Article

Developing a Nursing Assessment Chart for Patients Receiving Palliative Care at Home: A Delphi Method Study

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Theme: Coping and adaptation to health

Contribution to the discipline: This study contributes to the advancement of nursing science by developing and validating a structured, evidence-informed assessment tool specifically designed for home-based palliative care. By integrating expert consensus and addressing clinical, functional, psychosocial, and spiritual domains, the instrument strengthens the methodological foundation of comprehensive nursing assessment in the community setting. It supports standardization of nursing documentation, enhances interdisciplinary collaboration, and promotes person-centered care planning. Furthermore, the study expands the body of knowledge on tool development and validation in nursing, particularly within the context of end-of-life care, thereby reinforcing the professional autonomy and clinical decision-making role of nurses in palliative practice.

Abstract

Introduction: As the demand for home-based palliative care continues to grow, nurses play a critical role in assessing and managing the multifaceted needs of terminally ill patients. Despite international guidelines emphasizing comprehensive nursing assessment, a significant gap remains in structured tools tailored specifically for use in the home setting. **Objective:** To develop and validate a structured nursing assessment chart for patients receiving home-based palliative care using expert consensus through the Delphi method. **Methods**: A literature review was conducted to identify key nursing indicators relevant to home-based palliative care. A preliminary assessment chart was developed, encompassing seven core domains—vital signs, general examination, patient concerns, pain and symptom evaluation, functional status, pressure injury risk, and self-assessed quality of life. A panel of 21 experts (12 oncologists and 9 community nurses) participated in two Delphi rounds to evaluate the relevance and clarity of each item. Items were rated on a 5-point Likert scale, and consensus was defined as ≥75% agreement. **Results**: Consensus was achieved for most items during the first round (range: 85.5%-98.5%), with the exception of "Vital Signs Assessment" (74.4%) and "Self-Assessment of Quality of Life" (65.6%). After revisions, these two items reached 91.5% and 89.1% consensus, respectively, in the second round. Feedback from the panel led to several refinements, including the addition of oxygen saturation, spiritual needs, and expanded symptom categories. **Conclusion:** The Delphi process enabled the development of a validated, evidence-informed nursing assessment chart suitable for home-based palliative care. This tool addresses a previously unmet need by offering a structured approach to evaluating the clinical and psychosocial status of terminally ill patients in the community. It supports consistent nursing documentation, interdisciplinary communication, and person-centered care planning.

Keywords (Source: DeCS)
Palliative care; home health nursing; nursing assessment; Delphi method; expert consensus; terminal care.

Desarrollo de una lista de valoración de enfermería para pacientes con cuidados paliativos en el hogar: Un estudio con el método Delphi

Resumen

Introducción: Con el continuo crecimiento de la demanda de cuidados paliativos en casa, las enfermeras juegan un papel crítico en valorar y administrar las necesidades multifacéticas de los pacientes terminales. A pesar del énfasis de las guías internacionales en la valoración comprensiva de enfermería, se mantiene una brecha significativa en las herramientas estructuradas desarrolladas específicamente para su uso en el hogar. **Objetivo:** Desarrollar y validar una lista de valoración de enfermería para pacientes con cuidados paliativos en el hogar, usando el consenso de expertos a través del método Delphi. **Métodos:** Se realizó una revisión de literatura para identificar los indicadores clave más relevantes para el cuidado paliativo en el hogar. Se desarrolló una lista de valoración preliminar con siete áreas centrales: signos vitales, examen general, preocupaciones del paciente, dolor y evaluación de síntomas, estado funcional, riego de herida por presión y autovaloración de la calidad de vida. Un panel de 21 expertos (doce oncólogos y nueve enfermeras comunitarias) participaron en dos rondas Delphi para evaluar la relevancia y la claridad de cada ítem. Los ítem fueron calificados con una escala Likert de 5 puntos, y el consenso se definió con un acuerdo de ≥ 75%. **Resultados:** Se logró el consenso para la mayoría de los ítems en la primera ronda (rango: 85.5% - 98.5%), con la excepción de “Evaluación de los signos vitales” (74,4%) y “Autoevaluación de la calidad de vida” (65,6%). Después de revisarlos, estos dos ítems alcanzaron un consenso del 91,5% y 89,1%, respectivamente, en la segunda ronda. La retroalimentación del panel de expertos llevó a varias mejoras, que incluyeron la incorporación de la saturación de oxígeno, necesidades espirituales y una categoría de síntomas expandidos. **Conclusión:** El proceso Delphi permitió el desarrollo de una lista de valoración de enfermería adecuada para los cuidados paliativos en casa, validada y soportada en evidencia. Esta herramienta aborda necesidades anteriormente insatisfechas al ofrecer a un acercamiento estructurado a la evaluación clínica y psicosocial del estado de los pacientes terminales de la comunidad. Apoya la documentación consistente de enfermería, la comunicación interdisciplinaria y la planeación del cuidado centrada en la persona.

