3; 10.0%)	Stage I-II (n = 14; 45.0%) Stage III-IV (n = 15; 48.0%) Missing (n = 2; 7.0%)	Female (n = 17; 55.0%) Male (n = 14; 45.0%)	(54)
EORTC CAT Core Pain	Petersen et al., 2016 (55)	**Sample 1** Non-cancer patients (n = 31) **Sample 2**	**Sample 2** Stage I-II (n = 536; 48.6%) Stage III-IV (n = 518; 47.0%) Missing (n = 49; 4.4%)	**Sample 2** Female (n = 619; 56.0%) Male (n = 484; 44.0%) 60.0 (range 19-90) years	(55)

		Cancer patients (n = 1,103) Breast (n = 199; 18.0%) Gastrointestinal (n = 131; 12.0%) Gynaecological (n = 179; 16.0%) Head and neck (n = 165; 15.0%) Other (n = 224; 20.0%) Missing (n = 205; 18.5%)			
EORTC CAT Core Physical Functioning	Petersen et al. 2011 (56)	**Cancer patients (n = 1176)** Urogenital (n = 181; 15%) Gynaecological (n = 180; 15%) Head and neck (n = 163; 14%) Breast (n = 150; 13%) Gastrointestinal (n = 135; 11%) Lung (n = 52; 4%) Other (n = 124; 11%)	Stage I-II (n = 399; 34%) Stage III-IV (n = 583; 50%) Missing (n =188; 16%)	Female (n = 648; 55%) Male (n = 524; 45%) 58.0 (range 18-91) years	(51,56)
Physical health – Q-tools					
BREAST-Q Breast conserving therapy – Adverse effects of radiation **BREAST-Q Breast conserving therapy – Satisfaction with breast** **BREAST-Q Breast conserving therapy – Sexual Well-being** **BREAST-Q Breast conserving therapy – Physical Well-being (chest)**	Klassen et al., 2020 (57)	**Sample 1 (n = 24)** Breast cancer patients (n = 24; 100%) **Sample 2 (n = 3497)** Breast cancer patients (n = 3497; 100%) **Sample 3 (n = 3125)** Breast cancer patients (n = 3125; 100%)	NS	**Sample 1** Female (n = 24; 100%) 56 ± 12 years **Sample 2** Female (n = 3497; 100%) 59 ± 8.9 years	(57)
BREAST-Q Breast Reconstruction – Animation deformity	Tsangaris et al., 2021a (58)	**Sample 1** Breast cancer patients (n = 57; 100%) **Sample 2** Breast cancer patients (n = 651; 100%)	NS	**Sample 1** Female (n = 57; 100%) range = 40-59 years **Sample 2** Female (n = 651; 100%) 59 ± ns years (range = 31-90)	(58)

BREAST-Q Breast Reconstruction – Back appearance **BREAST-Q Breast Reconstruction – Physical Well-being (back & shoulder)**	Browne et al., 2018 (59)	**Breast cancer patients (n = 1096)**	Stage I-II (n = 1063; 98.9%) Stage III-IV (n = 12; 1.1%) Missing (n = 21; 1.9%)	Female (n = 1096; 100%) < 50 (n = 507; 46.3%) ≥ 50 (n = 589; 53.7%)	(59)
BREAST-Q Breast Reconstruction – Breast sensation **BREAST-Q Breast Reconstruction – Breast symptoms** **BREAST-Q Breast Reconstruction – Quality of life impact**	Tsangaris et al., 2021b (60)	**Sample 1** Breast cancer patients (n = 36; 100%) **Sample 2** Breast cancer patients (n = 1204; 100%)	NS	**Sample 1** Female (n = 36; 100%) < 55 (n = 18; 50%) ≥ 55 (n = 18; 50%) **Sample 2** Female (n = 1204; 100%) < 55 (n = 442; 36.7%) ≥ 55 (n = 762; 63.3%)	(60)
BREAST-Q Breast Reconstruction – Physical Well-being (abdomen) **BREAST-Q Breast Reconstruction – Physical Well-being (chest & upper body)** **BREAST-Q Breast Reconstruction – Satisfaction with abdomen** **BREAST-Q Breast Reconstruction – Satisfaction with breast** **BREAST-Q Breast Reconstruction – Satisfaction with outcome** **BREAST-Q Breast Reconstruction – Sexual Well-being**	Pusic et al., 2009 (61,97,98)	**Sample 1** Non-cancer patients (n = 27; 56%) Breast cancer patients (n = 21; 44%) **Sample 2** Non-cancer patients (n = 34; 60%) Breast cancer patients (n = 24; 40%) **Sample 3** Non-cancer patients (n = 20; 67%) Breast cancer patients (n = 10; 33%) **Sample 4 (n = 1950)** Non-cancer patients (NS) Breast cancer patients (NS)	NS	**Sample 4** range = 18-84 years	(61,99)

BREAST-Q Mastectomy – Physical Well-being (chest) **BREAST-Q Mastectomy – Satisfaction with breasts** **BREAST-Q Mastectomy – Sexual Well-being** **BREAST-Q Satisfaction with Breasts** **BREAST-Q Sexual Well-being**					
BREAST-Q Fatigue	Klassen et al., 2021a (62)	**Sample 1** Breast cancer patients (n = 57) **Sample 2** Breast cancer patients (n = 1680)	**Sample 1** Stage 0-II (n = 44; 77.2%) Stage III-IV (n=13; 22.8%) **Sample 2** Stage 0-II (n = 1397; 83.2%) Stage III-IV (n=2451; 14.9%) Missing (n = 32; 1.9%)	**Sample 1** < 60 (n = 41; 71.9%) ≥ 60 (n = 16; 28.1%) range = 22-75 years **Sample 2** < 60 (n = 641; 38.2%) ≥ 60 (n = 1039; 61.8%) 62 ± ns (range = 27-87)	(62,99)
BREAST-Q Mastectomy - Nipple-Sparring	Peled et al., 2019 (63)	**Sample 1** Breast cancer patients (n=10; 100%) **Sample 2** Breast cancer patients (n = 35; 100%)	**Sample 1** Stage 0-II (n = 9; 90%) Stage III-IV (n = 1; 10%) **Sample 2** Stage 0-II (n = 31; 88.6%) Stage III-IV (n = 4; 11.4%)	**Sample 1** Female (n = 10; 100%) 52.5 ± ns years (range = 44 – 67) **Sample 2** Female (n = 35; 100%) 53.0 ± ns years (range = 31 – 71)	(63)
FACE-Q Head & neck cancer – Facial appearance -Appearance **FACE-Q Head & neck cancer – Function – Eating & drinking** **FACE-Q Head & neck cancer – Function – Oral competence**	Cracchiolo et al., 2019 (64)	**Head and neck cancer patients (n = 219; 100%)**	NS	Female (n = 75; 34%) Male (n = 144; 66%) ≤ 60 (n = 80; 36%) > 60 (n = 139; 64%)	(100)

FACE-Q Head & neck cancer – Function – Salivation **FACE-Q Head & neck cancer – Function – Smiling** **FACE-Q Head & neck cancer – Function – Speaking** **FACE-Q Head & neck cancer – Function - Swallowing**					
FACE-Q Skin Cancer – Appraisal of scars **FACE-Q Skin Cancer – Satisfaction with facial appearance** **FACE-Q Skin cancer – Sun protection behaviour**	Lee et al., 2018 (65,84)	**Skin cancer patients (n = 209)** Basal cell carcinoma (n = 143; 68.4%) Squamous cell carcinoma (n = 40; 19.1%) Melanoma (n = 25; 12.0%) Other (n = 1; 0.5%)	NS	Female (n = 113; 54.1%) Male (n = 96; 45.9%) 64 years ± ns (range 25-92)	(84,101)
FACE-Q Skin cancer – Symptom checklist	Dobbs et al., 2021 (84)	**Sample 1** Skin cancer patients (n = 5; 100%) **Sample 2** Skin cancer patients (n = 110; 100%)	NS	**Sample 2** Female (n = 44; 40%) Male (n = 66; 60%) 72 ± 12 years	(84)
LYMPH-Q Appearance **LYMPH-Q Arm sleeve** **LYMPH-Q Function** **LYMPH-Q Symptoms**	Klassen et al., 2021b (66)	**Sample 1** Breast cancer patients (n = 15; 100%) **Sample 2** Breast cancer patients (n = 3222; 100%)	NS	**Sample 1** Female (n = 16; 100%) range = 38-74 years **Sample 2** Female (n = 3222; 100%) < 60 (n = 1176; 36.5%) ≥ 60 (n = 2046; 63.5%)	(66,102)
Physical health – Other					
AM-PAC-CAT	Haley et al., 2006 (67)	**Non-cancer patients (n = 1,041)**	NS	Female (n = 591; 56.8%) Male (n = 450; 43.2%) 63.3 ± 16.6 years	(67)

Cancer-related fatigue	Lai et al. 2005 (68)	**Cancer patients (n = 301)** Breast (n =101; 33.6%) Colorectal (n = 37; 12.3%) Non-Hodgkin lymphoma (n = 23; 7.6%) Ovarian (n = 21; 7.0%) Lung (n = 20; 6.6%) Prostate (n = 15; 5.0%) Other (n = 91; 27.9%)	NS	Female (n = 193; 64.1%) Male (n = 103; 34.2%) Missing (n = 5; 1.7%) 57.0 ± 14.4 years	NA
EPCRC-CSA Mobility	Helbostadt et al., 2011 (69,103)	**Palliative cancer patients (n = 425; 80.0%)** **Non-cancer patients (174; 20.0%)**	NS	Female (n = 425; 53.8%) Male (n = 366; 46.2%) 59.2 ± 13.9 years	(103)
FACIT Fatigue Scale	Lai et al., 2003 (70)	**Sample 1** General population (n = 1,010) **Sample 2** **Cancer patients (n = 2,369)** Non-Hodgkin's lymphoma (n = 1,054; 44.5%) Lung (n = 729; 30.8%) Multiple myeloma (n = 715; 30.2%) Breast (n = 502; 21.2%) Gynaecology (n = 393; 16.6%) Gastrointestinal (n = 270; 11.4%) Leukemia (n = 215; 9.1%) Hodgkin's disease (n = 215; 9.1%) Other (n = 641; 27.1%) **Sample 3** **Cancer patients (n = 1,022)** Non-Hodgkin's lymphoma (n= 448; 43.9%) Multiple myeloma (n = 1,022; 29.8%) Lung (n = 298; 29.2%) Breast (n = 231; 22.7%) Gynaecologic (n = 167; 16.4%) Gastrointestinal (n = 118; 11.6%) Hodgkin's disease (n = 99; 9.7%) Leukemia (n = 94; 9.2%) Other (n = 334; 32.7%)	NS	**Sample 1** Female (n = 525; 52.0%) Male (n = 484; 48.0%) 45.7 ± 16.8 years **Sample 2** Female (n = 1,445; 61.0%) Male (n = 924; 39.0%) 63.4 ± 12.8 years **Sample 3** Female (n = 633; 62.0%) Male (n = 389; 38.0%) 63.4 ± 12.8 years	NA

NEURO-QoL Lower extremity function	Gershon et al., 2012 (71)	**Sample 1** Non-cancer patients (n = 553) **Sample 2** General population (n = 3,123) **Sample 3** Non-cancer patients (n = 581)	NS	**Sample 1** Female (n = 260; 47.0%) Male (n = 293; 53.0%) 56.2 ± 12.8 years **Sample 2** Female (n = 1,056; 50.0%) Male (n = 1,056; 50.0%) 52.7 ± 15.5 years **Sample 3** Female (n = 313.7; 54.0%) Male (n = 267; 46.0%) 55.2 ± 14.3 years	(71)
Mental health - PROMIS					
PROMIS Cognitive Function **PROMIS Cognitive Function – Abilities**	Lai et al., 2014 (72)	**Cancer patients/survivors (n = 509)** Breast (n = 142; 27.9%) Colorectal (n = 93; 18.2%) Prostate (n = 80; 15.7%) Lung (n = 53; 10.4%) Other (n = 141; 27.7%)	NS	Female (n = 256; 50.2%) Male (n = 253; 49.8%) 60.6 ± 11.8 years	(72)
PROMIS Emotional Distress – Anger **PROMIS Emotional Distress – Anxiety** **PROMIS Emotional Distress – Depression**	Pilkonis et al., 2011 (73)	**General population (n = 6,245; 39.3%)** **Non-cancer patients (n = 7,883; 49.6%)** **Cancer patients (n = 1,754; 11.0%)**	NS	Female (n = 10,989; 52.0%) Male (n = 10,143; 48.0%) 53.0 ± 17.0 years	(73,88,89)
PROMIS General Life Satisfaction **PROMIS General Self-Efficacy** **PROMIS Positive affect**	Salsman et al., 2018 (74)	**Cancer patients/survivors (n = 20)** Breast (n = 5; 25%) Prostate (n = 5; 25%) Colorectal (n = 5; 25%) Lung (n = 5; 25%)	Stages 0, I-II (n = 9; 45%) Stages III-IV (n = 11; 55%)	Female (n = 10; 50%) Male (n = 10; 50%) 62.0 ± 10.8 years	(74)

PROMIS Meaning and Purpose	Salsman et al., 2020 (75)	**General population (n = 1000)**	NA	Female (n = 497; 49.7%) Male (n= 503; 50.3%) 47.8 ± 16.2 years	(74,75)
PROMIS Psychosocial Illness Impact – Negative **PROMIS Psychosocial Illness Impact – Positive**	Lai et al., 2012 (76)	**Sample 1** **Cancer patients (n = 205)** Breast (n = 53; 25.9%) Colorectal (n = 31; 15.1%) Non-Hodgkin's Lymphoma (n = 29; 14.1%) Leukemia (n = 14; 6.8%) Ovarian (n = 12; 5.9%) Missing (n = 66; 32.2%) **Sample 2** **Cancer patients/survivors (n = 754)** Breast (n = 221; 29.3%) Colorectal (n = 75; 9.9%) Prostate (n = 67; 8.9%) Urological (n = 66; 8.8%) Gynaecological (n = 61; 8.1%) Other (n = 264; 35%)	NS	**Sample 1** Female (n = 121; 59%) Male (n = 84; 41%) 59.6 ± NS years **Sample 2** 57.41 ± 13.37 years	(76)
Mental health - EORTC					
EORTC CAT Core Cognitive Functioning	Dirven et al., 2017 (104)	**Cancer patients (n = 1030)** Breast (n = 237; 23%) Gen-urinary (n = 171; 16.6%) Gastrointestinal (n = 144; 14.0%) Gynaecological (n = 99; 9.6%) Head and neck (n = 87; 8.4%) Hematological (n = 51; 5.0%) Lung (n = 33; 3.2%) Other (n = 208; 20.2%)	Stage I-II (n = 615; 59.7%) Stage III-IV (n = 409; 39.7%) Missing (n = 6; 0.6%)	Female (n = 542; 52.6%) Male (n = 488; 47.4%) 63 (range 26-97) years	(77,104)
EORTC CAT Core Emotional Functioning	Petersen et al., 2016 (78)	**Cancer patients (n = 1023)** Breast (n = 130; 13%) Gastrointestinal (n = 199; 20%) Gynaecological (n = 97; 10%) Urogenital (n = 104; 10%) Lung (n = 90; 9%) Head and neck (n = 74; 7%) Other (n= 235; 23%)	Stage I-II (n = 456; 45%) Stage III-IV (n = 420; 41%) Missing (n = 47; 4.6%)	Female (n = 540; 53%) Male (n = 484; 47%) 62 (range 22-88) years	(78,105,106)
Mental health – Q-tools					

BREAST-Q Breast conserving therapy – Psychosocial Well-being	Klassen et al., 2020 (57)	**Sample 1** Breast cancer patients (n = 24; 100%) **Sample 2** Breast cancer patients (n = 3497; 100%) **Sample 3** Breast cancer patients (n = 3125; 100%)	NS	**Sample 1** Female (n = 24; 100%) 56 ± 12 years **Sample 2** Female (n = 3497; 100%) 59 ± 8.9 years	(57)
BREAST-Q Breast Reconstruction – Psychosocial Well-being **BREAST-Q Mastectomy – Psychosocial Well-being** **BREAST-Q Psychosocial Well-being**	Pusic et al., 2009 (61,97,98)	**Sample 1 (n = 48)** Non-cancer patients (n = 27; 56%) Breast cancer patients (n = 21; 44%) **Sample 2 (n = 58)** Non-cancer patients (n = 34; 60%) Breast cancer patients (n = 24; 40%) **Sample 3 (n = 30)** Non-cancer patients (n = 20; 67%) Breast cancer patients (n = 10; 33%) **Sample 4 (n = 1950)** Non-cancer patients (NS) Breast cancer patients (NS)	NS	**Sample 4** (range = 18-84)	(61,99)
BREAST-Q Cancer Worry	Klassen et al., 2021 (62)	**Sample 1** Breast cancer patients (n = 57; 100%) **Sample 2** Breast cancer patients (n = 1680; 100%)	**Sample 1** Stage 0-II (n = 44; 77.2%) Stage III-IV (n=13; 22.8%) **Sample 2** Stage 0-II (n = 1397; 83.2%) Stage III-IV (n=2451; 14.9%) Missing (n = 32; 1.9%)	**Sample 1** < 60 (n = 41; 71.9%) ≥ 60 (n = 16; 28.1%) range = 22-75 years **Sample 2** < 60 (n = 641; 38.2%) ≥ 60 (n = 1039; 61.8%) 62 ± ns (range = 27-87)	(62,99)
FACE-Q Head & neck cancer – Distress – Appearance **FACE-Q Head & neck cancer – Distress – Cancer worry** **FACE-Q Head & neck cancer – Distress – Drooling** **FACE-Q Head & neck cancer – Distress – Eating**	Cracchiolo et al., 2019 (64)	**Head and neck cancer patients (n = 219; 100%)**	NS	Female (n = 75; 34%) Male (n = 144; 66%) ≤ 60 (n = 80; 36%) > 60 (n = 139; 64%)	(100)

FACE-Q Head & neck cancer – Distress – Smiling **FACE-Q Head & neck cancer – Distress - Speaking**					
FACE-Q Skin Cancer – Distress – Appearance **FACE-Q Skin Cancer – Distress – Cancer Worry**	Lee et al., 2018 (65,84)	**Skin cancer patients (n = 209)** Basal cell carcinoma (n = 143; 68.4%) Squamous cell carcinoma (n = 40; 19.1%) Melanoma (n = 25; 12.0%) Other (n = 1; 0.5%)	NS	Female (n = 113; 54.1%) Male (n = 96; 45.9%) 64 years ± ns (range 25-92)	(84,101)
LYMPH-Q - Psychological	Klassen et al., 2021b (66)	**Sample 1** Breast cancer patients (n = 15; 100%) **Sample 2** Breast cancer patients (n = 3222; 100%)	NS	**Sample 1** Female (n = 16; 100%) range = 38-74 years **Sample 2** Female (n = 3222; 100%) < 60 (n = 1176; 36.5%) ≥ 60 (n = 2046; 63.5%)	(66,102)
Mental health - Other					
Psychological Distress	Smith et al. 2009 (79)	**Sample 1** **Cancer patients (n = 4,914)** Breast (n = 1270; 26.0%) Gastrointestinal (n = 1086; 22.0%) Gynaecological (n = 709; 14.0%) Genitourinary (n = 580; 11.8%) Prostate (n = 312; 6.4%) Testicular (n = 245; 5.0%) Other (n = 708; 14.4%) **Sample 2** **Cancer patients (n = 1,425)** Breast (n = 801; 56.2%) Prostate (n = 330; 23.2%) Colorectal (n = 127; 8.9%) Gynaecological (n = 90; 6.3%) Other (n=77; 5.6%)	NS	**Sample 1** Female (n = 3,006; 61.0%) Male (n = 1,829; 37.0%) Unknown (n = 98; 2.0%) 59.0 ± NS years **Sample 2** Female (n = 985; 69.0%) Male (430; 30.0) Unknown (n = 10; 1.0%) 61.0 ± NS years	NA
Psychological distress for cancer survivors	Smith et al., 2013 (80)	**Sample 1** **Cancer patients (n = 4,914)** Breast (n = 1,270; 25.9%) Gastrointestinal (n = 1,086; 22.1%)	NS	**Sample 1** Female (n = 3,006; 61%) Male (n = 1,826; 37%) Missing (n = 78; 2%)	NA

		Gynaecological (n = 709; 14.4%) Genitourinary (n = 580; 11.8%) Prostate (n = 312; 6.4%) Testicular (n = 245; 5.0%) Others (n = 708; 14.4%) **Sample 2** **Cancer survivors (n = 1,425)** Breast (n = 801; 56.2%) Prostate (n = 330; 23.2%) Colorectal (n = 127; 8.9%) Gynaecological (n = 90; 6.3%) Other (n=77; 5.6%)		59.4 ± NS years **Sample 2** Female (n = 985; 69%) Male (n = 430; 30%) Missing (n = 10; 1%) 61.0 ± NS years	
Social health - PROMIS					
PROMIS Ability to participate in social roles and activities	Hahn et al., 2016 (81)	**Cancer patients (n = 5,301)** Breast (n = 1,586; 29.9%) Prostate (n = 1,126; 21.2%) Colorectal (n = 896; 16.9%) Lung (n = 684; 12.9%) Gynaecological (n = 530; 10%) Non-Hodgkin lymphoma (n = 445; 8.4%) Missing (n = 34; 0.6%)	NS	Female (n = 3,134; 59.1%) Male (n = 2,133; 40.2%) < 65 (n = 3124; 58.9%) ≥ 65 (n = 2143; 40.4%) Missing (n = 34; 0.6%)	(82,88)
PROMIS Emotional support **PROMIS Informational support** **PROMIS Instrumental support**	Hahn et al., 2010 (82)	**Sample 1** Cancer patients (n = 3588) **Sample 2** Cancer patients (n = 1, 502) **Sample 3** Cancer patients (n = 662) **Sample 4** **Cancer patients (n = 202)** Breast (n = 136; 67.3%) Colorectal (n = 15; 7.4%) Leukaemia, lymphoma, myeloma (n = 21; 10.4%) Other (n = 30; 14.9%)	NS	**Sample 4** Female (n = 169; 83.7%) Male (n = 33; 16.3%) 58.0 ± NS years	(82)
PROMIS Satisfaction with Participation in Discretionary Social Activities	Hahn et al., 2010 (82)	**Sample 1** Cancer patients (n = 3588) **Sample 2** Cancer patients (n = 1, 502)	NS	**Sample 4** Female (n = 169; 83.7%) Male (n = 33; 16.3%) 58.0 ± NS years	(82,88)

PROMIS Satisfaction with Participation in Social Roles **PROMIS Satisfaction with Social Roles and Activities**		**Sample 3** Cancer patients (n = 662) **Sample 4** **Cancer patients (n = 202)** Breast (n = 136; 67.3%) Colorectal (n = 15; 7.4%) Leukaemia, lymphoma, myeloma (n = 21; 10.4%) Other (n = 30; 14.9%)			
Social health - EORTC					
EORTC CAT Core Financial Difficulties	Petersen et al. 2010 (51)	**Cancer patients (n = NS)**	NS	NS	(51)
EORTC CAT Core Role Functioning	Gamper et al., 2016 (83)	**Sample 1** **Cancer patients (n = 41)** Breast (n = 8; 19.5 %) Gastrointestinal (n = 12; 29.3 %) Head & neck (n = 4; 9.8%) Other (n = 241; 37.7%) **Sample 2** **Cancer patients (n = 1,023)** Breast (n = 130; 12.7%) Gastrointestinal (n = 199; 19.4%) Testicular, urinary (n = 104; 10.2%) Gynaecological (n = 97; 9.5%) Head & neck (n = 74; 7.2 %) Lung (n = 90; 8.8%) Other (n = 7; 16.9%) Missing (n = 94; 9.2%)	NS	63.5 ± 11.7 years	(83)
EORTC CAT Core Social Functioning	Petersen et al. 2010 (51)	**Cancer patients (n = 43)** Breast (n = 10; 23.0%) Gastrointestinal (n = 6; 14.0%) Urogenital (n = 5; 12.0%) Gynaecological (n = 5; 12.0%) Head and neck (n = 2; 5.0%) Prostate (n = 2; 5.0%) Other (n = 5; 12.0%)	Stage I-II (n = 5; 12.0%) Stage III-IV (n = 31; 72.0%) Missing (n =7; 16.0%)	Female (n = 24; 56.0%) Male (n = 19; 44.0%) 58.0 (range 27-88) years	(51)
Social health – Q-tools					

BREAST-Q Breast conserving therapy – Satisfaction with information	Klassen et al., 2020 (57)	**Sample 1 (n = 24)** Breast cancer patients (n = 24; 100%) **Sample 2 (n = 3497)** Breast cancer patients (n = 3497; 100%) **Sample 3 (n = 3125)** Breast cancer patients (n = 3125; 100%)	NS	**Sample 1** Female (n = 24; 100%) 56 ± 12 years **Sample 2** Female (n = 3497; 100%) 59 ± 8.9 years	(57)
BREAST-Q Breast Reconstruction – Satisfaction with information **BREAST-Q Satisfaction with medical team** **BREAST-Q Satisfaction with office staff** **BREAST-Q Satisfaction with surgeon**	Pusic et al., 2009 (61,97,98)	**Sample 1 (n = 48)** Non-cancer patients (n = 27; 56%) Breast cancer patients (n = 21; 44%) **Sample 2 (n = 58)** Non-cancer patients (n = 34; 60%) Breast cancer patients (n = 24; 40%) **Sample 3 (n = 30)** Non-cancer patients (n = 20; 67%) Breast cancer patients (n = 10; 33%) **Sample 4 (n = 1950)** Non-cancer patients (NS) Breast cancer patients (NS)	NS	**Sample 4** (range = 18-84)	(61,99)
BREAST-Q Impact of work	Klassen et al., 2021 (62)	**Sample 1** Breast cancer patients (n = 57) **Sample 2** Breast cancer patients (n = 1680)	**Sample 1** Stage 0-II (n = 44; 77.2%) Stage III-IV (n=13; 22.8%) **Sample 2** Stage 0-II (n = 1397; 83.2%) Stage III-IV (n=2451; 14.9%) Missing (n = 32; 1.9%)	**Sample 1** < 60 (n = 41; 71.9%) ≥ 60 (n = 16; 28.1%) range = 22-75 years **Sample 2** < 60 (n = 641; 38.2%) ≥ 60 (n = 1039; 61.8%) 62 ± ns (range = 27-87)	(62)
FACE-Q Head & neck cancer – Satisfaction with information	Cracchiolo et al., 2019 (64)	**Head and neck cancer patients (n = 219; 100%)**	NS	Female (n = 75; 34%) Male (n = 144; 66%) ≤ 60 (n = 80; 36%) > 60 (n = 139; 64%)	(100)
FACE-Q Skin cancer – Satisfaction with clerical staff **FACE-Q Skin cancer – Satisfaction with information**	Dobbs et al., 2021 (84)	**Sample 1** Skin cancer patients (n = 5; 100%) **Sample 2** Skin cancer patients (n = 110; 100%)	NS	**Sample 2** Female (n = 44; 40%) Male (n = 66; 60%) 72 ± 12 years	(84)

FACE-Q Skin cancer – Satisfaction with surgeon **FACE-Q Skin cancer – Satisfaction with ward team**					
FACE-Q Skin Cancer – Satisfaction with information - appearance	Lee et al., 2018 (65,84)	**Skin cancer patients (n = 209)** Basal cell carcinoma (n = 143; 68.4%) Squamous cell carcinoma (n = 40; 19.1%) Melanoma (n = 25; 12.0%) Other (n = 1; 0.5%)	NS	Female (n = 113; 54.1%) Male (n = 96; 45.9%) 64 years ± ns (range 25-92)	(84,101)
LYMPH-Q - Information	Klassen et al., 2021b (66)	**Sample 1** Breast cancer patients (n = 15; 100%) **Sample 2** Breast cancer patients (n = 3222; 100%)	NS	**Sample 1** Female (n = 16; 100%) range = 38-74 years **Sample 2** Female (n = 3222; 100%) < 60 (n = 1176; 36.5%) ≥ 60 (n = 2046; 63.5%)	(66,102)
Social health - Other					
CPIB-10	Baylor et al., 2021 (85)	**Non-cancer patients (n = 504; 71.9%)** **Head and neck cancer patients (n = 197; 28.1%)**	NS	Female (n = 380; 54.2%) Male (n = 320; 45.7%) 58.8 ± 12.4 years	NA
ENRICH	Xu et al., 2022 (86)	**Cancer patients (n = 515)** Breast (n = 211; 41.0%) Prostate (n = 134; 26%) Lung (n = 32; 6%) Head and neck (n = 29; 6%) Other (n = 109; 21.2%)	Stage I-II (n = 243; 47%) Stage III-IV (n = 252; 48%) Other (n =12; 3%)	Female (n = 278; 54%) Male (n = 237; 46%) 58.5 ± 12.3 years	NA

Abbreviations: NA = Not available; NS = Not specified.

3.4 Psychometric properties

A detailed overview of the results on the psychometric properties and the patients' characteristics can be found in **Table 4.**

3.4.1 Computerized adaptive tests

Overall QoL

Within the category of IRT-tools used as CATs to assess QoL overall (n = 1), results were only available for cross-cultural validity, measurement invariance and construct validity.

Physical Health

Considering the CATs to assess physical health (n = 22), information was available on structural validity for 18% (n= 4), on reliability for 50% (n = 11), on cross-cultural validity/measurement invariance for 41% (n = 41), on construct validity for 86% (n = 19), and on responsiveness for 5% (n = 1) of the CATs.

Mental Health

For the CATs assessing mental health (n = 9), results were found on structural validity for 22% (n =2), on reliability for 22% (n = 2), on cross-cultural validity/measurement invariance for 22% (n = 2), on and construct validity for 78% (n = 7) of the CATs. Responsiveness was assessed for none of the included CATs.

Social Health

Among the CATs assessing social health (n = 8), psychometric results were available on structural validity for 25% (n = 2), on reliability for 38% (n = 3), on cross-cultural validity/measurement invariance for 50% (n = 4), on construct validity for 88% (n = 7), and on responsiveness for 13% (n = 1) of the CATs.

3.4.2 PROMIS Profiles

Considering the PROMIS profiles to assess global or sexual health (n = 7), information was available on structural validity for 29% (n = 2), on reliability for 71% (n = 5), on measurement invariance for 14% (n = 1), and on construct validity for 86% (n = 6). Responsiveness was assessed for none of the included PROMIS profiles.

3.4.3 Short forms

Physical Health

Among the short forms assessing physical health (n = 26), results were available on structural validity for 46% (n =12), on reliability for 50% (n = 13), on cross-cultural validity/measurement invariance for 35% (n = 9), on construct validity for 54% (n = 14), and on responsiveness for 19% (n = 5) of the short forms.

Mental Health

Considering the short forms to assess mental health (n = 7), information was available on structural validity for 57% (n = 4), on reliability for 43% (n = 3), on cross-cultural validity/measurement invariance

for 57% (n = 4), on construct validity for 43% (n = 3), and on responsiveness for 43% (n = 3) of the short forms.

Social Health

In the category of short forms assessing social health (n = 10), psychometric results were captured on structural validity for 50% (n = 5), on reliability for 60% (n = 6), on cross-cultural validity/measurement invariance for 50% (n = 5), on construct validity for 70% (n = 7), and on responsiveness for 10% (n = 1) of the short forms.

3.4.5 Item banks

Physical Health

Among the calibrated item banks assessing physical health (n = 54), results on structural validity were available for 10% (n = 5), on reliability for 86% (n = 43), on cross-cultural validity/measurement invariance for 20% (n = 10), on construct validity for 74% (n = 37), and on responsiveness for 2% (n = 1) of the item banks.

Mental Health

Considering the calibrated item banks assessing mental health (n = 25), results were captured on structural validity for 12% (n = 3), on reliability for 72% (n = 18), on cross-cultural validity/measurement invariance for 12% (n = 3), on construct validity for 56% (n = 14), and on responsiveness for 8% (n = 2) of the included item banks.

Social Health

Within the group of calibrated item banks assessing social health (n = 14), psychometric results were available on reliability for 93% (n = 13), on measurement invariance for 14% (n = 2), on construct validity for 64% (n = 9), and on responsiveness for 36% (n = 5) of the included item banks. Structural validity was assessed for none of the included item banks.

3.5 Interpretability, acceptability and feasibility

A detailed overview of the results on interpretability, feasibility and the patients' characteristics can be found in **Table 5.**

3.5.1 Computerized adaptive tests

Overall QoL

Amongst the CATs assessing overall QoL (n = 1), only the length of the instrument was inventoried.

Physical Health

In the context of interpretability of the CATs assessing physical health (n = 22) among cancer patients, results were available on measurement precision for 55% (n = 12), on floor and ceiling effects for 59% (n = 13), and on cut-off values or MIC/MID for 36% (n = 8) of the CATs.

Regarding feasibility and acceptability, results were available on the user experience for 41% (n = 9), on length of the instrument for 41% (n = 9), and on completion time/rate for 73% (n = 16) of the CATs.

Mental Health

With regard to interpretability of the CATs assessing mental health (n = 9) in oncology, results were captured on measurement precision for 44% (n = 3), on floor and ceiling effects for 33% (n = 3), and on cut-off values or MIC/MID for 56% (n = 5) of the included CATs.

Regarding feasibility and acceptability of the CATs, the user experience was inventoried for 33% (n = 3), the length of the instrument for 44% (n = 4), and the completion time/rate for 67% (n = 6) of the CATs.

Social Health

Amongst the CATs assessing social health (n = 8), results were available on measurement precision for 50% (n = 4), on floor and ceiling effects for 38% (n = 3), and on cut-off values or MIC/MID for 13% (n = 1) of the included CATs.

In the context of feasibility and acceptability, both the user experience and the length of the instrument were assessed for 25% (n = 2) of the CATs. The completion time/rate was assessed for 50% (n = 4) of the CATs.

3.5.2 PROMIS Profiles

Across the profiles assessing global and sexual health (n = 7), floor/ceiling effects and cut-off values or MIC/MID were calculated for 86% (n = 6) and 43% (n =3) of the profiles. For 29% (n = 2) of the profiles, additional results were found on both user experience and compliance time/rate.

3.5.3 Short forms

Physical Health

Among the short forms assessing physical health (n = 26) in oncology, results were available on measurement precision for 35% (n = 9), on floor and ceiling effects for 23% (n = 6), and on cut-off values or MIC/MID for 46% (n = 12) of the short forms.

Within the context of feasibility and acceptability, information was available on the user experience for 19% (n = 5), on length of the instrument for 35% (n = 9), and on completion time/rate for 23% (n = 6) of the short forms.

Mental Health

As part of the interpretability, information was available on the measurement precision for 29% (n = 2), on floor and ceiling effects for 29% (n = 2), and on cut-off values or MIC/MID for 71% (n = 5) of the 7 included short forms.

In the context of feasibility and acceptability, results were available on the user experience for 43% (n = 3), on length of the instrument for 29% (n = 2), and on completion time/rate for 29% (n = 2) of the short forms.

Social Health

With regard to interpretability of the short forms assessing social health (n = 10), results were captured on measurement precision, floor and ceiling effects, and cut-off values or MIC/MID for 30% (n = 3) of the short forms.

Regarding feasibility and acceptability, both the user experience and the completion time/rate were assessed for 40% (n = 4) of the short forms. The length of the instrument was assessed for 30% (n = 3) of the short forms.

3.5.4 Item banks

Physical Health

With respect to interpretability, floor/ceiling effects and cut-off values or MIC/MID were calculated for 48% (n = 24) and 22% (n =11) of the included item banks that assess physical health (n = 50) amongst cancer patients.

As a part of feasibility and acceptability, both the user experience and the completion rate/time were presented for 10% (n = 5) and 46% (n = 23) of the included item banks.

Mental Health

Amongst the item banks assessing mental health (n = 25), information was captured on both the floor/ ceiling effects, and the cut-off values or MIC/MID for 20% (n = 5) of the included item banks.

In the context of feasibility and acceptability, the user experience was assessed for 12% (n = 3) of the item banks, and the completion rate was calculated for 28% (n = 7) of the included item banks.

Social Health

In the group of item banks assessing social health (n = 14), only the floor and ceiling effects and the completion rate were calculated for 79% (n = 11) and 71% (n = 10) of the item banks.

Table 4: Psychometric properties.

PROM (Reference)	PATIENT CHARACTERISTICS			PSYCHOMETRIC PROPERTIES				
	Cancer population	Cancer stage	Gender Age (mean ± SD years)	Structural validity	Reliability	Cross-cultural validity/ Measurement invariance	Construct validity (correlation coefficients)	Responsiveness
COMPUTERIZED ADAPTIVE TESTING (CAT) – Overall QoL								
THYCAT Aschebrook-Kilfoy et al. 2018 (29)	**Cancer patients/Survivors (n = 1,077)** Thyroid cancer (n = 1,077; 100%)	Stage I (n = 320; 29.7%) Stage II (n = 182; 16.9%) Stage III (n = 158; 14.7%) Stage IV (n = 81; 7.5%) Missing (n = 288; 26.7%)	Female (n = 923; 85.7%) Male (n = 106; 9.8%) 51.7 ± 17.0 years			No statistically significant differences in the number of questions required to create a robust THYCAT (correlation ≥ 0.96 with NATCSS 58-item survey) for patients of different ages, sexes, race/ethnicity, education, income, tumor subtype/stage, or time since diagnosis or treatment	**NATCSS 58-item Survey:** THYCAT 10-items**:** 0.96 THYCAT 6-items: 0.95	
COMPUTERIZED ADAPTIVE TESTING (CAT) – Physical Health								
BREAST-Q Breast reconstruction - Satisfaction with breasts CAT Young-Afat et al. 2019 (97)	**Cancer survivors (n = 5,000)** Breast cancer (n = 5,000; 100%)	NS	Female (n = 5,000; 100%) ≥ 22 years (n = 5,000; 100%		α: 0.7-0.9		**BREAST-Q** Satisfaction with Breasts: 0.89-0.98	

EORTC CAT Core Appetite Loss Liegl et al. 2018 (107)	**Mixed (n = 15,386)** Cancer patients (n = 416; 2.8%) General population (n = 14,970; 97.2%)	NS	Female (n = 7,650; 49.7%) Male (n = 7,736; 50.3%) <50 years (n = 6,128; 39.8%) ≥50 years (n = 9,258; 60.2%)			No important DIF was found with regard to country and age.		
EORTC CAT Core Appetite Loss Marta et al. 2021 (108)	**Cancer patients (n = 169)** Breast (n = 65; 38.7%) Lung (n = 9; 5.4%) Prostate (n = 29; 17.3%) Ovary (n = 2; 1.2%) Other (n = 48; 28.6%)	Stage I–II (n = 83; 49.4%) Stage III–IV (n = 61; 36.3%) Missing (n = 24; 14.2%)	Female (n = 91; 54.2%) Male (n = 63; 37.5%) Missing (n = 14; 8.3%) 60.2 ± 13.8 years				**EORTC QLQ-C30** Appetite loss: 0.86-0.92	
EORTC CAT Core Appetite Loss Petersen et al. 2020 (109)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	Stage I–II (n = 207; 29.6%) Stage III–IV (n = 360; 51.5%) Missing (n = 127; 18.9%)	Female (n = 391; 55.9%) Male (n = 296; 42.4%) Missing (n = 7; 1.0%) 60.6 ± 12.0 years				**EORTC QLQ-C30** Appetite loss: 0.90	
EORTC CAT Core Constipation Liegl et al. 2018 (107)	**Mixed (n = 15,386)** Cancer patients (n = 416; 2.8%) General population (n = 14,970; 97.2%)	NS	Female (n = 7,650; 49.7%) Male (n = 7,736; 50.3%) <50 years (n = 6,128; 39.8%) ≥50 years (n = 9,258; 60.2%)			No important DIF was found with regard to country and age.		
EORTC CAT Core Constipation Marta et al. 2021 (108)	**Cancer patients (n = 169)** Breast (n = 65; 38.7%) Lung (n = 9; 5.4%) Prostate (n = 29; 17.3%)	Stage I–II (n = 83; 49.4%) Stage III–IV (n = 61; 36.3%)	Female (n = 91; 54.2%) Male (n = 63; 37.5%)				**EORTC QLQ-C30** Constipation: 0.80-0.85	

	Ovary (n = 2; 1.2%) Other (n = 48; 28.6%)	Missing (n = 24; 14.2%)	Missing (n = 14; 8.3%) 60.2 ± 13.8 years					
EORTC CAT Core Constipation Petersen et al. 2020 (109)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	Stage I–II (n = 207; 29.6%) Stage III–IV (n = 360; 51.5%) Missing (n = 127; 18.9%)	Female (n = 391; 55.9%) Male (n = 296; 42.4%) Missing (n = 7; 1.0%) 60.6 ± 12.0 years				**EORTC QLQ-C30** Constipation: 0.87-0.89	
EORTC CAT Core Diarrhea Liegl et al. 2018 (107)	**Mixed (n = 15,386)** Cancer patients (n = 416; 2.8%) General population (n = 14,970; 97.2%)	NS	Female (n = 7,650; 49.7%) Male (n = 7,736; 50.3%) <50 years (n = 6,128; 39.8%) ≥50 years (n = 9,258; 60.2%)			No important DIF was found with regard to country and age.		
EORTC CAT Core Diarrhea Marta et al. 2021 (108)	**Cancer patients (n = 169)** Breast (n = 65; 38.7%) Lung (n = 9; 5.4%) Prostate (n = 29; 17.3%) Ovary (n = 2; 1.2%) Other (n = 48; 28.6%)	Stage I–II (n = 83; 49.4%) Stage III–IV (n = 61; 36.3%) Missing (n = 24; 14.2%)	Female (n = 91; 54.2%) Male (n = 63; 37.5%) Missing (n = 14; 8.3%) 60.2 ± 13.8 years				**EORTC QLQ-C30** Diarrhea: 0.90	
EORTC CAT Core Diarrhea Petersen et al. 2020 (109)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	Stage I–II (n = 207; 29.6%) Stage III–IV (n = 360; 51.5%) Missing (n = 127; 18.9%)	Female (n = 391; 55.9%) Male (n = 296; 42.4%) Missing (n = 7; 1.0%)				**EORTC QLQ-C30** Diarrhea: 0.88-0.90	

			60.6 ± 12.0 years					
EORTC CAT Core Dyspnea Liegl et al. 2018 (107)	**Mixed (n = 15,386)** Cancer patients (n = 416; 2.8%) General population (n = 14,970; 97.2%)	NS	Female (n = 7,650; 49.7%) Male (n = 7,736; 50.3%) <50 years (n = 6,128; 39.8%) ≥50 years (n = 9,258; 60.2%)			No important DIF was found with regard to country and age.		
EORTC CAT Core Dyspnea Marta et al. 2021 (108)	**Cancer patients (n = 169)** Breast (n = 65; 38.7%) Lung (n = 9; 5.4%) Prostate (n = 29; 17.3%) Ovary (n = 2; 1.2%) Other (n = 48; 28.6%)	Stage I–II (n = 83; 49.4%) Stage III–IV (n = 61; 36.3%) Missing (n = 24; 14.2%)	Female (n = 91; 54.2%) Male (n = 63; 37.5%) Missing (n = 14; 8.3%) 60.2 ± 13.8 years				**EORTC QLQ-C30** Dyspnea: 0.63-0.70	
EORTC CAT Core Dyspnea Petersen et al. 2020 (109)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	Stage I–II (n = 207; 29.6%) Stage III–IV (n = 360; 51.5%) Missing (n = 127; 18.9%)	Female (n = 391; 55.9%) Male (n = 296; 42.4%) Missing (n = 7; 1.0%) 60.6 ± 12.0 years				**EORTC QLQ-C30** Dyspnea: 0.82-0.83	
EORTC CAT Core Fatigue Liegl et al. 2018 (107)	**Mixed (n = 15,386)** Cancer patients (n = 416; 2.8%) General population (n = 14,970; 97.2%)	NS	Female (n = 7,650; 49.7%) Male (n = 7,736; 50.3%) <50 years (n = 6,128; 39.8%) ≥50 years (n = 9,258; 60.2%)			No important DIF was found with regard to country and age.		
EORTC CAT Core Fatigue	**Cancer patients (n = 169)** Breast (n = 65; 38.7%)	Stage I–II (n = 83; 49.4%)	Female (n = 91; 54.2%)				**EORTC QLQ-C30** Fatigue: 0.86-0.88	

Marta et al. 2021 (108)	Lung (n = 9; 5.4%) Prostate (n = 29; 17.3%) Ovary (n = 2; 1.2%) Other (n = 48; 28.6%)	Stage III–IV (n = 61; 36.3%) Missing (n = 24; 14.2%)	Male (n = 63; 37.5%) Missing (n = 14; 8.3%) 60.2 ± 13.8 years					
EORTC CAT Core Fatigue Petersen et al. 2013a (52) Petersen et al. 2013b (110)	**Cancer patients (n = 1,321)** Breast (n = 299; 22.6 %) Gastrointestinal (n = 191; 14.5 %) Gynecological (n = 167; 12.6 %) Hematological (n = 150; 11.4 %) Urogenital (n= 150; 11.4 %) Head & neck (n = 113; 8.6 %) Lung (n = 87; 6.6 %) Other (n = 156; 11.8 %) Missing (n = 8; 0.6%)	Stage I–II (n = 612; 46.3 %) Stage III–IV (n = 538; 40.7 %) Missing (n = 171; 12.9%)	Female (n = 778; 58.9%) Male (n = 537; 40.7%) Missing (n = 171; 12.9%)	CFI: 0.92 TLI: 0.995 RMSEA: 0.098 (based on 37 items, not the final set of 34 items)	α: 0.96	No important DIF was found with regard to gender, age, country, cancer site, cancer stage, current treatment, cohabitation, educational level, and work.	**EORTC QLQ-C30** Fatigue: 0.68-0.88	
EORTC CAT Core Fatigue Petersen et al. 2020 (109)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	Stage I–II (n = 207; 29.6%) Stage III–IV (n = 360; 51.5%) Missing (n = 127; 18.9%)	Female (n = 391; 55.9%) Male (n = 296; 42.4%) Missing (n = 7; 1.0%) 60.6 ± 12.0 years				**EORTC QLQ-C30** Fatigue: 0.88-0.90	
EORTC CAT Core Insomnia Dirven et al. 2019 (53)	**Cancer patients (n = 1,094)** Urogenital (n = 237; 21.7%) Breast (n = 224; 20.5%) Gynecological (n = 151; 13.8%) Head & neck (n = 128; 11.7%) Gastrointestinal (n = 116; 10.6%) Lung (n = 46; 4.2%) Other (n = 190; 17.4%) Missing (n = 2; 0.2%)	Stage I-II (n = 580; 53.0%) Stage III-IV (n = 485; 44.3%) Missing (n = 22; 2.7%)	Female (n = 552; 50.5%) Male (n = 541; 49.5%) Missing (n = 1; 0.1%) 61 years	CFI: >0.99 TLI: >0.99 RMSEA: 0.08	α: 0.94	No important DIF was found with regard to gender, age, country, cancer site, cancer stage, current treatment, cohabitation, educational level, and work.	**EORTC QLQ-C30** Insomnia: ≥ 0.72	
EORTC CAT Core Insomnia	**Mixed (n = 15,386)** Cancer patients (n = 416; 2.8%)	NS	Female (n = 7,650; 49.7%)			No important DIF was found with		

Liegl et al. 2018 (107)	General population (n = 14,970; 97.2%)		Male (n = 7,736; 50.3%) <50 years (n = 6,128; 39.8%) ≥50 years (n = 9,258; 60.2%)			regard to country and age.		
EORTC CAT Core Insomnia Marta et al. 2021 (108)	**Cancer patients (n = 169)** Breast (n = 65; 38.7%) Lung (n = 9; 5.4%) Prostate (n = 29; 17.3%) Ovary (n = 2; 1.2%) Other (n = 48; 28.6%)	Stage I–II (n = 83; 49.4%) Stage III–IV (n = 61; 36.3%) Missing (n = 24; 14.2%)	Female (n = 91; 54.2%) Male (n = 63; 37.5%) Missing (n = 14; 8.3%) 60.2 ± 13.8 years				**EORTC QLQ-C30** Insomnia: 0.88-0.91	
EORTC CAT Core Insomnia Petersen et al. 2020 (109)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	Stage I–II (n = 207; 29.6%) Stage III–IV (n = 360; 51.5%) Missing (n = 127; 18.9%)	Female (n = 391; 55.9%) Male (n = 296; 42.4%) Missing (n = 7; 1.0%) 60.6 ± 12.0 years				**EORTC QLQ-C30** Insomnia: 0.88-0.90	
EORTC CAT Core Nausea & Vomiting Liegl et al. 2018 (107)	**Mixed (n = 15,386)** Cancer patients (n = 416; 2.8%) General population (n = 14,970; 97.2%)	NS	Female (n = 7,650; 49.7%) Male (n = 7,736; 50.3%) <50 years (n = 6,128; 39.8%) ≥50 years (n = 9,258; 60.2%)			No important DIF was found with regard to country and age.		
EORTC CAT Core Nausea & Vomiting Marta et al. 2021 (108)	**Cancer patients (n = 169)** Breast (n = 65; 38.7%) Lung (n = 9; 5.4%) Prostate (n = 29; 17.3%) Ovary (n = 2; 1.2%) Other (n = 48; 28.6%)	Stage I–II (n = 83; 49.4%) Stage III–IV (n = 61; 36.3%) Missing (n = 24; 14.2%)	Female (n = 91; 54.2%) Male (n = 63; 37.5%) Missing (n = 14; 8.3%)				**EORTC QLQ-C30** Nausea & vomiting: 0.88-0.90	

			60.2 ± 13.8 years					
EORTC CAT Core Nausea & Vomiting Petersen et al. 2020 (109)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	Stage I–II (n = 207; 29.6%) Stage III–IV (n = 360; 51.5%) Missing (n = 127; 18.9%)	Female (n = 391; 55.9%) Male (n = 296; 42.4%) Missing (n = 7; 1.0%) 60.6 ± 12.0 years				**EORTC QLQ-C30** Nausea & vomiting: 0.89-0.90	
EORTC CAT Core Pain Liegl et al. 2018 (107)	**Mixed (n = 15,386)** Cancer patients (n = 416; 2.8%) General population (n = 14,970; 97.2%)	NS	Female (n = 7,650; 49.7%) Male (n = 7,736; 50.3%) <50 years (n = 6,128; 39.8%) ≥50 years (n = 9,258; 60.2%)			No important DIF was found with regard to country and age.		
EORTC CAT Core Pain Marta et al. 2021 (108)	**Cancer patients (n = 169)** Breast (n = 65; 38.7%) Lung (n = 9; 5.4%) Prostate (n = 29; 17.3%) Ovary (n = 2; 1.2%) Other (n = 48; 28.6%)	Stage I–II (n = 83; 49.4%) Stage III–IV (n = 61; 36.3%) Missing (n = 24; 14.2%)	Female (n = 91; 54.2%) Male (n = 63; 37.5%) Missing (n = 14; 8.3%) 60.2 ± 13.8 years				**EORTC QLQ-C30** Pain: 0.91-0.93	
EORTC CAT Core Pain Petersen et al. 2015 (111)	**Cancer patients (n = 1,103)** Breast (n = 199; 18%) Gynecological (n = 179; 16.2%) Head & neck (n = 165; 15%) Gastrointestinal (n = 131; 11.9%) Lung (n = 33; 3%) Other (n = 191; 17.3%) Missing (n = 205; 18.6%)	Stage I–II (n = 536; 49 %) Stage III–IV (n = 518; 47 %) Missing (n = 49; 4.4%)	Female (n = 619; 56%) Male (n = 484; 44%) 60 years (range: 19-90)	CFI: 0.977 TLI: 0.995 RMSEA: 0.147 (based on 21 items, not the final set of 16 items)	α: >0.90	No important DIF was found with regard to gender, age, country, cancer site, cancer stage, current treatment, cohabitation,	**EORTC QLQ-C30** Pain: 0.79-0.92	

						educational level, and work.		
EORTC CAT Core Pain Petersen et al. 2020 (109)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	Stage I–II (n = 207; 29.6%) Stage III–IV (n = 360; 51.5%) Missing (n = 127; 18.9%)	Female (n = 391; 55.9%) Male (n = 296; 42.4%) Missing (n = 7; 1.0%) 60.6 ± 12.0 years				**EORTC QLQ-C30** Pain: 0.92-0.93	
EORTC CAT Core Physical Functioning Liegl et al. 2018 (107)	**Mixed (n = 15,386)** Cancer patients (n = 416; 2.8%) General population (n = 14,970; 97.2%)	NS	Female (n = 7,650; 49.7%) Male (n = 7,736; 50.3%) <50 years (n = 6,128; 39.8%) ≥50 years (n = 9,258; 60.2%)			No important DIF was found with regard to country and age.		
EORTC CAT Core Physical Functioning Marta et al. 2021 (108)	**Cancer patients (n = 169)** Breast (n = 65; 38.7%) Lung (n = 9; 5.4%) Prostate (n = 29; 17.3%) Ovary (n = 2; 1.2%) Other (n = 48; 28.6%)	Stage I–II (n = 83; 49.4%) Stage III–IV (n = 61; 36.3%) Missing (n = 24; 14.2%)	Female (n = 91; 54.2%) Male (n = 63; 37.5%) Missing (n = 14; 8.3%) 60.2 ± 13.8 years				**EORTC QLQ-C30** Physical functioning: 0.86-0.87	
EORTC CAT Core Physical Functioning Petersen et al. 2011 (56) Petersen et al. 2013 (110)	**Cancer patients (n = 1,176)** Urogenital (n = 181; 15.4%) Gynecological (n = 180; 15.3%) Head & neck (n = 163; 13.7%) Breast (n = 150; 12.6%) Gastrointestinal (n = 135; 11.5%) Lung (n = 52; 4.4%) Other (n = 124; 10.5%) Missing (n = 191; 16.2%)	Stage I–II (n = 399; 33.9%) Stage III–IV (n = 583; 49.6%) Missing (n = 194; 16.5%)	Female (n = 648; 55.1%) Male (n = 524; 44.6%) Missing (n = 4; 0.3%) 58 years (range: 18-91)	CFI: 0.94 TLI: 0.98 RMSEA: 0.09 (based on 34 items, not the final set of 31 items)	α: 0.94	No important DIF was found with regard to gender, age, country, cancer site, cancer stage, current treatment, cohabitation, educational level, and work.	**EORTC QLQ-C30** Physical functioning: 0.64-0.93	

EORTC CAT Core Physical Functioning Petersen et al. 2020 (109)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	Stage I–II (n = 207; 29.6%) Stage III–IV (n = 360; 51.5%) Missing (n = 127; 18.9%)	Female (n = 391; 55.9%) Male (n = 296; 42.4%) Missing (n = 7; 1.0%) 60.6 ± 12.0 years				**EORTC QLQ-C30** Physical functioning: 0.86-0.90	
FACE-Q Skin cancer – Appraisal of scars CAT Ottenhof et al. 2021 (112)	**Cancer patients (n = 209)** Skin (n = 209; 100%)	NS	Female (n = 113; 54%) Male (n = 96; 46%) 64 years				**FACE-Q** Appraisal of scars item bank: SE 0.32: 0.99 SE 0.45: 0.99 SE 0.55: 0.98	
FACE-Q Skin cancer – Satisfaction with facial appearance CAT Ottenhof et al. 2021 (112)	**Cancer patients (n = 209)** Skin (n = 209; 100%)	NS	Female (n = 113; 54%) Male (n = 96; 46%) 64 years				**FACE-Q** Satisfaction with facial appearance item bank: SE 0.32: 0.99 SE 0.45: 0.99 SE 0.55: 0.98	
NEURO-QoL Lower extremity function CAT Janssen et al. 2016 (113)	**Cancer patients/Palliative (n = 100)** Lower extremity metastases coming from: Breast (n = 29; 29%) Urogenital (n = 14; 14%) Lymphoma (n = 12; 12%) Myeloma (n = 12; 12%) Prostate (n = 9; 9%) Lung (n = 8; 8%) Others (n = 16; 16%)	NS	Female (n = 59; 59%) Male (n = 41; 41%) Median: 63 years (range 54-70)		α: >0.90		**PROMIS** Physical function CAT: 0.78 **TESS LE:** 0.85 **LEFS:** 0.84 **MTSS:** 0.77	
PROMIS Fatigue CAT Leung et al. 2016 (114)	**Cancer patients/Palliative (n = 336)** Gastrointestinal (n = 68; 20.2%) Lung (n = 65; 19.4%) Breast (n = 60; 17.9%) Lymphoma (n = 57; 17.0%) Urogenital (n = 37; 11.0%)	Local (n = 157; 50.2%) Metastatic (n = 94; 30.0%) Other (n = 57; 18.2%)	Female (n = 184; 54.8%) Male (n = 152; 45.2%) 57.4 ± 15.7 years		α: 0.94 ± 0.04		**FACIT-Fatigue:** 0.83	

	Gynecological (n = 26; 7.7%) Other (n = 23; 6.8%)							
PROMIS Fatigue CAT Moinpour et al. 2017 (115)	**Cancer patients/Survivors (n = 213)** Gastrointestinal (n = 124; 58.2%) Breast (n = 89; 41.8%)	Stage I (n = 15; 7.0%) Stage II (n = 47; 22.1%) Stage III (n = 47; 22.1%) Stage IV (n = 103; 48.4%) Missing (n = 1; 0.5%)	Female (n = 147; 69.0%) Male (n = 66; 31.0%) 52.4 ± 10.8 years		Reliability coefficient ($r = 1 - SE(\theta)^2$) 0.34-0.36			
PROMIS Fatigue CAT Stachler et al. 2014 (116)	**Cancer patients (n = 39)** Head & neck (n = 39; 100%)	T1 (n = 10; 25.0%) T2 (n = 15; 38.0%) T3 (n = 5; 13.0%) T4 (n = 7; 17.0%) Tx (n = 2; 6.0%)	Female (n = 10; 26.0%) Male (n = 29; 74.0%) 58.5 ± 7.7 years				**EORTC QLQ-C30** Overall QoL: 0.47 Physical functioning: 0.48 Role functioning: -0.41 Emotional functioning: 0.80 Cognitive functioning: 0.78 Social functioning: 0.73 Fatigue: 0.51 Nausea & vomiting: 0.22 Pain: 0.43 Dyspnea: 0.40 Insomnia: 0.33 Appetite loss: 0.24 Constipation: 0.47 Diarrhea: 0.36 Financial difficulties: 0.84 **EORTC QLQ-H&N35:** Pain: 0.42 Swallowing: 0.42 Senses problems: 0.53 Speech problems: 0.31 Social eating: 0.37 Social contact: 0.35 Less sexuality: 0.45 Teeth: 0.38 Opening mouth: 0.57 Dry mouth: 0.54 Sticky saliva: 0.40	

							Coughing: 0.53 Felt ill: 0.37 **VHI-10:** 0.52	
PROMIS Pain Behavior CAT Romero et al. 2015 (117)	**Cancer patients (n = 10)** Brain tumor (n = 10; 100%)	NS	Female (n = 4; 40%) Male (n = 6; 60%) 59.6 ± 14.9 years		α: 0.96		**EORTC QLQ-C30** Pain: 0.34-0.54	
PROMIS Pain Interference CAT Bernstein et al. 2019 (118)	**Cancer patients/Palliative (n = 80)** Multiple myeloma (n = 22; 27.5%) Spinal (n = 13; 16%) Lung (n = 11; 13.8%) Prostate (n = 9; 11.3%) Breast (n = 8; 10%) Renal (n = 8; 10%) Others (n = 9; 11.3%)	**Metastatic tumor stage (n = 67; 84%):** Stage I (n = 13; 19%) Stage II (n = 8; 12%) Stage III (n = 14; 21%) Stage IV (n = 32; 48%)	Female (n = 39; 49%) Male (n = 41; 51%) 59 years (range 11-87)				**ODI or NDI:** 0.78	
PROMIS Pain Interference CAT Ploetze et al. 2019 (119)	**Cancer patients/Palliative (n = 97)** Bone or soft tissue (n = 97; 100%)	Benign tumors (n = 37; 38%) Malign tumors (n = 60; 62%)	NS 53 ± NS years				**TESS LE:** 0.71 **TESS UE:** 0.62	
PROMIS Pain Interference CAT Richardson et al. 2022 (120)	**Cancer patients/Palliative (n = 79)** Spinal mestastases coming from: Multiple myeloma (n = 28; 27%) Breast (n = 26; 25%) Prostate (n = 13; 13%) Renal (n = 10; 10%) Lung (n = 7; 7%) Colon (n = 5; 5%) Others (n = 14; 14%)	NS	Female (n = 44; 43%) Male (n = 59; 57%) 64 ± 13 years				**SOSG-OQ:** Pain: 0.78 Other domains: 0.54-0.65 Total: 0.78	
PROMIS Pain Interference CAT Romero et al. 2015 (117)	**Cancer patients (n = 10)** Brain tumor (n = 10; 100%)	NS	Female (n = 4; 40%) Male (n = 6; 60%) 59.6 ± 14.9 years		α: 0.96		**EORTC QLQ-C30** Pain: 0.37-0.61	
PROMIS Physical Function CAT	**Cancer patients/Palliative (n = 80)** Multiple myeloma (n = 22; 27.5%)	**Metastatic tumor stage (n = 67; 84%):**	Female (n = 39; 49%)				**ODI or NDI:** 0.74	

Bernstein et al. 2019 (118)	Spinal (n = 13; 16%) Lung (n = 11; 13.8%) Prostate (n = 9; 11.3%) Breast (n = 8; 10%) Renal (n = 8; 10%) Others (n = 9; 11.3%)	Stage I (n = 13; 19%) Stage II (n = 8; 12%) Stage III (n = 14; 21%) Stage IV (n = 32; 48%)	Male (n = 41; 51%) 59 years (range 11-87)					
PROMIS Physical Function CAT Janssen et al. 2016 (113)	**Cancer patients/Palliative (n = 100)** Lower extremity metastases coming from: Breast (n = 29; 29%) Urogenital (n = 14; 14%) Lymphoma (n = 12; 12%) Myeloma (n = 12; 12%) Prostate (n = 9; 9%) Lung (n = 8; 8%) Others (n = 16; 16%)	NS	Female (n = 59; 59%) Male (n = 41; 41%) Median: 63 years (range 54-70)		α: >0.90		**NeuroQoL CAT:** 0.78 **TESS LE:** 0.85 **LEFS:** 0.87 **MTSS:** 0.82	
PROMIS Physical Function CAT Pereira et al. 2017 (121)	**Cancer patients/Palliative (n = 100)** Spinal metastases coming from: Breast (n = 20; 20%) Multiple myeloma (n = 18; 18%) Renal (n = 12; 12%) Lung (n = 11; 11%) Prostate (n = 6; 6%) Thyroid (n = 6; 6%) Others (n = 27; 27%)	NS	Female (n = 50; 50%) Male (n = 50; 50%) Median: 63 years (range 55-70)		α: >0.90		**ODI or NDI:** 0.78 **PROMIS** Pain Intensity: 0.35 **EQ-5D:** 0.71 **SOSG-OQ** Total: 0.72 Physical function: 0.84 Neurologic function: 0.50 Pain: 0.43 Mental function: 0.44 Social function: 0.42	
PROMIS Physical Function CAT Ploetze et al. 2019 (119)	**Cancer patients/Palliative (n = 97)** Bone or soft tissue (n = 97; 100%)	Benign tumors (n = 37; 38%) Malign tumors (n = 60; 62%)	NS 53 ± NS years				**TESS LE:** 0.84 **TESS UE:** 0.64	
PROMIS Physical Function CAT Richardson et al. 2022 (120)	**Cancer patients/Palliative (n = 79)** Spinal mestastases coming from: Multiple myeloma (n = 28; 27%) Breast (n = 26; 25%) Prostate (n = 13; 13%) Renal (n = 10; 10%) Lung (n = 7; 7%) Colon (n = 5; 5%)	NS	Female (n = 44; 43%) Male (n = 59; 57%) 64 ± 13 years				**SOSG-OQ:** Physical function: 0.78 Other domains: 0.42-0.67 Total: 0.71	

	Others (n = 14; 14%)							
PROMIS Physical Function CAT Romero et al. 2015 (117)	**Cancer patients (n = 10)** Brain tumor (n = 10; 100%)	NS	Female (n = 4; 40%) Male (n = 6; 60%) 59.6 ± 14.9 years				**EORTC QLQ-C30** Physical functioning: 0.14-0.66	
PROMIS Physical Function CAT Schalet et al. 2016 (122)	**Mixed (n = 1,430)** Cancer patients (n = 310; 21.7%) Non-cancer patients (n = 1,120; 78.3%)	NS	Female (n = 189; 61.0%) Male (n = 121; 39.0%) Median: 50-54 years					**Using General Health Anchor** **Better:** Mean change: 2.3 ± 7.1 **About the same:** Mean change: 0.00 ± 5.6 **Worse:** Mean change: -1.6 ± 5.6 **Using General Physical Function Anchor** **Better:** Mean change: 2.5 ± 5.8 **About the same:** Mean change: 0.5 ± 5.9 **Worse:** Mean change: -4.5 ± 5.7
PROMIS Physical Function CAT Stachler et al. 2014 (116)	**Cancer patients (n = 39)** Head & neck (n = 39; 100%)	T1 (n = 10; 25.0%) T2 (n = 15; 38.0%) T3 (n = 5; 13.0%) T4 (n = 7; 17.0%) Tx (n = 2; 6.0%)	Female (n = 10; 26.0%) Male (n = 29; 74.0%) 58.5 ± 7.7 years				**EORTC QLQ-C30** Overall QoL: 0.49 Physical functioning: 0.44 Role functioning: 0.14 Emotional functioning: 0.69 Cognitive functioning: 0.79 Social functioning: 0.70 Fatigue: 0.33 Nausea & vomiting: 0.15 Pain: 0.44 Dyspnea: 0.27	

							Insomnia: 0.22 Appetite loss: 0.23 Constipation: 0.51 Diarrhea: 0.24 Financial difficulties: 0.73 **EORTC QLQ-H&N35:** Pain: 0.24 Swallowing: 0.51 Senses problems: 0.46 Speech problems: 0.35 Social eating: 0.32 Social contact: 0.13 Less sexuality: 0.31 Teeth: 0.46 Opening mouth: 0.42 Dry mouth: 0.20 Sticky saliva: 0.29 Coughing: 0.39 Felt ill: 0.31 **VHI-10:** 0.52	
PROMIS Sleep Disturbance CAT Leung et al. 2016 (114)	**Cancer patients/Palliative (n = 336)** Gastrointestinal (n = 68; 20.2%) Lung (n = 65; 19.4%) Breast (n = 60; 17.9%) Lymphoma (n = 57; 17.0%) Urogenital (n = 37; 11.0%) Gynecological (n = 26; 7.7%) Other (n = 23; 6.8%)	Local (n = 157; 50.2%) Metastatic (n = 94; 30.0%) Other (n = 57; 18.2%)	Female (n = 184; 54.8%) Male (n = 152; 45.2%) 57.4 ± 15.7 years				**FACIT-Fatigue:** 0.57 **PROMIS** Fatigue: 0.60 **ISI:** 0.82	
PROMIS Sleep Disturbance CAT Romero et al. 2015 (117)	**Cancer patients (n = 10)** Brain tumor (n = 10; 100%)	NS	Female (n = 4; 40%) Male (n = 6; 60%) 59.6 ± 14.9 years		α: 0.82		**EORTC QLQ-C30** Insomnia: 0.41-0.69	
PROMIS Sleep Disturbance CAT Stachler et al. 2014 (116)	**Cancer patients (n = 39)** Head & neck (n = 39; 100%)	T1 (n = 10; 25.0%) T2 (n = 15; 38.0%) T3	Female (n = 10; 26.0%) Male (n = 29; 74.0%)				**EORTC QLQ-C30** Overall QoL: 0.34 Physical functioning: 0.31 Role functioning: 0.46 Emotional functioning: 0.25	

		(n = 5; 13.0%) T4 (n = 7; 17.0%) Tx (n = 2; 6.0%)	58.5 ± 7.7 years				Cognitive functioning: 0.34 Social functioning: 0.67 Fatigue: 0.28 Nausea & vomiting: 0.07 Pain: 0.28 Dyspnea: 0.09 Insomnia: 0.74 Appetite loss: 0.002 Constipation: 0.45 Diarrhea: 0.09 Financial difficulties: 0.44 **EORTC QLQ-H&N35:** Pain: 0.13 Swallowing: 0.15 Senses problems: 0.13 Speech problems: 0.31 Social eating: 0.13 Social contact: 0.29 Less sexuality: 0.24 Teeth: 0.36 Opening mouth: 0.21 Dry mouth: 0.16 Sticky saliva: 0.39 Coughing: 0.04 Felt ill: 0.34 **VHI-10:** 0.11	
PROMIS Sleep-related Impairment CAT Leung et al. 2016 (114)	**Cancer patients/Palliative (n = 336)** Gastrointestinal (n = 68; 20.2%) Lung (n = 65; 19.4%) Breast (n = 60; 17.9%) Lymphoma (n = 57; 17.0%) Urogenital (n = 37; 11.0%) Gynecological (n = 26; 7.7%) Other (n = 23; 6.8%)	Local (n = 157; 50.2%) Metastatic (n = 94; 30.0%) Other (n = 57; 18.2%)	Female (n = 184; 54.8%) Male (n = 152; 45.2%) 57.4 ± 15.7 years				**FACIT-Fatigue:** 0.71 **PROMIS** Fatigue**:** 0.79 Sleep disturbance: 0.70 **ISI:** 0.71	
PROMIS Sleep-related Impairment CAT Romero et al. 2015 (117)	**Cancer patients (n = 10)** Brain tumor (n = 10; 100%)	NS	Female (n = 4; 40%) Male (n = 6; 60%)		α: 0.82		**EORTC QLQ-C30** Insomnia: 0.56-0.61	

			59.6 ± 14.9 years					
PROMIS Sleep-related Impairment CAT Stachler et al. 2014 (116)	**Cancer patients (n = 39)** Head & neck (n = 39; 100%)	T1 (n = 10; 25.0%) T2 (n = 15; 38.0%) T3 (n = 5; 13.0%) T4 (n = 7; 17.0%) Tx (n = 2; 6.0%)	Female (n = 10; 26.0%) Male (n = 29; 74.0%) 58.5 ± 7.7 years				**EORTC QLQ-C30** Overall QoL: 0.55 Physical functioning: 0.50 Role functioning: 0.42 Emotional functioning: 0.49 Cognitive functioning: 0.58 Social functioning: 0.68 Fatigue: 0.43 Nausea & vomiting: 0.28 Pain: 0.24 Dyspnea: 0.26 Insomnia: 0.69 Appetite loss: 0.15 Constipation: 0.42 Diarrhea: 0.10 Financial difficulties: 0.69 **EORTC QLQ-H&N35:** Pain: 0.25 Swallowing: 0.45 Senses problems: 0.22 Speech problems: 0.41 Social eating: 0.26 Social contact: 0.21 Less sexuality: 0.33 Teeth: 0.44 Opening mouth: 0.39 Dry mouth: 0.48 Sticky saliva: 0.39 Coughing: 0.28 Felt ill: 0.27 **VHI-10:** 0.38	
COMPUTERIZED ADAPTIVE TESTING (CAT) – Mental Health								
EORTC CAT Core Cognitive Functioning Dirven et al. 2017 (104)	**Cancer patients (n = 1,030)** Breast (n = 237; 23.0%) Genitourinary (n = 171; 16.6%) Gastrointestinal (n = 144; 14.0%) Gynecological (n = 99; 9.6%) Head & neck (n = 87; 8.4%) Hematological (n = 51; 5.0%)	Stage I–II (n = 615; 59.7%) Stage III-IV (n = 409; 39.7%) Missing (n = 6; 0.6%)	Female (n = 542; 52.6 %) Male (n = 488; 47.4%) 63 years (range: 26-97)	CFI: 0.903 TLI: 0.989 RMSEA: 0.095	α: 0.94	No important DIF was found with regard to gender, age, country, cancer site, cancer stage, current	**EORTC QLQ-C30** Cognitive functioning: >0.56	

	Lung (n = 33; 3.2%) Others (n = 208; 20.2%)					treatment, cohabitation, educational level, and work.		
EORTC CAT Core Cognitive Functioning Liegl et al. 2018 (107)	**Mixed (n = 15,386)** Cancer patients (n = 416; 2.8%) General population (n = 14,970; 97.2%)	NS	Female (n = 7,650; 49.7%) Male (n = 7,736; 50.3%) <50 years (n = 6,128; 39.8%) ≥50 years (n = 9,258; 60.2%)			No important DIF was found with regard to country and age.		
EORTC CAT Core Cognitive Functioning Marta et al. 2021 (108)	**Cancer patients (n = 169)** Breast (n = 65; 38.7%) Lung (n = 9; 5.4%) Prostate (n = 29; 17.3%) Ovary (n = 2; 1.2%) Other (n = 48; 28.6%)	Stage I–II (n = 83; 49.4%) Stage III–IV (n = 61; 36.3%) Missing (n = 24; 14.2%)	Female (n = 91; 54.2%) Male (n = 63; 37.5%) Missing (n = 14; 8.3%) 60.2 ± 13.8 years				**EORTC QLQ-C30** Cognitive functioning: 0.87-0.88	
EORTC CAT Core Cognitive Functioning Petersen et al. 2020 (109)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	Stage I–II (n = 207; 29.6%) Stage III–IV (n = 360; 51.5%) Missing (n = 127; 18.9%)	Female (n = 391; 55.9%) Male (n = 296; 42.4%) Missing (n = 7; 1.0%) 60.6 ± 12.0 years				**EORTC QLQ-C30** Cognitive functioning: 0.86-0.88	
EORTC CAT Core Emotional Functioning Liegl et al. 2018 (107)	**Mixed (n = 15,386)** Cancer patients (n = 416; 2.8%) General population (n = 14,970; 97.2%)	NS	Female (n = 7,650; 49.7%) Male (n = 7,736; 50.3%) <50 years (n = 6,128; 39.8%) ≥50 years (n = 9,258; 60.2%)			No important DIF was found with regard to country and age.		

EORTC CAT Core Emotional Functioning Marta et al. 2021 (108)	**Cancer patients (n = 169)** Breast (n = 65; 38.7%) Lung (n = 9; 5.4%) Prostate (n = 29; 17.3%) Ovary (n = 2; 1.2%) Other (n = 48; 28.6%)	Stage I–II (n = 83; 49.4%) Stage III–IV (n = 61; 36.3%) Missing (n = 24; 14.2%)	Female (n = 91; 54.2%) Male (n = 63; 37.5%) Missing (n = 14; 8.3%) 60.2 ± 13.8 years				**EORTC QLQ-C30** Emotional functioning: 0.80-0.88	
EORTC CAT Core Emotional Functioning Petersen et al. 2016 (78)	**Cancer patients (n = 1,023)** Gastrointestinal (n = 199; 19.4%) Breast (n =130; 12.7%) Urogenital (n = 104; 10.2%) Gynecological (n = 97; 9.5%) Head & neck (n = 74; 7.2%) Lung (n = 90; 8.8%) Other (n = 235; 23%) Missing (n = 147; 14.4%)	Stage I-II (n = 456; 44.6%) Stage III-IV (n = 420; 41.1%) Missing (n = 147; 14.4%)	Female (n = 540; 52.8%) Male (n = 483; 47.2%) 61.6 ± 12.7 years	CFI: 0.906 TLI: 0.987 RMSEA: 0.089	α: >0.90	No important DIF was found with regard to gender, age, country, cancer site, cancer stage, current treatment, cohabitation, educational level, and work.		
EORTC CAT Core Emotional Functioning Petersen et al. 2020 (109)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	Stage I–II (n = 207; 29.6%) Stage III–IV (n = 360; 51.5%) Missing (n = 127; 18.9%)	Female (n = 391; 55.9%) Male (n = 296; 42.4%) Missing (n = 7; 1.0%) 60.6 ± 12.0 years				**EORTC QLQ-C30** Emotional functioning: 0.85-0.87	
FACE-Q Skin cancer – Distress – Appearance CAT Ottenhof et al. 2021 (112)	**Cancer patients (n = 209)** Skin (n = 209; 100%)	NS	Female (n = 113; 54%) Male (n = 96; 46%) 64 years				**FACE-Q** Appearance distress item bank: SE 0.32: 0.99 SE 0.45: 0.99 SE 0.55: 0.98	
FACE-Q Skin cancer – Distress - Cancer worry CAT Ottenhof et al. 2021 (112)	**Cancer patients (n = 209)** Skin (n = 209; 100%)	NS	Female (n = 113; 54%) Male (n = 96; 46%)				**FACE-Q** Cancer worry item bank: SE 0.32: 0.99 SE 0.45: 0.99 SE 0.55: 0.98	

			64 years					
PROMIS Emotional Distress – Anger CAT Baum et al. 2015 (123)	**Cancer patients (n = 136)** Prostate (n = 136; 100%)	NS	Male (n = 136; 100%) 64.5 ± 7.8 years				**BSI** Hostility: 0.66	
PROMIS Emotional Distress – Anxiety CAT Baum et al. 2015 (123)	**Cancer patients (n = 136)** Prostate (n = 136; 100%)	NS	Male (n = 136; 100%) 64.5 ± 7.8 years				**BSI** Anxiety: 0.76	
PROMIS Emotional Distress – Anxiety CAT Clover et al. 2022 (124)	**Cancer patients (n = 132; 100%)** Breast (n = 59; 45%) Hematological (n = 18; 13%) Colorectal (n = 16; 12%) Lung (n = 13; 10%) Other (n = 26; 20%)	Stage I (n = 19; 14%) Stage II-III (n = 30; 23%) Stage IV (n = 23; 15%) Missing (n = 63; 48%)	Male (n = 63; 31%) Female (n = 91; 69%)				**HADS** Anxiety: 0.84 **GAD-7:** 0.79 **DASS** Stress: 0.77 Anxiety: 0.57 **PSYCH-6:** 0.70 **DT:** 0.63	
PROMIS Emotional Distress – Depression CAT Baum et al. 2015 (123)	**Cancer patients (n = 136)** Prostate (n = 136; 100%)	NS	Male (n = 136; 100%) 64.5 ± 7.8 years				**BSI** Depression: 0.85	
PROMIS Emotional Distress – Depression CAT Bernstein et al. 2019 (118)	**Cancer patients/Palliative (n = 80)** Multiple myeloma (n = 22; 27.5%) Spinal (n = 13; 16%) Lung (n = 11; 13.8%) Prostate (n = 9; 11.3%) Breast (n = 8; 10%) Renal (n = 8; 10%) Others (n = 9; 11.3%)	**Metastatic tumor stage (n = 67; 84%):** Stage I (n = 13; 19%) Stage II (n = 8; 12%) Stage III (n = 14; 21%) Stage IV (n = 32; 48%)	Female (n = 39; 49%) Male (n = 41; 51%) 59 years (range 11-87)				**ODI or NDI:** 0.56	
PROMIS Emotional	**Cancer patients (n = 132; 100%)** Breast (n = 59; 45%) Hematological (n = 18; 13%)	Stage I (n = 19; 14%) Stage II-III	Male (n = 63; 31%) Female				**BDI-II:** 0.79 **CES-D:** 0.81 **HADS** Depression: 0.63	

Distress – Depression CAT Clover et al. 2018 (125)	Colorectal (n = 16; 12%) Lung (n = 13; 10%) Other (n = 26; 20%)	(n = 30; 23%) Stage IV (n = 23; 15%) Missing (n = 63; 48%)	(n = 91; 69%)				**PSYCH-6:** 0.66 **DASS** Depression: 0.80 **DT:** 0.62 **PHQ-9:** 0.66	
PROMIS Emotional Distress – Depression CAT Ploetze et al. 2019 (119)	**Cancer patients/Palliative (n = 97)** Bone or soft tissue (n = 97; 100%)	Benign tumors (n = 37; 38%) Malign tumors (n = 60; 62%)	NS 53 ± NS years				**TESS LE:** 0.38 **TESS UE:** 0.38	
PROMIS Emotional Distress – Depression CAT Richardson et al. 2022 (120)	**Cancer patients/Palliative (n = 79)** Spinal mestastases coming from: Multiple myeloma (n = 28; 27%) Breast (n = 26; 25%) Prostate (n = 13; 13%) Renal (n = 10; 10%) Lung (n = 7; 7%) Colon (n = 5; 5%) Others (n = 14; 14%)	NS	Female (n = 44; 43%) Male (n = 59; 57%) 64 ± 13 years				**SOSG-OQ:** Mental health: 0.72 Other domains: 0.38-0.45 Total: 0.58	
PROMIS Emotional Distress – Depression CAT Stachler et al. 2014 (116)	**Cancer patients (n = 39)** Head & neck (n = 39; 100%)	T1 (n = 10; 25.0%) T2 (n = 15; 38.0%) T3 (n = 5; 13.0%) T4 (n = 7; 17.0%) Tx (n = 2; 6.0%)	Female (n = 10; 26.0%) Male (n = 29; 74.0%) 58.5 ± 7.7 years				**EORTC QLQ-C30** QoL: 0.54 Physical functioning: 0.46 Role functioning: 0.62 Emotional functioning: 0.31 Cognitive functioning: 0.43 Social functioning: 0.56 Fatigue: 0.22 Nausea & vomiting: 0.38 Pain: 0.05 Dyspnea: 0.04 Insomnia: 0.33 Appetite loss: 0.01 Constipation: 0.30 Diarrhea: 0.01 Financial difficulties: 0.43 **EORTC QLQ-H&N35:** Pain: 0.10 Swallowing: 0.27 Senses problems: 0.09	

							Speech problems: 0.22 Social eating: 0.04 Social contact: 0.08 Less sexuality: 0.47 Teeth: 0.48 Opening mouth: 0.15 Dry mouth: 0.25 Sticky saliva: 0.22 Coughing: 0.09 Felt ill: 0.12 **VHI-10:** 0.30	
COMPUTERIZED ADAPTIVE TESTING (CAT) – Social Health								
AM-PAC-CAT Cheville et al. 2012 (126)	**Cancer patients/Palliative (n = 311)** Lung (n = 311; 100%)	Stage III (n = 40; 13%) Stage IV (n = 238; 76%) Extensive Stage (n = 33; 11%)	Female (n = 153; 49%) Male (n = 158; 51%) 65.4 ± 10.9 years				**Global Rating Change:** 0.30	**Using Global Rating Change Anchor** **A lot better:** Mean change: 2.8 **A little better:** Mean change: 1.0 **About the same:** Mean change: -0.1 **A little worse:** Mean change: -1.9 **A lot worse:** Mean change: -11.6 **Using average/worst pain change Anchor:** 2-5 point decline **Using fatigue change Anchor:** 2-10 point decline **Using identification of new brain metastases Anchor:** 5-10 point decline

								Using development of symptomatic bone metastases Anchor: 2-5 point decline **Distribution-based:** SES: -0.87, SRM: -1.13 **A lot better:** SRM: 0.58 **A little better:** SRM: 0.30 **About the same:** SRM: -0.03 **A little worse:** SRM: -0.49 **A lot worse:** SRM: -0.95
ENRICH CAT Xu et al. 2022 (86)	**Cancer patients/Palliative (n = 515)** Breast (n = 211; 41%) Prostate (n = 134; 26%) Lung (n = 32; 6%) Head & neck (n = 29; 6%) Others (n = 101; 20%) Missing (n = 8; 2%)	Acute (n = 4; 1%) Distant (n = 90; 17%) Grade IV (n = 3; 1%) Local (n = 243; 47%) Myeloma (n = 5; 1%) Regional (n = 162; 31%) Missing (n = 8; 2%)	Female (n = 278; 54%) Male (n = 237; 46%) <65 years (n = 346; 67%) ≥ 65 years (n = 169; 33%)	CFI: 0.95 TLI: 0.94 RMSEA: 0.09 RMSR: 0.06	α: 0.7-0.9	No important DIF was found for age, race and gender.	**ENRICH:** 0.98	
EORTC CAT Core Financial Difficulties Liegl et al. 2018 (107)	**Mixed (n = 15,386)** Cancer patients (n = 416; 2.8%) General population (n = 14,970; 97.2%)	NS	Female (n = 7,650; 49.7%) Male (n = 7,736; 50.3%) <50 years (n = 6,128; 39.8%) ≥50 years (n = 9,258; 60.2%)			No important DIF was found with regard to country and age.		
EORTC CAT Core Financial Difficulties Marta et al. 2021 (108)	**Cancer patients (n = 169)** Breast (n = 65; 38.7%) Lung (n = 9; 5.4%) Prostate (n = 29; 17.3%) Ovary (n = 2; 1.2%)	Stage I–II (n = 83; 49.4%) Stage III–IV (n = 61; 36.3%)	Female (n = 91; 54.2%) Male (n = 63; 37.5%) Missing				**EORTC QLQ-C30** Financial difficulties: 0.82-0.88	

	Other (n = 48; 28.6%)	Missing (n = 24; 14.2%)	(n = 14; 8.3%) 60.2 ± 13.8 years					
EORTC CAT Core Financial Difficulties Petersen et al. 2020 (109)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	Stage I–II (n = 207; 29.6%) Stage III–IV (n = 360; 51.5%) Missing (n = 127; 18.9%)	Female (n = 391; 55.9%) Male (n = 296; 42.4%) Missing (n = 7; 1.0%) 60.6 ± 12.0 years				**EORTC QLQ-C30** Financial difficulties: 0.81-0.82	
EORTC CAT Core Role Functioning Gamper et al. 2016 (83)	**Cancer patients (n = 1,023)** Gastrointestinal (n = 199; 19.4%) Breast (n =130; 12.7%) Urogenital (n = 104; 10.2%) Gynecological (n = 97; 9.5%) Head & neck (n = 74; 7.2%) Lung (n = 90; 8.8%) Other (n = 235; 23%) Missing (n = 147; 14.4%)	Stage I-II (n = 456; 44.6%) Stage III-IV (n = 420; 41.1%) Missing (n = 147; 14.4%)	Female (n = 540; 52.8%) Male (n = 483; 47.2%) 61.6 ± 12.7 years	CFI: 0.987 TLI: 0.997 RMSEA: 0.08 (based on 12 items, not the final set of 10 items)	Reliability coefficient ($r = 1 - SE(\theta)^2$) 0.85	No important DIF was found with regard to gender, age, country, cancer site, cancer stage, current treatment, cohabitation, educational level, and work.		
EORTC CAT Core Role Functioning Liegl et al. 2018 (107)	**Mixed (n = 15,386)** Cancer patients (n = 416; 2.8%) General population (n = 14,970; 97.2%)	NS	Female (n = 7,650; 49.7%) Male (n = 7,736; 50.3%) <50 years (n = 6,128; 39.8%) ≥50 years (n = 9,258; 60.2%)			No important DIF was found with regard to country and age.		
EORTC CAT Core Role Functioning Marta et al. 2021 (108)	**Cancer patients (n = 169)** Breast (n = 65; 38.7%) Lung (n = 9; 5.4%) Prostate (n = 29; 17.3%) Ovary (n = 2; 1.2%) Other (n = 48; 28.6%)	Stage I–II (n = 83; 49.4%) Stage III–IV (n = 61; 36.3%) Missing (n = 24; 14.2%)	Female (n = 91; 54.2%) Male (n = 63; 37.5%) Missing (n = 14; 8.3%)				**EORTC QLQ-C30** Role functioning: 0.78-0.84	

			60.2 ± 13.8 years					
EORTC CAT Core Role Functioning Petersen et al. 2020 (109)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	Stage I–II (n = 207; 29.6%) Stage III–IV (n = 360; 51.5%) Missing (n = 127; 18.9%)	Female (n = 391; 55.9%) Male (n = 296; 42.4%) Missing (n = 7; 1.0%) 60.6 ± 12.0 years				**EORTC QLQ-C30** Role functioning: 0.87-0.91	
EORTC CAT Core Social Functioning Liegl et al. 2018 (107)	**Mixed (n = 15,386)** Cancer patients (n = 416; 2.8%) General population (n = 14,970; 97.2%)	NS	Female (n = 7,650; 49.7%) Male (n = 7,736; 50.3%) <50 years (n = 6,128; 39.8%) ≥50 years (n = 9,258; 60.2%)			No important DIF was found with regard to country and age.		
EORTC CAT Core Social Functioning Marta et al. 2021 (108)	**Cancer patients (n = 169)** Breast (n = 65; 38.7%) Lung (n = 9; 5.4%) Prostate (n = 29; 17.3%) Ovary (n = 2; 1.2%) Other (n = 48; 28.6%)	Stage I–II (n = 83; 49.4%) Stage III–IV (n = 61; 36.3%) Missing (n = 24; 14.2%)	Female (n = 91; 54.2%) Male (n = 63; 37.5%) Missing (n = 14; 8.3%) 60.2 ± 13.8 years				**EORTC QLQ-C30** Social functioning: 0.84-0.85	
EORTC CAT Core Social Functioning Petersen et al. 2020 (109)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	Stage I–II (n = 207; 29.6%) Stage III–IV (n = 360; 51.5%) Missing (n = 127; 18.9%)	Female (n = 391; 55.9%) Male (n = 296; 42.4%) Missing (n = 7; 1.0%) 60.6 ± 12.0 years				**EORTC QLQ-C30** Social functioning: 0.87-0.88	
FACE-Q Skin cancer –	**Cancer patients (n = 209)** Skin (n = 209; 100%)	NS	Female (n = 113; 54%)				**FACE-Q**	

Satisfaction with information: appearance CAT Ottenhof et al. 2021 (112)			Male (n = 96; 46%) 64 years				Satisfaction with information (appearance) item bank: SE 0.32: 0.99 SE 0.45: 0.99 SE 0.55: 0.99	
PROMIS Satisfaction with Participation in Discretionary Social Activities v1.0 CAT Romero et al. 2015 (117)	**Cancer patients (n = 10)** Brain tumor (n = 10; 100%)	NS	Female (n = 4; 40%) Male (n = 6; 60%) 59.6 ± 14.9 years		α: 0.94		**EORTC QLQ-C30** Social functioning: 0.37-0.49	
PROMIS Satisfaction with Participation in Social Roles v1.0 CAT Romero et al. 2015 (117)	**Cancer patients (n = 10)** Brain tumor (n = 10; 100%)	NS	Female (n = 4; 40%) Male (n = 6; 60%) 59.6 ± 14.9 years		α: 0.94		**EORTC QLQ-C30** Social functioning: 0.20-0.42	
PROMIS PROFILES								
PROMIS 3D Smith et al. 2022 (87)	**Cancer patients (n = 209)** Breast (n = 96; 45.9%) Head & neck (n = 17; 8.1%) Brain (n = 13; 6.2%) Gynecological (n = 12; 5.7%) Multiple myeloma (n = 12; 5.7%) Others (n = 74; 29.2%)	NS	Female (n = 155; 74.2%) Male (n = 54; 25.8%) 58.9 years (range 21-95)				**KPS:** 0.32-0.68 **NRS Pain:** 0.32-0.44	
PROMIS-29 Hartmann et al. 2023 (127)	**Cancer patients (n = 1,478)** Breast cancer (n = 1,478; 100%)	NS	Female (n = 1,478; 100%) 47.4 ± 14.5 years				**EORTC QLQ-C30** Physical functioning: 0.19-0.78 Emotional functioning: 0.34-0.70 Role functioning: 0.24-0.68 Social functioning: 0.37-0.66 Fatigue: 0.35-0.75 Pain: 0.26-0.75 Insomnia: 0.38-0.77	
PROMIS-29 Kang et al. 2022 (128)	**Cancer survivors (n = 349)** Breast (n = 73; 20.9%) Lung (n = 59; 16.9%) Colorectal (n = 55; 15.8%)	Time since diagnosis: 1.2 ± 2.4 years	Male (n = 179; 51.3%) Female (n = 170; 48.7%)	**7-factor model:** CFI: 0.91 SRMR: 0.06	**Physical function:** α: 0.87		**EORTC QLQ-C30** Overall QoL: 0.27-0.52 Physical functioning: 0.27-0.71 Emotional functioning: 0.31-0.66	

	Head & neck (n = 41; 11.8%) Lymphoma/myeloma (n = 25; 7.2%) Gastric (n = 17; 4.9%) Others (n = 79; 22.6%)		54.4 ± 10.2 years	NNFI: 0.90 AIC: 20,114.171	**Pain interference:** α: 0.96 **Fatigue:** α: 0.94 **Sleep disturbance:** α: 0.81 **Depression:** α: 0.90 **Anxiety:** α: 0.91 **Ability to participate in social roles and activities:** α: 0.93		Role functioning: 0.22-0.65 Social functioning: 0.25-0.52 Cognitive functioning: 0.30-0.44 Fatigue: 0.35-0.66 Nausea/vomiting: 0.13-0.35 Pain: 0.32-0.73 Dyspnea: 0.20-0.51 Insomnia: 0.25-0.64 Appetite loss: 0.26-0.44 Constipation:0.10-0.26 Diarrhea: 0.06-0.14 Financial difficulties: 0.23-0.35	
PROMIS-29 Shaw et al. 2017 (129)	**Cancer patients/Survivors (n = 1,634)** Hematological (n = 1,634; 100%)	NS	NS				**SF-36** Physical function: 0.84-0.87 Bodily pain: 0.82 Vitality: 0.81-0.82	
PROMIS-29 Sikorskii et al. 2018 (130)	**Cancer patients (n = 256)** Breast cancer (n = 256; 100%)	Stage III-IV (n = 256; 100%)	Female (n = 256; 100%) 56.4 ± 11.1 years		**Pain interference:** α: 0.95 **Fatigue:** α: 0.93 **Sleep disturbance:** α: 0.85 **Depression:** α: 0.87 **Anxiety:** α: 0.88 **Ability to participate in social roles and activities:** α: 0.95		**SF-36** Physical functioning: ≥0.6 Bodily pain: ≥0.6 Vitality: ≥0.6 Mental health: ≥0.6 Social functioning: 0.47-0.57 **MDASI** Pain severity: ≥0.6 Fatigue severity: ≥0.6 Disturbed sleep: ≥0.6 Sadness severity: ≥0.6 Distress severity: ≥0.6 **State Anxiety:** ≥0.6 **CES-D:** ≥0.6	
PROMIS-57 Cai et al. 2022 (131)	**Cancer patients (n = 602)** Breast (n = 602; 100%)	Stage I (n = 60; 10%) Stage II (n = 168; 28%) Stage III (n = 238; 40%)	Female (n = 602; 100%) 48.8 ± 9.7 years	**Physical function:** CFI: 0.953 TLI: 0.961 RMSEA: 0.042 SRMR: 0.027	**Physical function:** α: 0.95 **Anxiety:** α: 0.95 **Depression:**	No important DIF was found when controlling for age and education, except for 1	**FACT-Breast:** Physical well-being: 0.56 Social/family well-being: 0.51 Emotional well-being: 0.39-0.43 Functional well-being: 0.32-0.40	

		Stage IV (n = 66; 11%) Missing (n = 70; 12%)		**Anxiety:** CFI: 0.969 TLI: 0.957 RMSEA: 0.039 SRMR: 0.024 **Depression:** CFI: 0.954 TLI: 0.953 RMSEA: 0.056 SRMR: 0.031 **Fatigue:** CFI: 0.992 TLI: 0.989 RMSEA: 0.047 SRMR: 0.021 **Sleep disturbance:** CFI: 0.979 TLI: 0.986 RMSEA: 0.046 SRMR: 0.019 **Ability to participate in social roles and activities:** CFI: 0.971 TLI: 0.959 RMSEA: 0.049 SRMR: 0.033 **Pain interference:** CFI: 0.988 TLI: 0.983 RMSEA: 0.052 SRMR: 0.014	α: 0.91 **Fatigue:** α: 0.85 **Sleep disturbance:** α: 0.87 **Ability to participate in social roles and activities:** α: 0.93 **Pain interference:** α: 0.92	anxiety and 1 depression item.		
PROMIS Global Health Shaw et al. 2017 (129)	**Cancer patients/Survivors (n = 1,634)** Hematological (n = 1,634; 100%)	NS	NS		α: 0.83-0.97		**Physical health: SF-36** Physical component score: 0.82-0.83 Mental component score: 0.45-0.49	

							Mental health: SF-36 Physical component score: 0.47-0.52 Mental component score: 0.70-0.72	
PROMIS Global Health Van Wulfften et al. 2017 (132)	**Cancer patients (n = 70)** Sacral tumors (n = 70; 100%)	NS	Female (n = 32; 46%) Male (n = 38; 54%) Median: 61 years		**Physical health:** α: 0.70 **Mental health:** α: 0.78		**Physical health: PROMIS** Anxiety: 0.38 Depression: 0.40 Global health (mental): 0.63 Pain intensity: 0.58 Pain interference: 0.63 **Neuro-QoL:** 0.62 **Mental health: PROMIS** Anxiety: 0.70 Depression: 0.64 Global health (physical): 0.63 Pain intensity: 0.31 Pain interference: 0.49 **Neuro-QoL:** 0.20	
PROMIS Global Health Wood et al. 2013 (133)	**Cancer patients (n = 32)** Hematological (n = 32; 100%)	Early (n = 5; 16%) Intermediate (n = 17; 55%) Late (n = 9; 29%)	Female (n = 16; 50%) Male (n = 16; 50%) 57.8 years				**Physical health:** Weekly reported symptoms: 0.45-0.87 **Mental health:** Weekly reported symptoms: 0.07-0.85	
PROMIS Sexual Function and Satisfaction Brief Profile v1.0 (Female) Flynn et al. 2013 (47)	**Cancer patients/survivors (n = 819)** Breast (n = 252; 30.8%) Prostate (n = 146; 17.8%) Colorectal (n = 98; 12.0%) Lung (n = 56; 6.8%) Unknown or other (n = 267; 32.6%)	NS	Female (n = 430; 52.5%) Male (n = 389; 47.5%) 58.5 ± 11.8 years		Test-retest ICC: **Interest in Sexual activity:** 0.72 **Lubrication:** 0.87 **Vaginal discomfort:** 0.75 **Global satisfaction with sex life:** 0.69		**FSFI** Desire: 0.82 Arousal: 0.68 Lubrication: 0.90 Pain: 0.84 Orgasm: 0.78 Satisfaction: 0.62	

PROMIS Sexual Function and Satisfaction Brief Profile v1.0 (Female) Van Wulfften et al. 2017 (132)	**Cancer patients (n = 70)** Sacral tumors (n = 70; 100%)		Female (n = 32; 46%) Male (n = 38; 54%) Median: 61 years		**Global satisfaction with sex life:** α: 0.93 **Interest in Sexual activity:** α: 0.92 **Vaginal discomfort:** α: 0.49 **Vaginal lubrication:** α: 0.96			
PROMIS Sexual Function and Satisfaction Brief Profile v1.0 (Male) Flynn et al. 2013 (47)	**Cancer patients/survivors (n = 819)** Breast (n = 252; 30.8%) Prostate (n = 146; 17.8%) Colorectal (n = 98; 12.0%) Lung (n = 56; 6.8%) Unknown or other (n = 267; 32.6%)	NS	Female (n = 430; 52.5%) Male (n = 389; 47.5%) 58.5 ± 11.8 years		Test-retest ICC: **Interest in Sexual activity:** 0.65 **Erectile function:** 0.77 **Global satisfaction with sex life:** 0.66		**IIEF** Desire: 0.79 Erectile function: 0.69 Orgasmic function: 0.62 Overall satisfaction: 0.66 Intercourse satisfaction: 0.68	
PROMIS Sexual Function and Satisfaction Brief Profile v1.0 (Male) Van Wulfften et al. 2017 (132)	**Cancer patients (n = 70)** Sacral tumors (n = 70; 100%)		Female (n = 32; 46%) Male (n = 38; 54%) Median: 61 years		**Erectile function:** α: 0.65 **Global satisfaction with sex life:** α: 0.93 **Interest in Sexual activity:** α: 0.92			
SHORT FORMS – Physical Health								
Cancer-related fatigue item bank Short form 6 Lai et al. 2005 (68)	**Cancer patients (n = 301)** Breast (n = 101; 33.6%) Colorectal (n = 37; 12.3%) Non-Hodgkin (n = 23; 7.6%) Ovarian (n = 21; 7.0%)	NS	Female (n = 193; 64.1%) Male (n = 103; 34.2%) Missing		α: 0.80			

	Lung (n = 20; 6.6%) Prostate (n = 15; 5.0%) Others (n = 84; 25.6%) Missing (n = 7; 2.3%)		(n = 5; 1.7%) 57.0 ± 14.4 years					
NEURO-QoL Lower extremity function Short form 8 Van Wulfften et al. 2017 (132)	**Cancer patients (n = 70)** Sacral tumors (n = 70; 100%)	NS	Female (n = 32; 46%) Male (n = 38; 54%) Median: 61 years		α: 0.95		**PROMIS** Anxiety: 0.12 Depression: 0.18 Global health (mental): 0.20 Global health (physical): 0.62 Pain intensity: 0.40 Pain interference: 0.48	
PROMIS Fatigue Short form 7 Cessna et al. 2016 (134)	**Patients/Survivors (n = 256)** **Sample 1:** Prostate (n = 121; 47.3%) **Sample 2:** Hematopoietic cell transplantation (n = 136; 52.7%)	NS	**Sample 1:** Male (n = 121; 100%) 66.6 ± 8.0 years **Sample 2**: Female (n = 56; 39.0%) 51.4 ± 13.1 years	CFI: 0.944-0.948 RMSEA: 0.101-0.104	**Overall:** α: 0.88 **Sample 1**: α: 0.87 **Sample 2:** α: 0.86		**Sample 1:** **FSI:** 0.72-0.78 **SF-36** Vitality: 0.66 **CES-D:** 0.51 **ISI:** 0.42 **Sample 2:** **FSI:** 0.78-0.79 **SF-36** Vitality: 0.77 **CES-D:** 0.56 **STAI:** 0.45 **PSS:** 0.44	
PROMIS Fatigue Short form 14 Jensen et al. 2017 (135)	**Cancer patients/ Survivors/ Palliative (n = 2,968)** Breast (n = 934; 31.5%) Prostate (n = 718; 24.2%) Colorectal (n = 493; 16.6%) Lung (n = 309; 10.4%) Non-Hodgkin (n = 261; 8.8%) Gynecological (n = 253; 8.5%)	Stage I (n = 1,127; 38%) Stage II (n = 952; 32.1%) Stage III (n = 490; 16.5%) Stage IV (n = 290; 9.8%) Missing (n = 109; 3.7%)	< 50 years (n = 564; 19%) ≥ 50 years (n = 2,404; 81%)				**FACT-G** Physical Well-Being: 0.81-0.82	**Using change over 6 weeks Anchor** **A lot less:** Mean change: -3.26 ± 7.69 (ES: 0.38) **A little less:** Mean change: -0.95 ± 6.68 (ES: 0.11) **About the same:** Mean change: -0.58 ± 6.64 (ES: 0.06) **A little more:** Mean change: 3.38 ± 7.04 (ES: 0.35) **A lot more:** Mean change:

								5.42 ± 8.03 (ES: 0.62) **1 Point ECOG Performance status: Improvement versus no change:** Mean change: -3.2 (ES: 0.47) **Decline versus no change:** Mean change: 4.3 (ES: 0.63) **Cancer status: present versus remission/absent** Mean change: 2.3 (ES: 0.31)
PROMIS Fatigue Short form 9 Lee et al. 2020 (136)	**Cancer patients (n = 1,859)** Breast (n = 462; 25.9%) Lymphoma/myeloma (n = 370; 20.8%) Colorectal (n = 177; 9.9%) Head/neck/gastro (n = 158; 8.9%) Lung (n = 136; 7.6%) Other (n = 478; 25.7%) Missing (n = 78; 4.1%)	Stage I (n = 207; 11.8%) Stage II (n = 375; 21.4%) Stage III (n = 518; 29.5%) Stage IV (n = 654; 37.3%) Missing (n = 105; 5.6%)	Female (n = 1,131; 61.0%) Male (n = 722; 39.0%) Missing (n = 6; 0.0%) 56.4 ± 12.5 years		Ω: 0.84 – 0.86 α: 0.90 – 0.91		**NRS Fatigue:** 0.76 **PRO-CTCAE:** 0.76-0.82	**T-score changes for RCI Value = 1.65:** 30: 9.5 35: 7.3 40: 5.7 45: 5.0 50: 4.9 55: 4.9 60: 4.9 65: 4.9 70: 5.7 75: 7.8
PROMIS Fatigue Short form 7a Moinpour et al. 2017 (115)	**Cancer patients/Survivors (n = 213)** Gastrointestinal (n = 124; 58.2%) Breast (n = 89; 41.8%)	Stage I (n = 15; 7.0%) Stage II (n = 47; 22.1%) Stage III (n = 47; 22.1%) Stage IV (n = 103; 48.4%) Missing (n = 1; 0.5%)	Female (n = 147; 69.0%) Male (n = 66; 31.0%) 52.4 ± 10.8 years		Reliability coefficient ($r = 1 - SE(\theta)^2$) 0.41-0.53			

PROMIS Fatigue Short form 5 Quach et al. 2016 (137)	**Cancer patients (n = 778)** Prostate (n = 778; 100%)	NS	Male (n = 778; 100%) 65 ± 7.6 years	ECV: 0.99	α: 0.94	No important DIF was found when controlling for age, education and ethnicity.	**SF-12** Vitality: 0.60 Mental component summary: 0.50	
PROMIS Fatigue Short form 4a Wang et al. 2018 (138)	**Cancer survivors (n = 401)** Prostate (n = 401; 100%)	Gleason grade 1 score: <7 (n = 236; 58.8%) =7 (n = 125; 31.2%) >7 (n = 40; 10.0%)	Male (n = 401; 100%) < 65 years (n = 148; 36.9%) ≥ 65 years (n = 253; 63.1%)	**PC Mode:** CFI: 1 TLI: 1 RMSEA: 0 WRMR: 0.137		No important DIF was found when comparing mode of administration (web- versus phone-based)		
PROMIS Fatigue Short form 7 Zhao et al. 2018 (139)	**Cancer patients (n = 321)** Renal (n = 321; 100%)	NS	Female (n = 104; 32%) Male (n = 217; 68%) 53.8 ± 10.7 years 54.8 ± 10.1 years 56.6 ± 9.6 years		α: 0.85 - 0.90		**FACIT-Fatigue:** 0.83-0.90	
PROMIS Gastrointestinal – Diarrhea Short form 6a Wang et al. 2018 (138)	**Cancer survivors (n = 401)** Prostate (n = 401; 100%)	Gleason grade 1 score: <7 (n = 236; 58.8%) =7 (n = 125; 31.2%) >7 (n = 40; 10.0%)	Male (n = 401; 100%) < 65 years (n = 148; 36.9%) ≥ 65 years (n = 253; 63.1%)	**PC Mode:** CFI: 1 TLI: 1 RMSEA: 0.039 WRMR: 0.296		No important DIF was found when comparing mode of administration (web- versus phone-based)		
PROMIS Pain Intensity Short form 3a Lee et al. 2020 (136)	**Cancer patients (n = 1,859)** Breast (n = 462; 25.9%) Lymphoma/myeloma (n = 370; 20.8%) Colorectal (n = 177; 9.9%) Head/neck/gastro (n = 158; 8.9%) Lung (n = 136; 7.6%) Other (n = 478; 25.7%) Missing (n = 78; 4.1%)	Stage I (n = 207; 11.8%) Stage II (n = 375; 21.4%) Stage III (n = 518; 29.5%) Stage IV (n = 654; 37.3%) Missing (n = 105; 5.6%)	Female (n = 1,131; 61.0%) Male (n = 722; 39.0%) Missing (n = 6; 0.0%) 56.4 ± 12.5 years		Ω: 0.91 - 0.92 α: 0.90 - 0.92		**NRS Pain:** 0.87 **PRO-CTCAE:** 0.89	**T-score changes for RCI Value = 1.65:** 40: 8.8 45: 8.2 50: 9.2 55: 8.4 60: 7.6 65: 8.7 70: 8.6