Palabras clave (Fuente DeCS)
cuidados paliativos; cuidados de enfermería en el hogar; evaluación en enfermería; técnica Delphi; declaración de consenso; cuidado terminal.

Desenvolvimento de uma lista de avaliação de enfermagem para pacientes em cuidados paliativos domiciliares: um estudo Delphi

Resumo

Introdução: Com o crescimento contínuo da demanda por cuidados paliativos domiciliares, os enfermeiros desempenham papel fundamental na avaliação e na gestão das múltiplas necessidades dos pacientes em fase terminal. Apesar da ênfase das diretrizes internacionais na avaliação abrangente de enfermagem, permanece uma lacuna significativa quanto a instrumentos estruturados desenvolvidos especificamente para uso no domicílio. **Objetivo:** desenvolver e validar uma lista de avaliação de enfermagem para pacientes em cuidados paliativos domiciliares, utilizando o consenso de especialistas por meio do método Delphi. **Materiais e método:** Foi realizada uma revisão da literatura para identificar os indicadores-chave mais relevantes para os cuidados paliativos domiciliares. Foi elaborada uma lista preliminar de avaliação composta por sete áreas principais: sinais vitais, exame geral, preocupações do paciente, avaliação da dor e de outros sintomas, estado funcional, risco de lesão por pressão e autoavaliação da qualidade de vida. Um painel de 21 especialistas (12 oncologistas e 9 enfermeiros comunitários) participou de duas rodadas Delphi para avaliar a relevância e clareza de cada item. Os itens foram avaliados por meio de uma escala Likert de cinco pontos, e o consenso foi definido como concordância ≥ 75 %. **Resultados:** Obteve-se consenso para a maioria dos itens na primeira rodada (intervalo: 85,5 %-98,5 %), com exceção de "Avaliação dos sinais vitais" (74,4 %) e "Autoavaliação da qualidade de vida" (65,6 %). Após revisão, esses dois itens alcançaram consenso de 91,5 % e 89,1 %, respectivamente, na segunda rodada. As contribuições do painel de especialistas resultaram em diversas melhorias, incluindo a incorporação da saturação de oxigênio, das necessidades espirituais e da ampliação das categorias de sintomas. **Conclusão:** O processo Delphi permitiu desenvolver uma lista adequada de avaliação de enfermagem para cuidados paliativos domiciliares, validada e fundamentada em evidências. Essa ferramenta atende a necessidades anteriormente não contempladas ao oferecer uma abordagem estruturada para a avaliação clínica e psicossocial do estado dos pacientes em fase terminal na comunidade. Além disso, favorece a padronização dos registros de enfermagem, a comunicação interdisciplinar e o planejamento de cuidados centrado na pessoa.

Palavras-chave (Fonte DeCS)
Cuidados paliativos; enfermagem domiciliar; avaliação em enfermagem; técnica Delphi; cuidados ao paciente terminal.

Introduction

Nursing assessment is the first stage of the nursing process and the initial step in delivering nursing care. It involves the collection, validation, organization, interpretation, and documentation of information obtained from the patient. In recent years, the role of nurses in palliative and end-of-life care has gained increasing recognition, particularly in the context of home-based settings. Palliative patients often present complex physical, psychosocial, and spiritual needs, requiring regular and structured assessment to ensure timely and appropriate interventions (1, 2). Despite this, the literature consistently highlights the absence of standardized nursing tools tailored for the systematic assessment of palliative patients at home (3, 4).