PROMIS Pain Intensity Short Form 3a Pereira et al. 2017 (121)	**Cancer patients/Palliative (n = 100)** Spinal metastases coming from: Breast (n = 20; 20%) Multiple myeloma (n = 18; 18%) Renal (n = 12; 12%) Lung (n = 11; 11%) Prostate (n = 6; 6%) Thyroid (n = 6; 6%) Others (n = 27; 27%)	NS	Female (n = 50; 50%) Male (n = 50; 50%) Median: 63 years (range 55-70)		α: >0.90		**ODI or NDI:** 0.52 **PROMIS** Physical Function: 0.35 **EQ-5D:** 0.38 **SOSG-OQ** Total: 0.63 Physical function: 0.37 Neurologic function: 0.25 Pain: 0.65 Mental function: 0.65 Social function: 0.48	
PROMIS Pain Intensity Short Form 3a Van Wulfften et al. 2017 (132)	**Cancer patients (n = 70)** Sacral tumors (n = 70; 100%)	NS	Female (n = 32; 46%) Male (n = 38; 54%) Median: 61 years		α: 0.90		**PROMIS** Anxiety: 0.38 Depression: 0.36 Global health (physical): 0.58 Global health (mental): 0.31 Pain interference: 0.81 **Neuro-QoL:** 0.40	
PROMIS Pain Interference Short form 6b Askew et al. 2016 (140)	**Cancer patients (n = 310)**	NS	Female (n = 189; 61%) Male (n = 121; 39%) 50-54 years					**General health anchor:** Better: -3.6 ± 6.9 About the same: -1.43 ± 7.74 Worse: 0.56 ± 9.95 **Pain anchor:** Better: -3.16 ± 7.37 About the same: -2.78 ± 8.08 Worse: 4.44 ± 7.82
PROMIS Pain Interference Short form 8a Groot et al. 2021 (141)	**Cancer patients/Palliative (n = 47)** Bone metastases coming from: Breast (n = 10; 21%) Kidney (n = 8; 17%) Sarcoma (n = 6; 13%) Lung (n = 5; 11%) Prostate (n = 4; 9%) Others (n = 14; 30%)	NS	Female (n = 27; 57%) Male (n = 20; 43%) Median: 69 years		Inter-rater: 0.69			
PROMIS Pain Interference Short form 11 Jensen et al. 2017 (135)	**Cancer patients/ Survivors/ Palliative (n = 2,968)** Breast (n = 934; 31.5%) Prostate (n = 718; 24.2%) Colorectal (n = 493; 16.6%)	Stage I (n = 1,127; 38%) Stage II (n = 952; 32.1%)	< 50 years (n = 564; 19%) ≥ 50 years (n = 2,404; 81%)				**FACT-G** Physical Well-Being: 0.71-0.72	**Using change over 6 weeks Anchor A lot less:** Mean change: -3.74 ± 9.31 (ES: 0.38)

	Lung (n = 309; 10.4%) Non-Hodgkin (n = 261; 8.8%) Gynecological (n = 253; 8.5%)	Stage III (n = 490; 16.5%) Stage IV (n = 290; 9.8%) Missing (n = 109; 3.7%)						**A little less:** Mean change: -0.08 ± 8.10(ES: 0.01) **About the same:** Mean change: -1.15 ± 8.12 (ES: 0.11) **A little more:** Mean change: 3.74 ± 9.55 (ES: 0.37) **A lot more:** Mean change: 5.04 ± 9.18 (ES: 0.53) **1 Point ECOG Performance status: Improvement versus no change:** Mean change: -4.5 (ES: 0.45) **Decline versus no change:** Mean change: 3.5 (ES: 0.45) **Cancer status: present versus remission/absent** Mean change: 2.8 (ES: 0.32)
PROMIS Pain Interference Short form 7 Lee et al. 2020 (136)	**Cancer patients (n = 1,859)** Breast (n = 462; 25.9%) Lymphoma/myeloma (n = 370; 20.8%) Colorectal (n = 177; 9.9%) Head/neck/gastro (n = 158; 8.9%) Lung (n = 136; 7.6%) Other (n = 478; 25.7%) Missing (n = 78; 4.1%)	Stage I (n = 207; 11.8%) Stage II (n = 375; 21.4%) Stage III (n = 518; 29.5%) Stage IV (n = 654; 37.3%) Missing (n = 105; 5.6%)	Female (n = 1,131; 61.0%) Male (n = 722; 39.0%) Missing (n = 6; 0.0%) 56.4 ± 12.5 years		Ω: 0.94 -0.96 α: 0.98		**NRS** Social function: 0.65 Physical function: 0.53 Global mental health: 0.57-0.64 **PRO-CTCAE:** 0.88	**T-score changes for RCI Value = 1.65:** 40: 14.0 45: 7.1 50: 3.6 55: 3.2 60: 3.0 65: 3.0 70: 8.7 75: 10.0
PROMIS Pain Interference Short form 5	**Cancer patients (n = 778)** Prostate (n = 778; 100%)	NS	Male (n = 778; 100%)	ECV: 0.99 RMSEA: 0.33	α: 0.96	No important DIF was found when controlling for	**SF-12** Bodily pain: 0.66	

Quach et al. 2016 (137)			65 ± 7.6 years			age, education and ethnicity.		
PROMIS Pain Interference Short form 6b Van Wulfften et al. 2017 (132)	**Cancer patients (n = 70)** Sacral tumors (n = 70; 100%)	NS	Female (n = 32; 46%) Male (n = 38; 54%) Median: 61 years		α: 0.96		**PROMIS** Anxiety: 0.53 Depression: 0.58 Global health (physical): 0.63 Global health (mental): 0.49 Pain intensity: 0.81 **Neuro-QoL:** 0.48	
PROMIS Pain Interference Short form 4a Wang et al. 2018 (138)	**Cancer survivors (n = 401)** Prostate (n = 401; 100%)	Gleason grade 1 score: <7 (n = 236; 58.8%) =7 (n = 125; 31.2%) >7 (n = 40; 10.0%)	Male (n = 401; 100%) < 65 years (n = 148; 36.9%) ≥ 65 years (n = 253; 63.1%)	**PC Mode:** CFI: 1 TLI: 1 RMSEA: 0.054 WRMR: 0.210				
PROMIS Physical Function Short form 4a-6b-10a-16 Jensen et al. 2015 (142)	**Cancer patients (n = 4,840)** Breast (n = 1,450; 30%) Prostate (n = 1,065; 22%) Colorectal (n = 824; 17%) Lung (n = 641; 13%) Gynecological (n = 487; 10%) Non-Hodgkin (n = 413; 8%)	Stage I (n = 1,851; 38%) Stage II (n = 1,583; 32%) Stage III (n = 866; 18%) Stage IV (n = 580; 12%)	Male (n = 1,988; 41%) Female (n = 2,892; 59%) Age at diagnosis: <65 years (n = 2,869; 59%) 65-84 years (n = 2,011, 41%)	CFI: 0.99 TLI: 0.99	α: 0.92-0.96		**PROMIS** Social roles: 0.74-0.76 Fatigue: 0.67-0.72 Pain interference: 0.64-0.67 Depression: 0.47-0.50 Anxiety: 0.45-0.48 Sleep disturbance: 0.38-0.41 **FACT-G** Physical Well-Being: 0.70-0.71 **FACIT-SP-12:** 0.25-0.26 **PSQ-III** Financial burden: 0.19-0.20 **Acculturation scale:** 0.13-0.15	
PROMIS Physical Function Short form 15 Jensen et al. 2017 (135)	**Cancer patients/ Survivors/ Palliative (n = 2,968)** Breast (n = 934; 31.5%) Prostate (n = 718; 24.2%) Colorectal (n = 493; 16.6%) Lung (n = 309; 10.4%) Non-Hodgkin (n = 261; 8.8%) Gynecological (n = 253; 8.5%)	Stage I (n = 1,127; 38%) Stage II (n = 952; 32.1%) Stage III (n = 490; 16.5%) Stage IV	< 50 years (n = 564; 19%) ≥ 50 years (n = 2,404; 81%)				**FACT-G** Physical Well-Being: 0.75-0.76	**Using change over 6 weeks Anchor A lot better:** Mean change: 2.90 ± 6.69 (ES: 0.34) **A little better:** Mean change: 1.01 ± 5.46 (ES: 0.14) **About the same:**

		(n = 290; 9.8%) Missing (n = 109; 3.7%)						Mean change: 0.42 ± 5.61 (ES: 0.04) **A little worse:** Mean change: -3.02 ± 5.38 (ES: 0.37) **A lot worse:** Mean change: -6.01 ± 7.41 (ES: 0.59) **1 Point ECOG Performance status: Improvement versus no change:** Mean change: 3.4 (ES: 0.53) **Decline versus no change:** Mean change: -3.4 (ES: 0.62) **Cancer status: present versus remission/absent** Mean change: -1.9 (ES: -0.30)
PROMIS Physical Function Short form 10a Peipert et al. 2022 (143)	**Cancer patients (n = 1,129)** Breast (n = 294; 27%) Hematological (n = 244; 22%) Colorectal (n = 107; 10%) Head & neck (n = 86; 8%) Lung (n = 78; 7%) Others (n = 290; 26%)	Stage I (n = 135; 13%) Stage II (n = 243; 23%) Stage III (n = 329; 30%) Stage IV (n = 372; 35%)	Female (n = 716; 63%) Male (n = 413; 37%)		α: 0.90			
PROMIS Physical Function Short form 6 Quach et al. 2016 (137)	**Cancer patients (n = 778)** Prostate (n = 778; 100%)	NS	Male (n = 778; 100%) 65 ± 7.6 years		α: 0.94	No important DIF was found when controlling for age, education and ethnicity.	**SF-12** Physical function: 0.77 Physical component summary: 0.73 Mental component summary: 0.21 **Memorial Anxiety Scale:** 0.31	
PROMIS Physical Function	**Cancer survivors (n = 401)** Prostate (n = 401; 100%)	Gleason grade 1 score:	Male (n = 401; 100%)	**PC Mode:** CFI: 1		No important DIF was found when		

Short form 4a Wang et al. 2018 (138)		<7 (n = 236; 58.8%) =7 (n = 125; 31.2%) >7 (n = 40; 10.0%)	< 65 years (n = 148; 36.9%) ≥ 65 years (n = 253; 63.1%)	TLI: 1 RMSEA: 0 WRMR: 0.109		comparing mode of administration (web- versus phone-based)		
PROMIS Sexual Function and Satisfaction (Erectile function) Short form 8 Flynn et al. 2013 (47)	**Cancer patients/survivors (n = 819)** Breast (n = 252; 30.8%) Prostate (n = 146; 17.8%) Colorectal (n = 98; 12.0%) Lung (n = 56; 6.8%) Unknown or other (n = 267; 32.6%)	NS	Female (n = 430; 52.5%) Male (n = 389; 47.5%) 58.5 ± 11.8 years	CFI: 0.988 TLI: 0.986 RMSEA: 0.134	α: 0.92 Test-retest ICC: 0.87		**IIEF** Erectile function: 0.81	
PROMIS Sexual Function and Satisfaction (Erectile function) Short form 7 Reeve et al. 2018 (144)	**Cancer patients/survivors (n = 1,449)** Prostate (n = 1,449; 100%)	Gleason grade 1 score: <7 (n = 177; 53.3%) =7 (n = 127; 38.3%) >7 (n = 28; 8.4%)	Male (n = 1,449; 100%)	CFI: 0.977-0.981 RMSEA: 0.173-0.217 WRMR: 0.980-2.231	α: 0.89-0.90		**PROMIS** Fatigue: 0.16-0.24 Physical function: 0.20-0.34 Sexual interest: 0.35-0.44 **PCSI** Erectile function: 0.84-0.95 Sexual problems: 0.84-0.90	
PROMIS Sexual Function and Satisfaction (Erectile function) Short form 3 Wang et al. 2018 (138)	**Cancer survivors (n = 401)** Prostate (n = 401; 100%)	Gleason grade 1 score: <7 (n = 236; 58.8%) =7 (n = 125; 31.2%) >7 (n = 40; 10.0%)	Male (n = 401; 100%) < 65 years (n = 148; 36.9%) ≥ 65 years (n = 253; 63.1%)			No important DIF was found when comparing mode of administration (web- versus phone-based), except for item SFEGN202.		
PROMIS Sexual Function and Satisfaction (Global Satisfaction with Sex Life) Short form 1 Agochukwu et al. 2019 (145)	**Cancer patients (n = 1,604)** Prostate (n = 1,604; 100%)	NS	Male (n = 1,604; 100%) 63.2 years				**Enjoyment of sexual activity:** 0.59-0.85 **Feeling wanted to have sex:** 0.25-0.28 **IIEF** Erectile function: 0.52-0.57 **PROMIS** Interest in sexual activity: 0.41 **Bowel symptoms:** 0.15 **General QoL:** 0.26	
PROMIS Sexual Function and Satisfaction (Global	**Cancer patients/survivors (n = 819)** Breast (n = 252; 30.8%) Prostate (n = 146; 17.8%)	NS	Female (n = 430; 52.5%) Male	CFI: 0.983 TLI: 0.976 RMSEA: 0.168	α: 0.92-0.93 Test-retest ICC: 0.74-0.75	No important DIF was found when comparing mode	**FSFI Satisfaction:** 0.76 **IIEF** Overall satisfaction: 0.82	

Satisfaction with Sex Life) Short form 7 Flynn et al. 2013 (47)	Colorectal (n = 98; 12.0%) Lung (n = 56; 6.8%) Unknown or other (n = 267; 32.6%)		(n = 389; 47.5%) 58.5 ± 11.8 years			of administration (web- versus phone-based) and gender.	Intercourse satisfaction: 0.75	
PROMIS Sexual Function and Satisfaction (Global Satisfaction with Sex Life) Short form 5 Reeve et al. 2018 (144)	**Cancer patients/survivors (n = 1,449)** Prostate (n = 1,449; 100%)	Gleason grade 1 score: <7 (n = 177; 53.3%) =7 (n = 127; 38.3%) >7 (n = 28; 8.4%)	Male (n = 1,449; 100%)	CFI: 0.983-0.995 RMSEA: 0.181-0.298 WRMR: 0.614-1.919	α: 0.92-0.94	No important DIF was found when comparing surgery versus no-surgery, except for item GLOBSAT2 at 24-month follow-up.	**PROMIS** Fatigue: 0.21-0.31 Physical function: 0.19-0.28 Sexual interest: 0.44-0.64 Erectile function: 0.68-0.74 **PCSI** Erectile function: 0.59-0.76 Sexual problems: 0.59-0.81	
PROMIS Sexual Function and Satisfaction (Global Satisfaction with Sex Life) Short form 4 Wang et al. 2018 (138)	**Cancer survivors (n = 401)** Prostate (n = 401; 100%)	Gleason grade 1 score: <7 (n = 236; 58.8%) =7 (n = 125; 31.2%) >7 (n = 40; 10.0%)	Male (n = 401; 100%) < 65 years (n = 148; 36.9%) ≥ 65 years (n = 253; 63.1%)	**PC Mode :** CFI: 0.999 TLI: 0.993 RMSEA: 0.234 WRMR: 0.358				
PROMIS Sexual Function and Satisfaction (Interest in Sexual Activity) Short form 1 Agochukwu et al. 2019 (145)	**Cancer patients (n = 1,604)** Prostate (n = 1,604; 100%)	NS	Male (n = 1,604; 100%) 63.2 years				**Enjoyment of sexual activity:** 0.13-0.34 **Feeling wanted to have sex:** 0.51-0.81 **IIEF** Erectile function: 0.29-0.39 **PROMIS** Global satisfaction sex life: 0.41 **Bowel symptoms:** 0.09-0.12 **General QoL:** 0.16	
PROMIS Sexual Function and Satisfaction (Interest in Sexual Activity) Short form 4 Flynn et al. 2013 (47)	**Cancer patients/survivors (n = 819)** Breast (n = 252; 30.8%) Prostate (n = 146; 17.8%) Colorectal (n = 98; 12.0%) Lung (n = 56; 6.8%) Unknown or other (n = 267; 32.6%)	NS	Female (n = 430; 52.5%) Male (n = 389; 47.5%) 58.5 ± 11.8 years	CFI: 0.998 TLI: 0.995 RMSEA: 0.129	α: 0.87-0.89 Test-retest ICC: 0.71-0.77	No important DIF was found when comparing mode of administration (web- versus phone-based). For gender DIF-results were ambiguous.	**FSFI** Desire: 0.84 Arousal: 0.71 **IIEF** Desire: 0.82	
PROMIS Sexual Function and	**Cancer patients/survivors (n = 1,449)** Prostate (n = 1,449; 100%)	Gleason grade 1 score: <7 (n = 177; 53.3%)	Male (n = 1,449; 100%)	CFI: 0.992-0.996	α: 0.74-0.81	No important DIF was found when comparing	**PROMIS** Fatigue: 0.03-0.21 Physical function: 0.04-0.33	

Satisfaction (Interest in Sexual Activity) Short form 5 Reeve et al. 2018 (144)		=7 (n = 127; 38.3%) >7 (n = 28; 8.4%)		RMSEA: 0.111-0.162 WRMR: 0.591-1.054		surgery versus no-surgery, except for items SEXFCN3 at 3-month, SEXFCN1 and SEXFCN3 at 24-month follow-up.	Erectile function: 0.35-0.44 Sexual satisfaction: 0.44-0.64 **PCSI** Erectile function: 0.23-0.39 Sexual problems: 0.26-0.36	
PROMIS Sexual Function and Satisfaction (Interest in Sexual Activity) Short form 4 Wang et al. 2018 (138)	**Cancer survivors (n = 401)** Prostate (n = 401; 100%)	Gleason grade 1 score: <7 (n = 236; 58.8%) =7 (n = 125; 31.2%) >7 (n = 40; 10.0%)	Male (n = 401; 100%) < 65 years (n = 148; 36.9%) ≥ 65 years (n = 253; 63.1%)	**PC Mode:** CFI: 0.999 TLI: 0.997 RMSEA: 0.128 WRMR: 0.447				
PROMIS Sexual Function and Satisfaction (Orgasm) Short form Flynn et al. 2013 (47)	**Cancer patients/survivors (n = 819)** Breast (n = 252; 30.8%) Prostate (n = 146; 17.8%) Colorectal (n = 98; 12.0%) Lung (n = 56; 6.8%) Unknown or other (n = 267; 32.6%)	NS	Female (n = 430; 52.5%) Male (n = 389; 47.5%) 58.5 ± 11.8 years				**FSFI** Orgasm: 0.78 **IIEF** Orgasmic function: 0.62	
PROMIS Sexual Function and Satisfaction (Orgasm) Short form 4 Reeve et al. 2018 (144)	**Cancer patients/survivors (n = 1,449)** Prostate (n = 1,449; 100%)	Gleason grade 1 score: <7 (n = 177; 53.3%) =7 (n = 127; 38.3%) >7 (n = 28; 8.4%)	Male (n = 1,449; 100%)	CFI: 0.987-0.997 RMSEA: 0.048-0.122 WRMR: 0.304-0.752	α: 0.27-0.37			
PROMIS Sexual Function and Satisfaction (Vaginal Discomfort) Short form 10 Flynn et al. 2013 (47)	**Cancer patients/survivors (n = 819)** Breast (n = 252; 30.8%) Prostate (n = 146; 17.8%) Colorectal (n = 98; 12.0%) Lung (n = 56; 6.8%) Unknown or other (n = 267; 32.6%)	NS	Female (n = 430; 52.5%) Male (n = 389; 47.5%) 58.5 ± 11.8 years	CFI: 0.993 TLI: 0.991 RMSEA: 0.124	α: 0.94 Test-retest ICC: 0.80		**FSFI** Pain: 0.90	
PROMIS Sexual Function and Satisfaction (Vaginal Discomfort) Short form 3	**Cancer patients (n = 146)** Breast or endometrial (n = 146; 100%)		Female (n = 146; 100%) 55 years				**Clinical assessment:** 0.05-0.40	

Flynn et al. 2021 (146)								
PROMIS Sexual Function and Satisfaction (Vaginal Lubrication) Short form 8 Flynn et al. 2013 (47)	**Cancer patients/survivors (n = 819)** Breast (n = 252; 30.8%) Prostate (n = 146; 17.8%) Colorectal (n = 98; 12.0%) Lung (n = 56; 6.8%) Unknown or other (n = 267; 32.6%)	NS	Female (n = 430; 52.5%) Male (n = 389; 47.5%) 58.5 ± 11.8 years	CFI: 0.985 TLI: 0.979 RMSEA: 0.187	α: 0.95 Test-retest ICC: 0.87	No important DIF was found when comparing mode of administration (web- versus phone-based)	**FSFI** Lubrication: 0.92	
PROMIS Sexual Function and Satisfaction (Vaginal Lubrication) Short form 3 Flynn et al. 2021 (146)	**Cancer patients (n = 146)** Breast or endometrial (n = 146; 100%)		Female (n = 146; 100%) 55 years				**Clinical assessment:** 0.05-0.65	
PROMIS Sexual Function and Satisfaction (Vulvar Discomfort - Clitoral) Short form 1 Flynn et al. 2021 (146)	**Cancer patients (n = 146)** Breast or endometrial (n = 146; 100%)		Female (n = 146; 100%) 55 years				**Clinical assessment:** 0.05-0.45	
PROMIS Sexual Function and Satisfaction (Vulvar Discomfort - Labial) Short form 1 Flynn et al. 2021 (146)	**Cancer patients (n = 146)** Breast or endometrial (n = 146; 100%)		Female (n = 146; 100%) 55 years				**Clinical assessment:** 0.15-0.70	
PROMIS Sleep Disturbance Short form 8 Jensen et al. 2017 (135)	**Cancer patients/ Survivors/ Palliative (n = 2,968)** Breast (n = 934; 31.5%) Prostate (n = 718; 24.2%) Colorectal (n = 493; 16.6%) Lung (n = 309; 10.4%) Non-Hodgkin (n = 261; 8.8%) Gynecological (n = 253; 8.5%)	Stage I (n = 1,127; 38%) Stage II (n = 952; 32.1%) Stage III (n = 490; 16.5%) Stage IV (n = 290; 9.8%) Missing (n = 109; 3.7%)	< 50 years (n = 564; 19%) ≥ 50 years (n = 2,404; 81%)					**Using change over 6 weeks Anchor** **A lot better:** Mean change: -1.97 ± 6.08 (ES: 0.29) **A little better:** Mean change: -0.56 ± 5.96 (ES: 0.09) **About the same:** Mean change: 0.36 ± 5.63 (ES: 0.05)

								A little worse: Mean change: 3.04 ± 5.76 (ES: 0.39) **A lot worse:** Mean change: 4.77 ± 8.24 (ES: 0.57) **1 Point ECOG Performance status: Improvement versus no change:** Mean change: -1.2 (ES: 0.19) **Decline versus no change:** Mean change: 2.2 (ES: 0.37) **Cancer status: present versus remission/absent** Mean change: 1.2 (ES: 0.20)
PROMIS Sleep Disturbance Short form 8a Lee et al. 2020 (136)	**Cancer patients (n = 1,859)** Breast (n = 462; 25.9%) Lymphoma/myeloma (n = 370; 20.8%) Colorectal (n = 177; 9.9%) Head/neck/gastro (n = 158; 8.9%) Lung (n = 136; 7.6%) Other (n = 478; 25.7%) Missing (n = 78; 4.1%)	Stage I (n = 207; 11.8%) Stage II (n = 375; 21.4%) Stage III (n = 518; 29.5%) Stage IV (n = 654; 37.3%) Missing (n = 105; 5.6%)	Female (n = 1,131; 61.0%) Male (n = 722; 39.0%) Missing (n = 6; 0.0%) 56.4 ± 12.5 years				**NRS Sleep:** 0.85 **PRO-CTCAE:** 0.79-0.84	**T-score changes for RCI Value = 1.65:** 30: 9.8 35: 7.5 40: 6.5 45: 6.0 50: 5.7 55: 5.7 60: 5.7 65: 6.4 70: 9.2 75: 9.9
PROMIS Sleep Disturbance Short form 4 Quach et al. 2016 (137)	**Cancer patients (n = 778)** Prostate (n = 778; 100%)	NS	Male (n = 778; 100%) 65 ± 7.6 years	ECV: 0.92	α: 0.86	No important DIF was found when controlling for age, education and ethnicity.		
PROMIS Sleep Disturbance	**Cancer survivors (n = 401)** Prostate (n = 401; 100%)	Gleason grade 1 score:	Male (n = 401; 100%)	**PC Mode:** CFI: 1		No important DIF was found when		

Short form 4a Wang et al. 2018 (138)		<7 (n = 236; 58.8%) =7 (n = 125; 31.2%) >7 (n = 40; 10.0%)	< 65 years (n = 148; 36.9%) ≥ 65 years (n = 253; 63.1%)	TLI: 0.999 RMSEA: 0.042 WRMR: 0.091		comparing mode of administration (web- versus phone-based), except for item SLEEP109.		
PROMIS Sleep-related Impairment Short form 8a Wang et al. 2018 (138)	**Cancer survivors (n = 401)** Prostate (n = 401; 100%)	Gleason grade 1 score: <7 (n = 236; 58.8%) =7 (n = 125; 31.2%) >7 (n = 40; 10.0%)	Male (n = 401; 100%) < 65 years (n = 148; 36.9%) ≥ 65 years (n = 253; 63.1%)	**PC Mode:** CFI: 0.998 TLI: 0.997 RMSEA: 0.073 WRMR: 0.621		No important DIF was found when comparing mode of administration (web- versus phone-based), except for item SLEEP119.		
SHORT FORMS – Mental Health								
PROMIS Cognitive Function Short form 8a Henneghan et al. 2023 (147)	**Cancer survivors (n = 693; 100%)** Breast (n = 693; 100%)	Stage I (n = 98; 14.1%) Stage II (n = 354; 51.1%) Stage III (n = 181; 26.1%) Stage IV (n = 52; 7.5%)	Female (n = 693; 100%) **Sample 1 (n= 471)** 69.6 ± 5.7 years **Sample 2 (n= 132)** 56.4 ± 8.0 years **Sample 3 (n= 90)** 48.7 ± 9.0 years		α: 0.89 – 0.97		**CES-D:** 0.38 **BDI-II:** 0.64 **PROMIS** Depression: 0.56 Anxiety: 0.67 Fatigue: 0.62 **STAI:** 0.29-0.47 **PSS:** 0.52-0.67 **FACIT-Fatigue:** 0.37 **MFSI-**Vigor**:** 0.56 **PSQI:** 0.22-0.48 **UCLA Loneliness:** 0.51 **FACT-Cog** Perceived cognitive ability**:** 0.60-0.82 Interference with QoL**:** 0.57-0.77 Comments from others**:** 0.36-0.65	
PROMIS Cognitive Function Short form 8 Jensen et al. 2017 (135)	**Cancer patients/ Survivors/ Palliative (n = 2,968)** Breast (n = 934; 31.5%) Prostate (n = 718; 24.2%) Colorectal (n = 493; 16.6%) Lung (n = 309; 10.4%) Non-Hodgkin (n = 261; 8.8%)	Stage I (n = 1,127; 38%) Stage II (n = 952; 32.1%) Stage III (n = 490; 16.5%) Stage IV	< 50 years (n = 564; 19%) ≥ 50 years (n = 2,404; 81%)					**Using change over 6 weeks Anchor** **A lot better:** Mean change: 2.12 ± 8.21 (ES: 0.22) **A little better:** Mean change:

	Gynecological (n = 253; 8.5%)	(n = 290; 9.8%) Missing (n = 109; 3.7%)						0.05 ± 8.24 (ES: 0.02) **About the same:** Mean change: -0.21 ± 8.10 (ES: 0.02) **A little worse:** Mean change: -4.99 ± 8.88 (ES: 0.45) **A lot worse:** Mean change: -8.56 ± 11.15 (ES: 0.70) **1 Point ECOG Performance status: Improvement versus no change:** Mean change: 3.0 (ES: 0.32) **Decline versus no change:** Mean change: -3.1 (ES: 0.4) **Cancer status: present versus remission/absent** Mean change: -2.0 (ES: 0.23)
PROMIS Cognitive Function Short form 8 Valentine et al. 2019 (148)	**Mixed (n = 88)** Hematological cancer patients (n = 44; 50%) General population (n = 44; 50%)	NS	Female (34; 39%) Male (n = 54; 61%) 58.4 ± 10.7 years		α: 0.96		**EORTC QLQ-C30** Cognitive functioning: 0.77 **COWAT:** 0.19 **AVLT:** 0.16 **PHQ-9:** 0.62 **GAD-7:** 0.42 **POMS:** 0.69	
PROMIS Emotional Distress - Anxiety Short form 7 Clover et al. 2022 (124)	**Cancer patients (n = 132; 100%)** Breast (n = 59; 45%) Hematological (n = 18; 13%) Colorectal (n = 16; 12%) Lung (n = 13; 10%) Other (n = 26; 20%)	Stage I (n = 19; 14%) Stage II-III (n = 30; 23%) Stage IV (n = 23; 15%) Missing (n = 63; 48%)	Female (n = 91; 69%) Male (n = 63; 31%)				**HADS** Anxiety: 0.82 **GAD-7:** 0.76 **DASS** Stress: 0.78 Anxiety: 0.56 **PSYCH-6:** 0.67 **DT:** 0.60	

PROMIS Emotional Distress - Anxiety Short form 8a Groot et al. 2021 (141)	**Cancer patients/Palliative (n = 47)** Bone metastases coming from: Breast (n = 10; 21%) Kidney (n = 8; 17%) Sarcoma (n = 6; 13%) Lung (n = 5; 11%) Prostate (n = 4; 9%) Others (n = 14; 30%)	NS	Female (n = 27; 57%) Male (n = 20; 43%) Median: 69 years		Inter-rater: 0.66			
PROMIS Emotional Distress - Anxiety Short form 11 Jensen et al. 2017 (135)	**Cancer patients/ Survivors/ Palliative (n = 2,968)** Breast (n = 934; 31.5%) Prostate (n = 718; 24.2%) Colorectal (n = 493; 16.6%) Lung (n = 309; 10.4%) Non-Hodgkin (n = 261; 8.8%) Gynecological (n = 253; 8.5%)	Stage I (n = 1,127; 38%) Stage II (n = 952; 32.1%) Stage III (n = 490; 16.5%) Stage IV (n = 290; 9.8%) Missing (n = 109; 3.7%)	< 50 years (n = 564; 19%) ≥ 50 years (n = 2,404; 81%)					**Using change over 6 weeks Anchor** **A lot less:** Mean change: -2.20 ± 8.48 (ES: 0.23) **A little less:** Mean change: 0.70 ± 8.23 (ES: 0.08) **About the same:** Mean change: 0.29 ± 7.61 (ES: 0.03) **A little more:** Mean change: 5.02 ± 7.81 (ES: 0.48) **A lot more:** Mean change: 6.57 ± 10.41 (ES: 0.56) **1 Point ECOG Performance status: Improvement versus no change:** Mean change: -1.8 (ES: 0.21) **Decline versus no change:** Mean change: 2.8 (ES: 0.36) **Cancer status: present versus remission/absent** Mean change: 1.9 (ES: 0.23)

PROMIS Emotional Distress - Anxiety Short form 8a Lee et al. 2020 (136)	**Cancer patients (n = 1,859)** Breast (n = 462; 25.9%) Lymphoma/myeloma (n = 370; 20.8%) Colorectal (n = 177; 9.9%) Head/neck/gastro (n = 158; 8.9%) Lung (n = 136; 7.6%) Other (n = 478; 25.7%) Missing (n = 78; 4.1%)	Stage I (n = 207; 11.8%) Stage II (n = 375; 21.4%) Stage III (n = 518; 29.5%) Stage IV (n = 654; 37.3%) Missing (n = 105; 5.6%)	Female (n = 1,131; 61.0%) Male (n = 722; 39.0%) Missing (n = 6; 0.0%) 56.4 ± 12.5 years		Ω: 0.87 – 0.92 α: 0.94 – 0.96		**NRS Anxiety:** 0.70 **PRO-CTCAE:** 0.75-0.77	**T-score changes for RCI Value = 1.65:** 35: 12.7 40: 8.4 45: 5.8 50: 4.9 55:4.5 60: 4.5 65: 4.5 70: 4.5 75: 5.2
PROMIS Emotional Distress - Anxiety Short form 5 Quach et al. 2016 (137)	**Cancer patients (n = 778)** Prostate (n = 778; 100%)	NS	Male (n = 778; 100%) 65 ± 7.6 years	ECV: 0.97	α: 0.90	No important DIF was found when controlling for age, education and ethnicity.	**SF-12** Mental health: 0.60 Mental component summary: 0.59 Physical component summary: 0.20 **Memorial Anxiety Scale:** 0.44	
PROMIS Emotional Distress - Anxiety Short form 7a Schalet et al. 2016 (122)	**Mixed (n = 1,430)** Cancer patients (n = 310; 21.7%) Non-cancer patients (n = 1,120; 78.3%)	NS	Female (n = 189; 61.0%) Male (n = 121; 39.0%) Median: 50-54 years					**Using General Health Anchor** **Better:** Mean change: -1.2 ± 5.7 **About the same:** Mean change: -1.5 ± 5.8 **Worse:** Mean change: 0.4 ± 6.1 **Using Anxiety/Distress Anchor** **Better:** Mean change: -2.7 ± 6.3 **About the same:** Mean change: -0.7 ± 5.6 **Worse:** Mean change:

								1.9 ± 5.4
PROMIS Emotional Distress - Anxiety Short form 6a Van Wulfften et al. 2017 (132)	**Cancer patients (n = 70)** Sacral tumors (n = 70; 100%)	NS	Female (n = 32; 46%) Male (n = 38; 54%) Median: 61 years		α: 0.94		**PROMIS** Depression: 0.80 Global health (mental): 0.70 Global health (physical): 0.38 Pain intensity: 0.38 Pain interference: 0.53 **Neuro-QoL:** 0.12	
PROMIS Emotional Distress - Anxiety Short form 4a Wang et al. 2018 (138)	**Cancer survivors (n = 401)** Prostate (n = 401; 100%)	Gleason grade 1 score: <7 (n = 236; 58.8%) =7 (n = 125; 31.2%) >7 (n = 40; 10.0%)	Male (n = 401; 100%) < 65 years (n = 148; 36.9%) ≥ 65 years (n = 253; 63.1%)	**PC Mode:** CFI: 1 TLI: 1 RMSEA: 0 WRMR: 0.101		No important DIF was found when comparing mode of administration (web- versus phone-based)		
PROMIS Emotional Distress - Anxiety Short form 7a Wilford et al. 2018 (149)	**Cancer patients (n = 204)** Cervical (n = 204; 100%)	Stage I (n = 147; 73.1%) Stage II (n = 28; 13.9%) Stage III-IVa (n = 26; 12.9%) Missing (n = 3; 0.1%)	Female (n = 204; 100%) 44.7 ± 9.6 years		α: 0.95 – 0.96		**FACT Cervical:** 0.54 **BSI-GSI:** 0.55 **BSI Depression:** 0.61 **IES:** 0.45 **PSS:** 0.56 **MOS-SS:** 0.37	
PROMIS Emotional Distress - Depression Short form 8b Clover et al. 2018 (125)	**Cancer patients (n = 132; 100%)** Breast (n = 59; 45%) Hematological (n = 18; 13%) Colorectal (n = 16; 12%) Lung (n = 13; 10%) Other (n = 26; 20%)	Stage I (n = 19; 14%) Stage II-III (n = 30; 23%) Stage IV (n = 23; 15%) Missing (n = 63; 48%)	Female (n = 91; 69%) Male (n = 63; 31%)				**BDI-II:** 0.75 **CES-D:** 0.77 **HADS** Depression: 0.59 **PSYCH-6:** 0.61 **DASS** Depression: 0.76 **DT:** 0.58 **PHQ-9:** 0.62	
PROMIS Emotional Distress - Depression Short form 8a Groot et al. 2021 (141)	**Cancer patients/Palliative (n = 47)** Bone metastases coming from: Breast (n = 10; 21%) Kidney (n = 8; 17%) Sarcoma (n = 6; 13%) Lung (n = 5; 11%) Prostate (n = 4; 9%) Others (n = 14; 30%)	NS	Female (n = 27; 57%) Male (n = 20; 43%) Median: 69 years		Inter-rater: 0.56			

PROMIS Emotional Distress - Depression Short form 10 Jensen et al. 2017 (135)	**Cancer patients/ Survivors/ Palliative (n = 2,968)** Breast (n = 934; 31.5%) Prostate (n = 718; 24.2%) Colorectal (n = 493; 16.6%) Lung (n = 309; 10.4%) Non-Hodgkin (n = 261; 8.8%) Gynecological (n = 253; 8.5%)	Stage I (n = 1,127; 38%) Stage II (n = 952; 32.1%) Stage III (n = 490; 16.5%) Stage IV (n = 290; 9.8%) Missing (n = 109; 3.7%)	< 50 years (n = 564; 19%) ≥ 50 years (n = 2,404; 81%)					**Using change over 6 weeks Anchor** **A lot better:** Mean change: -2.42 ± 8.02 (ES: 0.27) **A little better:** Mean change: 1.14 ± 8.21 (ES: 0.13) **About the same:** Mean change: 0.30 ± 7.22 (ES: 0.03) **A little worse:** Mean change: 5.61 ± 8.05 (ES: 0.56) **A lot worse:** Mean change: 8.70 ± 9.21 (ES: 0.72) **1 Point ECOG Performance status: Improvement versus no change:** Mean change: -2.2 (ES: 0.26) **Decline versus no change:** Mean change: 3.1 (ES: 0.41) **Cancer status: present versus remission/absent** Mean change: 1.9 (ES: 0.24)
PROMIS Emotional Distress - Depression Short form 8a Lee et al. 2020 (136)	**Cancer patients (n = 1,859)** Breast (n = 462; 25.9%) Lymphoma/myeloma (n = 370; 20.8%) Colorectal (n = 177; 9.9%) Head/neck/gastro (n = 158; 8.9%) Lung (n = 136; 7.6%) Other (n = 478; 25.7%)	Stage I (n = 207; 11.8%) Stage II (n = 375; 21.4%) Stage III (n = 518; 29.5%) Stage IV (n = 654; 37.3%)	Female (n = 1131; 61.0%) Male (n = 722; 39.0%) Missing (n = 6; 0.0%) 56.4 ± 12.5 years		Ω: 0.87 – 0.89 α: 0.94 – 0.96		**NRS Depression:** 0.78 **PRO-CTCAE:** 0.72-0.79	**T-score changes for RCI Value = 1.65:** 35: 13.9 40: 9.4 45: 6.1 50: 4.4 55: 3.8 60: 4.0

	Missing (n = 78; 4.1%)	Missing (n = 105; 5.6%)						65: 4.0 70: 4.0 75: 7.4
PROMIS Emotional Distress - Depression Short form 5 Quach et al. 2016 (137)	**Cancer patients (n = 778)** Prostate (n = 778; 100%)	NS	Male (n = 778; 100%) 65 ± 7.6 years	ECV: 0.98	α: 0.91	No important DIF was found when controlling for age, education and ethnicity.	**SF-12** Mental health: 0.64 Mental component summary: 0.64 Physical component summary: 0.22 **Memorial Anxiety Scale:** 0.41	
PROMIS Emotional Distress-Depression Short form 8b Schalet et al. 2016 (122)	**Mixed (n = 1,430)** Cancer patients (n = 310; 21.7%) Non-cancer patients (n = 1,120; 78.3%)	NS	Female (n = 189; 61.0%) Male (n = 121; 39.0%) Median: 50-54 years					**Using General Health Anchor** **Better:** Mean change: -1.3 ± 4.9 **About the same:** Mean change: -1.0 ± 5.6 **Worse:** Mean change: 0.7 ± 5.3 **Using Depression/ Distress Anchor** **Better:** Mean change: -2.1 ± 5.6 **About the same:** Mean change: -0.7 ± 5.4 **Worse:** Mean change: 3.0 ± 4.2
PROMIS Emotional Distress - Depression Short form 6a Van Wulfften et al. 2017 (132)	**Cancer patients (n = 70)** Sacral tumors (n = 70; 100%)	NS	Female (n = 32; 46%) Male (n = 38; 54%) Median: 61 years		α: 0.94		**PROMIS** Anxiety: 0.80 Global health (mental): 0.64 Global health (physical): 0.40 Pain intensity: 0.36 Pain interference: 0.58 **Neuro-QoL:** 0.18	

PROMIS Emotional Distress - Depression Short form 4a Wang et al. 2018 (138)	**Cancer survivors (n = 401)** Prostate (n = 401; 100%)	Gleason grade 1 score: <7 (n = 236; 58.8%) =7 (n = 125; 31.2%) >7 (n = 40; 10.0%)	Male (n = 401; 100%) < 65 years (n = 148; 36.9%) ≥ 65 years (n = 253; 63.1%)	**PC Mode:** CFI: 1 TLI: 1 RMSEA: 0.010 WRMR: 0.180		No important DIF was found when comparing mode of administration (web- versus phone-based)		
PROMIS Emotional Distress - Depression Short form 8a Wilford et al. 2018 (149)	**Cancer patients (n = 204)** Cervical (n = 204; 100%)	Stage I (n = 147; 73.1%) Stage II (n = 28; 13.9%) Stage III-IVa (n = 26; 12.9%) Missing (n = 3; 0.1%)	Female (n = 204; 100%) 44.7 ± 9.6 years		α: 0.95 – 0.96		**FACT Cervical:** 0.66 **BSI-GSI:** 0.72 **BSI** Depression: 0.78 **IES:** 0.45 **PSS:** 0.66 **MOS-SS:** 0.40	
PROMIS Psychosocial Illness Impact - Negative Short form 8a Wang et al. 2018 (138)	**Cancer survivors (n = 401)** Prostate (n = 401; 100%)	Gleason grade 1 score: <7 (n = 236; 58.8%) =7 (n = 125; 31.2%) >7 (n = 40; 10.0%)	Male (n = 401; 100%) < 65 years (n = 148; 36.9%) ≥ 65 years (n = 253; 63.1%)	**PC Mode:** CFI: 0.997 TLI: 0.996 RMSEA: 0.070 WRMR: 0.568		No important DIF was found when comparing mode of administration (web- versus phone-based)		
PROMIS Psychosocial Illness Impact - Positive Short form 8a Wang et al. 2018 (138)	**Cancer survivors (n = 401)** Prostate (n = 401; 100%)	Gleason grade 1 score: <7 (n = 236; 58.8%) =7 (n = 125; 31.2%) >7 (n = 40; 10.0%)	Male (n = 401; 100%) < 65 years (n = 148; 36.9%) ≥ 65 years (n = 253; 63.1%)	**PC Mode:** CFI: 0.998 TLI: 0.995 RMSEA: 0.051 WRMR: 0.280		No important DIF was found when comparing mode of administration (web- versus phone-based), except for IL2.a.		
SHORT FORMS – Social Health								
CPIB-10 Short form 10 Sauder et al. 2021 (150)	**Cancer patients (n = 87)** Head & neck (n = 87; 100%)	Stage I-II (n = 58; 67%) Stage III-IV (n = 29; 33%)	Female (n = 26; 30%) Male (n = 61; 70%) <65 years (n = 51; 59%) ≥ 65 years (n = 36; 41%)				**UWQoL** Composite: 0.72 **MDADI** Composite: 0.75 **HADS** Depression: 0.48	

CPIB-10 Short form 10 Van Sluis et al. 2022 (151)	**Cancer patients (n = 48)** Head & neck (n = 48; 100%)	NS	Female (n = 14; 29%) Male (n = 34; 71%) 66 ± 10.4 years		Test-retest ICC: 0.92			
ENRICH-4 Short form 4 Xu et al. 2022 (86)	**Cancer patients/Palliative (n = 515)** Breast (n = 211; 41%) Prostate (n = 134; 26%) Lung (n = 32; 6%) Head & neck (n = 29; 6%) Others (n = 101; 20%) Missing (n = 8; 2%)						**ENRICH:** 0.96	
PROMIS Ability to Participate in Social Roles & Activities Short form 4 Cai et al. 2021 (152)	**Cancer patients (n = 633)** Breast (n = 633; 100%)	NS	Female (n = 633; 100%) 44.7 ± 9.6 years	CFI: 0.939 RMSEA: 0.052 GFI: 0.931 TLI: 0.910 IFI: 0.923	α: 0.88	No important DIF was found when controlling for age and education.	**PROMIS** Emotional support: 0.54 Anxiety: 0.08 **FACT-Breast:** 0.36	
PROMIS Ability to Participate in Social Roles & Activities Short form 10 Hahn et al. 2016 (81)	**Cancer patients (n = 5,301)** Breast (n = 1,586; 29.9%) Prostate (n = 1,126; 21.2%) Colorectal (n = 896; 16.9%) Lung (n = 684; 12.9%) Gynecological (n = 530; 10%) Non-Hodgkin (n = 445; 8.4%) Missing (n = 34; 0.6%)		Female (n = 3,134; 59.1%) Male (n = 2,133; 40.2%) 21-49 years (n = 1,177; 22.2%) 50-64 years (n = 1,947; 36.7%) 65-84 years (n = 2,143; 40.4%)	CFI: 0.98-0.99 RMSEA: 0.119 SRMR: 0.045 NNFI: 0.98	α: 0.96-0.98	No important DIF was found when controlling for gender, age, race/ethnicity, language and education.	**PROMIS** Physical function: 0.77 Sleep disturbance: 0.50 Anxiety: 0.61 Depression: 0.64 Fatigue: 0.78 Pain interference: 0.68	
PROMIS Ability to Participate in Social Roles & Activities Short form 10 Jensen et al. 2017 (135)	**Cancer patients/ Survivors/ Palliative (n = 2,968)** Breast (n = 934; 31.5%) Prostate (n = 718; 24.2%) Colorectal (n = 493; 16.6%) Lung (n = 309; 10.4%) Non-Hodgkin (n = 261; 8.8%) Gynecological (n = 253; 8.5%)	Stage I (n = 1,127; 38%) Stage II (n = 952; 32.1%) Stage III (n = 490; 16.5%) Stage IV	< 50 years (n = 564; 19%) ≥ 50 years (n = 2,404; 81%)				**FACT-G** Physical Well-Being: 0.78	**Using change over 6 weeks Anchor** **A lot better:** Mean change: 4.12 ± 8.05 (ES: 0.45) **A little better:** Mean change: 0.68 ± 7.39 (ES: 0.08)

		(n = 290; 9.8%) Missing (n = 109; 3.7%)						**About the same:** Mean change: 0.45 ± 7.59 (ES: 0.04) **A little worse:** Mean change: -3.20 ± 8.91 (ES: 0.31) **A lot worse:** Mean change: -5.60 ± 10.91 (ES: 0.54) **1 Point ECOG Performance status: Improvement versus no change:** Mean change: 3.9 (ES: 0.49) **Decline versus no change:** Mean change: -4.1 (ES: 0.57) **Cancer status: present versus remission/absent** Mean change: -2.6 (ES: 0.32)
PROMIS Emotional Support Short form 4 Cai et al. 2022 (153)	**Cancer patients (n = 965)** Breast (n = 965; 100%)	Stage I (n = 133; 13.8%) Stage II (n = 283; 29.3%) Stage III (n = 255; 26.4%) Stage IV (n = 114; 11.8%)	Female (n = 965; 100%) 49.0 ± 10.3 years	CFI: 0.926 RMSEA: 0.038 GFI: 0.920 TLI: 0.931	α: 0.92	No important DIF was found when controlling for age and education.	**FACT-Breast:** 0.44	
PROMIS Informational Support Short form 4 Cai et al. 2022 (153)	**Cancer patients (n = 965)** Breast (n = 965; 100%)	Stage I (n = 133; 13.8%) Stage II (n = 283; 29.3%) Stage III (n = 255; 26.4%) Stage IV (n = 114; 11.8%)	Female (n = 965; 100%) 49.0 ± 10.3 years	CFI: 0.926 RMSEA: 0.038 GFI: 0.920 TLI: 0.931	α: 0.93	No important DIF was found when controlling for age and education.	**FACT-Breast:** 0.49	

PROMIS Instrumental Support Short form 4 Cai et al. 2022 (153)	**Cancer patients (n = 965)** Breast (n = 965; 100%)	Stage I (n = 133; 13.8%) Stage II (n = 283; 29.3%) Stage III (n = 255; 26.4%) Stage IV (n = 114; 11.8%)	Female (n = 965; 100%) 49.0 ± 10.3 years	CFI: 0.926 RMSEA: 0.038 GFI: 0.920 TLI: 0.931	α: 0.94	No important DIF was found when controlling for age and education.	**FACT-Breast:** 0.40	
PROMIS Satisfaction with Social Roles & Activities Short form 4 Cai et al. 2021 (152)	**Cancer patients (n = 633)** Breast (n = 633; 100%)	NS	Female (n = 633; 100%) 44.7 ± 9.6 years	CFI: 0.939 RMSEA: 0.052 GFI: 0.931 TLI: 0.910 IFI: 0.923	α: 0.84	No important DIF was found when controlling for age and education.	**PROMIS** Emotional support: 0.48 Anxiety: 0.19 **FACT-Breast:** 0.32	
ITEM BANKS – Physical Health								
BREAST-Q Breast conserving therapy – Adverse effects of radiation Fuzesi et al. 2017 (154)	**Cancer patients (n = 3,497)** Breast (n = 3,497; 100%)	Stage I (n = 1,886; 54%) Stage II (n = 986; 28%) Stage III (n = 180; 5%) Stage IV (n = 26; 1%) Unknown (n = 409; 12%)	Female (n = 3,497; 100%) 59.0 ± 8.9 years		α: 0.80		**PCL-C:** 0.36 **Impact of cancer (negative):** Appearance: 0.31 Body change: 0.35 Life interference: 0.30 Worry: 0.24 Overall: 0.36	
BREAST-Q Breast conserving therapy – Physical Well-being Fuzesi et al. 2017 (154)	**Cancer patients (n = 3,497)** Breast (n = 3,497; 100%)	Stage I (n = 1,886; 54%) Stage II (n = 986; 28%) Stage III (n = 180; 5%) Stage IV (n = 26; 1%) Unknown (n = 409; 12%)	Female (n = 3,497; 100%) 59.0 ± 8.9 years		α: 0.89		**PCL-C:** 0.37 **Impact of cancer (negative):** Appearance: 0.27 Body change: 0.36 Life interference: 0.32 Worry: 0.25 Overall: 0.35	
BREAST-Q Breast conserving therapy –	**Cancer patients (n = 3,125)** Breast (n = 3,125; 100%)	Stage 0 (n = 559; 18%) Stage I	Female (n = 3,125; 100%)		α: 0.77			

Physical Well-being Klassen et al. 2020 (57)		(n = 1,805; 58%) Stage II (n = 653; 21%) Stage III (n = 93; 3%) Stage IV (n = 15; <1%)	57.1 ± 10.9 years					
BREAST-Q Breast conserving therapy – Physical Well-being Martinez-Perez et al. 2023 (155)	**Cancer patients (n = 113)** Breast (n = 113; 100%)	Stage 0 (n = 16; 14%) Stage I (n = 59; 52%) Stage II (n = 22; 20%) Stage III (n = 6; 5%) Stage IV (n = 1; 1%) Unknown (n = 9; 8%)	Female (n = 113; 100%) 57.0 ± 11.1 years		Electronic: α: 0.88 Paper: α: 0.88 Parallel forms: ICC: 0.97			
BREAST-Q Breast conserving therapy – Physical Well-being Stolpner et al. 2019 (156)	**Cancer patients (n = 253)** Breast (n = 253; 100%)	NS	Female (n = 253; 100%) 57.8 ± 11.0 years		α: 0.86-0.88		**EORTC QLQ-C30** Physical functioning: 0.31-0.55 Role functioning: 0.32-0.55 Emotional functioning: 0.38-0.43 Cognitive functioning: 0.33-0.34 Social functioning: 0.33-0.52 Fatigue: 0.38-0.56 Pain: 0.52-0.72 Quality of life: 0.36-0.53 **EORTC QLQ-BR23** Body image: 0.15-0.31 Sexual functioning: 0.06-0.16 Sexual enjoyment: 0.11-0.35 Future perspective: 0.28-0.33 Breast symptoms: 0.69-0.71 Arm symptoms: 0.41-0.53	
BREAST-Q Breast conserving therapy – Satisfaction with breasts	**Cancer patients (n = 3,497)** Breast (n = 3,497; 100%)	Stage I (n = 1,886; 54%) Stage II (n = 986; 28%) Stage III	Female (n = 3,497; 100%) 59.0 ± 8.9 years		α: 0.96		**PCL-C:** 0.29 **Impact of cancer (negative):** Appearance: 0.57 Body change: 0.29 Life interference: 0.26	

Fuzesi et al. 2017 (154)		(n = 180; 5%) Stage IV (n = 26; 1%) Unknown (n = 409; 12%)					Worry: 0.18 Overall: 0.34	
BREAST-Q Breast conserving therapy – Satisfaction with breasts Klassen et al. 2020 (57)	**Cancer patients (n = 3,125)** Breast (n = 3,125; 100%)	Stage 0 (n = 559; 18%) Stage I (n = 1,805; 58%) Stage II (n = 653; 21%) Stage III (n = 93; 3%) Stage IV (n = 15; <1%)	Female (n = 3,125; 100%) 57.1 ± 10.9 years		α: 0.96			
BREAST-Q Breast conserving therapy – Satisfaction with breasts Martinez-Perez et al. 2023 (155)	**Cancer patients (n = 113)** Breast (n = 113; 100%)	Stage 0 (n = 16; 14%) Stage I (n = 59; 52%) Stage II (n = 22; 20%) Stage III (n = 6; 5%) Stage IV (n = 1; 1%) Unknown (n = 9; 8%)	Female (n = 113; 100%) 57.0 ± 11.1 years		Electronic: α: 0.82 Paper: α: 0.82 Parallel forms: ICC: 0.91			
BREAST-Q Breast conserving therapy – Satisfaction with breasts Stolpner et al. 2019 (156)	**Cancer patients (n = 253)** Breast (n = 253; 100%)	NS	Female (n = 253; 100%) 57.8 ± 11.0 years		α: 0.86-0.95		**EORTC QLQ-C30** Physical functioning: 0.29-0.30 Role functioning: 0.14-0.29 Emotional functioning: 0.28-0.34 Cognitive functioning: 0.27-0.31 Social functioning: 0.25-0.30 Fatigue: 0.26-0.31 Pain: 0.17-0.18 Quality of life: 0.35-0.39 **EORTC QLQ-BR23** Body image: 0.44-0.49 Sexual functioning: 0.07-0.16 Sexual enjoyment: 0.22-0.33	

							Future perspective: 0.30 Breast symptoms: 0.19-0.32 Arm symptoms: 0.15	
BREAST-Q Breast conserving therapy – Sexual Well-being Fuzesi et al. 2017 (154)	**Cancer patients (n = 3,497)** Breast (n = 3,497; 100%)	Stage I (n = 1,886; 54%) Stage II (n = 986; 28%) Stage III (n = 180; 5%) Stage IV (n = 26; 1%) Unknown (n = 409; 12%)	Female (n = 3,497; 100%) 59.0 ± 8.9 years		α: 0.93		**PCL-C:** 0.50 **Impact of cancer (negative):** Appearance: 0.61 Body change: 0.47 Life interference: 0.47 Worry: 0.35 Overall: 0.54	
BREAST-Q Breast conserving therapy – Sexual Well-being Klassen et al. 2020 (57)	**Cancer patients (n = 3,125)** Breast (n = 3,125; 100%)	Stage 0 (n = 559; 18%) Stage I (n = 1,805; 58%) Stage II (n = 653; 21%) Stage III (n = 93; 3%) Stage IV (n = 15; <1%)	Female (n = 3,125; 100%) 57.1 ± 10.9 years		α: 0.95			
BREAST-Q Breast conserving therapy –Sexual Well-being Martinez-Perez et al. 2023 (155)	**Cancer patients (n = 113)** Breast (n = 113; 100%)	Stage 0 (n = 16; 14%) Stage I (n = 59; 52%) Stage II (n = 22; 20%) Stage III (n = 6; 5%) Stage IV (n = 1; 1%) Unknown (n = 9; 8%)	Female (n = 113; 100%) 57.0 ± 11.1 years		Electronic: α: 0.88 Paper: α: 0.88 Parallel forms: ICC: 0.97			
BREAST-Q Breast conserving therapy –Sexual Well-being	**Cancer patients (n = 253)** Breast (n = 253; 100%)	NS	Female (n = 253; 100%) 57.8 ± 11.0 years		α: 0.92-0.94		**EORTC QLQ-C30** Physical functioning: 0.23-0.38 Role functioning: 0.20-0.27 Emotional functioning: 0.30-0.46 Cognitive functioning: 0.28-0.41	

Stolpner et al. 2019 (156)							Social functioning: 0.23-0.51 Fatigue: 0.21-0.42 Pain: 0.14-0.27 Quality of life: 0.40-0.45 **EORTC QLQ-BR23** Body image: 0.52-0.67 Sexual functioning: 0.30-0.46 Sexual enjoyment: 0.49-0.60 Future perspective: 0.20-0.34 Breast symptoms: 0.03-0.41 Arm symptoms: 0.07-0.20	
BREAST-Q Breast Reconstruction – Animation deformity Tsangaris et al. 2021 (58)	**Cancer patients (n = 651)** Breast (n = 651; 100%)	NS	Female (n = 651; 100%) 58 years		α: 0.92-0.94 ICC test-retest: 0.92	No important DIF was found when controlling for dataset and age.	**BREAST-Q** Satisfaction with breasts: 0.53	
BREAST-Q Breast Reconstruction – Back appearance Browne et al. 2018 (59)	**Cancer patients (n = 1,096)** Breast (n = 1,096; 100%)	Stage I (n = 770; 70%) Stage II (n = 293; 27%) Stage III-IV (n = 12, 1%) Unknown (n = 21; 2%)	Female (n = 1,096; 100%) Median: 52 years		α: 0.95			
BREAST-Q Breast Reconstruction – Back appearance Kamya et al. 2021 (157)	**Cancer patients (n = 125)** Breast (n = 125; 100%)	NS	60.0 ± 9.9 years		α: 0.96 ICC test-retest: 0.77			
BREAST-Q Breast Reconstruction – Breast sensation Tsangaris et al. 2021 (60)	**Cancer patients (n = 1,204)** Breast (n = 1,204; 100%)	NS	Female (n = 1,204; 100%) 58 years		α: 0.95-0.96 ICC test-retest: 0.91	No important DIF was found when controlling for dataset, age and time since reconstruction.	**BREAST-Q** Breast symptoms: 0.06 Quality of life impact: 0.08 Satisfaction with breasts: 0.16	
BREAST-Q Breast Reconstruction – Breast symptoms	**Cancer patients (n = 1,204)** Breast (n = 1,204; 100%)	NS	Female (n = 1,204; 100%) 58 years		α: 0.91-0.92 ICC test-retest: 0.92	No important DIF was found when controlling for dataset, age and	**BREAST-Q** Breast sensation: 0.06 Quality of life impact: 0.56	

Tsangaris et al. 2021 (60)						time since reconstruction.	Satisfaction with breasts: 0.43	
BREAST-Q Breast Reconstruction – Physical Well-being Fuzesi et al. 2017 (154)	**Cancer patients (n = 1,956)** Breast (n = 1,956; 100%)	Stage I (n = 884; 45%) Stage II (n = 611; 31%) Stage III (n = 177; 9%) Stage IV (n = 23; 1%) Unknown (n = 261; 13%)	Female (n = 1,956; 100%) 55.0 ± 9.3 years		α: 0.92		**PCL-C:** 0.50 **Impact of cancer (negative):** Appearance: 0.36 Body change: 0.46 Life interference: 0.42 Worry: 0.33 Overall: 0.45	
BREAST-Q Breast Reconstruction – Physical Well-being (abdomen) Fuzesi et al. 2017 (154)	**Cancer patients (n = 1,956)** Breast (n = 1,956; 100%)	Stage I (n = 884; 45%) Stage II (n = 611; 31%) Stage III (n = 177; 9%) Stage IV (n = 23; 1%) Unknown (n = 261; 13%)	Female (n = 1,956; 100%) 55.0 ± 9.3 years		α: 0.88		**PCL-C:** 0.36 **Impact of cancer (negative):** Appearance: 0.31 Body change: 0.43 Life interference: 0.34 Worry: 0.27 Overall: 0.39	
BREAST-Q Breast Reconstruction – Physical Well-being (back & shoulder) Browne et al. 2018 (59)	**Cancer patients (n = 1,096)** Breast (n = 1,096; 100%)	Stage I (n = 770; 70%) Stage II (n = 293; 27%) Stage III-IV (n = 12, 1%) Unknown (n = 21; 2%)	Female (n = 1,096; 100%) Median: 52 years		α: 0.94		**SF-12** Physical component score: Mental component score: **EORTC QLQ-BR23** Body image: Sexual functioning: Breast symptoms: **BIBCQ** Body stigma scale: Limitations: Body concerns:	
BREAST-Q Breast Reconstruction – Physical Well-being (back & shoulder) Kamya et al. 2021 (157)	**Cancer patients (n = 125)** Breast (n = 125; 100%)	NS	60.0 ± 9.9 years		α: 0.95 ICC test-retest: 0.84		**WOOS** Physical symptoms: 0.69	

BREAST-Q Breast Reconstruction – Physical Well-being (chest & upper body) Cano et al. 2012 (98)	**Cancer patients (n = 358)** Breast (n = 358; 100%)	NS	Female (n = 358; 100%) NS		α: 0.93 ICC test-retest: 0.93		**SF-12** Physical component score: 0.43 Mental component score: 0.26 **EORTC QLQ-BR23** Body image: 0.40 Sexual functioning: 0.12 Breast symptoms: 0.61 **Body Image Scale:** 0.48 **BIBCQ** Body stigma scale: 0.44 Limitations: 0.42 Body concerns: 0.28	
BREAST-Q Breast Reconstruction – Physical Well-being (chest & upper body) Pusic et al. 2009 (61)	**Cancer patients (n = 790)** Breast (n = 790; 100%)	NS	Female (n = 790; 100%) NS		α: 0.91 test-retest ICC: 0.96			
BREAST-Q Breast Reconstruction – Quality of life impact Tsangaris et al. 2021 (60)	**Cancer patients (n = 1,204)** Breast (n = 1,204; 100%)	NS	Female (n = 1,204; 100%) 58 years		α: 0.86-0.90 ICC test-retest: 0.88	No important DIF was found when controlling for dataset, age and time since reconstruction.	**BREAST-Q** Breast sensation: 0.08 Breast symptoms: 0.56 Satisfaction with breasts: 0.57	
BREAST-Q Breast Reconstruction – Satisfaction with abdomen Fuzesi et al. 2017 (154)	**Cancer patients (n = 1,956)** Breast (n = 1,956; 100%)	Stage I (n = 884; 45%) Stage II (n = 611; 31%) Stage III (n = 177; 9%) Stage IV (n = 23; 1%) Unknown (n = 261; 13%)	Female (n = 1,956; 100%) 55.0 ± 9.3 years		α: 0.95		**PCL-C:** 0.33 **Impact of cancer (negative):** Appearance: 0.46 Body change: 0.38 Life interference: 0.27 Worry: 0.25 Overall: 0.37	
BREAST-Q Breast Reconstruction – Satisfaction with breasts	**Cancer patients (n = 358)** Breast (n = 358; 100%)	NS	Female (n = 358; 100%) NS		α: 0.95 ICC test-retest: 0.96		**SF-12** Physical component score: 0.18 Mental component score: 0.31 **EORTC QLQ-BR23** Body image: 0.55	

Cano et al. 2012 (98)							Sexual functioning: 0.14 Breast symptoms: 0.30 **Body Image Scale:** 0.61 **BIBCQ** Body stigma scale: 0.56 Limitations: 0.33 Body concerns: 0.52	
BREAST-Q Breast Reconstruction – Satisfaction with breasts Fuzesi et al. 2017 (154)	**Cancer patients (n = 1,956)** Breast (n = 1,956; 100%)	Stage I (n = 884; 45%) Stage II (n = 611; 31%) Stage III (n = 177; 9%) Stage IV (n = 23; 1%) Unknown (n = 261; 13%)	Female (n = 1,956; 100%) 55.0 ± 9.3 years		α: 0.96		**PCL-C:** 0.34 **Impact of cancer (negative):** Appearance: 0.58 Body change: 0.35 Life interference: 0.32 Worry: 0.23 Overall: 0.39	
BREAST-Q Breast Reconstruction – Satisfaction with breasts Pusic et al. 2009 (61)	**Cancer patients (n = 790)** Breast (n = 790; 100%)	NS	Female (n = 790; 100%) NS		α: 0.96 test-retest ICC: 0.96			
BREAST-Q Breast Reconstruction – Satisfaction with outcome Cano et al. 2012 (98)	**Cancer patients (n = 358)** Breast (n = 358; 100%)	NS	Female (n = 358; 100%) NS		α: 0.88 ICC test-retest: 0.94		**SF-12** Physical component score: 0.22 Mental component score: 0.22 **EORTC QLQ-BR23** Body image: 0.43 Sexual functioning: 0.14 Breast symptoms: 0.24 **Body Image Scale:** 0.51 **BIBCQ** Body stigma scale: 0.43 Limitations: 0.33 Body concerns: 0.45	
BREAST-Q Breast Reconstruction – Satisfaction with outcome	**Cancer patients (n = 1,956)** Breast (n = 1,956; 100%)	Stage I (n = 884; 45%) Stage II (n = 611; 31%) Stage III	Female (n = 1,956; 100%) 55.0 ± 9.3 years		α: 0.89		**PCL-C:** 0.31 **Impact of cancer (negative):** Appearance: 0.47 Body change: 0.32 Life interference: 0.30	

Fuzesi et al. 2017 (154)		(n = 177; 9%) Stage IV (n = 23; 1%) Unknown (n = 261; 13%)					Worry: 0.18 Overall: 0.34	
BREAST-Q Breast Reconstruction – Satisfaction with outcome Pusic et al. 2009 (61)	**Cancer patients (n = 790)** Breast (n = 790; 100%)	NS	Female (n = 790; 100%) NS		α: 0.88 test-retest ICC: 0.95			
BREAST-Q Breast Reconstruction – Sexual Well-being Cano et al. 2012 (98)	**Cancer patients (n = 358)** Breast (n = 358; 100%)	NS	Female (n = 358; 100%) NS		α: 0.94 ICC test-retest: 0.93		**SF-12** Physical component score: 0.27 Mental component score: 0.41 **EORTC QLQ-BR23** Body image: 0.67 Sexual functioning: 0.38 Breast symptoms: 0.25 **Body Image Scale:** 0.69 **BIBCQ** Body stigma scale: 0.72 Limitations: 0.46 Body concerns: 0.52	
BREAST-Q Breast Reconstruction – Sexual Well-being Fuzesi et al. 2017 (154)	**Cancer patients (n = 1,956)** Breast (n = 1,956; 100%)	Stage I (n = 884; 45%) Stage II (n = 611; 31%) Stage III (n = 177; 9%) Stage IV (n = 23; 1%) Unknown (n = 261; 13%)	Female (n = 1,956; 100%) 55.0 ± 9.3 years		α: 0.94		**PCL-C:** 0.50 **Impact of cancer (negative):** Appearance: 0.66 Body change: 0.46 Life interference: 0.48 Worry: 0.35 Overall: 0.54	
BREAST-Q Breast Reconstruction – Sexual Well-being Pusic et al. 2009 (61)	**Cancer patients (n = 790)** Breast (n = 790; 100%)	NS	Female (n = 790; 100%) NS		α: 0.93 test-retest ICC: 0.96			

BREAST-Q Fatigue Klassen et al. 2021 (62)	**Cancer patients (n = 1,680)** Breast (n = 1,680; 100%)	Stage 0 (n = 296; 17.6%) Stage I (n = 591; 35.2%) Stage II (n = 510; 30.4%) Stage III (n = 218; 13.0%) Stage IV (n = 33; 2.0%) Missing (n = 32; 1.9%)	Female (n = 1,680; 100%) 62 years		α: 0.90-0.93 test-retest ICC: 0.89	No important DIF was found for age and time since diagnosis.	**BREAST-Q:** Cancer worry item bank: 0.39 Impact on work item bank: 0.52	
BREAST-Q Mastectomy – Physical Well-being Fuzesi et al. 2017 (154)	**Cancer patients (n = 1,295)** Breast (n = 1,295; 100%)	Stage I (n = 385; 30%) Stage II (n = 428; 33%) Stage III (n = 281; 22%) Stage IV (n = 41; 3%) Unknown (n = 160; 12%)	Female (n = 1,295; 100%) 61.0 ± 9.2 years		α: 0.93		**PCL-C:** 0.53 **Impact of cancer (negative):** Appearance: 0.37 Body change: 0.53 Life interference: 0.46 Worry: 0.40 Overall: 0.51	
BREAST-Q Mastectomy – Physical Well-being (chest) Olasehinde et al. 2024 (158)	**Cancer patients (n = 21)** Breast (n = 21; 100%)	NS	Female (n = 21; 100%) Median: 54 years (range: 40-79)		α: 0.84-0.86 test-retest ICC: 0.64		**EORTC QLQ-BR23** Arm symptoms: 0.58-0.72 Breast symptoms: 0.69-0.75	
BREAST-Q Mastectomy – Satisfaction with breasts Fuzesi et al. 2017 (154)	**Cancer patients (n = 1,295)** Breast (n = 1,295; 100%)	Stage I (n = 385; 30%) Stage II (n = 428; 33%) Stage III (n = 281; 22%) Stage IV (n = 41; 3%) Unknown (n = 160; 12%)	Female (n = 1,295; 100%) 61.0 ± 9.2 years		α: 0.82		**PCL-C:** 0.47 **Impact of cancer (negative):** Appearance: 0.64 Body change: 0.46 Life interference: 0.46 Worry: 0.37 Overall: 0.53	
BREAST-Q Mastectomy –	**Cancer patients (n = 21)** Breast (n = 21; 100%)	NS	Female (n = 21; 100%)		α: 0.43-0.63		**EORTC QLQ-BR23** Body image: 0.28-0.45	

Satisfaction with breasts Olasehinde et al. 2024 (158)			Median: 54 years (range: 40-79)		test-retest ICC: 0.41			
BREAST-Q Mastectomy – Sexual Well-being Fuzesi et al. 2017 (154)	**Cancer patients (n = 1,295)** Breast (n = 1,295; 100%)	Stage I (n = 385; 30%) Stage II (n = 428; 33%) Stage III (n = 281; 22%) Stage IV (n = 41; 3%) Unknown (n = 160; 12%)	Female (n = 1,295; 100%) 61.0 ± 9.2 years		α: 0.94		**PCL-C:** 0.54 **Impact of cancer (negative):** Appearance: 0.66 Body change: 0.53 Life interference: 0.56 Worry: 0.48 Overall: 0.62	
BREAST-Q Mastectomy – Sexual Well-being Olasehinde et al. 2024 (158)	**Cancer patients (n = 21)** Breast (n = 21; 100%)	NS	Female (n = 21; 100%) Median: 54 years (range: 40-79)		α: 0.98-0.99 test-retest ICC: 0.56		**EORTC QLQ-BR23** Sexual functioning: 0.73-0.87	
BREAST-Q Physical Well-being Saiga et al. 2017 (159)	**Cancer patients (n = 44)** Breast (n = 44; 100%)	Stage 0 (n = 3; 7%) Stage I (n = 12; 27%) Stage II (n = 17; 39%) Stage III (n = 8; 18%) Stage IV (n = 1; 2%) Unknown (n = 3; 7%)	Female (n = 44; 100%) 61.8 years		α: 0.92 test-retest ICC: 0.90		**EORTC QLQ-BR23** Body image: 0.24 Breast symptoms: 0.61 Arm symptoms: 0.63 Sexual functioning: 0.13 **FACT-Breast** Physical well-being: 0.58 Social well-being: 0.14 Emotional well-being: 0.39 Functional well-being: 0.32 Sexually attractive: 0.29 Feel like a woman: 0.12 **QOL-ACD** Physical symptom & pain: 0.51 Satisfaction with care/Coping with disease: 0.31 Item 15: 0.01 Item 16: 0.01	

BREAST-Q Physical Well-being Shunnmugam et al. 2023 (160)	**Cancer patients (n = 144)** Breast (n = 144; 100%)	Stage I (n = 30; 21%) Stage II (n = 59; 41%) Stage III (n = 52; 36%) Stage IV (n = 3; 2%)	Female (n = 144; 100%) <51 years (71; 49%) ≥51 years (n = 73; 51%)	CFI: 0.78 TLI: 0.75 GFI: 0.73 RMSEA: 0.14	α: 0.92 test-retest ICC: 0.74-0.90			
BREAST-Q Satisfaction with breasts Saiga et al. 2017 (159)	**Cancer patients (n = 44)** Breast (n = 44; 100%)	Stage 0 (n = 3; 7%) Stage I (n = 12; 27%) Stage II (n = 17; 39%) Stage III (n = 8; 18%) Stage IV (n = 1; 2%) Unknown (n = 3; 7%)	Female (n = 44; 100%) 61.8 years		α: 0.77 test-retest ICC: 0.76		**EORTC QLQ-BR23** Body image: 0.49 Breast symptoms: 0.28 Arm symptoms: 0.29 Sexual functioning: 0.04 **FACT-Breast** Physical well-being: 0.25 Social well-being: 0.37 Emotional well-being: 0.39 Functional well-being: 0.50 Sexually attractive: 0.39 Feel like a woman: 0.24 **QOL-ACD** Physical symptom & pain: 0.35 Satisfaction with care/Coping with disease: 0.42 Item 15: 0.56 Item 16: 0.56	
BREAST-Q Satisfaction with breasts Shunnmugam et al. 2023 (160)	**Cancer patients (n = 144)** Breast (n = 144; 100%)	Stage I (n = 30; 21%) Stage II (n = 59; 41%) Stage III (n = 52; 36%) Stage IV (n = 3; 2%)	Female (n = 144; 100%) <51 years (71; 49%) ≥51 years (n = 73; 51%)	CFI: 0.97 TLI: 0.91 GFI: 0.97 RMSEA: 0.16	α: 0.83 test-retest ICC: 0.80-0.89			
BREAST-Q Sexual Well-being Saiga et al. 2017 (159)	**Cancer patients (n = 44)** Breast (n = 44; 100%)	Stage 0 (n = 3; 7%) Stage I (n = 12; 27%) Stage II (n = 17; 39%)	Female (n = 44; 100%) 61.8 years		α: 0.44 test-retest ICC: 0.67		**EORTC QLQ-BR23** Body image: 0.21 Breast symptoms: 0.13 Arm symptoms: 0.20 Sexual functioning: 0.32 **FACT-Breast**	

		Stage III (n = 8; 18%) Stage IV (n = 1; 2%) Unknown (n = 3; 7%)					Physical well-being: 0.19 Social well-being: 0.16 Emotional well-being: 0.28 Functional well-being: 0.29 Sexually attractive: 0.75 Feel like a woman: 0.47 **QOL-ACD** Physical symptom & pain: 0.14 Satisfaction with care/Coping with disease: 0.05 Item 15: 0.31 Item 16: 0.31	
BREAST-Q Sexual Well-being Shunnmugam et al. 2023 (160)	**Cancer patients (n = 144)** Breast (n = 144; 100%)	Stage I (n = 30; 21%) Stage II (n = 59; 41%) Stage III (n = 52; 36%) Stage IV (n = 3; 2%)	Female (n = 144; 100%) <51 years (71; 49%) ≥51 years (n = 73; 51%)	CFI: 0.94 TLI: 0.91 GFI: 0.88 RMSEA: 0.22	α: 0.95 test-retest ICC: 0.90-0.94			
Cancer-related fatigue Item bank Lai et al. 2005 (68)	**Cancer patients (n = 301)** Breast (n = 101; 33.6%) Colorectal (n = 37; 12.3%) Non-Hodgkin (n = 23; 7.6%) Ovarian (n = 21; 7.0%) Lung (n = 20; 6.6%) Prostate (n = 15; 5.0%) Others (n = 84; 25.6%) Missing (n = 7; 2.3%)	NS	Female (n = 193; 64.1%) Male (n = 103; 34.2%) Missing (n = 5; 1.7%) 57.0 ± 14.4 years		α: 0.99			
Cancer-related fatigue Item bank Lai et al. 2006 (161)	**Cancer patients (n = 555)** Breast (n = 185; 33.4%) Colorectal (n = 68; 12.3%) Non-Hodgkin (n = 42; 7.6%) Ovarian (n = 39; 7.0%) Lung (n = 37; 6.6%) Prostate (n = 28; 5.0%) Others (n = 142; 25.6%) Missing (n = 13; 2.3%)	NS	Female (n = 354; 63.8%) Male (n = 201; 36.2%) 59.7 ± 13.4 years	**1-factor model:** CFI: 0.74 TLI: 0.97 RMSEA: 0.18 **2-factor model:** CFI: 0.81 TLI: 0.98 RMSEA: 0.14	α: 0.98			
FACE-Q Head & neck cancer –	**Cancer patients (n = 219)** Head & neck (n = 219; 100%)	NS	Female (n = 75; 34%)		α: 0.96			

Facial Appearance – Appearance Cracchiolo et al. 2019 (64)			Male (n = 144; 66%) <60 years (n = 80; 36%) >60 years (n = 139; 64%)		test-retest ICC: 0.93			
FACE-Q Head & neck cancer – Facial Appearance – Appearance Venchiarutti et al. 2023 (162)	**Cancer patients (n = 218)** Head & neck (n = 218; 100%)	Stage I (n = 31; 14%) Stage II (n = 32; 15%) Stage III (n = 14; 6%) Stage IV (n = 89; 41%) Stage Tx (n = 50; 23%)	Female (n = 115; 53%) Male (n = 103; 47%) 60.1 years				**MDADI** Emotional: 0.46 Functional: 0.39 Physical: 0.40 Global: 0.41 Composite: 0.43 **SHI** Speech: 0.47 Psychosocial: 0.50 Total: 0.49	
FACE-Q Head & neck cancer – Function – Eating & drinking Cracchiolo et al. 2019 (64)	**Cancer patients (n = 219)** Head & neck (n = 219; 100%)	NS	Female (n = 75; 34%) Male (n = 144; 66%) <60 years (n = 80; 36%) >60 years (n = 139; 64%)		α: 0.80 test-retest ICC: 0.96			
FACE-Q Head & neck cancer – Function – Eating & drinking Venchiarutti et al. 2023 (162)	**Cancer patients (n = 218)** Head & neck (n = 218; 100%)	Stage I (n = 31; 14%) Stage II (n = 32; 15%) Stage III (n = 14; 6%) Stage IV (n = 89; 41%) Stage Tx (n = 50; 23%)	Female (n = 115; 53%) Male (n = 103; 47%) 60.1 years				**MDADI** Emotional: 0.65 Functional: 0.60 Physical: 0.68 Global: 0.59 Composite: 0.69 **SHI** Speech: 0.60 Psychosocial: 0.59 Total: 0.61	
FACE-Q Head & neck cancer – Function – Oral competence	**Cancer patients (n = 219)** Head & neck (n = 219; 100%)	NS	Female (n = 75; 34%) Male (n = 144; 66%)		α: 0.80 test-retest ICC: 0.91			

Cracchiolo et al. 2019 (64)			<60 years (n = 80; 36%) >60 years (n = 139; 64%)					
FACE-Q Head & neck cancer – Function – Oral competence Venchiarutti et al. 2023 (162)	**Cancer patients (n = 218)** Head & neck (n = 218; 100%)	Stage I (n = 31; 14%) Stage II (n = 32; 15%) Stage III (n = 14; 6%) Stage IV (n = 89; 41%) Stage Tx (n = 50; 23%)	Female (n = 115; 53%) Male (n = 103; 47%) 60.1 years				**MDADI** Emotional: 0.59 Functional: 0.51 Physical: 0.57 Global: 0.47 Composite: 0.60 **SHI** Speech: 0.60 Psychosocial: 0.58 Total: 0.60	
FACE-Q Head & neck cancer – Function – Salivation Cracchiolo et al. 2019 (64)	**Cancer patients (n = 219)** Head & neck (n = 219; 100%)	NS	Female (n = 75; 34%) Male (n = 144; 66%) <60 years (n = 80; 36%) >60 years (n = 139; 64%)		α: 0.90 test-retest ICC: 0.95			
FACE-Q Head & neck cancer – Function – Salivation Venchiarutti et al. 2023 (162)	**Cancer patients (n = 218)** Head & neck (n = 218; 100%)	Stage I (n = 31; 14%) Stage II (n = 32; 15%) Stage III (n = 14; 6%) Stage IV (n = 89; 41%) Stage Tx (n = 50; 23%)	Female (n = 115; 53%) Male (n = 103; 47%) 60.1 years				**MDADI** Emotional: 0.51 Functional: 0.42 Physical: 0.60 Global: 0.47 Composite: 0.56 **SHI** Speech: 0.55 Psychosocial: 0.50 Total: 0.54	
FACE-Q Head & neck cancer – Function – Smiling Cracchiolo et al. 2019 (64)	**Cancer patients (n = 219)** Head & neck (n = 219; 100%)	NS	Female (n = 75; 34%) Male (n = 144; 66%) <60 years		α: 0.91 test-retest ICC: 0.86			

			(n = 80; 36%) >60 years (n = 139; 64%)					
FACE-Q Head & neck cancer – Function – Smiling Venchiarutti et al. 2023 (162)	**Cancer patients (n = 218)** Head & neck (n = 218; 100%)	Stage I (n = 31; 14%) Stage II (n = 32; 15%) Stage III (n = 14; 6%) Stage IV (n = 89; 41%) Stage Tx (n = 50; 23%)	Female (n = 115; 53%) Male (n = 103; 47%) 60.1 years				**MDADI** Emotional: 0.52 Functional: 0.45 Physical: 0.45 Global: 0.45 Composite: 0.49 **SHI** Speech: 0.45 Psychosocial: 0.50 Total: 0.49	
FACE-Q Head & neck cancer – Function – Speaking Cracchiolo et al. 2019 (64)	**Cancer patients (n = 219)** Head & neck (n = 219; 100%)	NS	Female (n = 75; 34%) Male (n = 144; 66%) <60 years (n = 80; 36%) >60 years (n = 139; 64%)		α: 0.94 test-retest ICC: 0.92			
FACE-Q Head & neck cancer – Function – Speaking Venchiarutti et al. 2023 (162)	**Cancer patients (n = 218)** Head & neck (n = 218; 100%)	Stage I (n = 31; 14%) Stage II (n = 32; 15%) Stage III (n = 14; 6%) Stage IV (n = 89; 41%) Stage Tx (n = 50; 23%)	Female (n = 115; 53%) Male (n = 103; 47%) 60.1 years				**MDADI** Emotional: 0.57 Functional: 0.53 Physical: 0.61 Global: 0.51 Composite: 0.62 **SHI** Speech: 0.84 Psychosocial: 0.80 Total: 0.84	
FACE-Q Head & neck cancer – Function – Swallowing Cracchiolo et al. 2019 (64)	**Cancer patients (n = 219)** Head & neck (n = 219; 100%)	NS	Female (n = 75; 34%) Male (n = 144; 66%) <60 years (n = 80; 36%) >60 years		α: 0.89 test-retest ICC: 0.98			

			(n = 139; 64%)					
FACE-Q Head & neck cancer – Function – Swallowing Venchiarutti et al. 2023 (162)	**Cancer patients (n = 218)** Head & neck (n = 218; 100%)	Stage I (n = 31; 14%) Stage II (n = 32; 15%) Stage III (n = 14; 6%) Stage IV (n = 89; 41%) Stage Tx (n = 50; 23%)	Female (n = 115; 53%) Male (n = 103; 47%) 60.1 years				**MDADI** Emotional: 0.61 Functional: 0.55 Physical: 0.74 Global: 0.60 Composite: 0.70 **SHI** Speech: 0.59 Psychosocial: 0.54 Total: 0.58	
FACE-Q Skin cancer – Appraisal of scars Dobbs et al. 2021 (84)	**Cancer patients (n = 110)** Skin (n = 110; 100%)	NS	Female (n = 44; 40%) Male (n = 66; 60%) 72 ± 12 years		α: 0.87-0.97		**FACE-Q** Satisfaction with facial appearance: 0.62 **SCI** Appearance: 0.57	
FACE-Q Skin cancer – Appraisal of scars Dobbs et al. 2022	**Cancer patients (n = 239)** Skin (n = 239; 100%)	NS	Female (n = 120; 50%) Male (n = 119; 50%) 71.4 ± 12.5 years		α: 0.97		**SCI** Total appearance: 0.59	
FACE-Q Skin cancer – Appraisal of scars Lee et al. 2018 (65)	**Cancer patients (n = 209)** Skin (n = 209; 100%)	NS	Female (n = 113; 54%) Male (n = 96; 46%) 64 years		α: 0.94 test-retest ICC: 0.97		**FACE-Q** Cancer worry: 0.27	
FACE-Q Skin cancer – Satisfaction with facial appearance Dobbs et al. 2021 (84)	**Cancer patients (n = 110)** Skin (n = 110; 100%)	NS	Female (n = 44; 40%) Male (n = 66; 60%) 72 ± 12 years		α: 0.87-0.97		**FACE-Q** Appraisal of scars: 0.62 Cancer worry: 0.29 **SCI** Social: 0.44	**ES:** 0.104
FACE-Q Skin cancer – Satisfaction with facial appearance	**Cancer patients (n = 239)** Skin (n = 239; 100%)	NS	Female (n = 120; 50%) Male (n = 119; 50%)		α: 0.96		**SCI** Social: 0.47	

Dobbs et al. 2022 (163)			71.4 ± 12.5 years					
FACE-Q Skin cancer – Satisfaction with facial appearance Lee et al. 2018 (65)	**Cancer patients (n = 209)** Skin (n = 209; 100%)	NS	Female (n = 113; 54%) Male (n = 96; 46%) 64 years		α: 0.97 test-retest ICC: 0.95		**FACE-Q** Cancer worry: 0.18	
FACE-Q Skin cancer – Sun protection behaviour Dobbs et al. 2022 (163)	**Cancer patients (n = 239)** Skin (n = 239; 100%)	NS	Female (n = 120; 50%) Male (n = 119; 50%) 71.4 ± 12.5 years		α: 0.96			
FACE-Q Skin cancer – Symptoms checklist Dobbs et al. 2022 (163)	**Cancer patients (n = 239)** Skin (n = 239; 100%)	NS	Female (n = 120; 50%) Male (n = 119; 50%) 71.4 ± 12.5 years		α: 0.92			
FACIT-F Item bank Lai et al. 2003 (70)	**Cancer patients (n = 1,022)** Lung (n = 298; 29.2%) Breast (n = 232; 22.7%) Hematological (n = 228; 22.2%) Gynecological (n = 168; 16.4%) Gastrointestinal (n = 12; 11.6%) Others (n = 206; 20.2%)	NS	Female (n = 634; 62%) Male (n = 388; 38%) 63.4 ± 12.8 years		α: 0.94			
LYMPH-Q - Appearance Klassen et al. 2021 (66)	**Cancer patients (n = 3,222)** Breast (n = 3,222; 100%)	NS	Female (n = 3,222; 100%) <50 years (n = 322; 10%) ≥50 years (n = 2,900; 90%)		α: 0.95-0.97 test-retest ICC: 0.96	No important DIF was found when controlling for age and dataset	**LYMPH-Q** Arm sleeve: 0.41 Function: 0.50 Information: 0.22 Psychological: 0.56 Symptoms: 0.59	
LYMPH-Q – Arm sleeve Klassen et al. 2021 (66)	**Cancer patients (n = 3,222)** Breast (n = 3,222; 100%)	NS	Female (n = 3,222; 100%) <50 years (n = 322; 10%) ≥50 years		α: 0.89-0.91 test-retest ICC: 0.94	No important DIF was found when controlling for age and dataset	**LYMPH-Q** Appearance: 0.41 Function: 0.33 Information: 0.36 Psychological: 0.42 Symptoms: 0.37	

			(n = 2,900; 90%)					
LYMPH-Q - Function Klassen et al. 2021 (66)	**Cancer patients (n = 3,222)** Breast (n = 3,222; 100%)	NS	Female (n = 3,222; 100%) <50 years (n = 322; 10%) ≥50 years (n = 2,900; 90%)		α: 0.92-0.94 test-retest ICC: 0.95	No important DIF was found when controlling for age and dataset	**LYMPH-Q** Appearance: 0.50 Arm sleeve: 0.33 Information: 0.17 Psychological: 0.58 Symptoms: 0.77	
LYMPH-Q - Symptoms Klassen et al. 2021 (66)	**Cancer patients (n = 3,222)** Breast (n = 3,222; 100%)	NS	Female (n = 3,222; 100%) <50 years (n = 322; 10%) ≥50 years (n = 2,900; 90%)		α: 0.93 test-retest ICC: 0.92	No important DIF was found when controlling for age and dataset	**LYMPH-Q** Appearance: 0.59 Arm sleeve: 0.37 Function: 0.77 Information: 0.21 Psychological: 0.58	
PROMIS Fatigue Item bank Cella et al. 2016 (164)	**Mixed (n = 1,430):** Cancer patients (n = 310; 21.7%) Non-cancer patients (n = 1,120; 78.3%)	NS	NS					**Using General Health Anchor** **Better:** Mean change: -1.17 ± 5.97 **About the same:** Mean change: 0.00 ± 4.32 **Worse:** Mean change: 4.65 ± 6.03*
PROMIS Physical Function Item bank Condon et al. 2020 (91)	**Mixed (n = 2,400)** Cancer patients (n = 1,001; 41.7%) General population (n = 1,399; 58.3%)	NS	Female (n = 1,107; 46.1%) Male (n = 1,293; 53.9%)	**1-factor model** CFI: 0.963 TLI: 0.961 RMSEA: 0.107 SRMR: 0.056 **2-factor model** CFI: 0.982 TLI: 0.979 RMSEA: 0.078 SRMR: 0.025	α: 0.98	DIF analyses demonstrated no important differences on physical function item responses, or physical function score, across the studied recall periods (no recall, 24 hours or 7 days)		
ITEM BANKS – Mental Health								

BREAST-Q Breast conserving therapy – Psychosocial Well-being Fuzesi et al. 2017 (154)	**Cancer patients (n = 3,497)** Breast (n = 3,497; 100%)	Stage I (n = 1,886; 54%) Stage II (n = 986; 28%) Stage III (n = 180; 5%) Stage IV (n = 26; 1%) Unknown (n = 409; 12%)	Female (n = 3,497; 100%) 59.0 ± 8.9 years		α: 0.95		**PCL-C:** 0.55 **Impact of cancer (negative):** Appearance: 0.62 Body change: 0.48 Life interference: 0.50 Worry: 0.39 Overall: 0.57	
BREAST-Q Breast conserving therapy – Psychosocial Well-being Klassen et al. 2020 (57)	**Cancer patients (n = 3,125)** Breast (n = 3,125; 100%)	Stage 0 (n = 559; 18%) Stage I (n = 1,805; 58%) Stage II (n = 653; 21%) Stage III (n = 93; 3%) Stage IV (n = 15; <1%)	Female (n = 3,125; 100%) 57.1 ± 10.9 years		α: 0.96			
BREAST-Q Breast conserving therapy – Psychosocial Well-being Martinez-Perez et al. 2023 (155)	**Cancer patients (n = 113)** Breast (n = 113; 100%)	Stage 0 (n = 16; 14%) Stage I (n = 59; 52%) Stage II (n = 22; 20%) Stage III (n = 6; 5%) Stage IV (n = 1; 1%) Unknown (n = 9; 8%)	Female (n = 113; 100%) 57.0 ± 11.1 years		Electronic: α: 0.82 Paper: α: 0.88 Parallel forms: ICC: 0.97			
BREAST-Q Breast conserving therapy – Psychosocial Well-being Stolpner et al. 2019 (156)	**Cancer patients (n = 253)** Breast (n = 253; 100%)	NS	Female (n = 253; 100%) 57.8 ± 11.0 years		α: 0.94-0.95		**EORTC QLQ-C30** Physical functioning: 0.24-0.38 Role functioning: 0.30-0.36 Emotional functioning: 0.51-0.58 Cognitive functioning: 0.42 Social functioning: 0.41-0.49 Fatigue: 0.33-0.43 Pain: 0.20-0.33	

							Quality of life: 0.53-0.55 **EORTC QLQ-BR23** Body image: 0.53-0.72 Sexual functioning: 0.16-0.21 Sexual enjoyment: 0.27-0.35 Future perspective: 0.34-0.43 Breast symptoms: 0.19-0.42 Arm symptoms: 0.15-0.19	
BREAST-Q Breast Reconstruction – Psychosocial Well-being Cano et al. 2012 (98)	**Cancer patients (n = 358)** Breast (n = 358; 100%)	NS	Female (n = 358; 100%) NS		α: 0.96 ICC test-retest: 0.90		**SF-12** Physical component score: 0.30 Mental component score: 0.42 **EORTC QLQ-BR23** Body image: 0.72 Sexual functioning: 0.20 Breast symptoms: 0.34 **Body Image Scale:** 0.76 **BIBCQ** Body stigma scale: 0.73 Limitations: 0.53 Body concerns: 0.52	
BREAST-Q Breast Reconstruction – Psychosocial Well-being Fuzesi et al. 2017 (154)	**Cancer patients (n = 1,956)** Breast (n = 1,956; 100%)	Stage I (n = 884; 45%) Stage II (n = 611; 31%) Stage III (n = 177; 9%) Stage IV (n = 23; 1%) Unknown (n = 261; 13%)	Female (n = 1,956; 100%) 55.0 ± 9.3 years		α: 0.96		**PCL-C:** 0.59 **Impact of cancer (negative):** Appearance: 0.71 Body change: 0.54 Life interference: 0.56 Worry: 0.42 Overall: 0.63	
BREAST-Q Breast Reconstruction – Psychosocial Well-being Pusic et al. 2009	**Cancer patients (n = 790)** Breast (n = 790; 100%)	NS	Female (n = 790; 100%) NS		α: 0.95 test-retest ICC: 0.93			
BREAST-Q Cancer Worry Klassen et al. 2021 (62)	**Cancer patients (n = 1,680)** Breast (n = 1,680; 100%)	Stage 0 (n = 296; 17.6%) Stage I (n = 591; 35.2%) Stage II	Female (n = 1,680; 100%) 62 years		α: 0.90-0.91 test-retest ICC: 0.92	No important DIF was found for age and time since diagnosis.	**BREAST-Q:** Fatigue item bank: 0.39 Impact on work item bank: 0.34	

		(n = 510; 30.4%) Stage III (n = 218; 13.0%) Stage IV (n = 33; 2.0%) Missing (n = 32; 1.9%)						
BREAST-Q Mastectomy – Psychosocial Well-being Fuzesi et al. 2017 (154)	**Cancer patients (n = 1,295)** Breast (n = 1,295; 100%)	Stage I (n = 385; 30%) Stage II (n = 428; 33%) Stage III (n = 281; 22%) Stage IV (n = 41; 3%) Unknown (n = 160; 12%)	Female (n = 1,295; 100%) 61.0 ± 9.2 years		α: 0.95		**PCL-C:** 0.62 **Impact of cancer (negative):** Appearance: 0.70 Body change: 0.54 Life interference: 0.60 Worry: 0.51 Overall: 0.67	
BREAST-Q Mastectomy – Psychosocial Well-being Olasehinde et al. 2024 (158)	**Cancer patients (n = 21)** Breast (n = 21; 100%)	NS	Female (n = 21; 100%) Median: 54 years (range: 40-79)		α: 0.84-0.87 test-retest ICC: 0.59		**EORTC QLQ-BR23** Body image: 0.56-0.68	
BREAST-Q Psychosocial Well-being Saiga et al. 2017 (159)	**Cancer patients (n = 44)** Breast (n = 44; 100%)	Stage 0 (n = 3; 7%) Stage I (n = 12; 27%) Stage II (n = 17; 39%) Stage III (n = 8; 18%) Stage IV (n = 1; 2%) Unknown (n = 3; 7%)	Female (n = 44; 100%) 61.8 years		α: 0.94 test-retest ICC: 0.95		**EORTC QLQ-BR23** Body image: 0.54 Breast symptoms: 0.30 Arm symptoms: 0.41 Sexual functioning: 0.14 **FACT-Breast** Physical well-being: 0.40 Social well-being: 0.35 Emotional well-being: 0.46 Functional well-being: 0.52 Sexually attractive: 0.70 Feel like a woman: 0.51 **QOL-ACD** Physical symptom & pain: 0.42 Satisfaction with care/Coping with disease: 0.35 Item 15: 0.58	

							Item 16: 0.58	
BREAST-Q Psychosocial Well-being Shunnmugam et al. 2023 (160)	**Cancer patients (n = 144)** Breast (n = 144; 100%)	Stage I (n = 30; 21%) Stage II (n = 59; 41%) Stage III (n = 52; 36%) Stage IV (n = 3; 2%)	Female (n = 144; 100%) <51 years (71; 49%) ≥51 years (n = 73; 51%)	CFI: 0.89 TLI: 0.85 GFI: 0.82 RMSEA: 0.16	α: 0.83 test-retest ICC: 0.87-0.94			
FACE-Q Head & neck cancer – Distress - Appearance Cracchiolo et al. 2019 (64)	**Cancer patients (n = 219)** Head & neck (n = 219; 100%)	NS	Female (n = 75; 34%) Male (n = 144; 66%) <60 years (n = 80; 36%) >60 years (n = 139; 64%)		α: 0.94 test-retest ICC: 0.97			
FACE-Q Head & neck cancer – Distress – Appearance Venchiarutti et al. 2023 (162)	**Cancer patients (n = 218)** Head & neck (n = 218; 100%)	Stage I (n = 31; 14%) Stage II (n = 32; 15%) Stage III (n = 14; 6%) Stage IV (n = 89; 41%) Stage Tx (n = 50; 23%)	Female (n = 115; 53%) Male (n = 103; 47%) 60.1 years				**MDADI** Emotional: 0.45 Functional: 0.41 Physical: 0.33 Global: 0.44 Composite: 0.41 **SHI** Speech: 0.36 Psychosocial: 0.47 Total: 0.41	
FACE-Q Head & neck cancer – Distress – Cancer worry Cracchiolo et al. 2019 (64)	**Cancer patients (n = 219)** Head & neck (n = 219; 100%)	NS	Female (n = 75; 34%) Male (n = 144; 66%) <60 years (n = 80; 36%) >60 years (n = 139; 64%)		α: 0.90 test-retest ICC: 0.90			
FACE-Q Head & neck cancer –	**Cancer patients (n = 219)** Head & neck (n = 219; 100%)	NS	Female (n = 75; 34%) Male		α: 0.95 test-retest ICC: 0.91			

Distress - Drooling Cracchiolo et al. 2019 (64)			(n = 144; 66%) <60 years (n = 80; 36%) >60 years (n = 139; 64%)					
FACE-Q Head & neck cancer – Distress – Drooling Venchiarutti et al. 2023 (162)	**Cancer patients (n = 218)** Head & neck (n = 218; 100%)	Stage I (n = 31; 14%) Stage II (n = 32; 15%) Stage III (n = 14; 6%) Stage IV (n = 89; 41%) Stage Tx (n = 50; 23%)	Female (n = 115; 53%) Male (n = 103; 47%) 60.1 years				**MDADI** Emotional: 0.62 Functional: 0.53 Physical: 0.59 Global: 0.53 Composite: 0.63 **SHI** Speech: 0.56 Psychosocial: 0.57 Total: 0.57	
FACE-Q Head & neck cancer – Distress - Eating Cracchiolo et al. 2019 (64)	**Cancer patients (n = 219)** Head & neck (n = 219; 100%)	NS	Female (n = 75; 34%) Male (n = 144; 66%) <60 years (n = 80; 36%) >60 years (n = 139; 64%)		α: 0.92 test-retest ICC: 0.96			
FACE-Q Head & neck cancer – Distress – Eating Venchiarutti et al. 2023 (162)	**Cancer patients (n = 218)** Head & neck (n = 218; 100%)	Stage I (n = 31; 14%) Stage II (n = 32; 15%) Stage III (n = 14; 6%) Stage IV (n = 89; 41%) Stage Tx (n = 50; 23%)	Female (n = 115; 53%) Male (n = 103; 47%) 60.1 years				**MDADI** Emotional: 0.74 Functional: 0.67 Physical: 0.67 Global: 0.61 Composite: 0.73 **SHI** Speech: 0.63 Psychosocial: 0.68 Total: 0.67	
FACE-Q Head & neck cancer – Distress - Smiling Cracchiolo et al. 2019 (64)	**Cancer patients (n = 219)** Head & neck (n = 219; 100%)	NS	Female (n = 75; 34%) Male (n = 144; 66%)		α: 0.93 test-retest ICC: 0.87			

			<60 years (n = 80; 36%) >60 years (n = 139; 64%)					
FACE-Q Head & neck cancer – Distress – Smiling Venchiarutti et al. 2023 (162)	**Cancer patients (n = 218)** Head & neck (n = 218; 100%)	Stage I (n = 31; 14%) Stage II (n = 32; 15%) Stage III (n = 14; 6%) Stage IV (n = 89; 41%) Stage Tx (n = 50; 23%)	Female (n = 115; 53%) Male (n = 103; 47%) 60.1 years				**MDADI** Emotional: 0.49 Functional: 0.37 Physical: 0.36 Global: 0.40 Composite: 0.42 **SHI** Speech: 0.43 Psychosocial: 0.52 Total: 0.48	
FACE-Q Head & neck cancer – Distress - Speaking Cracchiolo et al. 2019 (64)	**Cancer patients (n = 219)** Head & neck (n = 219; 100%)	NS	Female (n = 75; 34%) Male (n = 144; 66%) <60 years (n = 80; 36%) >60 years (n = 139; 64%)		α: 0.95 test-retest ICC: 0.95			
FACE-Q Head & neck cancer – Distress – Speaking Venchiarutti et al. 2023 (162)	**Cancer patients (n = 218)** Head & neck (n = 218; 100%)	Stage I (n = 31; 14%) Stage II (n = 32; 15%) Stage III (n = 14; 6%) Stage IV (n = 89; 41%) Stage Tx (n = 50; 23%)	Female (n = 115; 53%) Male (n = 103; 47%) 60.1 years				**MDADI** Emotional: 0.60 Functional: 0.54 Physical: 0.57 Global: 0.53 Composite: 0.61 **SHI** Speech: 0.81 Psychosocial: 0.83 Total: 0.84	
FACE-Q Skin cancer – Distress - Appearance Lee et al. 2018 (65)	**Cancer patients (n = 209)** Skin (n = 209; 100%)	NS	Female (n = 113; 54%) Male (n = 96; 46%) 64 years		α: 0.93 test-retest ICC: 0.98			**ES:** -0.1

FACE-Q Skin cancer – Distress – Cancer worry Dobbs et al. 2021 (84)	**Cancer patients (n = 110)** Skin (n = 110; 100%)	NS	Female (n = 44; 40%) Male (n = 66; 60%) 72 ± 12 years		α: 0.87-0.97		**FACE-Q** Satisfaction with facial appearance: 0.29 **SCI** Emotional: 0.76 Social: 0.56	**ES:** 0.220
FACE-Q Skin cancer – Distress – Cancer worry Dobbs et al. 2022 (163)	**Cancer patients (n = 239)** Skin (n = 239; 100%)	NS	Female (n = 120; 50%) Male (n = 119; 50%) 71.4 ± 12.5 years		α: 0.94		**SCI** Emotional: 0.68 Social: 0.53	
FACE-Q Skin cancer – Distress - Cancer worry Lee et al. 2018 (65)	**Cancer patients (n = 209)** Skin (n = 209; 100%)	NS	Female (n = 113; 54%) Male (n = 96; 46%) 64 years		α: 0.93 test-retest ICC: 0.76		**FACE-Q** Satisfaction with facial appearance: 0.18 Appraisal of scars: 0.27	**ES:** 0.46
LYMPH-Q - Psychological Klassen et al. 2021 (66)	**Cancer patients (n = 3,222)** Breast (n = 3,222; 100%)	NS	Female (n = 3,222; 100%) <50 years (n = 322; 10%) ≥50 years (n = 2,900; 90%)		α: 0.91-0.93 test-retest ICC: 0.94	No important DIF was found when controlling for age and dataset	**LYMPH-Q** Appearance: 0.56 Arm sleeve: 0.42 Function: 0.58 Information: 0.25 Symptoms: 0.62	
PROMIS Cognitive Function Item bank Lai et al. 2014 (72)	**Cancer patients/survivors (n = 509)** Breast (n = 142; 27.9%) Colorectal (n = 93; 18.2%) Prostate (n = 80; 15.7%) Lung (n = 53; 10.4%) Others (n = 141; 27.7%)	Average time since diagnosis: 56.9 months	Female (n = 256; 50.2%) Male (n = 253; 49.8%) 60.6 ± 11.8 years	CFI: 0.92 RMSEA: 0.084	α: 0.97		**PROMIS** Physical function: 0.44 Mental health: 0.56 **FACT-Cog** Interference with QoL: 0.61-0.68 Comments from others: 0.44-0.58 **EORTC QLQ-C30** Cognitive functioning: 0.60-0.72	
PROMIS Cognitive Function – Abilities Item bank	**Cancer patients/survivors (n = 509)** Breast (n = 142; 27.9%) Colorectal (n = 93; 18.2%) Prostate (n = 80; 15.7%) Lung (n = 53; 10.4%) Others (n = 141; 27.7%)	Average time since diagnosis: 56.9 months	Female (n = 256; 50.2%) Male (n = 253; 49.8%) 60.6 ± 11.8 years	CFI: 0.94 RMSEA: 0.113	α: 0.98		**PROMIS** Physical function: 0.46 Mental health: 0.60 **FACT-Cog** Interference with QoL: 0.58-0.64	

Lai et al. 2014 (72)							Comments from others: 0.41-0.51 **EORTC QLQ-C30** Cognitive functioning: 0.58-0.66	
Psychological distress Item bank Smith et al. 2006 (165)	**Cancer patients (n = 4,910)** Breast (n = 1,270; 25.9%) Gastrointestinal (n = 1,086; 22.1%) Gynecological (n = 709; 14.4%) Urogenital (n = 580; 11.8%) Prostate (n = 312; 6.4%) Testicular (n = 245; 5.0%) Others (n = 576; 11.7%) Missing (n = 132; 2.7%)	NS	Female (n = 3,006; 61%) Male (n = 1,826; 37%) Missing (n = 78; 2%) 59.4 years		α: 0.84			
Psychological distress Item bank Smith et al. 2009 (79)	**Cancer patients (n = 4,910)** Breast (n = 1,270; 25.9%) Gastrointestinal (n = 1,086; 22.1%) Gynecological (n = 709; 14.4%) Genitourinary (n = 580; 11.8%) Prostate (n = 312; 6.4%) Testicular (n = 245; 5.0%) Others (n = 576; 11.7%) Missing (n = 132; 2.7%)	NS	Female (n = 3,006; 61%) Male (n = 1,826; 37%) Missing (n = 78; 2%) 59.4 years			No important DIF was found for age and gender.		
Psychological distress for cancer survivors Item bank Smith et al. 2013 (80)	**Sample 1:** **Cancer patients (n = 4,910)** Breast (n = 1,270; 25.9%) Gastrointestinal (n = 1,086; 22.1%) Gynecological (n = 709; 14.4%) Genitourinary (n = 580; 11.8%) Prostate (n = 312; 6.4%) Testicular (n = 245; 5.0%) Others (n = 576; 11.7%) Missing (n = 132; 2.7%) **Sample 2:** **Cancer survivors (n = 1,425)** Breast (n = 801; 56.2%) Prostate (n = 330; 23.2%) Colorectal (n = 127; 8.9%) Gynecological (n = 90; 6.3%) Non-Hodgkin (n = 65; 4.6%)	NS	**Sample 1:** Female (n = 3,006; 61%) Male (n = 1,826; 37%) Missing (n = 78; 2%) 59.4 years **Sample 2:** Female (n = 985; 69%) Male (n = 430; 30%) Missing (n = 10; 1%)		α: 0.83-0.99			

	Missing (n = 12; 1%)		61 years					
ITEM BANKS – Social Health								
BREAST-Q Breast conserving therapy – Satisfaction with information Fuzesi et al. 2017 (154)	**Cancer patients (n = 3,497)** Breast (n = 3,497; 100%)	Stage I (n = 1,886; 54%) Stage II (n = 986; 28%) Stage III (n = 180; 5%) Stage IV (n = 26; 1%) Unknown (n = 409; 12%)	Female (n = 3,497; 100%) 59.0 ± 8.9 years		α: 0.93		**PCL-C:** 0.31 **Impact of cancer (negative):** Appearance: 0.41 Body change: 0.26 Life interference: 0.28 Worry: 0.22 Overall: 0.33	
BREAST-Q Breast conserving therapy – Satisfaction with information Klassen et al. 2020 (57)	**Cancer patients (n = 3,125)** Breast (n = 3,125; 100%)	Stage 0 (n = 559; 18%) Stage I (n = 1,805; 58%) Stage II (n = 653; 21%) Stage III (n = 93; 3%) Stage IV (n = 15; <1%)	Female (n = 3,125; 100%) 57.1 ± 10.9 years		α: 0.95			
BREAST-Q Breast conserving therapy – Satisfaction with information Stolpner et al. 2019 (156)	**Cancer patients (n = 253)** Breast (n = 253; 100%)	NS	Female (n = 253; 100%) 57.8 ± 11.0 years		α: 0.96		**EORTC QLQ-C30** Physical functioning: 0.30 Role functioning: 0.24 Emotional functioning: 0.34 Cognitive functioning: 0.34 Social functioning: 0.39 Fatigue: 0.29 Pain: 0.29 Quality of life: 0.39 **EORTC QLQ-BR23** Body image: 0.26 Sexual functioning: 0.19 Sexual enjoyment: 0.28 Future perspective: 0.29 Breast symptoms: 0.31 Arm symptoms: 0.25	
BREAST-Q Breast Reconstruction –	**Cancer patients (n = 358)** Breast (n = 358; 100%)	NS	Female (n = 358; 100%)		α: 0.94		**SF-12** Physical component score: 0.24	