Home-based palliative care relies heavily on nurses as the frontline providers of ongoing assessment and symptom management (5). However, without a structured assessment framework, variations in clinical judgement, documentation gaps, and inconsistent care planning may occur, ultimately impacting patient outcomes and quality of life (6). Moreover, the early identification of symptoms such as pain, fatigue, anxiety, or pressure injuries is often delayed in the absence of clear assessment protocols, particularly when care is delivered across multiple providers.

Several international guidelines recommend comprehensive, person-centered nursing assessments as a foundation for high-quality palliative care (7, 8), yet most available tools are either too general or oriented towards inpatient or oncology settings. There remains a notable gap in tools specifically developed for community nurses working with palliative patients at home—tools that reflect both clinical relevance and real-world feasibility.

Home-based assessment of palliative care patients presents specific challenges compared to institutional settings, including limited access to diagnostic resources, fragmented clinical information, and highly variable home and caregiving conditions. As a result, patient needs are often assessed inconsistently and rely heavily on individual clinical judgement, which may lead to underrecognition of symptom burden, psychosocial distress, and unmet care needs. In Kazakhstan, these challenges are exacerbated by the absence of validated assessment tools specifically designed for home-based palliative care, creating a significant gap in systematic patient evaluation and continuity of care.

The development of the assessment tool was guided by a holistic palliative care framework integrating physical, psychological, social, and spiritual domains of patient needs. Conceptually, the instrument is grounded in person-centered and nursing assessment models that emphasize comprehensive evaluation of functional status, symptom burden, psychosocial well-being, and caregiver context within the home environment. This framework reflects the central role of nurs-

es in home-based palliative care and supports structured, consistent clinical decision-making in community settings.

Home-based palliative care is highly context-dependent and shaped by national healthcare systems, cultural norms, and household structures. In Kazakhstan, such care is mainly delivered through primary healthcare services and oncology centers, with nurses playing a central role in patient assessment and care coordination. While core assessment domains are universal, their application may vary across countries depending on healthcare organization and cultural context. Therefore, the instrument was developed as a nursing-focused tool within the Kazakhstani setting, with the understanding that contextual adaptation would be required for use in other countries.

Given this context, the development of a structured nursing assessment chart specifically adapted to home-based palliative care is both timely and necessary. Such a tool aims not only to standardize care processes but also to strengthen nursing decision-making, improve communication within multidisciplinary teams, and enhance the quality of care delivered to patients in the last stages of life.

The aim of this study was to develop and validate a structured nursing assessment chart for patients receiving home-based palliative care using expert consensus through the Delphi method.

Materials and methods

Sources of evidence for instrument development

To inform the development of the home-based nursing assessment chart for palliative care patients, the research team consulted several international and national scientific publications and clinical guidelines. This process was not intended as a systematic literature review but rather as a pragmatic identification of evidence-based nursing indicators relevant to home palliative care practice.

Relevant publications were identified through searches in major databases (Scopus, EBSCOhost, Wiley, Web of Science, and MEDLINE) using keywords related to palliative care, nursing assessment, symptom management, and patient needs. Approximately 20-25 key publications were consulted to identify core assessment domains and clinical criteria.

In addition, established clinical guidelines and professional manuals were used as the theoretical foundation for the proposed chart, including: Clinical Practice Guidelines for Quality Palliative Care (ELNEC, 2018); Hospital-Based Palliative Medi-

cine: A Practical, Evidence-Based Approach (USA, 2015); Palliative Care: Care for Adults with a Progressive, Life-Limiting Illness (Canada, 2018); Home-Based Palliative Care: A Nursing Manual (Moscow, 2022); National Guidelines for Palliative Medical Care in Oncology (Russia, 2022); A Palliative Approach to Care in the Last 12 Months of Life (Canada, 2020); Scottish Palliative Care Guidelines (Scotland, 2020).