Satisfaction with information Cano et al. 2012 (98)			NS		ICC test-retest: 0.93		Mental component score: 0.27 **EORTC QLQ-BR23** Body image: 0.50 Sexual functioning: 0.19 Breast symptoms: 0.27 **Body Image Scale:** 0.57 **BIBCQ** Body stigma scale: 0.57 Limitations: 0.38 Body concerns: 0.47	
BREAST-Q Breast Reconstruction – Satisfaction with information Fuzesi et al. 2017 (154)	**Cancer patients (n = 1,956)** Breast (n = 1,956; 100%)	Stage I (n = 884; 45%) Stage II (n = 611; 31%) Stage III (n = 177; 9%) Stage IV (n = 23; 1%) Unknown (n = 261; 13%)	Female (n = 1,956; 100%) 55.0 ± 9.3 years		α: 95		**PCL-C:** 0.23 **Impact of cancer (negative):** Appearance: 0.26 Body change: 0.18 Life interference: 0.18 Worry: 0.14 Overall: 0.21	
BREAST-Q Breast Reconstruction - Satisfaction with information Pusic et al. 2009 (61)	**Cancer patients (n = 790)** Breast (n = 790; 100%)	NS	Female (n = 790; 100%) NS		α: 0.94 test-retest ICC: 0.89			
BREAST-Q Impact on Work Klassen et al. 2021 (62)	**Cancer patients (n = 1,680)** Breast (n = 1,680; 100%)	Stage 0 (n = 296; 17.6%) Stage I (n = 591; 35.2%) Stage II (n = 510; 30.4%) Stage III (n = 218; 13.0%) Stage IV (n = 33; 2.0%) Missing (n = 32; 1.9%)	Female (n = 1,680; 100%) 62 years		α: 0.89-0.95 test-retest ICC: 0.83	No important DIF was found for age and time since diagnosis.	**BREAST-Q:** Cancer worry item bank: 0.34 Fatigue item bank: 0.52	

BREAST-Q Satisfaction with medical team Cano et al. 2012 (98)	**Cancer patients (n = 358)** Breast (n = 358; 100%)	NS	Female (n = 358; 100%) NS		α: 0.96 ICC test-retest: 0.89			
BREAST-Q Satisfaction with medical team Fuzesi et al. 2017 (154)	**Cancer patients (n = 6,748)** Breast (n = 6,748; 100%)	Stage I (n = 3,155; 47%) Stage II (n = 2,025; 30%) Stage III (n = 638; 9%) Stage IV (n = 90; 1%) Unknown (n = 840; 12%)	Female (n = 6,748; 100%) 58.0 ± 9.4 years		α: 0.96			
BREAST-Q Satisfaction with medical team Klassen et al. 2020 (57)	**Cancer patients (n = 3,125)** Breast (n = 3,125; 100%)	Stage 0 (n = 559; 18%) Stage I (n = 1,805; 58%) Stage II (n = 653; 21%) Stage III (n = 93; 3%) Stage IV (n = 15; <1%)	Female (n = 3,125; 100%) 57.1 ± 10.9 years		α: 0.95			
BREAST-Q Satisfaction with medical team Olasehinde et al. 2024 (158)	**Cancer patients (n = 21)** Breast (n = 21; 100%)	NS	Female (n = 21; 100%) Median: 54 years (range: 40-79)		α: 0.89			
BREAST-Q Satisfaction with medical team Pusic et al. 2009 (61)	**Cancer patients (n = 790)** Breast (n = 790; 100%)	NS	Female (n = 790; 100%) NS		α: 0.96 test-retest ICC: 0.92			
BREAST-Q Satisfaction with medical team Saiga et al. 2017 (159)	**Cancer patients (n = 44)** Breast (n = 44; 100%)	Stage 0 (n = 3; 7%) Stage I (n = 12; 27%) Stage II	Female (n = 44; 100%) 61.8 years		α: 0.95 test-retest ICC: 0.88		**EORTC QLQ-BR23** Body image: 0.14 Breast symptoms: 0.27 Arm symptoms: 0.00 Sexual functioning: 0.04	

		(n = 17; 39%) Stage III (n = 8; 18%) Stage IV (n = 1; 2%) Unknown (n = 3; 7%)					**FACT-Breast** Physical well-being: 0.10 Social well-being: 0.47 Emotional well-being: 0.03 Functional well-being: 0.11 Sexually attractive: 0.02 Feel like a woman: 0.08 **QOL-ACD** Physical symptom & pain: 0.14 Satisfaction with care/Coping with disease: 0.73 Item 15: 0.05 Item 16: 0.05	
BREAST-Q Satisfaction with medical team Stolpner et al. 2019 (156)	**Cancer patients (n = 253)** Breast (n = 253; 100%)	NS	Female (n = 253; 100%) 57.8 ± 11.0 years		α: 0.92		**EORTC QLQ-C30** Physical functioning: 0.21 Role functioning: 0.16 Emotional functioning: 0.25 Cognitive functioning: 0.19 Social functioning: 0.23 Fatigue: 0.25 Pain: 0.09 Quality of life: 0.29 **EORTC QLQ-BR23** Body image: 0.20 Sexual functioning: 0.08 Sexual enjoyment: 0.15 Future perspective: 0.19 Breast symptoms: 0.21 Arm symptoms: 0.10	
BREAST-Q Satisfaction with office staff Cano et al. 2012 (98)	**Cancer patients (n = 358)** Breast (n = 358; 100%)	NS	Female (n = 358; 100%) NS		α: 0.96 ICC test-retest: 0.82			
BREAST-Q Satisfaction with office staff Fuzesi et al. 2017 (154)	**Cancer patients (n = 6,748)** Breast (n = 6,748; 100%)	Stage I (n = 3,155; 47%) Stage II (n = 2,025; 30%) Stage III (n = 638; 9%)	Female (n = 6,748; 100%) 58.0 ± 9.4 years		α: 0.96			

		Stage IV (n = 90; 1%) Unknown (n = 840; 12%)						
BREAST-Q Satisfaction with office staff Klassen et al. 2020 (57)	**Cancer patients (n = 3,125)** Breast (n = 3,125; 100%)	Stage 0 (n = 559; 18%) Stage I (n = 1,805; 58%) Stage II (n = 653; 21%) Stage III (n = 93; 3%) Stage IV (n = 15; <1%)	Female (n = 3,125; 100%) 57.1 ± 10.9 years		α: 0.96			
BREAST-Q Satisfaction with office staff Olasehinde et al. 2024 (158)	**Cancer patients (n = 21)** Breast (n = 21; 100%)	NS	Female (n = 21; 100%) Median: 54 years (range: 40-79)		α: 0.93			
BREAST-Q Satisfaction with office staff Pusic et al. 2009 (61)	**Cancer patients (n = 790)** Breast (n = 790; 100%)	NS	Female (n = 790; 100%) NS		α: 0.96 test-retest ICC: 0.87			
BREAST-Q Satisfaction with office staff Saiga et al. 2017 (159)	**Cancer patients (n = 44)** Breast (n = 44; 100%)	Stage 0 (n = 3; 7%) Stage I (n = 12; 27%) Stage II (n = 17; 39%) Stage III (n = 8; 18%) Stage IV (n = 1; 2%) Unknown (n = 3; 7%)	Female (n = 44; 100%) 61.8 years		α: 0.98 test-retest ICC: 0.80		**EORTC QLQ-BR23** Body image: 0.12 Breast symptoms: 0.17 Arm symptoms: 0.05 Sexual functioning: 0.07 **FACT-Breast** Physical well-being: 0.04 Social well-being: 0.40 Emotional well-being: 0.10 Functional well-being: 0.00 Sexually attractive: 0.11 Feel like a woman: 0.20 **QOL-ACD** Physical symptom & pain: 0.04 Satisfaction with care/Coping with disease: 0.60	

							Item 15: 0.09 Item 16: 0.09	
BREAST-Q Satisfaction with office staff Stolpner et al. 2019 (156)	**Cancer patients (n = 253)** Breast (n = 253; 100%)	NS	Female (n = 253; 100%) 57.8 ± 11.0 years		α: 0.95		**EORTC QLQ-C30** Physical functioning: 0.19 Role functioning: 0.13 Emotional functioning: 0.26 Cognitive functioning: 0.16 Social functioning: 0.25 Fatigue: 0.19 Pain: 0.10 Quality of life: 0.27 **EORTC QLQ-BR23** Body image: 0.27 Sexual functioning: 0.13 Sexual enjoyment: 0.14 Future perspective: 0.17 Breast symptoms: 0.14 Arm symptoms: 0.06	
BREAST-Q Satisfaction with surgeon Cano et al. 2012 (98)	**Cancer patients (n = 358)** Breast (n = 358; 100%)	NS	Female (n = 358; 100%) NS		α: 0.97 ICC test-retest: 0.95			
BREAST-Q Satisfaction with surgeon Fuzesi et al. 2017 (154)	**Cancer patients (n = 6,748)** Breast (n = 6,748; 100%)	Stage I (n = 3,155; 47%) Stage II (n = 2,025; 30%) Stage III (n = 638; 9%) Stage IV (n = 90; 1%) Unknown (n = 840; 12%)	Female (n = 6,748; 100%) 58.0 ± 9.4 years		α: 0.97			
BREAST-Q Satisfaction with surgeon Klassen et al. 2020 (57)	**Cancer patients (n = 3,125)** Breast (n = 3,125; 100%)	Stage 0 (n = 559; 18%) Stage I (n = 1,805; 58%) Stage II (n = 653; 21%) Stage III	Female (n = 3,125; 100%) 57.1 ± 10.9 years		α: 0.96			

		(n = 93; 3%) Stage IV (n = 15; <1%)						
BREAST-Q Satisfaction with surgeon Pusic et al. 2009 (61)	**Cancer patients (n = 790)** Breast (n = 790; 100%)	NS	Female (n = 790; 100%) NS		α: 0.97 test-retest ICC: 0.95			
BREAST-Q Satisfaction with surgeon Saiga et al. 2017 (159)	**Cancer patients (n = 44)** Breast (n = 44; 100%)	Stage 0 (n = 3; 7%) Stage I (n = 12; 27%) Stage II (n = 17; 39%) Stage III (n = 8; 18%) Stage IV (n = 1; 2%) Unknown (n = 3; 7%)	Female (n = 44; 100%) 61.8 years		α: 0.97 test-retest ICC: 0.92		**EORTC QLQ-BR23** Body image: 0.29 Breast symptoms: 0.14 Arm symptoms: 0.07 Sexual functioning: 0.03 **FACT-Breast** Physical well-being: 0.20 Social well-being: 0.37 Emotional well-being: 0.11 Functional well-being: 0.18 Sexually attractive: 0.11 Feel like a woman: 0.11 **QOL-ACD** Physical symptom & pain: 0.19 Satisfaction with care/Coping with disease: 0.65 Item 15: 0.18 Item 16: 0.18	
BREAST-Q Satisfaction with surgeon Stolpner et al. 2019 (156)	**Cancer patients (n = 253)** Breast (n = 253; 100%)	NS	Female (n = 253; 100%) 57.8 ± 11.0 years		α: 0.97		**EORTC QLQ-C30** Physical functioning: 0.16 Role functioning: 0.14 Emotional functioning: 0.35 Cognitive functioning: 0.24 Social functioning: 0.24 Fatigue: 0.18 Pain: 0.10 Quality of life: 0.31 **EORTC QLQ-BR23** Body image: 0.26 Sexual functioning: 0.09 Sexual enjoyment: 0.13 Future perspective: 0.23	

							Breast symptoms: 0.18 Arm symptoms: 0.08	
CPIB Item bank Eadie et al. 2014 (166)	**Cancer patients (n = 195)** Head & neck (n = 195; 100%)	NS	Female (n = 76; 38%) Male (n = 119; 62%) 61.3 ± 12.3 years				**UW-QoL** Physical: 0.37 Social-emotional: 0.37 Global: 0.38 **VHI-10:** 0.79	
FACE-Q Head & neck cancer – Satisfaction with information Cracchiolo et al. 2019 (64)	**Cancer patients (n = 219)** Head & neck (n = 219; 100%)	NS	Female (n = 75; 34%) Male (n = 144; 66%) <60 years (n = 80; 36%) >60 years (n = 139; 64%)		α: 0.96 test-retest ICC: 0.96			
FACE-Q Skin cancer – Satisfaction with clerical staff Dobbs et al. 2021 (84)	**Cancer patients (n = 110)** Skin (n = 110; 100%)	NS	Female (n = 44; 40%) Male (n = 66; 60%) 72 ± 12 years		α: 0.87-0.97			**ES:** 0.054
FACE-Q Skin cancer – Satisfaction with clerical staff Dobbs et al. 2022 (163)	**Cancer patients (n = 239)** Skin (n = 239; 100%)	NS	Female (n = 120; 50%) Male (n = 119; 50%) 71.4 ± 12.5 years		α: 0.96			
FACE-Q Skin cancer – Satisfaction with information Dobbs et al. 2021 (84)	**Cancer patients (n = 110)** Skin (n = 110; 100%)	NS	Female (n = 44; 40%) Male (n = 66; 60%) 72 ± 12 years		α: 0.87-0.97			**ES:** 0.004
FACE-Q Skin cancer – Satisfaction with information	**Cancer patients (n = 239)** Skin (n = 239; 100%)	NS	Female (n = 120; 50%) Male (n = 119; 50%)		α: 0.93			

Dobbs et al. 2022 (163)			71.4 ± 12.5 years					
FACE-Q Skin cancer – Satisfaction with information (appearance) Dobbs et al. 2021 (84)	**Cancer patients (n = 110)** Skin (n = 110; 100%)	NS	Female (n = 44; 40%) Male (n = 66; 60%) 72 ± 12 years		α: 0.87-0.97		**SCI** Appearance: 0.36	**ES:** 0.024
FACE-Q Skin cancer – Satisfaction with information (appearance) Dobbs et al. 2022 (163)	**Cancer patients (n = 239)** Skin (n = 239; 100%)	NS	Female (n = 120; 50%) Male (n = 119; 50%) 71.4 ± 12.5 years		α: 0.96			
FACE-Q Skin cancer – Satisfaction with information (appearance) Lee et al. 2018 (65)	**Cancer patients (n = 209)** Skin (n = 209; 100%)	NS	Female (n = 113; 54%) Male (n = 96; 46%) 64 years		α: 0.95 test-retest ICC: 0.93			
FACE-Q Skin cancer – Satisfaction with surgeon Dobbs et al. 2021 (84)	**Cancer patients (n = 110)** Skin (n = 110; 100%)	NS	Female (n = 44; 40%) Male (n = 66; 60%) 72 ± 12 years		α: 0.87-0.97			**ES:** 0.048
FACE-Q Skin cancer – Satisfaction with surgeon Dobbs et al. 2022 (163)	**Cancer patients (n = 239)** Skin (n = 239; 100%)	NS	Female (n = 120; 50%) Male (n = 119; 50%) 71.4 ± 12.5 years		α: 0.93			
FACE-Q Skin cancer – Satisfaction with ward team	**Cancer patients (n = 110)** Skin (n = 110; 100%)	NS	Female (n = 44; 40%) Male (n = 66; 60%)		α: 0.87-0.97			**ES:** 0.051

Dobbs et al. 2021 (84)			72 ± 12 years					
FACE-Q Skin cancer – Satisfaction with ward team Dobbs et al. 2022 (163)	**Cancer patients (n = 239)** Skin (n = 239; 100%)	NS	Female (n = 120; 50%) Male (n = 119; 50%) 71.4 ± 12.5 years		α: 0.95			
LYMPH-Q - Information Klassen et al. 2021 (66)	**Cancer patients (n = 3,222)** Breast (n = 3,222; 100%)	NS	Female (n = 3,222; 100%) <50 years (n = 322; 10%) ≥50 years (n = 2,900; 90%)		α: 0.92-0.95 test-retest ICC: 0.92	No important DIF was found when controlling for age and dataset	**LYMPH-Q** Appearance: 0.22 Arm sleeve: 0.36 Function: 0.17 Psychological: 0.25 Symptoms: 0.21	

Abbreviations: α, Cronbach alpha; AIC, Akaike's Information Criterion; AVLT, Auditory Verbal Learning Test; BDI-II, Beck Depression Inventory-II; BSI, Brief Symptom Inventory; GSI, Global Severity Index; CES-D, Center for Epidemiological Studies Depression Scale; CFI, Comparative Fit Index; COWAT, Controlled Oral Word Association Test; DASS, Depression Anxiety and Stress Scale; DIF, Differential Item Functioning; DT, Distress Thermometer; ECOG, Eastern Cooperative Oncology Group; ENRICH, Economic StraiN and Resilience in Cancer; EORTC QLQ-C30, European Organisation for Research and Treatment of Cancer Quality of Life Core Questionnaire 30 items; EORTC QLQ-H&N35, European Organisation for Research and Treatment of Cancer Quality of Life Head and Neck Module 35 items; EQ-5D, EuroQol-5 Dimensions; FACIT, Functional Assessment of Chronic Illness Therapy; SP, Spirituality subscale; FACT: Functional Assessment of Cancer Therapy; Cog: Cognitive Function; FSFI, Female Sexual Function Index; FSI, Fatigue Symptom Inventory; GAD-7, Generalised Anxiety Disorder 7; HADS, Hospital Anxiety and Depression Scale; ICC, Intraclass Correlation Coefficient; IES, Impact of Event Scale; IIEF, International Index of Erectile Function; ISI, Insomnia Severity Index; KPS, Karnofsky Performance Scale; LEFS, Lower Extremity Function Scale; MDADI, MD Anderson Depression Inventory; MDASI, M.D. Anderson Symptom Inventory; MFSI: Multidimensional Fatigue Symptom Inventory; MIC, Minimal Important Change; MOS-SS, Medical Outcomes Study – Social Support; MTSS, Musculoskeletal Tumor Society Score; n, number; NATCSS, North American Thyroid Cancer Survivorship Study; NDI, Neck Disability Index; Neuro-QoL, Quality of Life in Neurological Disorders; NNFI, Non-Normed Fit Index; NRS, Numeric Rating Scale; NS, Not Specified; Ω, McDonald's Omega; ODI, Oswestry Disability Index; PCSI, Prostate Cancer Symptom Indexes; PHQ-9, Patient Health Questionnaire-9; POMS, Profile of Mood States; PRO-CTCAE, Patient-Reported Outcomes version of the Common Terminology Criteria for Adverse Events; PROM, Patient-reported Outcome Measure; PSQ, Patient Satisfaction Questionnaire; PSS, Perceived Stress Scale; PSYCH-6, 6-item psychological symptom subscale of the Somatic Psychological Health Report; QoL, Quality of Life; RCI, Reliable Change Index; RMR, Root Mean Square Residual; RMSEA, Root Mean Square Error of Approximation; SD, Standard Deviation; SE, Standard Error; SF-36, Medical Outcomes Study Short Form; SOSG-OQ, Spine Oncology Study Group Outcome Questionnaire; SRMR, Standardized Root Mean Square Residual; STAI, State Trait Anxiety Inventory; TESS, Toronto Extremity Salvage Score; LE, lower extremity; UE, upper extremity; TLI, Tucker-Lewis Index; UWQoL, University of Washington Quality of Life; UCLA, University of California, Los Angeles; VHI-10, Voice Handicap Index 10 items; WRMR, Weighted Root Mean Square Residuals. *p < 0.001

Table 5 Interpretability and feasibility.

PROM	Cancer population	Interpretability			Feasibility & Acceptability		
		Measurement precision	Floor/ceiling effects	Cut-off MIC/MID	Patient's/Clinicians comprehensibility user experience	Length of the instrument	Completion rate/ time
COMPUTERIZED ADAPTIVE TESTING (CAT) – Overall QoL							
THYCAT Aschebrook-Kilfoy et al. 2018 (29)	**Cancer patients/Survivors (n = 1,077)** Thyroid cancer (n = 1,077; 100%)					No statistically significant differences in the number of questions required to create a robust THYCAT (correlation ≥ 0.96 with NATCSS 58-item survey) for patients of different ages, sexes, race/ethnicity, education, income, tumor subtype/stage, or time since diagnosis or treatment	
COMPUTERIZED ADAPTIVE TESTING (CAT) – Physical Health							
BREAST-Q Breast reconstruction - Satisfaction with breasts CAT Young-Afat et al. 2019 (97)	**Cancer survivors (n = 5,000)** Breast cancer (n = 5,000; 100%)	**Mean item reduction:** **SE 0.32:** 37.5% **SE 0.55:** 75%				**Average of used items:** **SE 0.32:** 10 items **SE 0.45:** 7 items **SE 0.55:** 4 items	
EORTC CAT Core Appetite Loss Marta et al. 2021 (108)	**Cancer patients (n = 169)** Breast (n = 65; 38.7%) Lung (n = 9; 5.4%) Prostate (n = 29; 17.3%) Ovary (n = 2; 1.2%) Other (n = 48; 28.6%)	**Relative information precision** (X times as much information as the EORTC QLQ-C30 score): 4.3 **Relative validity**: 1.18	Floor effect: 66.1% Ceiling effect: 0.6%				

EORTC CAT Core Appetite Loss Petersen et al. 2020 (109)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	**Relative information precision** (X times as much information as the EORTC QLQ-C30 score): 4.3 **Relative validity** (relative required sample size using EORTC CAT compared to EORTC QLQ-C30 to obtain the same power): 69-86%	Floor effect (relative reduction compared to EORTC QLQ-C30): 43% (17%) Ceiling effect (relative reduction compared to EORTC QLQ-C30): 0% (90%)				Median completion time needed per item: 8 seconds
EORTC CAT Core Constipation Marta et al. 2021 (108)	**Cancer patients (n = 169)** Breast (n = 65; 38.7%) Lung (n = 9; 5.4%) Prostate (n = 29; 17.3%) Ovary (n = 2; 1.2%) Other (n = 48; 28.6%)	**Relative information precision** (X times as much information as the EORTC QLQ-C30 score): 5.8 **Relative validity**: 1.14	Floor effect: 52.4% Ceiling effect: 1.2%				
EORTC CAT Core Constipation Petersen et al. 2020 (109)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	**Relative information precision** (X times as much information as the EORTC QLQ-C30 score): 7.1 **Relative validity** (relative required sample size using EORTC CAT compared to EORTC QLQ-C30 to obtain the same power): 73-89%	Floor effect (relative reduction compared to EORTC QLQ-C30): 49% (26%) Ceiling effect (relative reduction compared to EORTC QLQ-C30): 0% (93%)				Median completion time needed per item: 8 seconds
EORTC CAT Core Diarrhea Marta et al. 2021 (108)	**Cancer patients (n = 169)** Breast (n = 65; 38.7%) Lung (n = 9; 5.4%) Prostate (n = 29; 17.3%) Ovary (n = 2; 1.2%) Other (n = 48; 28.6%)	**Relative information precision** (X times as much information as the EORTC QLQ-C30 score): 2.6 **Relative validity**: 1.27	Floor effect: 82.7% Ceiling effect: 0.6%				
EORTC CAT Core Diarrhea Petersen et al. 2020 (109)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	**Relative information precision** (X times as much information as the EORTC QLQ-C30 score): 2.2 **Relative validity** (relative required sample size using EORTC CAT compared to	Floor effect (relative reduction compared to EORTC QLQ-C30): 72% (7%) Ceiling effect (relative reduction compared to EORTC QLQ-C30):				Median completion time needed per item: 8 seconds

		EORTC QLQ-C30 to obtain the same power): 52-88%	0% (100%)				
EORTC CAT Core Dyspnea Marta et al. 2021 (108)	**Cancer patients (n = 169)** Breast (n = 65; 38.7%) Lung (n = 9; 5.4%) Prostate (n = 29; 17.3%) Ovary (n = 2; 1.2%) Other (n = 48; 28.6%)	**Relative information precision** (X times as much information as the EORTC QLQ-C30 score): 19.0 **Relative validity**: 4.58	Floor effect: 50.0% Ceiling effect: 0.6%				
EORTC CAT Core Dyspnea Petersen et al. 2020 (109)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	**Relative information precision** (X times as much information as the EORTC QLQ-C30 score): 11.5 **Relative validity** (relative required sample size using EORTC CAT compared to EORTC QLQ-C30 to obtain the same power): 30-64%	Floor effect (relative reduction compared to EORTC QLQ-C30): 31% (43%) Ceiling effect (relative reduction compared to EORTC QLQ-C30): 0% (100%)				Median completion time needed per item: 8 seconds
EORTC CAT Core Fatigue Marta et al. 2021 (108)	**Cancer patients (n = 169)** Breast (n = 65; 38.7%) Lung (n = 9; 5.4%) Prostate (n = 29; 17.3%) Ovary (n = 2; 1.2%) Other (n = 48; 28.6%)	**Relative information precision** (X times as much information as the EORTC QLQ-C30 score): 3.3 **Relative validity**: 1.04	Floor effect: 23.2% Ceiling effect: 0.6%				
EORTC CAT Core Fatigue Petersen et al. 2013a(52) Petersen et al. 2013b (110)	**Cancer patients (n = 1,321)** Breast (n = 299; 22.6 %) Gastrointestinal (n = 191; 14.5 %) Gynecological (n = 167; 12.6 %) Hematological (n = 150; 11.4 %) Urogenital (n= 150; 11.4 %) Head & neck (n = 113; 8.6 %) Lung (n = 87; 6.6 %) Other (n = 156; 11.8 %) Missing (n = 8; 0.6%)	**Relative information precision**: The item bank results in markedly higher measurement precision than the three original EORTC QLQ-C30 FAT items across the whole continuum. High measurement precision (95% reliability) for scores from -1 to 2.5 ((± 3.5 SD). **Relative validity:** Larger samples are required to obtain the same power when comparing 3 CAT-items to EORTC QLQ-C30 FAT.					All items were answered by 96.3-98.9% of the sample.

EORTC CAT Core Fatigue Petersen et al. 2020 (109)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	**Relative information precision** (X times as much information as the EORTC QLQ-C30 score): 3.6 **Relative validity** (relative required sample size using EORTC CAT compared to EORTC QLQ-C30 to obtain the same power): 91-92%	Floor effect (relative reduction compared to EORTC QLQ-C30): 10% (26%) Ceiling effect (relative reduction compared to EORTC QLQ-C30): 0% (100%)				Median completion time needed per item: 8 seconds
EORTC CAT Core Insomnia Dirven et al. 2019 (53)	**Cancer patients (n = 1,094)** Urogenital (n = 237; 21.7%) Breast (n = 224; 20.5%) Gynecological (n = 151; 13.8%) Head & neck (n = 128; 11.7%) Gastrointestinal (n = 116; 10.6%) Lung (n = 46; 4.2%) Other (n = 190; 17.4%) Missing (n = 2; 0.2%)	**Relative information precision**: The item bank results in markedly higher measurement precision than the original EORTC QLQ-C30 SL item across the whole continuum. High measurement precision (≥90% reliability) for scores from -0.8 to 2.1 (± 3 SD). **Relative validity:** Average sample size savings of 15-25% when comparing to EORTC QLQ-C30 SL.					All items were answered by 97.4-98.8% of the sample.
EORTC CAT Core Insomnia Marta et al. 2021 (108)	**Cancer patients (n = 169)** Breast (n = 65; 38.7%) Lung (n = 9; 5.4%) Prostate (n = 29; 17.3%) Ovary (n = 2; 1.2%) Other (n = 48; 28.6%)	**Relative information precision** (X times as much information as the EORTC QLQ-C30 score): 13.1 **Relative validity**: 1.17	Floor effect: 17.3% Ceiling effect: 1.2%				
EORTC CAT Core Insomnia Petersen et al. 2020 (109)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	**Relative information precision** (X times as much information as the EORTC QLQ-C30 score): 3.9 **Relative validity** (relative required sample size using EORTC CAT compared to	Floor effect (relative reduction compared to EORTC QLQ-C30): 9% (77%) Ceiling effect (relative reduction compared to EORTC QLQ-C30): 1% (75%)				Median completion time needed per item: 8 seconds

		EORTC QLQ-C30 to obtain the same power): 53-75%					
EORTC CAT Core Nausea & Vomiting Marta et al. 2021 (108)	**Cancer patients (n = 169)** Breast (n = 65; 38.7%) Lung (n = 9; 5.4%) Prostate (n = 29; 17.3%) Ovary (n = 2; 1.2%) Other (n = 48; 28.6%)	**Relative information precision** (X times as much information as the EORTC QLQ-C30 score): 3.6 **Relative validity**: 1.02	Floor effect: 78.0% Ceiling effect: 0.6%				
EORTC CAT Core Nausea & Vomiting Petersen et al. 2020 (109)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	**Relative information precision** (X times as much information as the EORTC QLQ-C30 score): 2.3 **Relative validity** (relative required sample size using EORTC CAT compared to EORTC QLQ-C30 to obtain the same power): 78-86%	Floor effect (relative reduction compared to EORTC QLQ-C30): 70% (3%) Ceiling effect (relative reduction compared to EORTC QLQ-C30): 0% (0%)				Median completion time needed per item: 8 seconds
EORTC CAT Core Pain Marta et al. 2021 (108)	**Cancer patients (n = 169)** Breast (n = 65; 38.7%) Lung (n = 9; 5.4%) Prostate (n = 29; 17.3%) Ovary (n = 2; 1.2%) Other (n = 48; 28.6%)	**Relative information precision** (X times as much information as the EORTC QLQ-C30 score): 2.3 **Relative validity**: 1.01	Floor effect: 57.1% Ceiling effect: 0.6%				
EORTC CAT Core Pain Petersen et al. 2015 (111)	**Cancer patients (n = 1,103)** Breast (n = 199; 18%) Gynecological (n = 179; 16.2%) Head & neck (n = 165; 15%) Gastrointestinal (n = 131; 11.9%) Lung (n = 33; 3%) Other (n = 191; 17.3%) Missing (n = 205; 18.6%)	**Relative information precision**: The item bank results in markedly higher measurement precision than the original EORTC QLQ-C30 PA items except for patients with “no pain”. High measurement precision (≥90% reliability) for scores from -1.0 to 2.5 (± 3.5 SD). **Relative validity:** Average sample size savings of 10-25% when comparing to EORTC QLQ-C30 PA.					All items were answered by 98.1-99.1% of the sample.

EORTC CAT Core Pain Petersen et al. 2020 (109)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	**Relative information precision** (X times as much information as the EORTC QLQ-C30 score): 3.2 **Relative validity** (relative required sample size using EORTC CAT compared to EORTC QLQ-C30 to obtain the same power): 74-80%	Floor effect (relative reduction compared to EORTC QLQ-C30): 34% (17%) Ceiling effect (relative reduction compared to EORTC QLQ-C30): 0% (91%)				Median completion time needed per item: 8 seconds
EORTC CAT Core Physical Functioning Gamper et al. 2019 (105)	**Cancer patients (n = 44)** Thyroid (n = 35; 79.5%) Neuroendocrine (n = 9; 20.5%)	**Relative information precision**: CAT (28.76) results in markedly higher measurement precision than the original EORTC QLQ-C30 EF (10.96).	Floor effect: 0% Ceiling effect: 6.8%		56.8% considered the CAT items to be more appropriate for them than the EORTC QLQ-C30 PF items. 27.2% were indifferent.	5 items	
EORTC CAT Core Physical Functioning Marta et al. 2021 (108)	**Cancer patients (n = 169)** Breast (n = 65; 38.7%) Lung (n = 9; 5.4%) Prostate (n = 29; 17.3%) Ovary (n = 2; 1.2%) Other (n = 48; 28.6%)	**Relative information precision** (X times as much information as the EORTC QLQ-C30 score): 5.0 **Relative validity**: 0.95	Floor effect: 0.6% Ceiling effect: 4.2%				
EORTC CAT Core Physical Functioning Petersen et al. 2011 (56) Petersen et al. 2013 (110)	**Cancer patients (n = 1,176)** Urogenital (n = 181; 15.4%) Gynecological (n = 180; 15.3%) Head & neck (n = 163; 13.7%) Breast (n = 150; 12.6%) Gastrointestinal (n = 135; 11.5%) Lung (n = 52; 4.4%) Other (n = 124; 10.5%) Missing (n = 191; 16.2%)	**Relative information precision**: The item bank results in markedly higher measurement precision than the original EORTC QLQ-C30 PF items across the whole continuum. High measurement precision (≥90% reliability) for scores from -2.5 to 0.5. **Relative validity:** Average sample size savings of 60% when comparing to EORTC QLQ-C30 PF.	Floor effect: 0.3% Ceiling effect: 14.1%				All items were answered by 97.2-99.4% of the sample.
EORTC CAT Core Physical Functioning	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%)	**Relative information precision** (X times as much	Floor effect (relative reduction compared to EORTC QLQ-C30):				Median completion time needed per item: 8 seconds

Petersen et al. 2020 (109)	Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	information as the EORTC QLQ-C30 score): 4.5 **Relative validity** (relative required sample size using EORTC CAT compared to EORTC QLQ-C30 to obtain the same power): 103-125%	0% (100%) Ceiling effect (relative reduction compared to EORTC QLQ-C30): 0% (99%)				
FACE-Q Skin cancer – Appraisal of scars CAT Ottenhof et al. 2021 (112)	**Cancer patients (n = 209)** Skin (n = 209; 100%)	**Mean item reduction:** **SE 0.32:** 6.2% **SE 0.45:** 35% **SE 0.55:** 61%				**Average of used items:** **SE 0.32:** 7.5 items **SE 0.45:** 5.2 items **SE 0.55:** 3.1 items	
FACE-Q Skin cancer – Satisfaction with facial appearance CAT Ottenhof et al. 2021 (112)	**Cancer patients (n = 209)** Skin (n = 209; 100%)	**Mean item reduction:** **SE 0.32:** 2.3% **SE 0.45:** 23.1% **SE 0.55:** 56.3%				**Average of used items:** **SE 0.32:** 8.8 items **SE 0.45:** 6.9 items **SE 0.55:** 3.9 items	
NEURO-QoL Lower extremity function CAT Janssen et al. 2016 (113)	**Cancer patients/Palliative (n = 100)** Lower extremity metastases coming from: Breast (n = 29; 29%) Urogenital (n = 14; 14%) Lymphoma (n = 12; 12%) Myeloma (n = 12; 12%) Prostate (n = 9; 9%) Lung (n = 8; 8%) Others (n = 16; 16%)		Floor effect: 0% Ceiling effect: 7%				Completion rate: 100% Mean duration of 1 CAT-session: 44.0 seconds
PROMIS Fatigue CAT Fox et al. 2019 (167)	**Cancer patients/Palliative (n = 192)** Prostate (n = 192; 100%)						60-71% assessment completion rate
PROMIS Fatigue CAT	**Cancer patients (n = 3,521)** Hematological (n = 1057; 30.0%) Breast (n = 787; 22.4%)			Clinical alert threshold ≥70			94,5% assessment completion rate: (8,162/8,636)

Garcia et al. 2019 (168)	Gynecological (n = 545; 15.5%) Gastrointestinal (n = 289; 8.2%) Others (n = 629; 17.9%) Missing (n = 214; 6.1%)						
PROMIS Fatigue CAT Khullar et al. 2017 (169)	**Cancer patients (n = 127)** Lung (n = 127; 100%)				Feasible to integrate the results into the Society of Thoracic Surgeons Database		90-100% assessment completion rate Median completion time needed: 13-15.2 minutes (all 10 PROMIS tools together)
PROMIS Fatigue CAT Leung et al. 2016 (114)	**Cancer patients/Palliative (n = 336)** Gastrointestinal (n = 68; 20.2%) Lung (n = 65; 19.4%) Breast (n = 60; 17.9%) Lymphoma (n = 57; 17.0%) Urogenital (n = 37; 11.0%) Gynecological (n = 26; 7.7%) Other (n = 23; 6.8%)			**FACIT-Fatigue ≤ 34:** TCI: 52.8 (sens: 0.82, spec: 0.81, AUC: 0.92) **FACIT-Fatigue ≤ 30:** TCI: 56.6 (sens: 0.80, spec: 0.94, AUC: 0.95) **FACIT-Fatigue ≤ 22:** TCI: 58.4 (sens: 0.88, spec: 0.88, AUC: 0.96)	>98% of patients indicated that symptom screening was not burdensome. 95% indicated that the completion of the surveys did not make their visit more difficult. 88% were happy to complete the surveys on a touchscreen tablet. 85% did not experience the completion of the surveys as time-consuming. 65% were willing to complete a survey at every visit.	4.51 ± 1.59 items	
PROMIS Fatigue CAT Wagner et al. 2015 (170)	**Cancer patients (n = 636)** Ovarian (n = 225; 35.4%) Uterine (n = 179; 28.1%) Cervical (n = 44; 6.9%) Others (n = 83; 15%) Missing (n = 105; 16.5%)						92% assessment completion rate: (583/631)
PROMIS Fatigue Cancer-related CAT	**Cancer patients/ Palliative/Survivors (n = 336)** Uterine (n = 199; 59.0%)			**<50:** Normal **50-59:** Mild **60-69:** Moderate **≥70:** Severe	78% of respondents identified the ePRO instrument as helpful or very helpful in		Median completion time needed: 10 minutes (range 5–20) (all 6 PROMIS tools together)

Gressel et al. 2019 (171)	Ovarian/fallopian/PPC (n = 76; 23.0%) Cervical/vaginal/vulvar (n = 61; 18%)				addressing their symptoms. 92% reported that the questions were easy or very easy to understand. 72% of respondents said they would be likely or very likely to complete a symptom assessment in the future.		
PROMIS Pain Behavior CAT Romero et al. 2015 (117)	**Cancer patients (n = 10)** Brain tumor (n = 10; 100%)				One patient required a proxy for entering data because of fatigue and difficulty visualizing the iPad Touch screen. 70% of liked taking the surveys on the iPad in comparison with pen-and-paper survey. 40% stated that the iPad was difficult to use at first but became easier to use with practice, and 60% reported that the use was easy. All patients reported that they liked the survey, although 40% stated that the number of questions seemed excessive, which let to fatigue and frustration in 1 patient.		
PROMIS Pain Interference CAT Bernstein et al. 2019 (118)	**Cancer patients/Palliative (n = 80)** Multiple myeloma (n = 22; 27.5%) Spinal (n = 13; 16%) Lung (n = 11; 13.8%) Prostate (n = 9; 11.3%) Breast (n = 8; 10%) Renal (n = 8; 10%) Others (n = 9; 11.3%)		Floor effect: 1.2% Ceiling effect: 2.5%				

PROMIS Pain Interference CAT Fox et al. 2019 (167)	**Cancer patients/Palliative (n = 192)** Prostate (n = 192; 100%)						59-70% assessment completion rate
PROMIS Pain Interference CAT Garcia et al. 2019 (168)	**Cancer patients (n = 3,521)** Hematological (n = 1057; 30.0%) Breast (n = 787; 22.4%) Gynecological (n = 545; 15.5%) Gastrointestinal (n = 289; 8.2%) Others (n = 629; 17.9%) Missing (n = 214; 6.1%)			Clinical alert threshold ≥70			94,5% assessment completion rate: (8,162/8,636)
PROMIS Pain Interference CAT Khullar et al. 2017 (169)	**Cancer patients (n = 127)** Lung (n = 127; 100%)				Feasible to integrate the results into the Society of Thoracic Surgeons Database		90-100% assessment completion rate Median completion time needed: 13-15.2 minutes (all 10 PROMIS tools together)
PROMIS Pain Interference CAT Ploetze et al. 2019 (119)	**Cancer patients/Palliative (n = 97)** Bone or soft tissue (n = 97; 100%)		No floor or ceiling effect could be observed.			6.8 ± 3.5 items	
PROMIS Pain Interference CAT Romero et al. 2015 (117)	**Cancer patients (n = 10)** Brain tumor (n = 10; 100%)				One patient required a proxy for entering data because of fatigue and difficulty visualizing the iPad Touch screen. 70% of liked taking the surveys on the iPad in comparison with pen-and-paper survey. 40% stated that the iPad was difficult to use at first but became easier to use with practice, and 60% reported that the use was easy. All patients reported that they liked the survey, although 40%		

					stated that the number of questions seemed excessive, which let to fatigue and frustration in 1 patient.		
PROMIS Pain Interference CAT Wagner et al. 2015 (170)	**Cancer patients (n = 636)** Ovarian (n = 225; 35.4%) Uterine (n = 179; 28.1%) Cervical (n = 44; 6.9%) Others (n = 83; 15%) Missing (n = 105; 16.5%)						92% assessment completion rate: (583/631)
PROMIS Pain Interference Cancer-related CAT Gressel et al. 2019 (171)	**Cancer patients/ Palliative/Survivors (n = 336)** Uterine (n = 199; 59.0%) Ovarian/fallopian/PPC (n = 76; 23.0%) Cervical/vaginal/vulvar (n = 61; 18%)			**<50:** Normal **50-59:** Mild **60-69:** Moderate **≥70:** Severe	78% of respondents identified the ePRO instrument as helpful or very helpful in addressing their symptoms. 92% reported that the questions were easy or very easy to understand. 72% of respondents said they would be likely or very likely to complete a symptom assessment in the future.		Median completion time needed: 10 minutes (range 5–20) (all 6 PROMIS tools together)
PROMIS Physical function CAT Bernstein et al. 2019 (118)	**Cancer patients/Palliative (n = 80)** Multiple myeloma (n = 22; 27.5%) Spinal (n = 13; 16%) Lung (n = 11; 13.8%) Prostate (n = 9; 11.3%) Breast (n = 8; 10%) Renal (n = 8; 10%) Others (n = 9; 11.3%)		Floor effect: 2.5% Ceiling effect: 1.2%				
PROMIS Physical function CAT Fox et al. 2019 (167)	**Cancer patients/Palliative (n = 192)** Prostate (n = 192; 100%)						60-70% assessment completion rate

PROMIS Physical Function CAT Garcia et al. 2019 (168)	**Cancer patients (n = 3,521)** Hematological (n = 1057; 30.0%) Breast (n = 787; 22.4%) Gynecological (n = 545; 15.5%) Gastrointestinal (n = 289; 8.2%) Others (n = 629; 17.9%) Missing (n = 214; 6.1%)			Clinical alert threshold ≤30			94,5% assessment completion rate: (8,162/8,636)
PROMIS Physical Function CAT Janssen et al. 2016 (113)	**Cancer patients/Palliative (n = 100)** Lower extremity metastases coming from: Breast (n = 29; 29%) Urogenital (n = 14; 14%) Lymphoma (n = 12; 12%) Myeloma (n = 12; 12%) Prostate (n = 9; 9%) Lung (n = 8; 8%) Others (n = 16; 16%)		Floor effect: 0% Ceiling effect: 2%				Completion rate: 100% Mean duration of 1 CAT-session: 45.0 seconds
PROMIS Physical Function CAT Khullar et al. 2017 (169)	**Cancer patients (n = 127)** Lung (n = 127; 100%)				Feasible to integrate the results into the Society of Thoracic Surgeons Database		90-100% assessment completion rate Median completion time needed: 13-15.2 minutes (all 10 PROMIS tools together)
PROMIS Physical Function CAT Pereira et al. 2017 (121)	**Cancer patients/Palliative (n = 100)** Spinal metastases coming from: Breast (n = 20; 20%) Multiple myeloma (n = 18; 18%) Renal (n = 12; 12%) Lung (n = 11; 11%) Prostate (n = 6; 6%) Thyroid (n = 6; 6%) Others (n = 27; 27%)		Floor effect: 1% Ceiling effect: 0%				Completion rate: 100% Mean duration of 1 CAT-session: 42.0 seconds
PROMIS Physical Function CAT Ploetze et al. 2019 (119)	**Cancer patients/Palliative (n = 97)** Bone or soft tissue (n = 97; 100%)		No floor or ceiling effect could be observed.			4.4 ± 1.3 items	

PROMIS Physical Function CAT Romero et al. 2015 (117)	**Cancer patients (n = 10)** Brain tumor (n = 10; 100%)				One patient required a proxy for entering data because of fatigue and difficulty visualizing the iPad Touch screen. 70% of liked taking the surveys on the iPad in comparison with pen-and-paper survey. 40% stated that the iPad was difficult to use at first but became easier to use with practice, and 60% reported that the use was easy. All patients reported that they liked the survey, although 40% stated that the number of questions seemed excessive, which let to fatigue and frustration in 1 patient.		
PROMIS Physical Function CAT Wagner et al. 2015 (170)	**Cancer patients (n = 636)** Ovarian (n = 225; 35.4%) Uterine (n = 179; 28.1%) Cervical (n = 44; 6.9%) Others (n = 83; 15%) Missing (n = 105; 16.5%)						92% assessment completion rate: (583/631)
PROMIS Physical Function Cancer-related CAT Bongers et al. 2021 (172)	**Cancer patients/Palliative (n = 33)** Lower extremity bone metastases coming from: Breast (n = 7; 21%) Kidney (n = 6; 18%) Lung (n = 4; 12%) Thyroid (n = 2; 6.1%) Melanoma (n = 2; 6.1%) Myeloma (n = 2; 6.1%) Others (n = 10; 30%)			**Using global satisfaction Anchor between baseline and postoperative:** MCID: 4.1 **Combination of Anchor- and Distribution-based approach:** MCID: 2.5-4.2			
PROMIS Physical Function	**Cancer patients/ Palliative/Survivors (n = 336)** Uterine (n = 199; 59.0%)			**>55:** Normal **46-54:** Mild **31-45:** Moderate	78% of respondents identified the ePRO instrument as helpful or		Median completion time needed: 10 min (range 5–

Cancer-related CAT Gressel et al. 2019 (171)	Ovarian/fallopian/PPC (n = 76; 23.0%) Cervical/vaginal/vulvar (n = 61; 18%)			**≤30:** Severe	very helpful in addressing their symptoms. 92% reported that the questions were easy or very easy to understand. 72% of respondents said they would be likely or very likely to complete a symptom assessment in the future.		20 min) (all 6 PROMIS tools together)
PROMIS Sleep Disturbance CAT Leung et al. 2016 (114)	**Cancer patients/Palliative (n = 336)** Gastrointestinal (n = 68; 20.2%) Lung (n = 65; 19.4%) Breast (n = 60; 17.9%) Lymphoma (n = 57; 17.0%) Urogenital (n = 37; 11.0%) Gynecological (n = 26; 7.7%) Other (n = 23; 6.8%)			**ISI ≥ 8:** TCI: 53 (sens: 0.82, spec: 0.83, AUC: 0.92) **ISI ≥ 15:** TCI: 57.3 (sens: 0.82, spec: 0.81, AUC: 0.91) **ISI ≥ 22:** TCI: 59 (sens: 0.80, spec: 0.81, AUC: 0.91)	>98% of patients indicated that symptom screening was not burdensome. 95% indicated that the completion of the surveys did not make their visit more difficult. 88% were happy to complete the surveys on a touchscreen tablet. 85% did not experience the completion of the surveys as time-consuming. 65% were willing to complete a survey at every visit.	5.36 ± 2.16 items	
PROMIS Sleep Disturbance CAT Romero et al. 2015 (117)	**Cancer patients (n = 10)** Brain tumor (n = 10; 100%)				One patient required a proxy for entering data because of fatigue and difficulty visualizing the iPad Touch screen. 70% of liked taking the surveys on the iPad in comparison with pen-and-paper survey. 40% stated that		

					the iPad was difficult to use at first but became easier to use with practice, and 60% reported that the use was easy. All patients reported that they liked the survey, although 40% stated that the number of questions seemed excessive, which let to fatigue and frustration in 1 patient.		
PROMIS Sleep-related Impairment CAT Leung et al. 2016 (114)	**Cancer patients/Palliative (n = 336)** Gastrointestinal (n = 68; 20.2%) Lung (n = 65; 19.4%) Breast (n = 60; 17.9%) Lymphoma (n = 57; 17.0%) Urogenital (n = 37; 11.0%) Gynecological (n = 26; 7.7%) Other (n = 23; 6.8%)			**ISI ≥ 8:** TCI: 53 (sens: 0.77, spec: 0.81, AUC: 0.86) **ISI ≥ 15:** TCI: 56.8 (sens: 0.82, spec: 0.85, AUC: 0.92) **ISI ≥ 22:** TCI: 58 (sens: 0.80, spec: 0.80, AUC: 0.90)	>98% of patients indicated that symptom screening was not burdensome. 95% indicated that the completion of the surveys did not make their visit more difficult. 88% were happy to complete the surveys on a touchscreen tablet. 85% did not experience the completion of the surveys as time-consuming. 65% were willing to complete a survey at every visit.	6.25 ± 3.25 items	
PROMIS Sleep-related Impairment CAT Romero et al. 2015 (117)	**Cancer patients (n = 10)** Brain tumor (n = 10; 100%)				One patient required a proxy for entering data because of fatigue and difficulty visualizing the iPad Touch screen. 70% of liked taking the surveys on the iPad in comparison with pen-and-paper survey. 40% stated that		

					the iPad was difficult to use at first but became easier to use with practice, and 60% reported that the use was easy. All patients reported that they liked the survey, although 40% stated that the number of questions seemed excessive, which let to fatigue and frustration in 1 patient.		
COMPUTERIZED ADAPTIVE TESTING (CAT) – Mental Health							
EORTC CAT Core Cognitive Functioning Dirven et al. 2017 (104)	**Cancer patients (n = 1,030)** Breast (n = 237; 23.0%) Genitourinary (n = 171; 16.6%) Gastrointestinal (n = 144; 14.0%) Gynecological (n = 99; 9.6%) Head & neck (n = 87; 8.4%) Hematological (n = 51; 5.0%) Lung (n = 33; 3.2%) Others (n = 208; 20.2%)	**Relative information precision**: The item bank results in markedly higher measurement precision than the two original EORTC QLQ-C30 CF items across the whole continuum. High measurement precision (≥95% reliability) for scores from -3.2 to 0.5 (± 3.7 SD). **Relative validity:** Average sample size savings of 25-50% when comparing to EORTC QLQ-C30 CF.					All items were answered by 99.2-100% of the sample.
EORTC CAT Core Cognitive Functioning Marta et al. 2021 (108)	**Cancer patients (n = 169)** Breast (n = 65; 38.7%) Lung (n = 9; 5.4%) Prostate (n = 29; 17.3%) Ovary (n = 2; 1.2%) Other (n = 48; 28.6%)	**Relative information precision** (X times as much information as the EORTC QLQ-C30 score): 4.5 **Relative validity**: 1.07	Floor effect: 1.8% Ceiling effect: 32.7%				
EORTC CAT Core Cognitive Functioning Petersen et al. 2020 (109)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%)	**Relative information precision** (X times as much information as the EORTC QLQ-C30 score): 4	Floor effect (relative reduction compared to EORTC QLQ-C30): 0% (100%)				Median completion time needed per item: 8 seconds

	Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	**Relative validity** (relative required sample size using EORTC CAT compared to EORTC QLQ-C30 to obtain the same power): 89-111%	Ceiling effect (relative reduction compared to EORTC QLQ-C30): 19% (52%)				
EORTC CAT Core Emotional Functioning Gamper et al. 2019 (105)	**Cancer patients (n = 44)** Thyroid (n = 35; 79.5%) Neuroendocrine (n = 9; 20.5%)	**Relative information precision**: CAT (12.04) results in markedly higher measurement precision than the original EORTC QLQ-C30 EF (6.83).	Floor effect: 2.3% Ceiling effect: 15.9%		54.5% considered the EORTC QLQ-C30 EF items to be more appropriate for them than the CAT items (significant association with age (younger)). 40.9% were indifferent (significant association with age (older)).	4 items	
EORTC CAT Core Emotional Functioning Marta et al. 2021 (108)	**Cancer patients (n = 169)** Breast (n = 65; 38.7%) Lung (n = 9; 5.4%) Prostate (n = 29; 17.3%) Ovary (n = 2; 1.2%) Other (n = 48; 28.6%)	**Relative information precision (X times as much information as the EORTC QLQ-C30 score):** 2.5 **Relative validity**: 1.04	Floor effect: 0.6% Ceiling effect: 13.7%				
EORTC CAT Core Emotional Functioning Petersen et al. 2016 (78)	**Cancer patients (n = 1,023)** Gastrointestinal (n = 199; 19.4%) Breast (n =130; 12.7%) Urogenital (n = 104; 10.2%) Gynecological (n = 97; 9.5%) Head & neck (n = 74; 7.2%) Lung (n = 90; 8.8%) Other (n = 235; 23%) Missing (n = 147; 14.4%)	**Relative information precision**: The item bank results in markedly higher measurement precision than the two original EORTC QLQ-C30 EF items across the whole continuum. High measurement precision (≥95% reliability) for scores from -2.6 to 0.1 ((± 3 SD). **Relative validity:** Average sample size savings of 15-50% when comparing to EORTC QLQ-C30 EF.					All items were answered by 98.2-99.5% of the sample.
EORTC CAT Core Emotional Functioning	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%)	**Relative information precision** (X times as much information as the EORTC QLQ-C30 score): 2.7	Floor effect (relative reduction compared to EORTC QLQ-C30): 0% (100%)				Median completion time needed per item: 8 seconds

Petersen et al. 2020 (109)	Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	**Relative validity** (relative required sample size using EORTC CAT compared to EORTC QLQ-C30 to obtain the same power): 61-81%	Ceiling effect (relative reduction compared to EORTC QLQ-C30): 8% (33%)				
FACE-Q Skin cancer – Distress – Appearance CAT Ottenhof et al. 2021 (112)	**Cancer patients (n = 209)** Skin (n = 209; 100%)	**Mean item reduction:** **SE 0.32:** 4.5% **SE 0.45:** 31.3% **SE 0.55:** 57%				**Average of used items:** **SE 0.32:** 7.6 items **SE 0.45:** 5.5 items **SE 0.55:** 3.4 items	
FACE-Q Skin cancer – Distress - Cancer worry CAT Ottenhof et al. 2021 (112)	**Cancer patients (n = 209)** Skin (n = 209; 100%)	**Mean item reduction:** **SE 0.32:** 0.3% **SE 0.45:** 35.8% **SE 0.55:** 61.5%				**Average of used items:** **SE 0.32:** 9.9 items **SE 0.45:** 6.4 items **SE 0.55:** 3.8 items	
PROMIS Emotional Distress -Anger CAT Baum et al. 2015 (123)	**Cancer patients (n = 136)** Prostate (n = 136; 100%)			**BSI Hostility T-score of ≥ 63**: AUC: 0.95 (SE: 0.027) **51.5** (sens: 0.99, spec: 0.82) **54.5** (sens: 0.80, spec: 0.95) **58.1** (sens: 0.67, spec: 0.98)			
PROMIS Emotional Distress - Anxiety CAT Baum et al. 2015 (123)	**Cancer patients (n = 136)** Prostate (n = 136; 100%)			**BSI Anxiety T-score of ≥ 63**: AUC: 0.98 (SE: 0.012) **54.7** (sens: 0.95, spec: 0.93) **56.1** (sens: 0.84, spec: 0.96) **61.5** (sens: 0.47, spec: 0.99)			
PROMIS Emotional	**Cancer patients (n = 132; 100%)** Breast (n = 59; 45%) Hematological (n = 18; 13%)			**Diagnosis of any anxiety disorder**			

Distress – Anxiety CAT Clover et al. 2022 (124)	Colorectal (n = 16; 12%) Lung (n = 13; 10%) Other (n = 26; 20%)			**based on SCID:** AUC: 0.82 **<55: Normal** **55-64: Mild**: sens: 0.59, spec: 0.79, PPV: 0.53, NPV: 0.83 **65-74: Moderate:** sens: 0.19, spec: 0.97, PPV: 0.71, NPV: 0.75 **≥75: Severe** **Optimal cut-off point of 53:** sens: 0.81, spec: 0.72, PPV: 0.54, NPV: 0.91			
PROMIS Emotional Distress - Anxiety CAT Fox et al. 2019 (167)	**Cancer patients/Palliative (n = 192)** Prostate (n = 192; 100%)						53-67% assessment completion rate
PROMIS Emotional Distress - Anxiety CAT Garcia et al. 2019 (168)	**Cancer patients (n = 3,521)** Hematological (n = 1057; 30.0%) Breast (n = 787; 22.4%) Gynecological (n = 545; 15.5%) Gastrointestinal (n = 289; 8.2%) Others (n = 629; 17.9%) Missing (n = 214; 6.1%)			Clinical alert threshold ≥75			94,5% assessment completion rate: (8,162/8,636)
PROMIS Emotional Distress - Anxiety CAT Wagner et al. 2015 (170)	**Cancer patients (n = 636)** Ovarian (n = 225; 35.4%) Uterine (n = 179; 28.1%) Cervical (n = 44; 6.9%) Others (n = 83; 15%) Missing (n = 105; 16.5%)						92% assessment completion rate: (583/631)
PROMIS Emotional Distress – Anxiety Cancer-related CAT	**Cancer patients/ Palliative/Survivors (n = 336)** Uterine (n = 199; 59.0%) Ovarian/fallopian/PPC (n = 76; 23.0%) Cervical/vaginal/vulvar (n = 61; 18%)			**<55:** Normal **55-64:** Mild **65-74:** Moderate **≥75:** Severe	78% of respondents identified the ePRO instrument as helpful or very helpful in addressing their symptoms.		Median completion time needed: 10 minutes (range 5–20) (all 6 PROMIS tools together)

Gressel et al. 2019 (171)					92% reported that the questions were easy or very easy to understand. 72% of respondents said they would be likely or very likely to complete a symptom assessment in the future.		
PROMIS Emotional Distress - Depression CAT Baum et al. 2015 (123)	**Cancer patients (n = 136)** Prostate (n = 136; 100%)			**BSI Depression T-score of ≥ 63**: AUC: 0.97 (SE: 0.014) **49.5** (sens: 0.96, spec: 0.86) **53.1** (sens: 0.81, spec: 0.95) **57.8** (sens: 0.50, spec: 0.99)			
PROMIS Emotional Distress - Depression CAT Bernstein et al. 2019 (118)	**Cancer patients/Palliative (n = 80)** Multiple myeloma (n = 22; 27.5%) Spinal (n = 13; 16%) Lung (n = 11; 13.8%) Prostate (n = 9; 11.3%) Breast (n = 8; 10%) Renal (n = 8; 10%) Others (n = 9; 11.3%)		Floor effect: 13.6% Ceiling effect: 1.2%				
PROMIS Emotional Distress – Depression CAT Clover et al. 2018 (125)	**Cancer patients (n = 132; 100%)** Breast (n = 59; 45%) Hematological (n = 18; 13%) Colorectal (n = 16; 12%) Lung (n = 13; 10%) Other (n = 26; 20%)			**Diagnosis of major depressive episode based on SCID:** AUC: 0.84 **<55: Normal** **55-64: Mild**: sens: 0.72, spec: 0.76, PPV: 0.32, NPV: 0.95 **65-74: Moderate:** sens: 0.22, spec: 0.97, PPV: 0.60, NPV: 0.89 **≥75: Severe**			

PROMIS Emotional Distress - Depression CAT Fox et al. 2019 (167)	**Cancer patients/Palliative (n = 192)** Prostate (n = 192; 100%)						59-70% assessment completion rate
PROMIS Emotional Distress – Depression CAT Garcia et al. 2019 (168)	**Cancer patients (n = 3,521)** Hematological (n = 1057; 30.0%) Breast (n = 787; 22.4%) Gynecological (n = 545; 15.5%) Gastrointestinal (n = 289; 8.2%) Others (n = 629; 17.9%) Missing (n = 214; 6.1%)			Clinical alert threshold ≥75			94,5% assessment completion rate: (8,162/8,636)
PROMIS Emotional Distress – Depression CAT Ploetze et al. 2019 (119)	**Cancer patients/Palliative (n = 97)** Bone or soft tissue (n = 97; 100%)		No floor or ceiling effect could be observed.			5.6 ± 3.0 items	
PROMIS Emotional Distress – Depression CAT Wagner et al. 2015 (170)	**Cancer patients (n = 636)** Ovarian (n = 225; 35.4%) Uterine (n = 179; 28.1%) Cervical (n = 44; 6.9%) Others (n = 83; 15%) Missing (n = 105; 16.5%)						92% assessment completion rate: (583/631)
PROMIS Emotional Distress – Depression Cancer-related CAT Gressel et al. 2019 (171)	**Cancer patients/ Palliative/Survivors (n = 336)** Uterine (n = 199; 59.0%) Ovarian/fallopian/PPC (n = 76; 23.0%) Cervical/vaginal/vulvar (n = 61; 18%)			**<55:** Normal **55-64:** Mild **65-74:** Moderate **≥75:** Severe	78% of respondents identified the ePRO instrument as helpful or very helpful in addressing their symptoms. 92% reported that the questions were easy or very easy to understand. 72% of respondents said they would be likely or very		Median completion time needed: 10 minutes (range 5–20) (all 6 PROMIS tools together)

					likely to complete a symptom assessment in the future.		
COMPUTERIZED ADAPTIVE TESTING (CAT) – Social Health							
AM-PAC-CAT Cheville et al. 2012 (126) Cheville et al. 2014 (173)	**Cancer patients/Palliative (n = 311)** Lung (n = 311; 100%)			MID: 1-2 points on a T-score scale			Mean duration of 1 CAT-session: 112.0 seconds Women and older patients (≥65 years) took longer to complete CAT sessions, were more likely to skip items, and produced scores with larger standard errors. Patients with higher levels of dyspnea and fatigue, completed their CAT sessions more rapidly and were less likely to skip items. Fatigue and dyspnea interact with age to influence CAT duration and skip count.
ENRICH CAT Xu et al. 2022 (86)	**Cancer patients/Palliative (n = 515)** Breast (n = 211; 41%) Prostate (n = 134; 26%) Lung (n = 32; 6%) Head & neck (n = 29; 6%) Others (n = 101; 20%) Missing (n = 8; 2%)					**Average of used items:** **SE 0.32:** 4.5 items **SE 0.45:** 3.6 items **SE 0.55**: 2 items	
EORTC CAT Core Financial Difficulties Marta et al. 2021 (108)	**Cancer patients (n = 169)** Breast (n = 65; 38.7%) Lung (n = 9; 5.4%) Prostate (n = 29; 17.3%) Ovary (n = 2; 1.2%) Other (n = 48; 28.6%)	**Relative information precision** (X times as much information as the EORTC QLQ-C30 score): 5.1 **Relative validity**: 1.38	Floor effect: 23.8% Ceiling effect: 0.6%				

EORTC CAT Core Financial Difficulties Petersen et al. 2020 (109)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	**Relative information precision** (X times as much information as the EORTC QLQ-C30 score): 4.6 **Relative validity** (relative required sample size using EORTC CAT compared to EORTC QLQ-C30 to obtain the same power): 44-53%	Floor effect (relative reduction compared to EORTC QLQ-C30): 31% (58%) Ceiling effect (relative reduction compared to EORTC QLQ-C30): 0% (100%)				Median completion time needed per item: 8 seconds
EORTC CAT Core Role Functioning Gamper et al. 2016 (83)	**Cancer patients (n = 1,023)** Gastrointestinal (n = 199; 19.4%) Breast (n =130; 12.7%) Urogenital (n = 104; 10.2%) Gynecological (n = 97; 9.5%) Head & neck (n = 74; 7.2%) Lung (n = 90; 8.8%) Other (n = 235; 23%) Missing (n = 147; 14.4%)	**Relative information precision**: The item bank results in markedly higher measurement precision than the original EORTC QLQ-C30 RF items across the whole continuum. High measurement (≥90% reliability) precision for scores from -2.43 to 1.22 (± 3.7 SD). **Relative validity:** Average sample size savings of 11-50% when comparing to EORTC QLQ-C30 RF.	Ceiling effect: 23%				All items were answered by 93.4 % of the sample, and only 3.2 % missed two or more items.
EORTC CAT Core Role Functioning Marta et al. 2021 (108)	**Cancer patients (n = 169)** Breast (n = 65; 38.7%) Lung (n = 9; 5.4%) Prostate (n = 29; 17.3%) Ovary (n = 2; 1.2%) Other (n = 48; 28.6%)	**Relative information precision** (X times as much information as the EORTC QLQ-C30 score): 3.7 **Relative validity**: 1.11	Floor effect: 1.2% Ceiling effect: 35.7%				
EORTC CAT Core Role Functioning Petersen et al. 2020 (109)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	**Relative information precision** (X times as much information as the EORTC QLQ-C30 score): 3.3 **Relative validity** (relative required sample size using EORTC CAT compared to	Floor effect (relative reduction compared to EORTC QLQ-C30): 1% (74%) Ceiling effect (relative reduction compared to EORTC QLQ-C30):				Median completion time needed per item: 8 seconds

		EORTC QLQ-C30 to obtain the same power): 55-63%	20% (42%)				
EORTC CAT Core Social Functioning Marta et al. 2021 (108)	**Cancer patients (n = 169)** Breast (n = 65; 38.7%) Lung (n = 9; 5.4%) Prostate (n = 29; 17.3%) Ovary (n = 2; 1.2%) Other (n = 48; 28.6%)	**Relative information precision** (X times as much information as the EORTC QLQ-C30 score): 2.4 **Relative validity**: 1.09	Floor effect: 1.8% Ceiling effect: 39.3%				
EORTC CAT Core Social Functioning Petersen et al. 2020 (109)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	**Relative information precision** (X times as much information as the EORTC QLQ-C30 score): 2.3 **Relative validity** (relative required sample size using EORTC CAT compared to EORTC QLQ-C30 to obtain the same power): 77%	Floor effect (relative reduction compared to EORTC QLQ-C30): 0% (98%) Ceiling effect (relative reduction compared to EORTC QLQ-C30): 22% (29%)				Median completion time needed per item: 8 seconds
FACE-Q Skin cancer – Satisfaction with information (appearance) CAT Ottenhof et al. 2021 (112)	**Cancer patients (n = 209)** Skin (n = 209; 100%)	**Mean item reduction:** **SE 0.32:** 3% **SE 0.45:** 9.5% **SE 0.55:** 31.5%				**Average of used items:** **SE 0.32:** 5.8 items **SE 0.45:** 5.4 items **SE 0.55:** 4.1 items	
PROMIS Satisfaction with Participation in Discretionary Social Activities v1.0 CAT Romero et al. 2015 (117)	**Cancer patients (n = 10)** Brain tumor (n = 10; 100%)				One patient required a proxy for entering data because of fatigue and difficulty visualizing the iPad Touch screen. 70% of liked taking the surveys on the iPad in comparison with pen-and-paper survey. 40% stated that the iPad was difficult to use at first but became easier to use with practice, and 60% reported that the		

					use was easy. All patients reported that they liked the survey, although 40% stated that the number of questions seemed excessive, which let to fatigue and frustration in 1 patient.		
PROMIS Satisfaction with Participation in Social Roles v1.0 CAT Romero et al. 2015 (117)	**Cancer patients (n = 10)** Brain tumor (n = 10; 100%)				One patient required a proxy for entering data because of fatigue and difficulty visualizing the iPad Touch screen. 70% of liked taking the surveys on the iPad in comparison with pen-and-paper survey. 40% stated that the iPad was difficult to use at first but became easier to use with practice, and 60% reported that the use was easy. All patients reported that they liked the survey, although 40% stated that the number of questions seemed excessive, which let to fatigue and frustration in 1 patient.		
PROMIS PROFILES							
PROMIS 3D Smith et al. 2022 (87)	**Cancer patients (n = 209)** Breast (n = 96; 45.9%) Head & neck (n = 17; 8.1%) Brain (n = 13; 6.2%) Gynecological (n = 12; 5.7%) Multiple myeloma (n = 12; 5.7%) Others (n = 74; 29.2%)		**Physical function:** floor: 0.8%, ceiling: 2.5% **Fatigue:** floor: 2.7%, ceiling: 8.3% **Social participation:** floor: 7.1%, ceiling: 4.2%	**MIC self-reported decline ± SD:** Physical function: -1.91 ± 2.04 Fatigue: 0.75 ± 2.05 Social participation: -0.19 ± 2.24			

				MIC self-reported improvement ± SD: Physical function: 0.85 ± 2.67 Fatigue: -0.55 ± 2.67 Social participation: 0.60 ± 1.97			
PROMIS-29 Sikorskii et al. 2018 (130)	**Cancer patients (n = 256)** Breast cancer (n = 256; 100%)		**Physical function:** floor: 1.6%, ceiling: 11% **Pain interference:** floor: 2.4%, ceiling: 23.9% **Fatigue:** floor: 4.3%, ceiling: 2.4% **Sleep disturbance**: floor: 2.8%, ceiling: 2.4% **Depression:** floor: 0.4%, ceiling: 33.9% **Anxiety:** floor: 0.4%, ceiling: 23.3% **Satisfaction with participation in social roles:** floor: 7.5%, ceiling: 7.1%				
PROMIS-57 Cai et al. 2022 (131)	**Cancer patients (n = 602)** Breast (n = 602; 100%)		**Physical function:** floor: 2.8%, ceiling: 4.3% **Anxiety:** floor: 0.2%, ceiling: 16.3% **Depression:** floor: 0.2%, ceiling: 13.5% **Fatigue:** floor: 0.8%, ceiling: 4.8% **Sleep disturbance:** floor: 1.3%, ceiling: 4.2% **Ability to participate in social roles and activities:** floor: 5.3%, ceiling: 20% **Pain interference:** floor: 1.3%, ceiling: 9.3%				

PROMIS Global Health Bongers et al. 2021 (172)	**Cancer patients/Palliative (n = 33)** Lower extremity bone metastases coming from: Breast (n = 7; 21%) Kidney (n = 6; 18%) Lung (n = 4; 12%) Thyroid (n = 2; 6.1%) Melanoma (n = 2; 6.1%) Myeloma (n = 2; 6.1%) Others (n = 10; 30%)			**Physical health: Using global satisfaction Anchor between baseline and postoperative:** MCID: 4.3 **Combination of Anchor- and Distribution-based approach:** MCID: 2.1-5.9 **Mental health: Using global satisfaction Anchor between baseline and postoperative:** MCID: 0.8 **Combination of Anchor- and Distribution-based approach:** MCID: 0.8-6.0			
PROMIS Global Health Neal et al. 2021 (174)	**Cancer patients (n = 26,242)** Breast (n = 5,567; 21%) Hematological (n = 3,715; 14%) Gastrointestinal (n = 3,145; 12%) Skin (n = 2,620; 10%) Genitourinary (n = 1,945; 7%) Head & neck (n = 1,809; 7%) Others (n = 3,143; 13%) Missing (n = 4,283; 16%)				Collecting data for routine distress screening is feasible using an integrated electronic health record system.		Large-scale questionnaire administration was feasible via electronic health record with an overall 57% completion rate.
PROMIS Global Health Williams et al. 2013 (175)	**Cancer patients/Survivors (n = 683)** Breast (n = 204; 30%) Prostate (n = 203; 30%) Lung (n = 70; 10%) Colorectal (n = 65; 10%) Others (n = 141; 20%)				72% chose online survey administration, 28% chose to complete the survey by the telephone. The cancer survivors choosing to complete the survey online were younger, less racially diverse, had higher incomes, and		**Completion rate of ≥95%:** Telephone: 93% Online: 92%

					were more educated than those who completed the survey by telephone. One third of online survey respondents needed at least one reminder from study staff before completing the survey.		
PROMIS Global Health Van Wulfften et al. 2017 (132)	**Cancer patients (n = 70)** Sacral tumors (n = 70; 100%)		**Physical health:** Floor effect: 0% Ceiling effect: 2% **Mental health:** Floor effect: 0% Ceiling effect: 11%				
PROMIS Global Health Wood et al. 2012 (133)	**Cancer patients (n = 32)** Hematological (n = 32; 100%)				6% opted to use paper-and-pencil only, all others used the electronic system. For 94% survey questions were not difficult to read. For 82% the questionnaire length was not too long. For 88% using a computer to fill out the surveys was comfortable. 73% of patients indicated that the surveys helped them discuss medical issues with their healthcare provider, and 80% responded that the surveys helped remind them of symptoms that they had been experiencing. 94% were satisfied with the electronic survey		Median completion time: 3 minutes Completion rate: 100%

					questionnaires and 81% would recommend the electronic survey questionnaires to others.		
PROMIS Sexual Function and Satisfaction Brief Profile v1.0 (Female) Gressel et al. 2019 (171)	**Cancer patients/ Palliative/Survivors (n = 336)** Uterine (n = 199; 59.0%) Ovarian/fallopian/PPC (n = 76; 23.0%) Cervical/vaginal/vulvar (n = 61; 18%)			**<50:** Normal **50-59:** Mild **60-69:** Moderate **≥70:** Severe	78% of respondents identified the ePRO instrument as helpful or very helpful in addressing their symptoms. 92% reported that the questions were easy or very easy to understand. 72% of respondents said they would be likely or very likely to complete a symptom assessment in the future.		Median completion time needed: 10 minutes (range 5–20) (all 6 PROMIS tools together)
PROMIS Sexual Function and Satisfaction Brief Profile v1.0 (Female) Van Wulfften et al. 2017 (132)	**Cancer patients (n = 70)** Sacral tumors (n = 70; 100%)		**Global Satisfaction with Sex Life:** Floor effect: 4% Ceiling effect: 19% **Interest in sexual activity:** Floor effect: 23% Ceiling effect: 2% **Orgasm:** Floor effect: 23% Ceiling effect: 6%				
PROMIS Sexual Function and Satisfaction Brief Profile v1.0 (Male) Van Wulfften et al. 2017 (132)	**Cancer patients (n = 70)** Sacral tumors (n = 70; 100%)		**Erectile function:** Floor effect: 0% Ceiling effect: 0% **Global satisfaction with sex life:** Floor effect: 4% Ceiling effect: 19% **Interest in sexual activity:**				

			Floor effect: 23% Ceiling effect: 2% **Orgasm:** Floor effect: 23% Ceiling effect: 6% **Vaginal discomfort:** Floor effect: 0% Ceiling effect: 9% **Vaginal lubrication:** Floor effect: 30% Ceiling effect: 30%				
SHORT FORMS – Physical Health							
EORTC CAT Core Appetite Loss Short form 4 Giesinger et al. 2020 (176)	**Cancer patients/Palliative (n = 498)** Breast (n = 117; 23.6%) Hematological (n = 66; 13.3%) Lung (n = 49; 9.9%) Prostate (n = 48; 9.7%) Colorectal (n = 42; 8.5%) Head & neck (n = 39; 7.9) Lymphoma (n = 37; 7.5%) Gynecological (n = 29; 5.9%) Stomach (n = 12; 2.4%) Brain (n = 10; 2.0%) Other (n = 46; 9.3%) Missing (n = 3, 0.0%)			**Limitations, need for help or worries: "Quite a bit" or "Very much"** TCI: 63 (sens: 0.94, spec: 0.75, AUC: 0.94)			
EORTC CAT Core Appetite Loss 3-5-3-5-4-6 Short forms Petersen et al. 2023 (35)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	**Relative validity (sample size saving % compared to EORTC QLQ-C30)** Mild brief: 1.12 (19%) Mild long: 1.19 (28%) Moderate brief: 1.16 (25%) Moderate long: 1.21 (31%) Severe brief: 1.22 (31%) Severe long: 1.28 (38%)				Mild brief: 3 items Mild long: 5 items Moderate brief: 3 items Moderate long: 5 items Severe brief: 4 items Severe long: 6 items	
EORTC CAT Core Constipation Short form 4	**Cancer patients/Palliative (n = 498)** Breast (n = 117; 23.6%) Hematological (n = 66; 13.3%) Lung (n = 49; 9.9%)			**Limitations, need for help or worries: "Quite a bit" or "Very much"**			

Giesinger et al. 2020 (176)	Prostate (n = 48; 9.7%) Colorectal (n = 42; 8.5%) Head & neck (n = 39; 7.9) Lymphoma (n = 37; 7.5%) Gynecological (n = 29; 5.9%) Stomach (n = 12; 2.4%) Brain (n = 10; 2.0%) Other (n = 46; 9.3%) Missing data (n = 3, 0.0%)			TCI: 57 (sens: 0.96, spec: 0.73, AUC: 0.94)			
EORTC CAT Core Constipation Short forms 3-5-3-6-4-8 Petersen et al. 2023 (35)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	**Relative validity (sample size saving % compared to EORTC QLQ-C30)** Mild brief: 1.15 (23%) Mild long: 1.21 (31%) Moderate brief: 1.15 (23%) Moderate long: 1.26 (36%) Severe brief: 1.26 (36%) Severe long: 1.32 (41%)				Mild brief: 3 items Mild long: 5 items Moderate brief: 3 items Moderate long: 6 items Severe brief: 4 items Severe long: 8 items	
EORTC CAT Core Diarrhea Short form 4 Giesinger et al. 2020 (176)	**Cancer patients/Palliative (n = 498)** Breast (n = 117; 23.6%) Hematological (n = 66; 13.3%) Lung (n = 49; 9.9%) Prostate (n = 48; 9.7%) Colorectal (n = 42; 8.5%) Head & neck (n = 39; 7.9) Lymphoma (n = 37; 7.5%) Gynecological (n = 29; 5.9%) Stomach (n = 12; 2.4%) Brain (n = 10; 2.0%) Other (n = 46; 9.3%) Missing data (n = 3, 0.0%)			**Limitations, need for help or worries: "Quite a bit" or "Very much"** TCI: 62 (sens: 0.95, spec: 0.82, AUC: 0.94)			
EORTC CAT Core Diarrhea Short forms 4-6-3-6-3-7 Petersen et al. 2023 (35)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	**Relative validity (sample size saving % compared to EORTC QLQ-C30)** Mild brief: 1.09 (16%) Mild long: 1.14 (22%) Moderate brief: 1.16 (25%) Moderate long: 1.23 (33%) Severe brief: 1.21 (31%)				Mild brief: 4 items Mild long: 6 items Moderate brief: 3 items Moderate long: 6 items Severe brief: 3 items Severe long: 7 items	

		Severe long: 1.29 (39%)					
EORTC CAT Core Dyspnea Short form 4 Giesinger et al. 2020 (176)	**Cancer patients/Palliative (n = 498)** Breast (n = 117; 23.6%) Hematological (n = 66; 13.3%) Lung (n = 49; 9.9%) Prostate (n = 48; 9.7%) Colorectal (n = 42; 8.5%) Head & neck (n = 39; 7.9) Lymphoma (n = 37; 7.5%) Gynecological (n = 29; 5.9%) Stomach (n = 12; 2.4%) Brain (n = 10; 2.0%) Other (n = 46; 9.3%) Missing data (n = 3, 0.0%)			**Limitations, need for help or worries: "Quite a bit" or "Very much"** TCI: 60 (sens: 0.93, spec: 0.77, AUC: 0.93)			
EORTC CAT Core Dyspnea Short forms 4-7-4-7-4-7 Petersen et al. 2023 (35)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	**Relative validity (sample size saving % compared to EORTC QLQ-C30)** Mild brief: 1.27 (38%) Mild long: 1.29 (39%) Moderate brief: 1.27 (38%) Moderate long: 1.35 (44%) Severe brief: 1.24 (34%) Severe long: 1.31 (41%)				Mild brief: 4 items Mild long: 7 items Moderate brief: 4 items Moderate long: 7 items Severe brief: 4 items Severe long: 7 items	
EORTC CAT Core Fatigue Short form 5 Giesinger et al. 2020 (176)	**Cancer patients/Palliative (n = 498)** Breast (n = 117; 23.6%) Hematological (n = 66; 13.3%) Lung (n = 49; 9.9%) Prostate (n = 48; 9.7%) Colorectal (n = 42; 8.5%) Head & neck (n = 39; 7.9) Lymphoma (n = 37; 7.5%) Gynecological (n = 29; 5.9%) Stomach (n = 12; 2.4%) Brain (n = 10; 2.0%) Other (n = 46; 9.3%) Missing data (n = 3, 0.0%)			**Limitations, need for help or worries: "Quite a bit" or "Very much"** TCI: 57 (sens: 0.92, spec: 0.84, AUC: 0.94)			

EORTC CAT Core Fatigue Short forms 5-8-5-8-5-8 Petersen et al. 2023 (35)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	**Relative validity (sample size saving % compared to EORTC QLQ-C30)** Mild brief: 1.08 (14%) Mild long: 1.10 (17%) Moderate brief: 1.07 (12%) Moderate long: 1.10 (17%) Severe brief: 1.07 (12%) Severe long: 1.09 (16%)				Mild brief: 5 items Mild long: 8 items Moderate brief: 5 items Moderate long: 8 items Severe brief: 5 items Severe long: 8 items	
EORTC CAT Core Insomnia Short form 4 Giesinger et al. 2020 (176)	**Cancer patients/Palliative (n = 498)** Breast (n = 117; 23.6%) Hematological (n = 66; 13.3%) Lung (n = 49; 9.9%) Prostate (n = 48; 9.7%) Colorectal (n = 42; 8.5%) Head & neck (n = 39; 7.9) Lymphoma (n = 37; 7.5%) Gynecological (n = 29; 5.9%) Stomach (n = 12; 2.4%) Brain (n = 10; 2.0%) Other (n = 46; 9.3%) Missing data (n = 3, 0.0%)			**Limitations, need for help or worries: "Quite a bit" or "Very much"** TCI: 55 (sens: 0.91, spec: 0.76, AUC: 0.89)			
EORTC CAT Core Insomnia Short forms 3-6-3-6-3-6 Petersen et al. 2023 (35)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	**Relative validity (sample size saving % compared to EORTC QLQ-C30)** Mild brief: 1.16 (25%) Mild long: 1.24 (34%) Moderate brief: 1.11 (19%) Moderate long: 1.24 (34%) Severe brief: 1.09 (16%) Severe long: 1.23 (33%)				Mild brief: 3 items Mild long: 6 items Moderate brief: 3 items Moderate long: 6 items Severe brief: 3 items Severe long: 6 items	
EORTC CAT Core Nausea & Vomiting Short form 4 Giesinger et al. 2020 (176)	**Cancer patients/Palliative (n = 498)** Breast (n = 117; 23.6%) Hematological (n = 66; 13.3%) Lung (n = 49; 9.9%) Prostate (n = 48; 9.7%) Colorectal (n = 42; 8.5%) Head & neck (n = 39; 7.9)			**Limitations, need for help or worries: "Quite a bit" or "Very much"** TCI: 58 (sens: 0.90, spec: 0.82, AUC: 0.92)			

	Lymphoma (n = 37; 7.5%) Gynecological (n = 29; 5.9%) Stomach (n = 12; 2.4%) Brain (n = 10; 2.0%) Other (n = 46; 9.3%) Missing data (n = 3, 0.0%)						
EORTC CAT Core Nausea & Vomiting Short forms 4-8-4-8-4-9 Petersen et al. 2023 (35)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	**Relative validity (sample size saving % compared to EORTC QLQ-C30)** Mild brief: 1.24 (34%) Mild long: 1.34 (44%) Moderate brief: 1.36 (45%) Moderate long: 1.43 (50%) Severe brief: 1.31 (41%) Severe long: 1.42 (48%)				Mild brief: 4 items Mild long: 8 items Moderate brief: 4 items Moderate long: 8 items Severe brief: 4 items Severe long: 9 items	
EORTC CAT Core Pain Short form 4 Giesinger et al. 2020 (176)	**Cancer patients/Palliative (n = 498)** Breast (n = 117; 23.6%) Hematological (n = 66; 13.3%) Lung (n = 49; 9.9%) Prostate (n = 48; 9.7%) Colorectal (n = 42; 8.5%) Head & neck (n = 39; 7.9) Lymphoma (n = 37; 7.5%) Gynecological (n = 29; 5.9%) Stomach (n = 12; 2.4%) Brain (n = 10; 2.0%) Other (n = 46; 9.3%) Missing data (n = 3, 0.0%)			**Need for help or worries: "Quite a bit" or "Very much"** TCI: 56 (sens: 0.90, spec: 0.79, AUC: 0.93)			
EORTC CAT Core Pain Short forms 4-8-4-8-5-8 Petersen et al. 2023 (35)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	**Relative validity (sample size saving % compared to EORTC QLQ-C30)** Mild brief: 1.03 (5%) Mild long: 1.12 (19%) Moderate brief: 1.11 (19%) Moderate long: 1.17 (27%) Severe brief: 1.15 (23%) Severe long: 1.17 (27%)				Mild brief: 4 items Mild long: 8 items Moderate brief: 4 items Moderate long: 8 items Severe brief: 5 items Severe long: 8 items	
EORTC CAT Core Physical	**Cancer patients/Palliative**			**Limitations, need for help or worries:**			

Functioning Short form 7 Giesinger et al. 2020 (176)	**(n = 498)** Breast (n = 117; 23.6%) Hematological (n = 66; 13.3%) Lung (n = 49; 9.9%) Prostate (n = 48; 9.7%) Colorectal (n = 42; 8.5%) Head & neck (n = 39; 7.9) Lymphoma (n = 37; 7.5%) Gynecological (n = 29; 5.9%) Stomach (n = 12; 2.4%) Brain (n = 10; 2.0%) Other (n = 46; 9.3%) Missing data (n = 3, 0.0%)			**"Quite a bit" or "Very much"** TCI: 46 (sens: 0.82, spec: 0.66, AUC: 0.84)			
EORTC CAT Core Physical Functioning Short forms 5-9-5-9-5-9 Petersen et al. 2023 (35)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	**Relative validity (sample size saving % compared to EORTC QLQ-C30)** Mild brief: 1.10 (17%) Mild long: 1.13 (20%) Moderate brief: 1.02 (3%) Moderate long: 1.06 (11%) Severe brief: 1.02 (3%) Severe long: 1.05 (9%)				Mild brief: 5 items Mild long: 9 items Moderate brief: 5 items Moderate long: 9 items Severe brief: 5 items Severe long: 9 items	
NEURO-QoL Lower extremity function Short form 8 Van Wulfften et al. 2017 (132)	**Cancer patients (n = 70)** Sacral tumors (n = 70; 100%)		Floor effect: 0% Ceiling effect: 29%				
PROMIS Fatigue Short form 5 Quach et al. 2016 (137)	**Cancer patients (n = 778)** Prostate (n = 778; 100%)		Ceiling effect: <2%				
PROMIS Fatigue Short form v1.0 Smith et al. 2023 (177)	**Cancer patients (n = 250)** Breast (n = 250; 100%)						**Completion rate of ePRO survey completion:** Baseline: 73% 1 month follow-up: 66% 3 month follow-up: 62% 6 month follow-up: 56%

							12 month follow-up: 42% Any follow-up within first 6 months: 70%
PROMIS Fatigue Short form NS Snyder et al. 2014 (178)	**Cancer patients (n = 224)** Breast (n = 62; 28%) Prostate (n = 162; 72%)				Short forms were easy to complete (100%), easy to understand (99%), useful (98%), and improved quality of care (73%), discussions (84%) & communication (76%) with the doctor. For 90% it was a reminder for the doctor visit, 98% would recommend the use to others and 82% felt more in control of their care. In 70-73% results were used to identify areas of needs and organize care.		Completion rate: 91%
PROMIS Fatigue Short forms 7-17 Yost et al. 2011 (179)	**Cancer patients/Palliative (n = 101)** Breast (n = 23; 21.8%) Colorectal (n = 19; 18.8%) Gynecological (n = 13; 12.9%) Lung (n = 12; 11.9%) Prostate (n = 5; 5.9%) Head & Neck (n = 5; 5.9%) Other (n = 14; 13.9%) Missing/Unknown (n = 9; 9.9%)			**7-item:** **T-score MID** (ES) 3.0-5.0 (0.39-0.65) **17-item:** **T-score MID** (ES) 2.5-4.5 (0.37-0.67)			
PROMIS Fatigue Short form 7 Zhao et al. 2018 (139)	**Cancer patients (n = 321)** Renal (n = 321; 100%)			**FACIT-Fatigue ≥30:** AUC: 0.94-0.96			
PROMIS Pain Intensity Short Form NS Khullar et al. 2017(169)	**Cancer patients (n = 127)** Lung (n = 127; 100%)				Feasible to integrate the results into the Society of Thoracic Surgeons Database		90-100% assessment completion rate Median completion time needed: 13-15.2 minutes

							(all 10 PROMIS tools together)
PROMIS Pain Intensity Short Form 3a Pereira et al. 2017 (121)	**Cancer patients/Palliative (n = 100)** Spinal metastases coming from: Breast (n = 20; 20%) Multiple myeloma (n = 18; 18%) Renal (n = 12; 12%) Lung (n = 11; 11%) Prostate (n = 6; 6%) Thyroid (n = 6; 6%) Others (n = 27; 27%)		Floor effect: 7% Ceiling effect: 0%				Completion rate: 100% Mean duration of 1 CAT-session: 24.0 seconds
PROMIS Pain Intensity Short Form 3a Van Wulfften et al. 2017 (132)	**Cancer patients (n = 70)** Sacral tumors (n = 70; 100%)		Floor effect: 20% Ceiling effect: 3%				
PROMIS Pain Interference Short Form 6a Bongers et al. 2021 (172)	**Cancer patients/Palliative (n = 33)** Lower extremity bone metastases coming from: Breast (n = 7; 21%) Kidney (n = 6; 18%) Lung (n = 4; 12%) Thyroid (n = 2; 6.1%) Melanoma (n = 2; 6.1%) Myeloma (n = 2; 6.1%) Others (n = 10; 30%)			**Using global satisfaction Anchor between baseline and postoperative:** MCID: 7.5 **Combination of Anchor- and Distribution-based approach:** MCID: 2.9-7.5			
PROMIS Pain Interference Short Form NS Snyder et al. 2014 (178)	**Cancer patients (n = 224)** Breast (n = 62; 28%) Prostate (n = 162; 72%)				Short forms were easy to complete (100%), easy to understand (99%), useful (98%), and improved quality of care (73%), discussions (84%) & communication (76%) with the doctor. For 90% it was a reminder for the doctor visit, 98% would recommend the use to		Completion rate: 91%

					others and 82% felt more in control of their care. In 70-73% results were used to identify areas of needs and organize care.		
PROMIS Pain Interference Short form 5 Quach et al. 2016 (137)	**Cancer patients (n = 778)** Prostate (n = 778; 100%)		Floor effect: 45-58% Ceiling effect: <2%				
PROMIS Pain Interference Short form 6b Van Wulfften et al. 2017 (132)	**Cancer patients (n = 70)** Sacral tumors (n = 70; 100%)		Floor effect: 16% Ceiling effect: 1%				
PROMIS Pain Interference Short form 10 Yost et al. 2011 (179)	**Cancer patients/Palliative (n = 101)** Breast (n = 23; 21.8%) Colorectal (n = 19; 18.8%) Gynecological (n = 13; 12.9%) Lung (n = 12; 11.9%) Prostate (n = 5; 5.9%) Head & Neck (n = 5; 5.9%) Other (n = 14; 13.9%) Missing/Unknown (n = 9; 9.9%)			**T-score MID** (ES) 4.0-6.0 (0.43-0.64)			
PROMIS Physical Function Short form 4a-6b-10a-16 Jensen et al. 2015 (142)	**Cancer patients (n = 4,840)** Breast (n = 1,450; 30%) Prostate (n = 1,065; 22%) Colorectal (n = 824; 17%) Lung (n = 641; 13%) Non-Hodgkin (n = 413; 8%) Gynecological (n = 487; 10%)		Floor effect: 0.2-2.2% Ceiling effect: 12.2-34.5% across all forms				
PROMIS Physical Function Short form 10a Peipert et al. 2022 (143)	**Cancer patients (n = 1,129)** Breast (n = 294; 27%) Hematological (n = 244; 22%) Colorectal (n = 107; 10%) Head & neck (n = 86; 8%) Lung (n = 78; 7%)			**Anchor-based deterioration:** ROC: -3 (sens: 0.61, spec: 0.75, AUC: 0.73)			

	Others (n = 290; 26%)			**Anchor-based meaningful improvement:** ROC: 1 (sens: 0.57, spec: 0.73, AUC: 0.71)			
PROMIS Physical Function Short form 6 Quach et al. 2016 (137)	**Cancer patients (n = 778)** Prostate (n = 778; 100%)		Ceiling effect: 44%				
PROMIS Physical Function Short Form NS Snyder et al. 2014 (178)	**Cancer patients (n = 224)** Breast (n = 62; 28%) Prostate (n = 162; 72%)				Short forms were easy to complete (100%), easy to understand (99%), useful (98%), and improved quality of care (73%), discussions (84%) & communication (76%) with the doctor. For 90% it was a reminder for the doctor visit, 98% would recommend the use to others and 82% felt more in control of their care. In 70-73% results were used to identify areas of needs and organize care.		Completion rate: 91%
PROMIS Physical Function Short form 10 Yost et al. 2011 (179)	**Cancer patients/Palliative (n = 101)** Breast (n = 23; 21.8%) Colorectal (n = 19; 18.8%) Gynecological (n = 13; 12.9%) Lung (n = 12; 11.9%) Prostate (n = 5; 5.9%) Head and Neck (n = 5; 5.9%) Other (n = 14; 13.9%) Missing/Unknown (n = 9; 9.9%)			**T-score MID** (ES) 4.0-6.0 (0.45-0.67)			
PROMIS PROMIS Sexual Function & Satisfaction	**Cancer patients (n = 250)** Breast (n = 250; 100%)						**Completion rate of ePRO survey completion:** Baseline: 73%

(Vaginal Lubrication) Short form v1.0 Smith et al. 2023 (177)							1 month follow-up: 66% 3 month follow-up: 62% 6 month follow-up: 56% 12 month follow-up: 42% Any follow-up within first 6 months: 70%
PROMIS Sleep Disturbance Short form 4 Quach et al. 2016 (137)	**Cancer patients (n = 778)** Prostate (n = 778; 100%)		Ceiling effect: <2%				
PROMIS Sleep-related Impairment Short form NS Khullar et al. 2017 (169)	**Cancer patients (n = 127)** Lung (n = 127; 100%)				Feasible to integrate the results into the Society of Thoracic Surgeons Database		90-100% assessment completion rate Median completion time needed: 13-15.2 minutes (all 10 PROMIS tools together)
SHORT FORMS – Mental Health							
EORTC CAT Core Cognitive Functioning Short form 4 Giesinger et al. 2020 (176)	**Cancer patients/Palliative (n = 498)** Breast (n = 117; 23.6%) Hematological (n = 66; 13.3%) Lung (n = 49; 9.9%) Prostate (n = 48; 9.7%) Colorectal (n = 42; 8.5%) Head & neck (n = 39; 7.9) Lymphoma (n = 37; 7.5%) Gynecological (n = 29; 5.9%) Stomach (n = 12; 2.4%) Brain (n = 10; 2.0%) Other (n = 46; 9.3%) Missing data (n = 3, 0.0%)			**Limitations, need for help or worries: "Quite a bit" or "Very much"** TCI: 45 (sens: 0.82, spec: 0.67, AUC: 0.85)			
EORTC CAT Core Cognitive Functioning Short forms 4-8-4-8-4-8	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%)	**Relative validity (sample size saving % compared to EORTC QLQ-C30)** Mild brief: 1.11 (19%) Mild long: 1.14 (22%)				Mild brief: 4 items Mild long: 8 items Moderate brief: 4 items Moderate long: 8 items Severe brief: 4 items	

Petersen et al. 2023 (35)	Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	Moderate brief: 1.13 (20%) Moderate long: 1.19 (28%) Severe brief: 1.11 (19%) Severe long: 1.19 (28%)				Severe long: 8 items	
EORTC CAT Core Emotional Functioning Short form 7 Giesinger et al. 2020 (176)	**Cancer patients/Palliative (n = 498)** Breast (n = 117; 23.6%) Hematological (n = 66; 13.3%) Lung (n = 49; 9.9%) Prostate (n = 48; 9.7%) Colorectal (n = 42; 8.5%) Head & neck (n = 39; 7.9) Lymphoma (n = 37; 7.5%) Gynecological (n = 29; 5.9%) Stomach (n = 12; 2.4%) Brain (n = 10; 2.0%) Other (n = 46; 9.3%) Missing data (n = 3, 0.0%)			**Limitations, need for help or worries: "Quite a bit" or "Very much"** TCI: 46 (sens: 0.86, spec: 0.71, AUC: 0.89)			
EORTC CAT Core Emotional Functioning Short forms 5-8-5-9-5-9 Petersen et al. 2023 (35)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	**Relative validity (sample size saving % compared to EORTC QLQ-C30)** Mild brief: 1.03 (5%) Mild long: 1.07 (12%) Moderate brief: 1.05 (9%) Moderate long: 1.09 (16%) Severe brief: 1.06 (11%) Severe long: 1.11 (19%)				Mild brief: 5 items Mild long: 8 items Moderate brief: 5 items Moderate long: 9 items Severe brief: 5 items Severe long: 9 items	
PROMIS Cognitive function Short form 8a Franco-Rocha et al. 2023 (180)	**Mixed (n = 62)** **Cancer patients (n = 22; 35.5%):** Multiple myeloma (n = 11; 50.0%) Non-Hodgkin (n = 11; 50.0%) **General population (n = 40; 64,5%)**				All patients were able to access and complete the online questionnaires and cognitive testing without difficulty.		
PROMIS Cognitive Function Short form 8a Henneghan et al. 2023 (147)	**Cancer survivors (n = 693; 100%)** Breast (n = 693; 100%)			**FACIT Cog PCI-18 ≤ 34:** TCI: 51.6 (sens: 0.93, spec: 0.85, AUC: 0.96)			

PROMIS Emotional Distress - Anxiety Short form 7 Clover et al. 2022 (124)	**Cancer patients (n = 132; 100%)** Breast (n = 59; 45%) Hematological (n = 18; 13%) Colorectal (n = 16; 12%) Lung (n = 13; 10%) Other (n = 26; 20%)			**Diagnosis of any anxiety disorder based on SCID:** AUC: 0.80 **<55: Normal** **55-64: Mild**: sens: 0.67, spec: 0.79, PPV: 0.56, NPV: 0.86 **65-74: Moderate:** sens: 0.19, spec: 0.97, PPV: 0.71, NPV: 0.75 **≥75: Severe** **Optimal cut-off point of 53:** sens: 0.78, spec: 0.70, PPV: 0.50, NPV: 0.89			
PROMIS Emotional Distress - Anxiety Short form NS Khullar et al. 2017 (169)	**Cancer patients (n = 127)** Lung (n = 127; 100%)				Feasible to integrate the results into the Society of Thoracic Surgeons Database		90-100% assessment completion rate Median completion time needed: 13-15.2 minutes (all 10 PROMIS tools together)
PROMIS Emotional Distress – Anxiety Short form 5 Quach et al. 2016 (137)	**Cancer patients (n = 778)** Prostate (n = 778; 100%)		Floor effect: 45-58% Ceiling effect: <2%				
PROMIS Emotional Distress – Anxiety Short form v1.0 Smith et al. 2023 (177)	**Cancer patients (n = 250)** Breast (n = 250; 100%)						**Completion rate of ePRO survey completion:** Baseline: 73% 1 month follow-up: 66% 3 month follow-up: 62% 6 month follow-up: 56% 12 month follow-up: 42% Any follow-up within first 6 months: 70%

PROMIS Emotional Distress - Anxiety Short Form NS Snyder et al. 2014 (178)	**Cancer patients (n = 224)** Breast (n = 62; 28%) Prostate (n = 162; 72%)				Short forms were easy to complete (100%), easy to understand (99%), useful (98%), and improved quality of care (73%), discussions (84%) & communication (76%) with the doctor. For 90% it was a reminder for the doctor visit, 98% would recommend the use to others and 82% felt more in control of their care. In 70-73% results were used to identify areas of needs and organize care.		Completion rate: 91%
PROMIS Emotional Distress - Anxiety Short form 8a Recklitis et al. 2021 (181)	**Cancer survivors (n = 249)** Hodgkin (n = 50; 20%) Leukemia (n = 50; 20%) Brain (n = 30; 12%) Non-Hodgkin (n = 28; 11%) Testicular (n = 26; 11%) Breast (n = 24; 10%) Sarcomas (n = 20; 8%) Others (n = 21; 8%)			**Anchor-based: diagnosis of anxiety based on SCID:** Cut-off: ≥53.2 (sens: 0.88, spec: 0.65, total predictive value: 67.9%, AUC: 0.84)			
PROMIS Emotional Distress-Anxiety Short form 6a Van Wulfften et al. 2017 (132)	**Cancer patients (n = 70)** Sacral tumors (n = 70; 100%)		Floor effect: 24% Ceiling effect: 0%				
PROMIS Emotional Distress - Anxiety Short form 9	**Cancer patients/Palliative (n = 101)** Breast (n = 23; 21.8%) Colorectal (n = 19; 18.8%) Gynecological (n = 13; 12.9%) Lung (n = 12; 11.9%)			**T-score MID** (ES) 3.0-4.5 (0.40-0.60)			

Yost et al. 2011 (179)	Prostate (n = 5; 5.9%) Head and Neck (n = 5; 5.9%) Other (n = 14; 13.9%) Missing/Unknown (n = 9; 9.9%)						
PROMIS Emotional Distress - Depression Short form 8b Clover et al. 2018 (125)	**Cancer patients (n = 132; 100%)** Breast (n = 59; 45%) Hematological (n = 18; 13%) Colorectal (n = 16; 12%) Lung (n = 13; 10%) Other (n = 26; 20%)			**Diagnosis of major depressive episode based on SCID:** AUC: 0.83 **<55: Normal** **55-64: Mild**: sens: 0.73, spec: 0.79, PPV: 0.31, NPV: 0.96 **65-74: Moderate:** sens: 0.20, spec: 0.98, PPV: 0.67, NPV: 0.90 **≥75: Severe**			
PROMIS Emotional Distress - Depression Short form NS Khullar et al. 2017 (169)	**Cancer patients (n = 127)** Lung (n = 127; 100%)				Feasible to integrate the results into the Society of Thoracic Surgeons Database		90-100% assessment completion rate Median completion time needed: 13-15.2 minutes (all 10 PROMIS tools together)
PROMIS Emotional Distress – Depression Short form 5 Quach et al. 2016 (137)	**Cancer patients (n = 778)** Prostate (n = 778; 100%)		Floor effect: 45-58% Ceiling effect: <2%				
PROMIS Emotional Distress – Depression Short form v1.0 Smith et al. 2023 (177)	**Cancer patients (n = 250)** Breast (n = 250; 100%)						**Completion rate of ePRO survey completion:** Baseline: 73% 1 month follow-up: 66% 3 month follow-up: 62% 6 month follow-up: 56% 12 month follow-up: 42% Any follow-up within first 6 months: 70%

PROMIS Emotional Distress - Depression Short Form NS Snyder et al. 2014 (178)	**Cancer patients (n = 224)** Breast (n = 62; 28%) Prostate (n = 162; 72%)				Short forms were easy to complete (100%), easy to understand (99%), useful (98%), and improved quality of care (73%), discussions (84%) & communication (76%) with the doctor. For 90% it was a reminder for the doctor visit, 98% would recommend the use to others and 82% felt more in control of their care. In 70-73% results were used to identify areas of needs and organize care.		Completion rate: 91%
PROMIS Emotional Distress-Depression Short form 6a Van Wulfften et al. 2017 (132)	**Cancer patients (n = 70)** Sacral tumors (n = 70; 100%)		Floor effect: 37% Ceiling effect: 1%				
PROMIS Emotional Distress-Depression Short form 10 Yost et al. 2011 (179)	**Cancer patients/Palliative (n = 101)** Breast (n = 23; 21.8%) Colorectal (n = 19; 18.8%) Gynecological (n = 13; 12.9%) Lung (n = 12; 11.9%) Prostate (n = 5; 5.9%) Head and Neck (n = 5; 5.9%) Other (n = 14; 13.9%) Missing/Unknown (n = 9; 9.9%)			**T-score MID** (ES) 3.0-4.5 (0.36-0.54)			
SHORT FORMS – Social Health							

CPIB-10 Short form 10 Van Sluis et al. 2023 (151)	**Cancer patients (n = 48)** Head & neck (n = 48; 100%)		Floor effect: 0-2% Ceiling effect: 13-23%				
EORTC CAT Core Financial Difficulties Short form 4 Giesinger et al. 2020 (176)	**Cancer patients/Palliative (n = 498)** Breast (n = 117; 23.6%) Hematological (n = 66; 13.3%) Lung (n = 49; 9.9%) Prostate (n = 48; 9.7%) Colorectal (n = 42; 8.5%) Head & neck (n = 39; 7.9) Lymphoma (n = 37; 7.5%) Gynecological (n = 29; 5.9%) Stomach (n = 12; 2.4%) Brain (n = 10; 2.0%) Other (n = 46; 9.3%) Missing data (n = 3, 0.0%)			**Limitations, need for help or worries: "Quite a bit" or "Very much"** TCI: 58 (sens: 0.93, spec: 0.83, AUC: 0.94)			
EORTC CAT Core Financial Difficulties Short forms 3-5-4-6-4-8 Petersen et al. 2023 (35)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	**Relative validity (sample size saving % compared to EORTC QLQ-C30)** Mild brief: 1.11 (19%) Mild long: 1.18 (27%) Moderate brief: 1.18 (27%) Moderate long: 1.23 (33%) Severe brief: 1.25 (34%) Severe long: 1.29 (39%)				Mild brief: 3 items Mild long: 5 items Moderate brief: 4 items Moderate long: 6 items Severe brief: 4 items Severe long: 8 items	
EORTC CAT Core Role Functioning Short form 4 Giesinger et al. 2020 (176)	**Cancer patients/Palliative (n = 498)** Breast (n = 117; 23.6%) Hematological (n = 66; 13.3%) Lung (n = 49; 9.9%) Prostate (n = 48; 9.7%) Colorectal (n = 42; 8.5%) Head & neck (n = 39; 7.9) Lymphoma (n = 37; 7.5%) Gynecological (n = 29; 5.9%) Stomach (n = 12; 2.4%) Brain (n = 10; 2.0%)			**Need for help or worries: "Quite a bit" or "Very much"** TCI: 37 (sens: 0.84, spec: 0.79, AUC: 0.91)			

	Other (n = 46; 9.3%) Missing data (n = 3, 0.0%)						
EORTC CAT Core Role Functioning Short forms 4-7-4-7-4-7 Petersen et al. 2023 (35)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	**Relative validity (sample size saving % compared to EORTC QLQ-C30)** Mild brief: 1.10 (17%) Mild long: 1.16 (25%) Moderate brief: 1.09 (16%) Moderate long: 1.18 (27%) Severe brief: 1.11 (19%) Severe long: 1.16 (25%)				Mild brief: 4 items Mild long: 7 items Moderate brief: 4 items Moderate long: 7 items Severe brief: 4 items Severe long: 7 items	
EORTC CAT Core Social Functioning Short form 4 Giesinger et al. 2020 (176)	**Cancer patients/Palliative (n = 498)** Breast (n = 117; 23.6%) Hematological (n = 66; 13.3%) Lung (n = 49; 9.9%) Prostate (n = 48; 9.7%) Colorectal (n = 42; 8.5%) Head & neck (n = 39; 7.9) Lymphoma (n = 37; 7.5%) Gynecological (n = 29; 5.9%) Stomach (n = 12; 2.4%) Brain (n = 10; 2.0%) Other (n = 46; 9.3%) Missing data (n = 3, 0.0%)			**Need for help or worries: "Quite a bit" or "Very much"** TCI: 41 (sens: 0.80, spec: 0.69, AUC: 0.84)			
EORTC CAT Core Social Functioning Short forms 4-7-4-7-4-7 Petersen et al. 2023 (35)	**Cancer patients (n = 694)** Breast (n = 213; 30.5%) Lung (n = 83; 11.9%) Prostate (n = 45; 6.4%) Ovary (n = 38; 5.4%) Stomach (n = 36; 5.2%) Other (n = 256; 36.7%) Missing (n = 23; 4.1%)	**Relative validity (sample size saving % compared to EORTC QLQ-C30)** Mild brief: 1.05 (9%) Mild long: 1.13 (20%) Moderate brief: 1.06 (11%) Moderate long: 1.14 (22%) Severe brief: 1.16 (25%) Severe long: 1.20 (30%)				Mild brief: 4 items Mild long: 7 items Moderate brief: 4 items Moderate long: 7 items Severe brief: 4 items Severe long: 7 items	
PROMIS Ability to Participate in Social Roles & Activities Short form 4a	**Cancer patients (n = 633)** Breast (n = 633; 100%)		Floor effect: 4.1% Ceiling effect: 3.6%				