Delphi method

The Delphi method, originally developed in the 1950s-1960s for forecasting, has been widely adapted in healthcare to achieve expert consensus, particularly when evidence is limited or inconsistent (9). It has been successfully applied to develop validated assessment tools in palliative care, including quality indicators in China (10), end-of-life nursing protocols in South Korea (11), and dimensions of high-quality nursing care internationally (12). Despite its adoption, nurses often rely on observational approaches rather than validated instruments, highlighting the need for structured, evidence-based assessment tools in home-based palliative care (13). The method involves iterative rounds of expert input to reach consensus, following key principles such as expert engagement, anonymity, multiple survey rounds, and structured feedback (14).

Despite its recognition in other medical disciplines, the use of the Delphi methodology in palliative medicine has not previously been considered in the literature and this article attempts to apply it for the first time to develop a tool for healthcare practice in assessing the condition of a patient receiving palliative care at home.

The development process involved a comprehensive literature review to identify evidence-based nursing indicators relevant to home-based palliative care. Based on these findings, a preliminary draft of the assessment chart was subsequently developed, consisting of seven core components—vital signs assessment, general patient examination, assessment of patient concerns, pain and symptom evaluation, functional status assessment, pressure injury risk assessment, and self-assessed quality of life. This assessment chart underwent expert evaluation using the Delphi method.

An expert panel was first established, comprising individuals with recognized knowledge and practical experience in palliative care. The panel included 12 oncologists and 9 community nurses from primary healthcare organizations in Astana. The inclusion of nurses ensured that the instrument was evaluated from the perspective of frontline providers and its alignment with its intended use in nursing practice. Prior to initiating the Delphi rounds, a structured questionnaire was prepared containing all proposed items of the nursing assessment chart. This questionnaire was distributed to the expert panel, who were asked to anonymously evaluate their level of agreement with each item, typically using a Likert-type scale.

Each expert was also asked to rate each item on a five-point scale regarding its clarity and necessity for inclusion in the chart. In addition, open-ended questions invited the experts to provide further feedback, including whether any additional items should be included, whether the information was sufficient, or whether further clarification was needed.

Following each round, the data were analyzed. Items that failed to achieve a score of at least 75% (based on a 100-point scale) were revised, considering the experts' comments and suggestions. The revised version of the chart was then redistributed for re-evaluation. This iterative process continued until consensus was reached. Consensus for each item was defined as a mean score of ≥75% among the experts. Recent methodological reviews emphasize the importance of clearly defining consensus thresholds, maintaining expert anonymity, and using iterative feedback as key elements to ensure rigor in Delphi studies applied in health sciences (15). The developed assessment chart is designed primarily as a nursing tool for home-based palliative care, focusing on the systematic evaluation of patients' physical, psychosocial, and functional needs by nurses. While its application is intended for nursing practice, the instrument also facilitates communication with other members of the multidisciplinary team, supporting coordinated care planning and continuity of care in the home setting.

Participants

The expert panel consisted of professionals with recognized academic reputation, substantial theoretical knowledge, and extensive clinical experience in the field of palliative care. Based on the objectives and practical requirements of the study, a total of 21 healthcare professionals, including doctors and nurses, with considerable expertise in palliative care from the city of Astana were invited to participate.

In the context of the healthcare system of Kazakhstan, home-based palliative care is predominantly delivered by oncologists and community nurses, particularly within primary healthcare and oncology services. Moreover, the majority of patients receiving palliative care in Kazakhstan belong to the oncological patient population, which explains the central role of oncologists in the organization and clinical oversight of palliative care services. The composition of the expert panel reflected both the interdisciplinary nature of home-based palliative care and the voluntary participation of eligible experts. Consequently, oncologists demonstrated a higher willingness to participate in the study compared to other professionals. In addition, the number of physicians was partially related to the limited availability of nurses with experience in home-based palliative care, due to a shortage of nurses in palliative care services.