Cai et al. 2021 (152)							
PROMIS Ability to Participate in Social Roles & Activities Short form 10 Hahn et al. 2016 (81)	**Cancer patients (n = 5,301)** Breast (n = 1,586; 29.9%) Prostate (n = 1,126; 21.2%) Colorectal (n = 896; 16.9%) Lung (n = 684; 12.9%) Gynecological (n = 530; 10%) Non-Hodgkin (n = 445; 8.4%) Missing (n = 34; 0.6%)		Floor effects: 5.5-8.6% Ceiling effects: 31.8-41.6%				
PROMIS Ability to Participate in Social Roles & Activities Short form NS Khullar et al. 2017 (169)	**Cancer patients (n = 127)** Lung (n = 127; 100%)				Feasible to integrate the results into the Society of Thoracic Surgeons Database		90-100% assessment completion rate Median completion time needed: 13-15.2 minutes (all 10 PROMIS tools together)
PROMIS Emotional Support Short form NS Khullar et al. 2017 (169)	**Cancer patients (n = 127)** Lung (n = 127; 100%)				Feasible to integrate the results into the Society of Thoracic Surgeons Database		90-100% assessment completion rate Median completion time needed: 13-15.2 minutes (all 10 PROMIS tools together)
PROMIS Informational Support Short form NS Khullar et al. 2017 (169)	**Cancer patients (n = 127)** Lung (n = 127; 100%)				Feasible to integrate the results into the Society of Thoracic Surgeons Database		90-100% assessment completion rate Median completion time needed: 13-15.2 minutes (all 10 PROMIS tools together)
PROMIS Satisfaction with Social Roles & Activities Short form 4a	**Cancer patients (n = 633)** Breast (n = 633; 100%)		Floor effect: 2.8% Ceiling effect: 7.3%				

Cai et al. 2021 (152)							
PROMIS Satisfaction with Social Roles & Activities Short Form NS Snyder et al. 2014 (178)	**Cancer patients (n = 224)** Breast (n = 62; 28%) Prostate (n = 162; 72%)				Short forms were easy to complete (100%), easy to understand (99%), useful (98%), and improved quality of care (73%), discussions (84%) & communication (76%) with the doctor. For 90% it was a reminder for the doctor visit, 98% would recommend the use to others and 82% felt more in control of their care. In 70-73% results were used to identify areas of needs and organize care.		Completion rate: 91%
ITEM BANKS – Physical Health							
BREAST-Q Breast conserving therapy – Physical Well-being Klassen et al. 2020 (57)	**Cancer patients (n = 3,125)** Breast (n = 3,125; 100%)		Floor effect: 31.9%				
BREAST-Q Breast conserving therapy – Physical Well-being Martinez-Perez et al. 2023 (155)	**Cancer patients (n = 113)** Breast (n = 113; 100%)				91% were able to complete BREAST-Q independently, 9% required help from others. 27% completed the electronic survey only, 18% completed the paper survey only, 26% did not have an e-mail account. The cut-off age for appropriateness to		

					complete the BREAST-Q electronically was 69 years.		
BREAST-Q Breast conserving therapy – Physical Well-being Stolpner et al. 2019 (156)	**Cancer patients (n = 253)** Breast (n = 253; 100%)		Floor effect: 0% Ceiling effect: 0%				Missing values: 0.9-1.8%
BREAST-Q Breast conserving therapy – Physical Well-being (chest) Chu et al. 2023 (160)	**Cancer patients (n = 8,060)** Breast (n = 8,060; 100%)			**Distribution-based MID based on 0.2SD and 0.2 SRM** Clinical practice: 4 Research: 4			
BREAST-Q Breast conserving therapy – Satisfaction with breasts Chu et al. 2023 (160)	**Cancer patients (n = 8,060)** Breast (n = 8,060; 100%)			**Distribution-based MID based on 0.2SD and 0.2 SRM** Clinical practice: 4 Research: 4			
BREAST-Q Breast conserving therapy – Satisfaction with breasts Klassen et al. 2020 (57)	**Cancer patients (n = 3,125)** Breast (n = 3,125; 100%)		Floor effect: 1.1%				
BREAST-Q Breast conserving therapy –	**Cancer patients (n = 113)** Breast (n = 113; 100%)				91% were able to complete BREAST-Q independently, 9% required help from others. 27% completed		

Satisfaction with breasts Martinez-Perez et al. 2023 (155)					the electronic survey only, 18% completed the paper survey only, 26% did not have an e-mail account. The cut-off age for appropriateness to complete the BREAST-Q electronically was 69 years.		
BREAST-Q Breast conserving therapy – Satisfaction with breasts Stolpner et al. 2019 (156)	**Cancer patients (n = 253)** Breast (n = 253; 100%)		Floor effect: 0% Ceiling effect: 0%				Missing values: 0.9-4.1%
BREAST-Q Breast conserving therapy – Sexual Well-being Chu et al. 2023 (160)	**Cancer patients (n = 8,060)** Breast (n = 8,060; 100%)			**Distribution-based MID based on 0.2SD and 0.2 SRM** Clinical practice: 4 Research: 4			
BREAST-Q Breast conserving therapy – Sexual Well-being Klassen et al. 2020 (57)	**Cancer patients (n = 3,125)** Breast (n = 3,125; 100%)		Floor effect: 0.7%				
BREAST-Q Breast conserving therapy – Sexual Well-being	**Cancer patients (n = 113)** Breast (n = 113; 100%)				91% were able to complete BREAST-Q independently, 9% required help from others. 27% completed the electronic survey		

Martinez-Perez et al. 2023 (155)					only, 18% completed the paper survey only, 26% did not have an e-mail account. The cut-off age for appropriateness to complete the BREAST-Q electronically was 69 years.		
BREAST-Q Breast conserving therapy – Sexual Well-being Stolpner et al. 2019 (156)	**Cancer patients (n = 253)** Breast (n = 253; 100%)		Floor effect: 0% Ceiling effect: 0%				Missing values: 10.0-19.2%
BREAST-Q Breast Reconstruction – Animation deformity Tsangaris et al. 2021 (58)	**Cancer patients (n = 651)** Breast (n = 651; 100%)		Floor effect: 1.2% Ceiling effect: 17.7%				Missing items: 6.4%
BREAST-Q Breast Reconstruction – Back appearance Browne et al. 2018 (59)	**Cancer patients (n = 1,096)** Breast (n = 1,096; 100%)			MCID: 11 points			
BREAST-Q Breast Reconstruction – Back appearance Kamya et al. 2021 (157)	**Cancer patients (n = 125)** Breast (n = 125; 100%)		Floor effect: 0.8% Ceiling effect: 37%				Completion rate: 99%
BREAST-Q Breast	**Cancer patients (n = 1,204)** Breast (n = 1,204; 100%)		Floor effect: 10.5% Ceiling effect: 0.9%				Missing items: 1.6%

Reconstruction – Breast sensation Tsangaris et al. 2021 (60)							
BREAST-Q Breast Reconstruction – Breast symptoms Tsangaris et al. 2021 (60)	**Cancer patients (n = 1,204)** Breast (n = 1,204; 100%)		Floor effect: 0.1% Ceiling effect: 20%				Missing items: 0.1%
BREAST-Q Breast Reconstruction – Physical Well-being (back & shoulder) Browne et al. 2018 (59)	**Cancer patients (n = 1,096)** Breast (n = 1,096; 100%)			MCID: 9.2 points			
BREAST-Q Breast Reconstruction – Physical Well-being (back & shoulder) Kamya et al. 2021 (157)	**Cancer patients (n = 125)** Breast (n = 125; 100%)		Floor effect: 0% Ceiling effect: 30%				Completion rate: 99%
BREAST-Q Breast Reconstruction – Physical Well-being (chest) Voineskos et al. 2020 (182)	**Cancer patients (n = 3,052)** Breast (n = 3,052; 100%)			**Distribution-based MID based on 0.2SD and 0.2 SRM** Clinical practice: 4 Research: 3			
BREAST-Q Breast	**Cancer patients (n = 1,204)** Breast (n = 1,204; 100%)		Floor effect: 1.3% Ceiling effect: 11.8%				Missing items: 1.9%

Reconstruction – Quality of life impact Tsangaris et al. 2021 (60)							
BREAST-Q Breast Reconstruction – Satisfaction with breasts Voineskos et al. 2020 (182)	**Cancer patients (n = 3,052)** Breast (n = 3,052; 100%)			**Distribution-based MID based on 0.2SD and 0.2 SRM** Clinical practice: 4 Research: 4			
BREAST-Q Breast Reconstruction – Sexual Well-being Voineskos et al. 2020 (182)	**Cancer patients (n = 3,052)** Breast (n = 3,052; 100%)			**Distribution-based MID based on 0.2SD and 0.2 SRM** Clinical practice: 4 Research: 4			
BREAST-Q Fatigue Klassen et al. 2021 (62)	**Cancer patients (n = 1,680)** Breast (n = 1,680; 100%)		Floor effect: 0.7% Ceiling effect: 13.7%				
BREAST-Q Physical Well-being Saiga et al. 2017 (159)	**Cancer patients (n = 44)** Breast (n = 44; 100%)		Floor effect: present for all items Ceiling effect: 0%				Missing values: 0%
BREAST-Q Satisfaction with breasts Saiga et al. 2017 (159)	**Cancer patients (n = 44)** Breast (n = 44; 100%)		Floor effect: 0% Ceiling effect: 0%				Missing values: 0-6.8%
BREAST-Q Sexual Well-being Saiga et al. 2017 (159)	**Cancer patients (n = 44)** Breast (n = 44; 100%)		Floor effect: present for all items Ceiling effect: present for 1 item (2j)				Missing values: 2.3-11.4%

BREAST-Q Sexual Well-being Shiraishi et al. 2023 (183)	**Cancer patients (n = 141)** Breast (n = 141; 100%)						**Completion rate** At 1 year follow-up: 60% rated all items At 5 year follow-up: 34.3% rated all items There were significant differences between responders and non-responders in age at postoperative year 1 and for mastectomy only and Tissue Expander/Implant at year 5.
Cancer-related fatigue Item bank Lai et al. 2005 (68)	**Cancer patients (n = 301)** Breast (n = 101; 33.6%) Colorectal (n = 37; 12.3%) Non-Hodgkin (n = 23; 7.6%) Ovarian (n = 21; 7.0%) Lung (n = 20; 6.6%) Prostate (n = 15; 5.0%) Others (n = 84; 25.6%) Missing (n = 7; 2.3%)		Floor effect: 0% Ceiling effect: 2.3%				Average completion time: 17.9 ± 7.8 minutes
FACE-Q Skin cancer – Appraisal of scars Dobbs et al. 2021 (84)	**Cancer patients (n = 110)** Skin (n = 110; 100%)		Floor effect: 0.9% Ceiling effect: 24.5%				Missing values: 41.8-47.3%
FACE-Q Skin cancer – Appraisal of scars Dobbs et al. 2022 (163)	**Cancer patients (n = 239)** Skin (n = 239; 100%)		Large ceiling effect				
FACE-Q Skin cancer – Appraisal of scars	**Cancer patients (n = 209)** Skin (n = 209; 100%)		Floor effect: 0.4% Ceiling effect: 40.6%				Missing values: 2.2-4.9%

Lee et al. 2018 (65)							
FACE-Q Skin cancer – Satisfaction with facial appearance Dobbs et al. 2021 (84)	**Cancer patients (n = 110)** Skin (n = 110; 100%)		Floor effect: 0.9% Ceiling effect: 22.7%				Missing values: 11.8-16.4%
FACE-Q Skin cancer – Satisfaction with facial appearance Dobbs et al. 2022 (163)	**Cancer patients (n = 239)** Skin (n = 239; 100%)		Small ceiling effect, good coverage				
FACE-Q Skin cancer – Satisfaction with facial appearance Lee et al. 2018 (65)	**Cancer patients (n = 209)** Skin (n = 209; 100%)		Floor effect: 1.7% Ceiling effect: 32.8%				Missing values: 3.8-6.5%
FACE-Q Skin cancer – Sun protection behaviour Dobbs et al. 2021 (84)	**Cancer patients (n = 110)** Skin (n = 110; 100%)		Floor effect: 0.9% Ceiling effect: 12.7%				Missing values: 5.5-28.2%
FACE-Q Skin cancer – Sun protection behaviour Dobbs et al. 2022 (163)	**Cancer patients (n = 239)** Skin (n = 239; 100%)		Excellent coverage				
FACE-Q Skin cancer – Symptoms checklist	**Cancer patients (n = 110)** Skin (n = 110; 100%)		Floor effect: 19.1% Ceiling effect: 0.9%				Missing values: 29.1-32.7%

Dobbs et al. 2021 (84)							
FACE-Q Skin cancer – Symptoms checklist Dobbs et al. 2022 (163)	**Cancer patients (n = 239)** Skin (n = 239; 100%)		Floor effect				
FACIT-F Item bank Lai et al. 2003 (70)	**Cancer patients (n = 1,022)** Lung (n = 298; 29.2%) Breast (n = 232; 22.7%) Hematological (n = 228; 22.2%) Gynecological (n = 168; 16.4%) Gastrointestinal (n = 12; 11.6%) Others (n = 206; 20.2%)		Floor effect: 15.9% Ceiling effect: 1.5%				
LYMPH-Q – Appearance Klassen et al. 2021 (66)	**Cancer patients (n = 3,222)** Breast (n = 3,222; 100%)		Floor effect: 2.2% Ceiling effect: 14.3%				Missing values: 0.4%
LYMPH-Q – Arm sleeve Klassen et al. 2021 (66)	**Cancer patients (n = 3,222)** Breast (n = 3,222; 100%)		Floor effect: 0.5% Ceiling effect: 4.5%				Missing values: 1.1%
LYMPH-Q - Function Klassen et al. 2021 (66)	**Cancer patients (n = 3,222)** Breast (n = 3,222; 100%)		Floor effect: 0.2% Ceiling effect: 19%				Missing values: 0.2%
LYMPH-Q - Symptoms Klassen et al. 2021 (66)	**Cancer patients (n = 3,222)** Breast (n = 3,222; 100%)		Floor effect: 0% Ceiling effect: 4.1%				Missing values: 0.1%
PROMIS Fatigue Item bank Cella et al. 2014 (184)	**Cancer patients (n = 512)** Breast (n = 169; 33%) Urologic (n = 97; 19%) Hematological (n = 61; 12%) Gynecological (n = 51; 10%) Gastrointestinal (n = 51; 10%) Head & Neck (n = 41; 8%) Others (n = 41; 8%)			**<50:** Normal **50-54:** Mild **55-74:** Moderate **≥75**: Severe			

PROMIS Pain Interference Item bank Cella et al. 2014 (184)	**Cancer patients (n = 529)** Breast (n = 190; 36%) Urologic (n = 101; 19%) Hematological (n = 63; 12%) Gynecological (n = 48; 9%) Gastrointestinal (n = 48; 9%) Head & Neck (n = 42; 8%) Others (n = 37; 7%)			**<50:** Normal **50-59:** Mild **60-69:** Moderate **≥70:** Severe			
PROMIS Physical Function Item bank Condon et al. 2020 (91)	**Mixed (n = 2,400)** Cancer patients (n = 1,001; 41.7%) General population (n = 1,399; 58.3%)		Floor effect: 1% Ceiling effect: 3%				
PROMIS Physical Function Item bank Rothrock et al. 2019 (185)	**Cancer patients (n = 6)** Breast (n = 2; 33%) Hematological (n = 2; 33%) Lung (n = 1; 17%) Skin (n = 1; 17%)			**Patient consensus:** **Within normal limits:** 50-65 **Mild:** 35-50 **Moderate:** 20-35 **Severe:** 0-20 **Clinician consensus:** **Within normal limits:** 50-65 **Mild:** 40-50 **Moderate:** 30-40 **Severe:** 0-30			
PROMIS Sexual Function Item bank Williams et al. 2013 (175)	**Cancer patients/Survivors (n = 683)** Breast (n = 204; 30%) Prostate (n = 203; 30%) Lung (n = 70; 10%) Colorectal (n = 65; 10%) Others (n = 141; 20%)				72% chose online survey administration, 28% chose to complete the survey by the telephone. The cancer survivors choosing to complete the survey online were younger, less racially diverse, had higher incomes, and were more educated than those who completed the survey		**Completion rate of ≥95%:** Telephone: 93% Online: 92%

					by telephone. One third of online survey respondents needed at least one reminder from study staff before completing the survey.		
PROMIS Sleep Disturbance Item bank Rothrock et al. 2019 (185)	**Cancer patients (n = 6)** Breast (n = 2; 33%) Hematological (n = 2; 33%) Lung (n = 1; 17%) Skin (n = 1; 17%)			**Patient consensus:** **Within normal limits:** 0-45 **Mild:** 45-55 **Moderate:** 55-60 **Severe:** 60-100 **Clinician consensus:** **Within normal limits:** 0-45 **Mild:** 45-55 **Moderate:** 55-60 **Severe:** 60-100			
PROMIS Sleep Disturbance Item bank Williams et al. 2013 (175)	**Cancer patients/Survivors (n = 683)** Breast (n = 204; 30%) Prostate (n = 203; 30%) Lung (n = 70; 10%) Colorectal (n = 65; 10%) Others (n = 141; 20%)				72% chose online survey administration, 28% chose to complete the survey by the telephone. The cancer survivors choosing to complete the survey online were younger, less racially diverse, had higher incomes, and were more educated than those who completed the survey by telephone. One third of online survey respondents needed at least one reminder from study staff before completing the survey.		**Completion rate of ≥95%:** Telephone: 93% Online: 92%
ITEM BANKS – Mental Health							

BREAST-Q Breast conserving therapy – Psychosocial Well-being Chu et al. 2023 (160)	**Cancer patients (n = 8,060)** Breast (n = 8,060; 100%)			**Distribution-based MID based on 0.2SD and 0.2 SRM** Clinical practice: 4 Research: 4			
BREAST-Q Breast conserving therapy – Psychosocial Well-being Klassen et al. 2020 (57)	**Cancer patients (n = 3,125)** Breast (n = 3,125; 100%)		Floor effect: 0.5%				
BREAST-Q Breast conserving therapy – Psychosocial Well-being Martinez-Perez et al. 2023 (155)	**Cancer patients (n = 113)** Breast (n = 113; 100%)				91% were able to complete BREAST-Q independently, 9% required help from others. 27% completed the electronic survey only, 18% completed the paper survey only, 26% did not have an e-mail account. The cut-off age for appropriateness to complete the BREAST-Q electronically was 69 years.		
BREAST-Q Breast conserving therapy – Psychosocial Well-being Stolpner et al. 2019 (156)	**Cancer patients (n = 253)** Breast (n = 253; 100%)		Floor effect: 0% Ceiling effect: 0%				Missing values: 1.8-3.7%

BREAST-Q Breast Reconstruction – Psychosocial Well-being Voineskos et al. 2020	**Cancer patients (n = 3,052)** Breast (n = 3,052; 100%)			**Distribution-based MID based on 0.2SD and 0.2 SRM** Clinical practice: 4 Research: 4			
BREAST-Q Psychosocial Well-being Saiga et al. 2017 (159)	**Cancer patients (n = 44)** Breast (n = 44; 100%)		Floor effect: 0% Ceiling effect: 0%				Missing values: 0-2.3%
FACE-Q Skin cancer – Distress - Appearance Lee et al. 2018	**Cancer patients (n = 209)** Skin (n = 209; 100%)		Floor effect: 39.9% Ceiling effect: 0%				Missing values: 1.5-1.8%
FACE-Q Skin cancer – Distress – Cancer worry Dobbs et al. 2021 (84)	**Cancer patients (n = 110)** Skin (n = 110; 100%)		Floor effect: 2.7% Ceiling effect: 1.8%				Missing values: 3.6-7.4%
FACE-Q Skin cancer – Distress – Cancer worry Dobbs et al. 2022 (163)	**Cancer patients (n = 239)** Skin (n = 239; 100%)		Excellent coverage				
FACE-Q Skin cancer – Distress - Cancer worry Lee et al. 2018 (65)	**Cancer patients (n = 209)** Skin (n = 209; 100%)		Floor effect: 15.3% Ceiling effect: 0.6%				Missing values: 1.8-3.6%
LYMPH-Q - Psychological Klassen et al. 2021 (66)	**Cancer patients (n = 3,222)** Breast (n = 3,222; 100%)		Floor effect: 0% Ceiling effect: 22.7%				Missing values: 0.8%

PROMIS Cognitive Function Item bank Rothrock et al. 2019 (185)	**Cancer patients (n = 6)** Breast (n = 2; 33%) Hematological (n = 2; 33%) Lung (n = 1; 17%) Skin (n = 1; 17%)			**Patient consensus:** **Within normal limits:** 45-60 **Mild:** 35-45 **Moderate:** 30-35 **Severe:** 18-30 **Clinician consensus:** **Within normal limits:** 45-60 **Mild:** 40-45 **Moderate:** 35-40 **Severe:** 18-35			
PROMIS Cognitive Function Item bank Williams et al. 2013 (175)	**Cancer patients/Survivors (n = 683)** Breast (n = 204; 30%) Prostate (n = 203; 30%) Lung (n = 70; 10%) Colorectal (n = 65; 10%) Others (n = 141; 20%)				72% chose online survey administration, 28% chose to complete the survey by the telephone. The cancer survivors choosing to complete the survey online were younger, less racially diverse, had higher incomes, and were more educated than those who completed the survey by telephone. One third of online survey respondents needed at least one reminder from study staff before completing the survey.		**Completion rate of ≥95%:** Telephone: 93% Online: 92%
PROMIS Emotional Distress - Anxiety Item bank Cella et al. 2014 (184)	**Cancer patients (n = 507)** Breast (n = 177; 35%) Urological (n = 96; 19%) Hematological (n = 56; 11%) Gynecological (n = 51; 10%) Gastrointestinal (n = 51; 10%) Head & Neck (n = 35; 7%) Others (n = 41; 8%)			**<55:** Normal **55-64**: Mild **65-74**: Moderate **≥75**: Severe			

PROMIS Emotional Distress - Depression Item bank Cella et al. 2014 (184)	**Cancer patients (n = 507)** Breast (n = 177; 35%) Urological (n = 96; 19%) Hematological (n = 56; 11%) Gynecological (n = 51; 10%) Gastrointestinal (n = 51; 10%) Head & Neck (n = 35; 7%) Others (n = 41; 8%)			**<55:** Normal **55-64:** Mild **65-74**: Moderate **≥75:** Severe			
PROMIS Illness Impact Item bank Williams et al. 2013 (175)	**Cancer patients/Survivors (n = 683)** Breast (n = 204; 30%) Prostate (n = 203; 30%) Lung (n = 70; 10%) Colorectal (n = 65; 10%) Others (n = 141; 20%)				72% chose online survey administration, 28% chose to complete the survey by the telephone. The cancer survivors choosing to complete the survey online were younger, less racially diverse, had higher incomes, and were more educated than those who completed the survey by telephone. One third of online survey respondents needed at least one reminder from study staff before completing the survey.		**Completion rate of ≥95%:** Telephone: 93% Online: 92%
ITEM BANKS – Social Health							
BREAST-Q Breast conserving therapy – Satisfaction with information Klassen et al. 2020 (57)	**Cancer patients (n = 3,125)** Breast (n = 3,125; 100%)		Floor effect: 1.6%				
BREAST-Q Breast conserving	**Cancer patients (n = 253)** Breast (n = 253; 100%)		Floor effect: 0% Ceiling effect: 0%				Missing values: 7.3-19.2%

therapy – Satisfaction with information Stolpner et al. 2019 (156)							
BREAST-Q Impact on Work Item bank Klassen et al. 2021 (62)	**Cancer patients (n = 1,680)** Breast (n = 1,680; 100%)		Floor effect: 2.9% Ceiling effect: 38%				
BREAST-Q Satisfaction with medical team Klassen et al. 2020 (57)	**Cancer patients (n = 3,125)** Breast (n = 3,125; 100%)		Floor effect: 0.1%				
BREAST-Q Satisfaction with medical team Saiga et al. 2017 (159)	**Cancer patients (n = 44)** Breast (n = 44; 100%)		Floor effect: 0% Ceiling effect: present for all items				Missing values: 0-2.3%
BREAST-Q Satisfaction with medical team Stolpner et al. 2019 (156)	**Cancer patients (n = 253)** Breast (n = 253; 100%)		Floor effect: 0% Ceiling effect: 0%				Missing values: 2.3-3.7%
BREAST-Q Satisfaction with office staff Klassen et al. 2020 (57)	**Cancer patients (n = 3,125)** Breast (n = 3,125; 100%)		Floor effect: 0.3%				
BREAST-Q Satisfaction with office staff	**Cancer patients (n = 44)** Breast (n = 44; 100%)		Floor effect: 0% Ceiling effect: present for all items				Missing values: 0-2.3%

Saiga et al. 2017 (159)							
BREAST-Q Satisfaction with office staff Stolpner et al. 2019 (156)	**Cancer patients (n = 253)** Breast (n = 253; 100%)		Floor effect: 0% Ceiling effect: 0%				Missing values: 1.8-4.1%
BREAST-Q Satisfaction with surgeon Klassen et al. 2020 (57)	**Cancer patients (n = 3,125)** Breast (n = 3,125; 100%)		Floor effect: 0.2%				
BREAST-Q Satisfaction with surgeon Saiga et al. 2017 (159)	**Cancer patients (n = 44)** Breast (n = 44; 100%)		Floor effect: 0% Ceiling effect: present for all items				Missing values: 0-2.3%
BREAST-Q Satisfaction with surgeon Stolpner et al. 2019 (156)	**Cancer patients (n = 253)** Breast (n = 253; 100%)		Floor effect: 0% Ceiling effect: 0%				Missing values: 12.8-19.6%
FACE-Q Skin cancer – Satisfaction with clerical staff Dobbs et al. 2021 (84)	**Cancer patients (n = 110)** Skin (n = 110; 100%)		Floor effect: 0.9% Ceiling effect: 58.2%				Missing values: 11.8-21.8%
FACE-Q Skin cancer – Satisfaction with clerical staff Dobbs et al. 2022 (163)	**Cancer patients (n = 239)** Skin (n = 239; 100%)		Massive ceiling effect				
FACE-Q Skin cancer – Satisfaction with information	**Cancer patients (n = 110)** Skin (n = 110; 100%)		Floor effect: 0% Ceiling effect: 29.1%				Missing values: 25.5-40%

Dobbs et al. 2021 (84)							
FACE-Q Skin cancer – Satisfaction with information Dobbs et al. 2022 (163)	**Cancer patients (n = 239)** Skin (n = 239; 100%)		Large ceiling effect				
FACE-Q Skin cancer – Satisfaction with information (appearance) Dobbs et al. 2021 (84)	**Cancer patients (n = 110)** Skin (n = 110; 100%)		Floor effect: 0.9% Ceiling effect: 30%				Missing values: 25.5-30.9%
FACE-Q Skin cancer – Satisfaction with information (appearance) Dobbs et al. 2022 (163)	**Cancer patients (n = 239)** Skin (n = 239; 100%)		Good coverage with mild ceiling effect				
FACE-Q Skin cancer – Satisfaction with information (appearance) Lee et al. 2018 (65)	**Cancer patients (n = 209)** Skin (n = 209; 100%)		Floor effect: 1.3% Ceiling effect: 47.6%				Missing values: 3.8-5.4%
FACE-Q Skin cancer – Satisfaction with surgeon Dobbs et al. 2021 (84)	**Cancer patients (n = 110)** Skin (n = 110; 100%)		Floor effect: 0.9% Ceiling effect: 49.1%				Missing values: 26.4-32.7%
FACE-Q Skin cancer – Satisfaction with surgeon	**Cancer patients (n = 239)** Skin (n = 239; 100%)		Massive ceiling effect				

Dobbs et al. 2022 (163)							
FACE-Q Skin cancer – Satisfaction with ward team Dobbs et al. 2021 (84)	**Cancer patients (n = 110)** Skin (n = 110; 100%)		Floor effect: 0% Ceiling effect: 57.3%				Missing values: 26.4-30.9%
FACE-Q Skin cancer – Satisfaction with ward team Dobbs et al. 2022 (163)	**Cancer patients (n = 239)** Skin (n = 239; 100%)		Massive ceiling effect				
LYMPH-Q - Information Klassen et al. 2021 (66)	**Cancer patients (n = 3,222)** Breast (n = 3,222; 100%)		Floor effect: 4.3% Ceiling effect: 11.8%				Missing values: 1.4%

Abbreviations: AUC, Area Under the Curve; BSI, Brief Symptom Inventory; EORTC QLQ-C30, European Organisation for Research and Treatment of Cancer Quality of Life Core Questionnaire 30 items; CF, Cognitive Functioning; EF, Emotional Functioning; FAT, Fatigue; PA, Pain; PF, Physical Functioning; RF, Role Functioning; SL, Sleep/Insomnia; ES, Effect Size; ISI, Insomnia Severity Index; MIC, Minimal Important Change; MID, Minimal Important Difference; NATCSS, North American Thyroid Cancer Survivorship Study; NPV, Negative Predictive Value; PCI-18, Perceived Cognitive Impairments 18; PPV, Positive Predictive Value; RV, Relative Validity; SCID, Structured Clinical Interview for DSM-IV-TR Axis I Disorders; SD, Standard Deviation; sens, sensitivity; spec, specificity; TCI, Thresholds for Clinical Importance

Table 6: Summary with implementation focus

PROM*	Development	Content validity	Other psychometric properties					Interpretability			Feasibility & Acceptability		
			Structural validity	Reliability	Cross-cultural validity/ Measure-ment invariance	Construct validity	Responsive-ness	Measure-ment precision	Floor & ceiling effects	Cut-off MIC/MID	User experience	Length of instrument	Completion rate/time
COMPUTERIZED ADAPTIVE TESTING (CAT) – Overall QoL													
THYCAT	X				X	X						X	
COMPUTERIZED ADAPTIVE TESTING (CAT) – Physical Health													
BREAST-Q Satisfaction with breasts	X	X		X		X		X				X	
EORTC CAT Core Appetite Loss	X	X			X	X		X	X				X
EORTC CAT Core Constipation	X	X			X	X		X	X				X
EORTC CAT Core Diarrhea	X	X			X	X		X	X				X
EORTC CAT Core Dyspnea	X	X			X	X		X	X				X
EORTC CAT Core Fatigue	X	X	X	X	X	X		X	X				X
EORTC CAT Core Insomnia	X	X	X	X	X	X		X	X				X
EORTC CAT Core Nausea & Vomiting	X	X			X	X		X	X				X
EORTC CAT Core Pain	X	X	X	X	X	X		X	X				X
EORTC CAT Core Physical Functioning	X	X	X	X	X	X		X	X		X	X	X
FACE-Q Skin cancer – Appraisal of scars	X	X				X		X				X	
FACE-Q Skin cancer – Satisfaction with facial appearance	X	X				X		X				X	
NEURO-QoL Lower extremity function	X	X		X		X			X				X
PROMIS Fatigue	X	X		X		X				X	X	X	X
PROMIS Fatigue Cancer-related	X	X								X	X		X
PROMIS Pain Behaviour	X	X		X		X					X		
PROMIS Pain Interference	X	X		X		X			X	X	X	X	X

PROMIS Pain Interference Cancer-related	X	X								X	X		X
PROMIS Physical Function	X	X		X		X	X		X	X			X
PROMIS Physical Function Cancer-related	X	X							X	X	X	X	X
PROMIS Sleep Disturbance	X	X				X				X	X	X	
PROMIS Sleep-related Impairment	X	X		X		X				X	X	X	
COMPUTERIZED ADAPTIVE TESTING (CAT) – Mental Health													
EORTC CAT Core Cognitive Functioning	X	X	X	X	X	X		X	X				X
EORTC CAT Core Emotional Functioning	X	X	X	X	X	X		X	X		X	X	X
FACE-Q Skin cancer – Distress – Appearance	X	X				X		X				X	
FACE-Q Skin cancer – Distress – Cancer worry	X	X				X		X				X	
PROMIS Emotional Distress – Anger	X	X				X				X			
PROMIS Emotional Distress – Anxiety	X	X				X				X			X
PROMIS Emotional Distress – Anxiety Cancer-related	X	X								X	X		X
PROMIS Emotional Distress – Depression	X	X				X			X	X		X	X
PROMIS Emotional Distress – Depression Cancer-related	X	X								X	X		X
COMPUTERIZED ADAPTIVE TESTING (CAT) – Social Health													
AM-PAC-CAT	X	X				X	X			X			X
ENRICH CAT	X		X	X	X	X						X	
EORTC CAT Core Financial Difficulties	X	X			X	X		X	X				X
EORTC CAT Core Role Functioning	X	X	X	X	X	X		X	X				X
EORTC CAT Core Social Functioning	X	X			X	X		X	X				X
FACE-Q Skin cancer – Satisfaction with information (appearance)	X	X				X		X				X	

PROMIS Satisfaction with Participation in Discretionary Social Activities	X	X									X		
PROMIS Satisfaction with Participation in Social Roles	X	X		X		X					X		
PROMIS PROFILES													
PROMIS 3D	X	X				X			X	X			
PROMIS-29	X	X	X	X		X			X				
PROMIS-57	X	X	X	X	X	X			X				
PROMIS Global Health	X	X		X		X			X	X	X		X
PROMIS Sexual Function & Satisfaction v1.0 (Female)	X	X		X		X			X	X	X		X
PROMIS Sexual Function & Satisfaction v1.0 (Male)	X	X		X		X			X				
PROMIS Sexual Function & Satisfaction v2.0 (Female)	X	X											
SHORT FORMS – Physical Health													
Cancer-related fatigue short form	X			X									
EORTC CAT Core Appetite Loss	X	X						X		X		X	
EORTC CAT Core Constipation	X	X						X		X		X	
EORTC CAT Core Diarrhea	X	X						X		X		X	
EORTC CAT Core Dyspnea	X	X						X		X		X	
EORTC CAT Core Fatigue	X	X						X		X		X	
EORTC CAT Core Insomnia	X	X						X		X		X	
EORTC CAT Core Nausea & Vomiting	X	X						X		X		X	
EORTC CAT Core Pain	X	X						X		X		X	
EORTC CAT Core Physical Functioning	X	X						X		X		X	
NEURO-QoL Lower extremity function	X	X		X		X			X				
PROMIS Fatigue	X	X	X	X	X	X	X		X	X	X		X
PROMIS Gastrointestinal – Diarrhea	X	X	X		X								
PROMIS Pain Intensity	X	X		X		X	X		X		X		X
PROMIS Pain Interference	X	X	X	X		X	X		X	X	X		X

PROMIS Physical Function	X	X	X	X	X	X	X		X	X	X		X
PROMIS Sexual Function & Satisfaction (Erectile function)	X	X	X	X	X	X							
PROMIS Sexual Function & Satisfaction (Global Satisfaction with Sex Life)	X	X	X	X	X	X							
PROMIS Sexual Function & Satisfaction (Interest in Sexual Activity)	X	X	X	X	X	X							
PROMIS Sexual Function & Satisfaction (Orgasm)	X	X	X	X		X							
PROMIS Sexual Function & Satisfaction (Vaginal Discomfort)	X	X	X	X		X							
PROMIS Sexual Function & Satisfaction (Vaginal Lubrication)	X	X	X	X	X	X							X
PROMIS Sexual Function & Satisfaction (Vulvar Discomfort – Clitoral)	X	X				X							
PROMIS Sexual Function & Satisfaction (Vulvar Discomfort – Labial)	X	X				X							
PROMIS Sleep Disturbance	X	X	X	X	X	X	X		X				
PROMIS Sleep-related Impairment	X	X	X		X						X		X
SHORT FORMS – Mental Health													
EORTC CAT Core Cognitive Functioning	X	X						X		X		X	
EORTC CAT Core Emotional Functioning	X	X						X		X		X	
PROMIS Cognitive Function	X	X		X		X	X			X	X		
PROMIS Emotional Distress – Anxiety	X	X	X	X	X	X	X		X	X	X		X
PROMIS Emotional Distress – Depression	X	X	X	X	X	X	X		X	X	X		X
PROMIS Psychosocial Illness Impact – Negative	X	X	X		X								

PROMIS Psychosocial Illness Impact – Positive	X	X	X		X								
SHORT FORMS – Social Health													
CPIB-10	X			X		X			X				
ENRICH-4	X					X							
EORTC CAT Core Financial Difficulties	X	X						X		X		X	
EORTC CAT Core Role Functioning	X	X						X		X		X	
EORTC CAT Core Social Functioning	X	X						X		X		X	
PROMIS Ability to Participate in Social Roles & Activities	X	X	X	X	X	X	X		X		X		X
PROMIS Emotional Support	X	X	X	X	X	X					X		X
PROMIS Informational Support	X	X	X	X	X	X					X		X
PROMIS Instrumental Support	X	X	X	X	X	X							
PROMIS Satisfaction with Social Roles & Activities	X	X	X	X	X	X			X		X		X
ITEM BANKS – Physical Health													
BREAST-Q Breast conserving therapy – Adverse effects of radiation	X	X		X		X							
BREAST-Q Breast conserving therapy – Physical Well-being	X	X		X		X			X		X		X
BREAST-Q Breast conserving therapy – Physical Well-being (chest)	X	X								X			
BREAST-Q Breast conserving therapy – Satisfaction with breasts	X	X		X		X			X		X		X
BREAST-Q Breast conserving therapy – Sexual Well-being	X	X		X		X			X	X	X		X
BREAST-Q Breast Reconstruction – Animation deformity	X	X		X	X	X			X				X

BREAST-Q Breast Reconstruction – Back appearance	X	X		X					X	X			X
BREAST-Q Breast Reconstruction – Breast sensation	X	X		X	X	X			X				X
BREAST-Q Breast Reconstruction – Breast symptoms	X	X		X	X	X			X				X
BREAST-Q Breast Reconstruction – Physical Well-being	X	X		X		X							
BREAST-Q Breast Reconstruction – Physical Well-being (abdomen)	X	X		X		X							
BREAST-Q Breast Reconstruction – Physical Well-being (back & shoulder)	X	X		X		X			X	X			X
BREAST-Q Breast Reconstruction – Physical Well-being (chest & upper body)	X	X		X		X				X			
BREAST-Q Breast Reconstruction – Quality of life impact	X	X		X	X	X			X				X
BREAST-Q Breast Reconstruction – Satisfaction with abdomen	X	X		X		X							
BREAST-Q Breast Reconstruction – Satisfaction with breasts	X	X		X		X				X			
BREAST-Q Breast Reconstruction – Satisfaction with outcome	X	X		X		X							
BREAST-Q Breast Reconstruction – Sexual Well-being	X	X		X		X				X			
BREAST-Q Fatigue	X	X		X	X	X			X				

BREAST-Q Mastectomy – Physical Well-being	X	X		X		X							
BREAST-Q Mastectomy – Physical Well-being (chest)	X	X		X		X							
BREAST-Q Mastectomy – Satisfaction with breasts	X	X		X		X							
BREAST-Q Mastectomy – Sexual Well-being	X	X		X		X							
BREAST-Q Nipple sparing Mastectomy	X	X											
BREAST-Q Physical Well-being	X	X	X	X		X			X				X
BREAST-Q Satisfaction with breasts	X	X	X	X		X			X				X
BREAST-Q Sexual Well-being	X	X	X	X		X			X				X
Cancer-related Fatigue	X		X	X					X				X
EPCRC-CSA Mobility	X	X											
FACE-Q Head & neck cancer – Facial Appearance - Appearance	X	X		X		X							
FACE-Q Head & neck cancer – Function – Eating & drinking	X	X		X		X							
FACE-Q Head & neck cancer – Function – Oral competence	X	X		X		X							
FACE-Q Head & neck cancer – Function - Salivation	X	X		X		X							
FACE-Q Head & neck cancer – Function - Smiling	X	X		X		X							
FACE-Q Head & neck cancer – Function - Speaking	X	X		X		X							
FACE-Q Head & neck cancer – Function - Swallowing	X	X		X		X							
FACE-Q Skin cancer – Appraisal of scars	X	X		X		X			X				X
FACE-Q Skin cancer – Satisfaction with facial appearance	X	X		X		X			X				X

FACE-Q Skin cancer – Sun protection behaviour	X	X		X					X				X
FACE-Q Skin cancer – Symptom checklist	X	X		X					X				X
FACIT-F	X			X					X				
LYMPH-Q Appearance	X	X		X	X	X			X				X
LYMPH-Q Arm sleeve	X	X		X	X	X			X				X
LYMPH-Q Function	X	X		X	X	X			X				X
LYMPH-Q Symptoms	X	X		X	X	X			X				X
PROMIS Fatigue	X	X					X			X			
PROMIS Pain Interference	X	X								X			
PROMIS Physical Function	X	X	X	X	X				X	X			
PROMIS Sexual Function	X	X									X		X
PROMIS Sleep Disturbance	X	X								X	X		X
ITEM BANKS – Mental Health													
BREAST-Q Breast conserving therapy – Psychosocial Well-being	X	X		X		X			X	X	X		X
BREAST-Q Breast Reconstruction – Psychosocial Well-being	X	X		X		X				X			
BREAST-Q Cancer Worry	X	X		X	X	X							
BREAST-Q Mastectomy – Psychosocial Well-being	X	X		X		X							
BREAST-Q Psychosocial Well-being	X	X	X	X		X			X				X
FACE-Q Head & neck cancer – Distress - Appearance	X	X		X		X							
FACE-Q Head & neck cancer – Distress – Cancer worry	X	X		X									
FACE-Q Head & neck cancer – Distress - Drooling	X	X		X		X							
FACE-Q Head & neck cancer – Distress - Eating	X	X		X		X							
FACE-Q Head & neck cancer – Distress - Smiling	X	X		X		X							
FACE-Q Head & neck cancer – Distress - Speaking	X	X		X		X							

FACE-Q Skin cancer – Distress - Appearance	X	X		X			X		X				X
FACE-Q Skin cancer – Distress – Cancer worry	X	X		X		X	X		X				X
LYMPH-Q - Psychological	X	X		X	X	X			X				X
PROMIS Cognitive Function	X	X	X	X		X				X	X		X
PROMIS Cognitive Function – Abilities	X	X	X	X		X							
PROMIS Emotional Distress - Anxiety	X	X								X			
PROMIS Emotional Distress - Depression	X	X								X			
PROMIS - General Life Satisfaction	X	X											
PROMIS Illness Impact		X									X		X
PROMIS - Meaning and Purpose	X	X											
PROMIS - Positive affect	X	X											
PROMIS - Self-Efficacy (General)	X	X											
Psychological distress	X			X	X								
Psychological distress for cancer survivors	X			X									
ITEM BANKS – Social Health													
BREAST-Q Breast conserving therapy – Satisfaction with information	X	X		X		X			X				X
BREAST-Q Breast Reconstruction – Satisfaction with information	X	X		X		X							
BREAST-Q Impact on Work	X	X		X	X	X			X				
BREAST-Q Satisfaction with medical team	X	X		X		X			X				X
BREAST-Q Satisfaction with office staff	X	X		X		X			X				X
BREAST-Q Satisfaction with surgeon	X	X		X		X			X				X
CIPB	X					X							
FACE-Q Head & neck cancer – Satisfaction with information	X	X		X									

FACE-Q Skin cancer – Satisfaction with clerical staff	X	X		X			X		X				X
FACE-Q Skin cancer – Satisfaction with information	X	X		X			X		X				X
FACE-Q Skin cancer – Satisfaction with information (appearance)	X	X		X		X	X		X				X
FACE-Q Skin cancer – Satisfaction with surgeon	X	X		X			X		X				X
FACE-Q Skin cancer – Satisfaction with ward team	X	X		X			X		X				X
LYMPH-Q - Information	X	X		X	X	X			X				X
TOTAL (N = 179)	**179 (100%)**	**169 (94%)**	**39 (22%)**	**117 (65%)**	**50 (28%)**	**124 (69%)**	**19 (11%)**	**34 (19%)**	**76 (42%)**	**53 (30%)**	**36 (20%)**	**30 (17%)**	**80 (45%)**

*Different versions of a SF were considered together

4. Discussion

The EUonQOL project aims at developing a novel PROM for the assessment of HRQoL in cancer patients and survivors that can be used across the EU and its associated countries, while maintaining adequate measurement properties (EUonQOL toolkit). The emergence of IRT-based measurement tools in the field of cancer may open new perspectives to advance HRQoL assessment by circumventing some of the limitations related to the traditional methodological framework based on CTT (186,187) . The EUonQoL project intends to build on this evolution by including existing and valid items in its toolkit, allowing for an IRT-based assessment of the HRQoL for which items have been calibrated. To conduct an informed implementation of the IRT-based part of the EUonQOL toolkit, leveraging on the body of evidence is necessary to determine the state of development of these PROMs and how they were implemented in oncology. The scoping review presented in this chapter is based on the JBI guidelines (188,189) and aims at providing a comprehensive overview of the available evidence on the current use of IRT-based PROMs for the HRQoL assessment of cancer patients, including their psychometric properties and feasibility.

Availability of IRT-based tools

This scoping review retrieved 158 studies for which information was extracted leading to the identification of 124 calibrated items banks. From these item banks, 257 unique PROMs were identified, most of which were developed by the EORTC (n = 98; 38.1%), PROMIS (n = 82; 31.9%) and the Q-Group (n = 65; 25.3%). In contrast, more than 634 different CTT-based PROMs for the assessment of HRQoL and its different subdomains in cancer patients were found in previous study (190,191). However, while the first references to a calibrated item bank for HRQoL assessment in oncology appeared only in 2003 (i.e., PROMIS Fatigue (70)), legacy measures such as the EORTC QLQ-C30 (192) or the FACT-G (193) were developed in the early 90s and used since then as standard practice for the HRQoL assessment of cancer patients. As such, if the number of IRT-based PROMs currently available remains marginal compared to their CTT-based counterparts, this difference may be explained by the relatively recent emergence of the IRT framework in oncology. On the other hand, 75% of the studies retrieved in this review were published in the last ten years, suggesting that these tools raise more and more interest in oncology research (194), which now echoes in health regulators' guidance (195,196). The IRT-based PROMs captured in this review cover a wide array of HRQoL subdomains related to patients' physical, mental or social health and ranging from general instruments allowing for a global HRQoL assessment across cancer types (e.g., EORTC CAT Core (109); PROMIS Global Health (43)) to more specific ones such as the BREAST-Q-Satisfaction with Breast (61). As such, if IRT-based PROMs remain less popular than their CTT conventional counterpart, the variety of available instruments and their content coverage are rapidly expanding.

Development and psychometric evidence

Regarding the current state of development and psychometric validation of IRT-based PROMs, information on development could be retrieved for all items banks and 98% of the PROMs developed from these item banks were supported by at least little evidence of validity. More precisely, evidence of content validity, structural validity or construct validity was found for 94%, 22% and 69% of the PROMs respectively. Evidence of reliability was reported for 65% of them, while cross-cultural validity/measurement invariance was reported for 28% of PROMS and responsiveness was shown in 11% of the instruments. For several IRT-based PROMs such as the PROMIS Physical Functioning (51) all psychometric properties were supported by published evidence. While many IRT-based PROMs did not have published evidence of all the psychometric properties that were assessed, similar observations for CTT-based PROMs were made in a previous report (191). However, when being compared to conventional

measures, IRT-based PROMs present several benefits. First, CATs, and SFs to a lesser extent, allow for an assessment tailored to the individual patient. This characteristic is not to be minimized as it might directly impact the patient's perception of assessment burden and a feeling of discrepancy between their personal experience of the disease and the content of standard measures intended for all patients, which has been suggested to be a barrier to the implementation of PROMs in healthcare (197). Second, IRT-based PROMs seem to provide a higher measurement precision. For instance, a comparison of the EORTC CAT Core and the EORTC QLQ-C30 demonstrated a higher relative validity of the EORTC CAT Core across 14 HRQoL domains, for an average reduction of 30% of sample size requirements without loss of power (109). Similar findings were reported when comparing the EORTC QLQ-C30 to SFs from the EORTC CAT item banks, with median savings varying between 19% and 28% depending on the length of the SFs. Thanks to their dynamic and adaptive nature, it is likely that a CAT version of a PROM would outperform SFs created from respective item banks (198). Finally, IRT-based PROMs offer a wider content coverage than conventional PROMs, which are usually narrower in scope and focus on the most common experiences across cancer patients while limiting assessment burden. On the other hand, calibrated item banks generally include items able to capture the full spectrum of the latent trait being measured, allowing for a reduction of floor and ceiling effects (108,109,113,118,196,199,200). Altogether, there is an increasing body of evidence supporting the use of IRT-based PROMs, demonstrating not only their validity, reliability, or responsiveness for the assessment of HRQoL in cancer patients, but also their superiority to standard assessment tools in terms of assessment burden, relative validity and content coverage.

Feasibility and implementation

As mentioned in this report, many studies successfully implemented IRT-based PROMs across various type of cancer patients, from survivors to a palliative care setting. Potential issues regarding patients' compliance rates to the PROMs were not reported across the 158 studies captured in this review. Many IRT-based PROMs are free for use in academic or non-profit clinical research and are available in multiple languages (presuming linguistic and cross-cultural validity have been ensured), allowing for a low-cost implementation of these PROMs in a wide number of countries. Very few evidence was found regarding the cancer patients' user experience which was only reported for 20% of PROMS. However, the few studies reporting on this indicate that the use of CATs in cancer patients is positively perceived. Specifically, cancer patients reporting on their experience following the use of several PROMIS CATs identified this tool as "helpful" (72%), "easy to understand" (92%) or "not burdensome" (98%) and were willing to use it again in the future (72-88%) (114,171). CATs may also offer additional advantages to facilitate their implementation. For instance, compared to paper-based PROMs, which can incur administrative burden, CAT assessments are directly incorporated in data management systems (201), while the use of electronic data collection does not seem to negatively impact patients' experience (171,180). Finally, the fact that CATs increase relevance of items presented to the patient by adapting to each person and their responses could improve patients' experience, given that the disconnection between the individual patient and the items to be answered has been described as a barrier to the implementation of PROMs in healthcare settings (197). Altogether, the available evidence suggests that the implementation of IRT-based PROMs is feasible across various types of cancer patients and could even improve feasibility compared to conventional PROMs by lowering the assessment burden.

Potential barriers

Regardless of their benefits, the emergence of IRT-based PROMs remains recent, and researchers may favour the use of well-established legacy measures despite limitations known for nearly a century (202). Also, while SFs do not depend on technology to be implemented, this is not the case for CATs. CAT implementation requires an IT environment, which may not exist or require adaptations in certain settings, therefore requiring a larger investment of resources (203). For instance, CAT use in settings with limited access to digital healthcare infrastructures, such

as more rural areas or low-income countries (204) may be simply impossible. Even in countries with more resources, integrating IRT-based PROMs into electronic medical records remains a substantial obstacle, predominately due to financial, logistical, and technological barriers (205). Finally, it could be that the basic knowledge of IRT, needed to analyse and interpret the scores from IRT-based PROMs (e.g., Z-scales or T-scales versus more common 0-100 scales), to configure a CAT or to choose the optimal set of items within a SF is not common in oncology. However, several resources now exist to support layman users and make the use of IRT-based PROMs more accessible, such as interpretation tables (e.g., PROMIS T-score mapping (206)), recommended settings for CATs (e.g., EORTC CAT Core settings (207)) and recommended SFs (e.g., EORTC CAT Core SFs (35)).

Conclusion

We acknowledge several limitations to this report. This study is a scoping review; as such publications were not evaluated on quality of the results, information from studies was taken directly from the publication without risk of bias assessment and the analysis of the results remained strictly descriptive without meta-analysis following common methodology of scoping studies (37,188). Furthermore, the body of evidence regarding the development and psychometric properties was heterogeneous and fairly limited, thus preventing more advanced analysis such as a meta-analysis of these results. As a result, the psychometric evidence supporting the IRT-based tools captured in this review should be interpreted cautiously. Thirdly, beyond the number of identified studies, very little evidence was found regarding the feasibility of using IRT-based PROMs in cancer populations or the factors influencing their use, especially the patients and healthcare providers' perspectives, which would provide valuable insights. Finally, although this review relied on a systematic search strategy following current standards (38) and including several additional manual searches and cross-referencing, it is possible that our search terms did not fully capture all the studies that have used IRT-based PROMs in cancer patients. Articles reporting on studies using IRT-based tools without any reference to the tool or to assessment methodology in the data screened in the title and abstract phase may have been ignored.

This report provides a detailed overview of the field of HRQoL IRT-based PROMs in the field of oncology, demonstrating the emergence of many of these tools over the past decade. The evidence found suggests that IRT-based PROMs present several advantages over conventional PROMs. Together with the increasing use of these tools, this scoping review demonstrates that IRT-based PROMs have been implemented successfully in various contexts of oncology research. Researchers should consider the use of IRT-based PROMs within each context specifically, but in many instances, IRT-based PROMs may be optimal. While some barriers exist, practical implementation is possible and has valuable potential for an improved assessment of HRQoL in cancer patients. This implementation process should be further explored in large scale studies such as the EUonQOL project and could represent a future healthcare.

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6. Appendices

Appendix 1. Detailed overview of the search strategy applied for PubMed and Scopus

	PubMed	Scopus
Population	((((("Neoplasms" [MeSH Terms] OR "Carcinoma" [MeSH Terms] OR "cancer" [Title/Abstract] OR "tumor*" [Title/Abstract]) AND ("Patients" [MeSH Terms] OR "Survivors" [MeSH Terms] OR ("Palliative Care" [MeSH Terms] OR "Palliative Medicine" [MeSH Terms] OR "Hospice and Palliative Care Nursing" [MeSH Terms])))) OR "cancer patient*" [Title/Abstract] OR "cancer survivor*" [Title/Abstract] OR "palliative patient*" [Title/Abstract] OR "Cancer Survivors" [MeSH Terms])	(((TITLE-ABS-KEY ("patient*")) OR (TITLE-ABS-KEY ("survivor*")) OR (TITLE-ABS-KEY ("palliative patient*")) OR (TITLE-ABS-KEY ("palliative care")) OR (TITLE-ABS-KEY ("palliative medicine")) OR (TITLE-ABS-KEY ("palliative treatment*")) OR (TITLE-ABS-KEY ("palliative therap*")) OR (TITLE-ABS-KEY ("palliative surger*")) AND ((TITLE-ABS-KEY ("tumor*")) OR (TITLE-ABS-KEY ("neoplasm*")) OR (TITLE-ABS-KEY ("neoplasia*")) OR (TITLE-ABS-KEY ("cancer*")) OR (TITLE-ABS-KEY ("malignanc*")) OR (TITLE-ABS-KEY ("carcinoma*"))))

Outcome	AND ("Quality of Life" [MeSH Terms] OR "Patient Reported Outcome Measures" [MeSH Terms] OR "PROM" [Title/Abstract] OR "Quality of Life" [Title/Abstract] OR "QoL" [Title/Abstract] OR "perceived health" [Title/Abstract] OR "well-being" [Title/Abstract] OR "wellbeing" [Title/Abstract] OR "health status" [Title/Abstract] OR "functioning" [Title/Abstract] OR "life satisfaction" [Title/Abstract]))	AND ((TITLE-ABS-KEY("quality of life")) OR (TITLE-ABS-KEY ("QoL")) OR (TITLE-ABS-KEY ("life quality")) OR (TITLE-ABS-KEY("hrqol")) OR (TITLE-ABS-KEY("PROM")) OR (TITLE-ABS-KEY("patient reported outcome*")) OR (TITLE-ABS-KEY("life satisfaction")) OR (TITLE-ABS-KEY("functioning")) OR (TITLE-ABS-KEY("health status")) OR (TITLE-ABS-KEY ("well-being")) OR (TITLE-ABS-KEY ("wellbeing")) OR (TITLE-ABS-KEY ("perceived health")))
Methods: **IRT-based tools**	AND ("computer-based" [Title/Abstract] OR "web-based" [Title/Abstract] OR "item bank*" [Title/Abstract] OR "computer adapt*" [Title/Abstract] OR "computerised adapt*" [Title/Abstract] OR "computerized adapt*" [Title/Abstract] OR "item response theory" [Title/Abstract] OR "rasch model*" [Title/Abstract] OR "rasch analysis" [Title/Abstract] OR "rasch analyses" [Title/Abstract] OR "rasch measurement*" [Title/Abstract] OR "CAT" [Title/Abstract])	AND ((TITLE-ABS-KEY ("computer-based")) OR (TITLE-ABS-KEY ("computer adapt*")) OR (TITLE-ABS-KEY ("computerized adapt*")) OR (TITLE-ABS-KEY ("computerised adapt*")) OR (TITLE-ABS-KEY ("CAT")) OR (TITLE-ABS-KEY ("Rasch measurement*")) OR (TITLE-ABS-KEY ("Rasch analysis")) OR (TITLE?ABS-KEY ("Rasch analyses")) OR (TITLE-ABS-KEY ("item response theory")) OR (TITLE-ABS-KEY ("rasch model*")) OR (TITLE-ABS-KEY ("item bank*")) OR (TITLE-ABS-KEY ("web-based")))

Appendix 2. Detailed overview of the additional search strategy for the psychometric properties of IRT-based PROMs that were captured by the initial search (e.g., ENRICH) applied for PubMed

	PubMed
Population	("Neoplasms"[MeSH Terms] OR "Carcinoma"[MeSH Terms] OR "cancer"[Title/Abstract] OR "tumor*"[Title/Abstract] OR "cancer patient*"[Title/Abstract] OR "cancer survivor*"[Title/Abstract] OR "palliative patient*"[Title/Abstract] OR "Cancer Survivors"[MeSH Terms])
Methods: **IRT-based tools**	AND ("ENRICH"[All Fields] OR "Economic Strain and Resilience in Cancer"[All Fields])

Appendix 3. Available additional translation of IRT-based PROMs

PROMs	Available translations
COMPUTERIZED ADAPTIVE TESTING (CAT) – Overall QoL	
EORTC CAT Core (and all domains)	Danish; Polish; Swedish; Taiwanese; Dutch
COMPUTERIZED ADAPTIVE TESTING (CAT) – Physical Health	
BREAST-Q Satisfaction with Breasts	Arabic; Chinese; Czech; Danish; Dutch; Greek; Hebrew; Japanese; Korean: Malay; Polish; Portuguese; Russian; Swedish; Thai; Turkish; Ukrainian
FACE-Q – Skin Cancer – Facial appearance	Dutch (Netherlands); English (UK); French (France); German (Germany); Italian (Italy); Portuguese (Brazil); Spanish (Colombia); Turkish (Turkey)
FACE-Q – Skin Cancer – Scars	Afrikaans (South Africa); Arabic (Israel); Czech (Czech Republic); Dutch (Belgium); Dutch (Netherlands), English (Australia); English (Canada); English (New Zealand); English (South Africa); English (UK); French (Belgium); French (Canada); French (France); French (Switzerland); Hebrew (Israel); Hungarian (Hungary); Italian (Italy); Italian (Switzerland); Norwegian (Norway); Polish (Poland); Portuguese (Brazil); Romanian (Romania), Russian (Israel); Southern Soho (South Africa); Spanish (Argentina); Spanish (Chile); Spanish (Colombia); Spanish (Mexico); Spanish (Spain); Spanish (US); Turkish (Turkey); Xhosa (South Africa); Zulu (South Africa)
NEURO-QoL Lower extremity function	Swedish; Danish; Czech; Norwegian; Polish
PROMIS Fatigue CAT	Dutch; Portuguese (Brazil); Korean; Hebrew; Arabic
PROMIS Pain Behaviour CAT	Dutch; Korean
PROMIS Pain Interference CAT	Hebrew; Korean; Dutch; Portuguese (Brazil); Danish; Arabic
PROMIS Physical Function CAT	Danish; Dutch; Finnish; Portuguese (Brazil); Arabic; Korean; Russian; Turkish
PROMIS Physical Function CAT (Upper Extremity)	Dutch-Flemish; Dutch; Russian; Turkish
PROMIS Sleep Disturbance CAT	Hungarian; Korean; Portuguese (Brazil); Dutch; French; Hebrew; Latvian; Portuguese (Portugal); Traditional Chinese; Danish
PROMIS Sleep Related - Impairment CAT	Arabic; Chinese; Dutch; Hebrew; Portuguese
COMPUTERIZED ADAPTIVE TESTING (CAT) – Mental Health	
FACE-Q – Skin Cancer – Appearance Distress	Afrikaans (South Africa); Arabic (Israel); Czech (Czech Republic); Dutch (Belgium); Dutch (Netherlands), English (Australia); English (Canada); English (New Zealand); English (South Africa); English (UK); French (Belgium); French (Canada); French (France); French (Switzerland); Hebrew (Israel); Hungarian (Hungary); Italian (Italy); Italian (Switzerland); Norwegian (Norway); Polish (Poland); Portuguese (Brazil); Romanian (Romania), Russian (Israel); Southern Soho (South Africa); Spanish (Argentina); Spanish (Chile); Spanish (Colombia); Spanish (Mexico); Spanish (Spain); Spanish (US); Turkish (Turkey); Xhosa (South Africa); Zulu (South Africa)
FACE-Q – Skin Cancer – Cancer Worry	Afrikaans (South Africa); Arabic (Israel); Czech (Czech Republic); Dutch (Belgium); Dutch (Netherlands), English (Australia); English (Canada); English (New Zealand); English (South Africa); English (UK); French (Belgium); French (Canada); French (France); French (Switzerland); Hebrew (Israel); Hungarian (Hungary); Italian (Italy); Italian (Switzerland); Norwegian (Norway); Polish (Poland); Portuguese (Brazil); Romanian (Romania), Russian (Israel);

	Southern Soho (South Africa); Spanish (Argentina); Spanish (Chile); Spanish (Colombia); Spanish (Mexico); Spanish (Spain); Spanish (US); Turkish (Turkey); Xhosa (South Africa); Zulu (South Africa)
PROMIS Emotional Distress – Anger CAT	Dutch; Korean; Traditional Chinese; Hebrew
PROMIS Emotional Distress – Anxiety CAT	Hebrew; Korean; Traditional Chinese; Portuguese; Dutch; Arabic
PROMIS Emotional Distress – Depression CAT	Arabic; Dutch; Hebrew; Hungarian; Korean; Traditional Chinese; Portuguese (Brazil)
COMPUTERIZED ADAPTIVE TESTING (CAT) – Social Health	
AM-PAC-CAT	Afrikaans; Danish; Dutch; Finnish; Hebrew; Norwegian; Portuguese; Swedish
FACE-Q – Skin Cancer – Information appearance	Dutch (Netherlands); English (UK); French (France); German (Germany); Italian (Italy); Portuguese (Brazil); Spanish (Colombia); Turkish (Turkey)
PROMIS Ability to Participate in Social Roles and Activities CAT	Dutch; Korean; Arabic
PROMIS PROFILES	
PROMIS-29	Cebuano; Estonian; Slovene; Hiligaynon; Tagalog; Belarusian; Assamese; Macedonian; Malay; Marathi; Malayalam; Norwegian; Polish; Punjabi; Romanian; Russian; Simplified Chinese (Mandarin); Serbian; Slovak; Swedish; Tamil; Traditional Chinese; Telugu; Thai; Turkish; Ukrainian; Urdu; Kazakh; Odia/Orya; Portuguese (Brazil); Afrikaans; Arabic; Bosnian; Bulgarian; Croatian; Czech; Dutch; Finnish; Georgian; German; Greek; Gujarati; Hebrew; Hungarian; Kannada; Korean; Latvian; Lithuanian; Dholuo; Swahili; Luganda; Teso; Dhopadhola; Danish; Japanese; Portuguese (Portugal); Vietnamese; Bengali; Xhosa; Hindi; Zulu
PROMIS-57	Dutch; Hebrew; Hungarian; Norwegian; Finnish; Portuguese (Brazil); Korean; Swedish; Danish; Czech; Simplified Chinese (Mandarin); Traditional Chinese; Polish; Arabic; Portuguese (Portugal); Russian; Japanese
PROMIS Global Health Short form	Zulu; Welsh; Urdu; Ukrainian; Turkish; Tagalog; Traditional Chinese; Swedish; Slovak; Simplified Chinese (Mandarin); Russian; Punjabi; Portuguese (Portugal); Portuguese (Brazil); Polish; Marathi; Malayalam; Lithuanian; Malay; Kannada; Korean; Japanese; Icelandic; Gujarati; Finnish; Hungarian; Hindi; Hebrew; Arabic; Czech; Afrikaans; Dutch; Danish; Estonian; Bulgarian; Flemish; Croatian; Tamil; Telugu; Indonesian
PROMIS Sexual Function and Satisfaction Brief Profile 2.0	Czech; Arabic; Dutch; Hebrew; Portuguese; Russian; Traditional Chinese; Polish
SHORT FORMS – Physical Health	
NEURO-QoL Lower extremity function Short form	Czech; Danish; Dutch; Greek; Hebrew; Hungarian; Japanese; Norwegian; Polish; Portuguese for Portugal; Russian; Swedish
PROMIS Fatigue Short form (7a)	Hebrew; Xhosa; Sesotho; Tswana/Setswana; Zulu; Tagalog; Vietnamese; Thai; Arabic; Bulgarian; Croatian; Czech; Danish; Dutch; Finnish; Greek; Gujarati; Hungarian; Japanese; Korean; Lithuanian; Malay; Norwegian; Polish; Portuguese (Portugal); Romanian; Russian; Simplified Chinese (Mandarin); Serbian; Slovak; Swedish; Tamil; Traditional Chinese; Turkish; Ukrainian; Portuguese (Brazil); Odia/Orya; Afrikaans; Bengali; Bosnian; Georgian; Hindi; Kannada; Latvian; Malayalam; Marathi; Punjabi; Telugu; Urdu; Catalan; Estonian; Swahili; Dholuo; Macedonian
PROMIS Fatigue Short form (8a)	Hindi; Slovene; Hebrew; Bosnian; Croatian; Estonian; Icelandic; Tamil; Bengali; Gujarati; Kannada; Malayalam; Marathi; Urdu; Punjabi; Telugu; Thai; Afrikaans; Arabic; Bulgarian; Czech; Danish; Dutch; Finnish; Greek; Hungarian; Japanese; Korean; Latvian; Lithuanian; Malay; Norwegian; Polish; Romanian; Russian; Simplified Chinese (Mandarin); Serbian; Slovak; Swedish; Traditional Chinese; Turkish; Ukrainian; Portuguese (Brazil); Haitian Creole; Dholuo; Portuguese (Portugal); Serbian (Cyrillic)
PROMIS Gastrointestinal – Diarrhea Short form	Polish; Russian; Ukrainian; Croatian; Hungarian; Dutch

PROMIS Global Health (Physical health) Short form	Zulu; Welsh; Urdu; Ukrainian; Turkish; Tagalog; Traditional Chinese; Swedish; Slovak; Simplified Chinese (Mandarin); Russian; Punjabi; Portuguese (Portugal); Portuguese (Brazil); Polish; Marathi; Malayalam; Lithuanian; Malay; Kannada; Korean; Japanese; Icelandic; Gujarati; Finnish; Hungarian; Hindi; Hebrew; Arabic; Czech; Afrikaans; Dutch; Danish; Estonian; Bulgarian; Flemish; Croatian; Tamil; Telugu; Indonesian
PROMIS Pain Intensity Short form	Arabic; Turkish; Amharic; Dutch; Finnish; Japanese; Swedish; Portuguese (Brazil); Simplified Chinese; Nepali or Nepalese; Bulgarian; Greek; Hungarian; Danish; Korean; Croatian; Norwegian; Slovene; Czech; Hebrew; Polish; Russian; Hindi; Gujarati; Odia/Orya
PROMIS Pain Interference Short form (8a)	Bulgarian; Korean; Swedish; Traditional Chinese; Icelandic; Simplified Chinese (Mandarin); Dutch; Japanese; Turkish; Portuguese
PROMIS Physical Functioning Short form	Bulgarian; Danish; Dutch; Finnish; Hungarian; Portuguese (Brazil); Swedish; Hebrew; Greek; Hindi; Japanese; Korean; Malay; Polish; Russian; Serbian; Slovak; Slovene; Thai; Traditional Chinese; Turkish; Czech; Romanian; Arabic
PROMIS Sleep Disturbance Short form	Polish; Japanese; Korean; Russian; Swedish; Czech; Arabic; Hebrew; Hungarian; Traditional Chinese
PROMIS Sleep Related Impairment Short form	Danish; Simplified Chinese (Mandarin); Russian; Arabic; Latvian; Romanian; Ukrainian; Traditional Chinese; Dutch; Portuguese; Japanese; Polish; Hebrew; Bulgarian; Czech; Hungarian; Korean
SHORT FORMS – Mental Health	
PROMIS Cognitive Functioning Short form	Icelandic; Korean; Hebrew; Dutch; Polish; Russian; Arabic; Portuguese; Swedish; Danish; Czech
PROMIS Emotional Distress – Anxiety Short form (7a)	Dutch; Korean; Traditional Chinese; Hebrew; Portuguese (Brazil); Simplified Chinese (Mandarin)
PROMIS Emotional Distress – Anxiety Short form (8a)	Danish; Norwegian; Estonian; Lithuanian; Malay; Simplified Chinese (Mandarin); Arabic; Gujarati; Hindi; Japanese; Kannada; Malayalam; Marathi; Punjabi; Tamil; Telugu; Ukrainian; Urdu; Dutch; Traditional Chinese; Hungarian; Portuguese; Russian; Hebrew; Czech; Korean; Polish; Romanian; Swedish
PROMIS Emotional Distress – Depression Short form	Czech; Dutch; Korean; Norwegian; Portuguese (Brazil); Hebrew; Danish; Swedish; Finnish; Simplified Chinese (Mandarin); Arabic; Traditional Chinese; Hungarian; Estonian; Lithuanian; Malay; Russian; Ukrainian; Dholuo Bulgarian; Japanese; Slovak; Romanian; Thai; Polish
PROMIS Global Health (Mental health) Short form	Tamil; Telugu; Croatian; Indonesian; Estonian; Czech; Danish; Dutch-Flemish; Afrikaans; Arabic; Hebrew; Hindi; Gujarati; Hungarian; Bulgarian; Finnish; Icelandic; Japanese; Korean; Kannada; Lithuanian; Malay; Malayalam; Marathi; Polish; Portuguese (Brazil); Portuguese (Portugal); Punjabi; Russian; Simplified Chinese (Mandarin); Slovak; Swedish; Traditional Chinese; Tagalog; Turkish; Ukrainian; Urdu; Welsh; Zulu
SHORT FORMS – Social Health	
PROMIS Ability to participate in Social Roles and Activities Short forms (4a)	Xhosa; Arabic; Bengali; Afrikaans; Vietnamese; Dutch; Zulu; Urdu; Bosnian; Swahili; Telugu; Danish; Malayalam; Marathi; Dholuo; Dhopadhola; Gujarati; Hebrew; Hindi; Kannada; Kazakh; Latvian; Luganda; Macedonian; Portuguese (Brazil); Portuguese (Portugal); Punjabi; Teso; Bulgarian; Czech; Georgian; Greek; Hungarian; Japanes; Korean; Lithuanian; Malay; Romanian; Russian; Simplified Chinese (Mandarin); Serbian; Slovak. Swedish; Tamil; Traditional Chinese; Thai; Turkish; Ukrainian; Croatian; Finnish; Norwegian; Odia/Orya; Polish; Slovene; Cebuano; Hiligaynon; Tagalog; Belarusian
PROMIS Ability to participate in Social Roles and Activities Short forms	Norwegian; Finnish; Korean; Swedish; Traditional Chinese; Danish; Portuguese (Brazil); Dutch; Hungarian; Dholuo; Afrikaans; Slovene; Polish; Lithuanian; Bulgarian; Portuguese (Portugal); Arabic; Hebrew; Czech; Japanese

(8a)	
PROMIS Emotional support	Dutch; Danish
PROMIS Informational support	Dutch
ITEM BANKS – Physical Health	
BREAST-Q Breast conserving therapy – Adverse effects of radiation	Arabic (Saudi Arabia); Chinese (China); Chinese (Hong Kong); Czech (Czech Republic); Bahasa Indonesia (Indonesia); Danish (Denmark); Dutch (Netherlands); English (UK); Farsi (Iran); Finnish (Finland); German (Germany); Greek (Cyprus); Greek (Greece); Italian (Italy); Hindi (India); Hungarian (Hungary); Japanese (Japan); Korean (Korea); Latvian (Latvia); Lithuanian (Lithuania); Marathi (India): Odiya (India); Polish (Poland); Portuguese (Portugal); Romanian (Romania); Russian (Russia); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Swedish (Sweden); Thai (Thailand); Turkish (Turkey); Ukrainian (Ukraine); Vietnamese (Vietnam)
BREAST-Q Breast conserving therapy – Physical Well-being	Arabic (Israel); Arabic (Saudi Arabia); Chinese (China); Chinese (Hong Kong); Chinese (Malaysia); Chinese (Taiwan); Croatian (Croatia); Czech (Czech Republic); Bahasa Indonesia (Indonesia); Danish (Denmark); Dutch (Netherlands); English (UK); Farsi (Iran); Filipino (Philippines); Finnish (Finland); French (France); German (Austria); German (Germany); German (Switzerland); Greek (Cyprus); Greek (Greece); Italian (Italy); Hebrew (Israel); Hindi (India); Hungarian (Hungary); Japanese (Japan); Korean (Korea); Latvian (Latvia); Lithuanian (Lithuania); Malay (Malaysia); Marathi (India); Norwegian (Norway): Odiya (India); Polish (Poland); Portuguese (Portugal); Romanian (Romania); Russian (Russia); Slovenian (Slovenia); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Spanish (US); Swedish (Sweden); Thai (Thailand); Turkish (Turkey); Ukrainian (Ukraine); Urdu (Pakistan); Vietnamese (Vietnam)
BREAST-Q Breast conserving therapy – Physical Well-being (chest)	Arabic (Israel); Arabic (Saudi Arabia); Chinese (China); Chinese (Hong Kong); Chinese (Malaysia); Chinese (Taiwan); Croatian (Croatia); Czech (Czech Republic); Bahasa Indonesia (Indonesia); Danish (Denmark); Dutch (Netherlands); English (UK); Farsi (Iran); Filipino (Philippines); Finnish (Finland); French (France); German (Austria); German (Germany); German (Switzerland); Greek (Cyprus); Greek (Greece); Italian (Italy); Hebrew (Israel); Hindi (India); Hungarian (Hungary); Japanese (Japan); Korean (Korea); Latvian (Latvia); Lithuanian (Lithuania); Malay (Malaysia); Marathi (India); Norwegian (Norway): Odiya (India); Polish (Poland); Portuguese (Portugal); Romanian (Romania); Russian (Russia); Slovenian (Slovenia); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Spanish (US); Swedish (Sweden); Thai (Thailand); Turkish (Turkey); Ukrainian (Ukraine); Urdu (Pakistan); Vietnamese (Vietnam)
BREAST-Q Breast conserving therapy – Satisfaction with breasts	Arabic (Israel); Arabic (Saudi Arabia); Chinese (China); Chinese (Hong Kong); Chinese (Malaysia); Chinese (Taiwan); Croatian (Croatia); Czech (Czech Republic); Bahasa Indonesia (Indonesia); Danish (Denmark); Dutch (Netherlands); English (UK); Farsi (Iran); Filipino (Philippines); Finnish (Finland); French (France); German (Austria); German (Germany); German (Switzerland); Greek (Cyprus); Greek (Greece); Italian (Italy); Hebrew (Israel); Hindi (India); Hungarian (Hungary); Japanese (Japan); Korean (Korea); Latvian (Latvia); Lithuanian (Lithuania); Malay (Malaysia); Marathi (India); Norwegian (Norway): Odiya (India); Polish (Poland); Portuguese (Portugal); Romanian (Romania); Russian (Russia); Slovenian (Slovenia); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Spanish (US); Swedish (Sweden); Thai (Thailand); Turkish (Turkey); Ukrainian (Ukraine); Urdu (Pakistan); Vietnamese (Vietnam)
BREAST-Q Breast conserving therapy – Sexual Well-being	Arabic (Israel); Arabic (Saudi Arabia); Chinese (China); Chinese (Hong Kong); Chinese (Malaysia); Chinese (Taiwan); Croatian (Croatia); Czech (Czech Republic); Bahasa Indonesia (Indonesia); Danish (Denmark); Dutch (Netherlands); English (UK); Farsi (Iran); Filipino (Philippines); Finnish (Finland); French (France); German (Austria); German (Germany); German (Switzerland); Greek (Cyprus); Greek (Greece); Italian (Italy); Hebrew (Israel); Hindi (India); Hungarian (Hungary); Japanese (Japan); Korean (Korea); Latvian (Latvia); Lithuanian (Lithuania); Malay (Malaysia); Marathi (India); Norwegian (Norway): Odiya (India); Polish (Poland); Portuguese (Portugal); Romanian (Romania); Russian (Russia); Slovenian (Slovenia); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Spanish (US); Swedish (Sweden); Thai (Thailand); Turkish (Turkey); Ukrainian (Ukraine); Vietnamese (Vietnam)
BREAST-Q Breast Reconstruction – Animation deformity	Arabic (Saudi Arabia); German (Switzerland); Italian (Italy); Romanian (Romania); Spanish (US); Swedish (Sweden); Vietnamese (Vietnam)
BREAST-Q Breast Reconstruction – Back appearance	Arabic (Egypt); Arabic (Saudi Arabia); Chinese (China); Croatian (Croatia); Czech (Czech Republic); Danish (Denmark); Dutch (Belgium); Finnish (Finland); French (France); Greek (Greece); Italian (Italy); Japanese (Japan); Korean (Korea); Latvian (Latvia); Lithuanian (Lithuania); Portuguese (Brazil); Portuguese (Portugal); Romanian (Romania); Russian (Russia); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Swedish (Sweden); Thai (Thailand); Ukrainian (Ukraine); Vietnamese (Vietnam)
BREAST-Q Breast Reconstruction – Breast sensation	Arabic (Saudi Arabia); Korean (Korea); Romanian (Romania); Vietnamese (Vietnam)
BREAST-Q Breast	Arabic (Saudi Arabia); Italian (Italy); Korean (Korea); Romanian (Romania); Spanish (Spain); Vietnamese (Vietnam)

Reconstruction – Breast symptoms	
BREAST-Q Breast Reconstruction – Physical Well-being (abdomen)	Arabic (Israel); Arabic (Malaysia); Arabic (Saudi Arabia); Chinese (China); Chinese (Hong Kong); Chinese (Malaysia); Chinese (Taiwan); Croatian (Croatia); Czech (Czech Republic); Danish (Denmark); Dutch (Belgium); Dutch (Netherlands); English (UK); Farsi (Iran); Filipino (Philippines); Finnish (Finland); French (Canada); French (France); German (Austria); German (Germany); German (Switzerland); Greek (Greece); Hebrew (Israel); Hindi (India); Hungarian (Hungary); Icelandic (Iceland); Italian (Italy); Japanese (Japan); Korean (Korea); Latvian (Latvia); Lithuanian (Lithuania); Malay (Malaysia); Maranthi (India); Norwegian (Norway): Polish (Poland); Portuguese (Brazil); Portuguese (Portugal); Romanian (Romania); Russian (Russia); Slovak (Slovakia); Slovenian (Slovenia); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Spanish (US); Swedish (Sweden); Thai (Thailand); Turkish (Turkey); Ukrainian (Ukraine); Vietnamese (Vietnam)
BREAST-Q Breast Reconstruction – Physical Well-being (back & shoulder)	Arabic (Egypt); Arabic (Saudi Arabia); Chinese (China); Croatian (Croatia); Czech (Czech Republic); Danish (Denmark); Dutch (Belgium); Finnish (Finland); French (France); Greek (Greece); Italian (Italy); Japanese (Japan); Korean (Korea); Latvian (Latvia); Lithuanian (Lithuania); Portuguese (Brazil); Portuguese (Portugal); Romanian (Romania); Russian (Russia); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Swedish (Sweden); Thai (Thailand); Ukrainian (Ukraine); Vietnamese (Vietnam)
BREAST-Q Breast Reconstruction – Physical Well-being (chest & upper body)	Arabic (Israel); Arabic (Malaysia); Arabic (Saudi Arabia); Chinese (China); Chinese (Hong Kong); Chinese (Malaysia); Chinese (Taiwan); Croatian (Croatia); Czech (Czech Republic); Danish (Denmark); Dutch (Belgium); Dutch (Netherlands); English (UK); Farsi (Iran); Filipino (Philippines); Finnish (Finland); French (Canada); French (France); German (Austria); German (Germany); German (Switzerland); Greek (Greece); Hebrew (Israel); Hindi (India); Hungarian (Hungary); Icelandic (Iceland); Italian (Italy); Japanese (Japan); Korean (Korea); Latvian (Latvia); Lithuanian (Lithuania); Malay (Malaysia); Maranthi (India); Norwegian (Norway): Polish (Poland); Portuguese (Brazil); Portuguese (Portugal); Romanian (Romania); Russian (Russia); Slovak (Slovakia); Slovenian (Slovenia); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Spanish (US); Swedish (Sweden); Thai (Thailand); Turkish (Turkey); Ukrainian (Ukraine); Vietnamese (Vietnam)
BREAST-Q Breast Reconstruction – Quality of life impact	Arabic (Saudi Arabia); Korean (Korea); Romanian (Romania); Vietnamese (Vietnam)
BREAST-Q Breast Reconstruction – Satisfaction with abdomen	Arabic (Israel); Arabic (Malaysia); Arabic (Saudi Arabia); Chinese (China); Chinese (Hong Kong); Chinese (Malaysia); Chinese (Taiwan); Croatian (Croatia); Czech (Czech Republic); Danish (Denmark); Dutch (Belgium); Dutch (Netherlands); English (UK); Farsi (Iran); Filipino (Philippines); Finnish (Finland); French (Canada); French (France); German (Austria); German (Germany); German (Switzerland); Greek (Greece); Hebrew (Israel); Hindi (India); Hungarian (Hungary); Icelandic (Iceland); Italian (Italy); Japanese (Japan); Korean (Korea); Latvian (Latvia); Lithuanian (Lithuania); Malay (Malaysia); Maranthi (India); Norwegian (Norway): Polish (Poland); Portuguese (Brazil); Portuguese (Portugal); Romanian (Romania); Russian (Russia); Slovak (Slovakia); Slovenian (Slovenia); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Spanish (US); Swedish (Sweden); Thai (Thailand); Turkish (Turkey); Ukrainian (Ukraine); Vietnamese (Vietnam)
BREAST-Q Breast Reconstruction – Satisfaction with breasts	Arabic (Israel); Arabic (Malaysia); Arabic (Saudi Arabia); Chinese (China); Chinese (Hong Kong); Chinese (Malaysia); Chinese (Taiwan); Croatian (Croatia); Czech (Czech Republic); Danish (Denmark); Dutch (Belgium); Dutch (Netherlands); English (UK); Farsi (Iran); Filipino (Philippines); Finnish (Finland); French (Canada); French (France); German (Austria); German (Germany); German (Switzerland); Greek (Greece); Hebrew (Israel); Hindi (India); Hungarian (Hungary); Icelandic (Iceland); Italian (Italy); Japanese (Japan); Korean (Korea); Latvian (Latvia); Lithuanian (Lithuania); Malay (Malaysia); Maranthi (India); Norwegian (Norway): Polish (Poland); Portuguese (Brazil); Portuguese (Portugal); Romanian (Romania); Russian (Russia); Slovak (Slovakia); Slovenian (Slovenia); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Spanish (US); Swedish (Sweden); Thai (Thailand); Turkish (Turkey); Ukrainian (Ukraine); Vietnamese (Vietnam)
BREAST-Q Breast Reconstruction – Sexual Well-being	Arabic (Israel); Arabic (Malaysia); Arabic (Saudi Arabia); Chinese (China); Chinese (Hong Kong); Chinese (Malaysia); Chinese (Taiwan); Croatian (Croatia); Czech (Czech Republic); Danish (Denmark); Dutch (Belgium); Dutch (Netherlands); English (UK); Farsi (Iran); Filipino (Philippines); Finnish (Finland); French (Canada); French (France); German (Austria); German (Germany); German (Switzerland); Greek (Greece); Hebrew (Israel); Hindi (India); Hungarian (Hungary); Icelandic (Iceland); Italian (Italy); Japanese (Japan); Korean (Korea); Latvian (Latvia); Lithuanian (Lithuania); Malay (Malaysia); Maranthi (India); Norwegian (Norway): Polish (Poland); Portuguese (Brazil); Portuguese (Portugal); Romanian (Romania); Russian (Russia); Slovak (Slovakia); Slovenian (Slovenia); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Spanish (US); Swedish (Sweden); Thai (Thailand); Turkish (Turkey); Ukrainian (Ukraine); Vietnamese (Vietnam)
BREAST-Q Fatigue	Vietnamese; Chinese (Taiwan); Indonesia
BREAST-Q Mastectomy –	Arabic (Malaysia); Arabic (Saudi Arabia); Bahasa Indonesia (Indonesia); Chinese (China); Chinese (Hong Kong); Chinese (Malaysia); Chinese (Taiwan); Croatian (Croatia); Czech (Czech Republic); Danish (Denmark); Dutch

Physical Well-being	(Belgium); Dutch (Netherlands); English (UK); Farsi (Iran); Filipino (Philippines); Finnish (Finland); French (France); German (Austria); German (Germany); German (Switzerland); Greek (Greece); Hebrew (Israel); Hungarian (Hungary); Italian (Italy); Japanese (Japan); Korean (Korea); Latvian (Latvia); Lithuanian (Lithuania); Malay (Malaysia); Norwegian (Norway): Polish (Poland); Portuguese (Brazil); Portuguese (Portugal); Romanian (Romania); Russian (Russia); Slovenian (Slovenia); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Spanish (US); Swedish (Sweden); Thai (Thailand); Turkish (Turkey); Ukrainian (Ukraine); Vietnamese (Vietnam); Yoruba (Nigeria)
BREAST-Q Mastectomy – Physical Well-being (chest)	Arabic (Malaysia); Arabic (Saudi Arabia); Bahasa Indonesia (Indonesia); Chinese (China); Chinese (Hong Kong); Chinese (Malaysia); Chinese (Taiwan); Croatian (Croatia); Czech (Czech Republic); Danish (Denmark); Dutch (Belgium); Dutch (Netherlands); English (UK); Farsi (Iran); Filipino (Philippines); Finnish (Finland); French (France); German (Austria); German (Germany); German (Switzerland); Greek (Greece); Hebrew (Israel); Hungarian (Hungary); Italian (Italy); Japanese (Japan); Korean (Korea); Latvian (Latvia); Lithuanian (Lithuania); Malay (Malaysia); Norwegian (Norway): Polish (Poland); Portuguese (Brazil); Portuguese (Portugal); Romanian (Romania); Russian (Russia); Slovenian (Slovenia); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Spanish (US); Swedish (Sweden); Thai (Thailand); Turkish (Turkey); Ukrainian (Ukraine); Vietnamese (Vietnam); Yoruba (Nigeria)
BREAST-Q Mastectomy – Satisfaction with breasts	Arabic (Malaysia); Arabic (Saudi Arabia); Bahasa Indonesia (Indonesia); Chinese (China); Chinese (Hong Kong); Chinese (Malaysia); Chinese (Taiwan); Croatian (Croatia); Czech (Czech Republic); Danish (Denmark); Dutch (Belgium); Dutch (Netherlands); English (UK); Farsi (Iran); Filipino (Philippines); Finnish (Finland); French (France); German (Austria); German (Germany); German (Switzerland); Greek (Greece); Hebrew (Israel); Hungarian (Hungary); Italian (Italy); Japanese (Japan); Korean (Korea); Latvian (Latvia); Lithuanian (Lithuania); Malay (Malaysia); Norwegian (Norway): Polish (Poland); Portuguese (Brazil); Portuguese (Portugal); Romanian (Romania); Russian (Russia); Slovenian (Slovenia); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Spanish (US); Swedish (Sweden); Thai (Thailand); Turkish (Turkey); Ukrainian (Ukraine); Vietnamese (Vietnam); Yoruba (Nigeria)
BREAST-Q Mastectomy – Sexual Well-being	Arabic (Israel); Arabic (Malaysia); Arabic (Saudi Arabia); Bahasa Indonesia (Indonesia); Chinese (China); Chinese (Hong Kong); Chinese (Malaysia); Chinese (Taiwan); Croatian (Croatia); Czech (Czech Republic); Danish (Denmark); Dutch (Belgium); Dutch (Netherlands); English (UK); Farsi (Iran); Filipino (Philippines); Finnish (Finland); French (France); German (Austria); German (Germany); German (Switzerland); Greek (Greece); Hebrew (Israel); Hungarian (Hungary); Italian (Italy); Japanese (Japan); Korean (Korea); Latvian (Latvia); Lithuanian (Lithuania); Malay (Malaysia); Norwegian (Norway): Polish (Poland); Portuguese (Brazil); Portuguese (Portugal); Romanian (Romania); Russian (Russia); Slovenian (Slovenia); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Spanish (US); Swedish (Sweden); Thai (Thailand); Turkish (Turkey); Ukrainian (Ukraine); Vietnamese (Vietnam); Yoruba (Nigeria)
FACE-Q Head & neck cancer – Facial Appearance – Appearance	Dutch, Farsi, Hindi, Marathi, Portuguese, Swedish
FACE-Q Head & neck cancer – Function – Eating & drinking	Dutch, Hindi, Marathi, Portuguese, Swedish
FACE-Q Head & neck cancer – Function – Oral competence	Dutch, Hindi, Marathi, Portuguese, Swedish
FACE-Q Head & neck cancer – Function - Salivation	Dutch, Hindi, Marathi, Portuguese, Swedish
FACE-Q Head & neck cancer – Function - Smiling	Dutch, Hindi, Marathi, Portuguese, Swedish
FACE-Q Head & neck cancer – Function - Speaking	Dutch, Hindi, Marathi, Portuguese, Swedish
FACE-Q Head & neck cancer – Function - Swallowing	Dutch, Hindi, Marathi, Portuguese, Swedish
FACIT Fatigue Scale Item bank	Afrikaans; Albanian; Arabic; Armenian; Assamese; Azerbaijani; Belarusian; Bengali; Bosnian; Bulgarian; Burmese; Catalan; Cebuano; Chinese – Simplified; Chinese – Traditional; Croatian; Czech; Danish; Dholuo; Dutch; Estonian; Farsi; Finnish; Galician; Georgian; Greek; Gujarati; Haitian Creole; Hausa; Hebrew; Hiligaynon; Hindi; Hungarian;

	Ilokano; Indonesian; Icelandic; Japanese; Kannada; Kapampangan; Kazakh; Korean; Latvian; Lithuanian; Macedonian; Malay; Malayalam; Marathi; Marwari; Montenegrin; Norwegian; Odia; Polish; Portuguese; Punjabi; Romanian; Russian; Sepedi; Serbian; Sesotho; Setswana; Sinhalese; Slovak; Slovene; Swahili; Swedish; Tagalog; Tamil; Telugu; Thai; Turkish; Twi; Ukrainian; Urdu; Vietnamese; Xhosa; Yoruba; Zulu
LYMPH-Q Appearance	Chinese, Danish, Dutch, Portuguese, Romanian, Swedish, Turkish
LYMPH-Q Arm sleeve	Chinese, Danish, Dutch, Portuguese, Romanian, Swedish, Turkish
LYMPH-Q Function	Chinese, Danish, Dutch, Portuguese, Romanian, Swedish, Turkish
LYMPH-Q Symptoms	Chinese, Danish, Dutch, Portuguese, Romanian, Swedish, Turkish
ITEM BANKS – Mental Health	
BREAST-Q Breast conserving therapy – Psychosocial Well-being	Arabic (Israel); Arabic (Saudi Arabia); Chinese (China); Chinese (Hong Kong); Chinese (Malaysia); Chinese (Taiwan); Croatian (Croatia); Czech (Czech Republic); Bahasa Indonesia (Indonesia); Danish (Denmark); Dutch (Netherlands); English (UK); Farsi (Iran); Filipino (Philippines); Finnish (Finland); French (France); German (Austria); German (Germany); German (Switzerland); Greek (Cyprus); Greek (Greece); Italian (Italy); Hebrew (Israel); Hindi (India); Hungarian (Hungary); Japanese (Japan); Korean (Korea); Latvian (Latvia); Lithuanian (Lithuania); Malay (Malaysia); Marathi (India); Norwegian (Norway): Odiya (India); Polish (Poland); Portuguese (Portugal); Romanian (Romania); Russian (Russia); Slovenian (Slovenia); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Spanish (US); Swedish (Sweden); Thai (Thailand); Turkish (Turkey); Ukrainian (Ukraine); Vietnamese (Vietnam)
BREAST-Q Breast Reconstruction – Psychosocial Well-being	Arabic (Israel); Arabic (Malaysia); Arabic (Saudi Arabia); Chinese (China); Chinese (Hong Kong); Chinese (Malaysia); Chinese (Taiwan); Croatian (Croatia); Czech (Czech Republic); Danish (Denmark); Dutch (Belgium); Dutch (Netherlands); English (UK); Farsi (Iran); Filipino (Philippines); Finnish (Finland); French (Canada); French (France); German (Austria); German (Germany); German (Switzerland); Greek (Greece); Hebrew (Israel); Hindi (India); Hungarian (Hungary); Icelandic (Iceland); Italian (Italy); Japanese (Japan); Korean (Korea); Latvian (Latvia); Lithuanian (Lithuania); Malay (Malaysia); Maranthi (India); Norwegian (Norway): Polish (Poland); Portuguese (Brazil); Portuguese (Portugal); Romanian (Romania); Russian (Russia); Slovak (Slovakia); Slovenian (Slovenia); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Spanish (US); Swedish (Sweden); Thai (Thailand); Turkish (Turkey); Ukrainian (Ukraine); Vietnamese (Vietnam)
BREAST-Q Cancer Worry	Vietnamese; Chinese (Taiwan); Bahasa Indonesia
BREAST-Q Mastectomy – Psychosocial Well-being	Arabic (Israel); Arabic (Malaysia); Arabic (Saudi Arabia); Bahasa Indonesia (Indonesia); Chinese (China); Chinese (Hong Kong); Chinese (Malaysia); Chinese (Taiwan); Croatian (Croatia); Czech (Czech Republic); Danish (Denmark); Dutch (Belgium); Dutch (Netherlands); English (UK); Farsi (Iran); Filipino (Philippines); Finnish (Finland); French (France); German (Austria); German (Germany); German (Switzerland); Greek (Greece); Hebrew (Israel); Hungarian (Hungary); Italian (Italy); Japanese (Japan); Korean (Korea); Latvian (Latvia); Lithuanian (Lithuania); Malay (Malaysia); Norwegian (Norway): Polish (Poland); Portuguese (Brazil); Portuguese (Portugal); Romanian (Romania); Russian (Russia); Slovenian (Slovenia); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Spanish (US); Swedish (Sweden); Thai (Thailand); Turkish (Turkey); Ukrainian (Ukraine); Vietnamese (Vietnam); Yoruba (Nigeria)
FACE-Q Head & neck cancer – Distress - Appearance	Dutch, Hindi, Marathi, Portuguese, Swedish
FACE-Q Head & neck cancer – Distress – Cancer worry	Dutch, Hindi, Marathi, Portuguese, Swedish
FACE-Q Head & neck cancer – Distress - Drooling	Dutch, Hindi, Marathi, Portuguese, Swedish
FACE-Q Head & neck cancer – Distress - Eating	Dutch, Hindi, Marathi, Portuguese, Swedish
FACE-Q Head & neck cancer – Distress - Smiling	Dutch, Hindi, Marathi, Portuguese, Swedish
FACE-Q Head & neck cancer – Distress - Speaking	Dutch, Hindi, Marathi, Portuguese, Swedish

LYMPH-Q - Psychological	Chinese, Danish, Dutch, Portugese, Romanian, Swedish, Turkish
PROMIS General Life Satisfaction	Swahili; Dholuo; Twi; Arabic
PROMIS - Meaning and Purpose	Swahili; Dholuo; Twi; Arabic
PROMIS - Positive affect	Swahili; Dholuo; Twi; Arabic
PROMIS - Self-Efficacy (General)	Swahili; Dholuo; Twi; Arabic
ITEM BANKS – Social Health	
BREAST-Q Breast conserving therapy – Satisfaction with information	Arabic (Saudi Arabia); Chinese (China); Chinese (Hong Kong); Chinese (Malaysia); Croatian (Croatia); Czech (Czech Republic); Bahasa Indonesia (Indonesia); Danish (Denmark); Dutch (Netherlands); English (UK); Farsi (Iran); Finnish (Finland); German (Germany); Greek (Cyprus); Italian (Italy); Hindi (India); Hungarian (Hungary); Japanese (Japan); Korean (Korea); Malay (Malaysia); Marathi (India); Norwegian (Norway): Odiya (India); Polish (Poland); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Spanish (US); Swedish (Sweden); Thai (Thailand); Turkish (Turkey); Ukrainian (Ukraine); Vietnamese (Vietnam)
BREAST-Q Breast conserving therapy – Satisfaction with medical team	Arabic (Israel); Arabic (Saudi Arabia); Chinese (China); Chinese (Hong Kong); Chinese (Malaysia); Chinese (Taiwan); Croatian (Croatia); Czech (Czech Republic); Bahasa Indonesia (Indonesia); Danish (Denmark); Dutch (Netherlands); English (UK); Farsi (Iran); Filipino (Philippines); Finnish (Finland); French (France); German (Austria); German (Germany); German (Switzerland); Greek (Cyprus); Greek (Greece); Italian (Italy); Hebrew (Israel); Hindi (India); Hungarian (Hungary); Japanese (Japan); Korean (Korea); Latvian (Latvia); Lithuanian (Lithuania); Malay (Malaysia); Marathi (India); Norwegian (Norway): Odiya (India); Polish (Poland); Portuguese (Portugal); Romanian (Romania); Russian (Russia); Slovenian (Slovenia); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Spanish (US); Swedish (Sweden); Thai (Thailand); Turkish (Turkey); Ukrainian (Ukraine); Vietnamese (Vietnam)
BREAST-Q Breast conserving therapy – Satisfaction with office staff	Arabic (Israel); Arabic (Saudi Arabia); Chinese (China); Chinese (Hong Kong); Chinese (Malaysia); Chinese (Taiwan); Croatian (Croatia); Czech (Czech Republic); Bahasa Indonesia (Indonesia); Danish (Denmark); Dutch (Netherlands); English (UK); Farsi (Iran); Filipino (Philippines); Finnish (Finland); French (France); German (Austria); German (Germany); German (Switzerland); Greek (Cyprus); Greek (Greece); Italian (Italy); Hebrew (Israel); Hindi (India); Hungarian (Hungary); Japanese (Japan); Korean (Korea); Latvian (Latvia); Lithuanian (Lithuania); Malay (Malaysia); Marathi (India); Norwegian (Norway): Odiya (India); Polish (Poland); Portuguese (Portugal); Romanian (Romania); Russian (Russia); Slovenian (Slovenia); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Spanish (US); Swedish (Sweden); Thai (Thailand); Turkish (Turkey); Ukrainian (Ukraine); Vietnamese (Vietnam)
BREAST-Q Breast conserving therapy – Satisfaction with surgeon	Arabic (Israel); Arabic (Saudi Arabia); Chinese (China); Chinese (Hong Kong); Chinese (Malaysia); Chinese (Taiwan); Croatian (Croatia); Czech (Czech Republic); Bahasa Indonesia (Indonesia); Danish (Denmark); Dutch (Netherlands); English (UK); Farsi (Iran); Filipino (Philippines); Finnish (Finland); French (France); German (Austria); German (Germany); German (Switzerland); Greek (Cyprus); Greek (Greece); Italian (Italy); Hebrew (Israel); Hindi (India); Hungarian (Hungary); Japanese (Japan); Korean (Korea); Latvian (Latvia); Lithuanian (Lithuania); Malay (Malaysia); Marathi (India); Norwegian (Norway): Odiya (India); Polish (Poland); Portuguese (Portugal); Romanian (Romania); Russian (Russia); Slovenian (Slovenia); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Spanish (US); Swedish (Sweden); Thai (Thailand); Turkish (Turkey); Ukrainian (Ukraine); Vietnamese (Vietnam)
BREAST-Q Breast Reconstruction – Satisfaction with information	Arabic (Israel); Arabic (Malaysia); Arabic (Saudi Arabia); Chinese (China); Chinese (Hong Kong); Chinese (Malaysia); Chinese (Taiwan); Croatian (Croatia); Czech (Czech Republic); Danish (Denmark); Dutch (Belgium); Dutch (Netherlands); English (UK); Farsi (Iran); Filipino (Philippines); Finnish (Finland); French (Canada); French (France); German (Austria); German (Germany); German (Switzerland); Greek (Greece); Hebrew (Israel); Hindi (India); Hungarian (Hungary); Icelandic (Iceland); Italian (Italy); Japanese (Japan); Korean (Korea); Latvian (Latvia); Lithuanian (Lithuania); Malay (Malaysia); Maranthi (India); Norwegian (Norway): Polish (Poland); Portuguese (Brazil); Portuguese (Portugal); Romanian (Romania); Russian (Russia); Slovak (Slovakia); Slovenian (Slovenia); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Spanish (US); Swedish (Sweden); Thai (Thailand); Turkish (Turkey); Ukrainian (Ukraine); Vietnamese (Vietnam)
BREAST-Q Breast Reconstruction – Satisfaction with medical team	Arabic (Israel); Arabic (Malaysia); Arabic (Saudi Arabia); Chinese (China); Chinese (Hong Kong); Chinese (Malaysia); Chinese (Taiwan); Croatian (Croatia); Czech (Czech Republic); Danish (Denmark); Dutch (Belgium); Dutch (Netherlands); English (UK); Farsi (Iran); Filipino (Philippines); Finnish (Finland); French (Canada); French (France); German (Austria); German (Germany); German (Switzerland); Greek (Greece); Hebrew (Israel); Hindi (India); Hungarian (Hungary); Icelandic (Iceland); Italian (Italy); Japanese (Japan); Korean (Korea); Latvian (Latvia); Lithuanian (Lithuania); Malay (Malaysia); Maranthi (India); Norwegian (Norway): Polish (Poland); Portuguese (Brazil); Portuguese (Portugal); Romanian (Romania); Russian (Russia); Slovak (Slovakia); Slovenian (Slovenia); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Spanish (US); Swedish (Sweden); Thai (Thailand); Turkish (Turkey); Ukrainian (Ukraine); Vietnamese (Vietnam)

BREAST-Q Breast Reconstruction – Satisfaction with office staff	Arabic (Israel); Arabic (Malaysia); Arabic (Saudi Arabia); Chinese (China); Chinese (Hong Kong); Chinese (Malaysia); Chinese (Taiwan); Croatian (Croatia); Czech (Czech Republic); Danish (Denmark); Dutch (Belgium); Dutch (Netherlands); English (UK); Farsi (Iran); Filipino (Philippines); Finnish (Finland); French (Canada); French (France); German (Austria); German (Germany); German (Switzerland); Greek (Greece); Hebrew (Israel); Hindi (India); Hungarian (Hungary); Icelandic (Iceland); Italian (Italy); Japanese (Japan); Korean (Korea); Latvian (Latvia); Lithuanian (Lithuania); Malay (Malaysia); Maranthi (India); Norwegian (Norway): Polish (Poland); Portuguese (Brazil); Portuguese (Portugal); Romanian (Romania); Russian (Russia); Slovak (Slovakia); Slovenian (Slovenia); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Spanish (US); Swedish (Sweden); Thai (Thailand); Turkish (Turkey); Ukrainian (Ukraine); Vietnamese (Vietnam)
BREAST-Q Breast Reconstruction – Satisfaction with surgeon	Arabic (Israel); Arabic (Malaysia); Arabic (Saudi Arabia); Chinese (China); Chinese (Hong Kong); Chinese (Malaysia); Chinese (Taiwan); Croatian (Croatia); Czech (Czech Republic); Danish (Denmark); Dutch (Belgium); Dutch (Netherlands); English (UK); Farsi (Iran); Filipino (Philippines); Finnish (Finland); French (Canada); French (France); German (Austria); German (Germany); German (Switzerland); Greek (Greece); Hebrew (Israel); Hindi (India); Hungarian (Hungary); Icelandic (Iceland); Italian (Italy); Japanese (Japan); Korean (Korea); Latvian (Latvia); Lithuanian (Lithuania); Malay (Malaysia); Maranthi (India); Norwegian (Norway): Polish (Poland); Portuguese (Brazil); Portuguese (Portugal); Romanian (Romania); Russian (Russia); Slovak (Slovakia); Slovenian (Slovenia); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Spanish (US); Swedish (Sweden); Thai (Thailand); Turkish (Turkey); Ukrainian (Ukraine); Vietnamese (Vietnam)
BREAST-Q Impact on Work	Vietnamese; Chinese (Taiwan); Indonesia
BREAST-Q Mastectomy – Satisfaction with medical team	Arabic (Israel); Arabic (Malaysia); Arabic (Saudi Arabia); Bahasa Indonesia (Indonesia); Chinese (China); Chinese (Hong Kong); Chinese (Malaysia); Chinese (Taiwan); Croatian (Croatia); Czech (Czech Republic); Danish (Denmark); Dutch (Belgium); Dutch (Netherlands); English (UK); Farsi (Iran); Filipino (Philippines); Finnish (Finland); French (France); German (Austria); German (Germany); German (Switzerland); Greek (Greece); Hebrew (Israel); Hungarian (Hungary); Italian (Italy); Japanese (Japan); Korean (Korea); Latvian (Latvia); Lithuanian (Lithuania); Malay (Malaysia); Norwegian (Norway): Polish (Poland); Portuguese (Brazil); Portuguese (Portugal); Romanian (Romania); Russian (Russia); Slovenian (Slovenia); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Spanish (US); Swedish (Sweden); Thai (Thailand); Turkish (Turkey); Ukrainian (Ukraine); Vietnamese (Vietnam); Yoruba (Nigeria)
BREAST-Q Mastectomy – Satisfaction with office staff	Arabic (Israel); Arabic (Malaysia); Arabic (Saudi Arabia); Bahasa Indonesia (Indonesia); Chinese (China); Chinese (Hong Kong); Chinese (Malaysia); Chinese (Taiwan); Croatian (Croatia); Czech (Czech Republic); Danish (Denmark); Dutch (Belgium); Dutch (Netherlands); English (UK); Farsi (Iran); Filipino (Philippines); Finnish (Finland); French (France); German (Austria); German (Germany); German (Switzerland); Greek (Greece); Hebrew (Israel); Hungarian (Hungary); Italian (Italy); Japanese (Japan); Korean (Korea); Latvian (Latvia); Lithuanian (Lithuania); Malay (Malaysia); Norwegian (Norway): Polish (Poland); Portuguese (Brazil); Portuguese (Portugal); Romanian (Romania); Russian (Russia); Slovenian (Slovenia); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Spanish (US); Swedish (Sweden); Thai (Thailand); Turkish (Turkey); Ukrainian (Ukraine); Vietnamese (Vietnam); Yoruba (Nigeria)
BREAST-Q Mastectomy – Satisfaction with surgeon	Arabic (Israel); Arabic (Malaysia); Arabic (Saudi Arabia); Bahasa Indonesia (Indonesia); Chinese (China); Chinese (Hong Kong); Chinese (Malaysia); Chinese (Taiwan); Croatian (Croatia); Czech (Czech Republic); Danish (Denmark); Dutch (Belgium); Dutch (Netherlands); English (UK); Farsi (Iran); Filipino (Philippines); Finnish (Finland); French (France); German (Austria); German (Germany); German (Switzerland); Greek (Greece); Hebrew (Israel); Hungarian (Hungary); Italian (Italy); Japanese (Japan); Korean (Korea); Latvian (Latvia); Lithuanian (Lithuania); Malay (Malaysia); Norwegian (Norway): Polish (Poland); Portuguese (Brazil); Portuguese (Portugal); Romanian (Romania); Russian (Russia); Slovenian (Slovenia); Spanish (Argentina); Spanish (Mexico); Spanish (Spain); Spanish (US); Swedish (Sweden); Thai (Thailand); Turkish (Turkey); Ukrainian (Ukraine); Vietnamese (Vietnam); Yoruba (Nigeria)
FACE-Q Head & neck cancer – Satisfaction with information	Dutch, Hindi, Marathi, Portuguese, Swedish
LYMPH-Q - Information	Chinese, Danish, Dutch, Portuguese, Romanian, Swedish, Turkish

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