The inclusion criteria for expert consultants were a bachelor's degree or higher; a professional title at middle level or above; at least ten years of relevant clinical experience; verifiable involvement in palliative care provision; and willingness to participate in multiple rounds of the Delphi process. Experts assessed each item of the nursing assessment chart independently and anonymously, rating both its clarity and relevance on a five-point scale. Following each round, items not achieving a consensus of ≥75% were revised based on feedback and re-evaluated, ensuring methodological rigor and a validated, evidence-informed instrument suitable for use in home-based palliative nursing practice.

The draft items of the assessment chart were developed by the research team, who are PhD doctors, included in the specialty of Nursing Science.

Each item was rated on a 5-point Likert scale regarding its clarity and necessity for inclusion. Items scoring below the consensus threshold (≥75% mean) were revised according to experts' comments and reassessed in the following round.

Experts evaluated the chart using structured questionnaires distributed electronically. They rated each item anonymously and also provided open-ended feedback for additional suggestions or clarifications.

The finalized developed assessment form is available at the following link: https://drive.google.com/file/d/1TEWVCS5wmlaPcnBR10MUsoQTRDh1FL45/view?usp=drive_link

Ethical Considerations

Prior to the start of the study, ethical approval was obtained from the Local Bioethical Committee of the University (Protocol No. 15 of October 21, 2021).

Statistical Methods

SPSS 23.0 and Excel were used for data entry and statistical analysis. The significance of indicators at all levels was expressed as an absolute number and percentage.

Results

Characteristics of the Participants

A total of 21 experts aged between 34-53 participated in the first and second rounds (100% response rate), including twelve oncologists (57.1%) and 9 nurses (42.9%). Table 1 presents the characteristics of the participants.

Table 1. Characteristics of the Participants

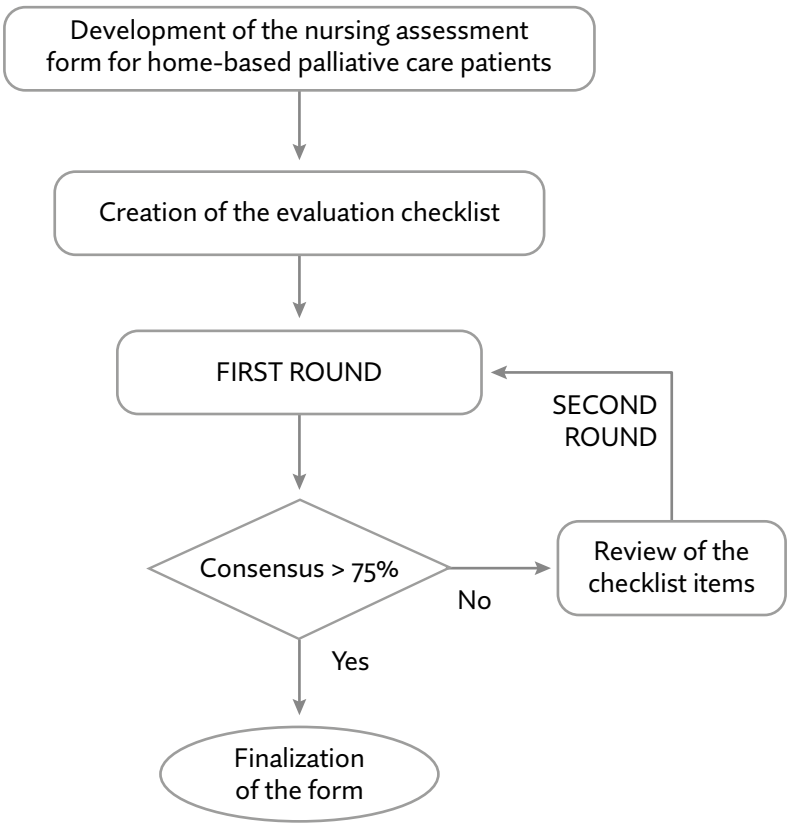
Items	N (%)
Gender	
Male	4 (19.05)
Female	17 (80.95)
Age (Years, Mean ± SD)	45.07±3.21
Years of working (Years, Mean ± SD)	17.03±2.03
Education level (%)	
Bachelor's degree	16 (76.19)
Master's degree	3 (14.29)
Doctoral degree	2 (9.52)
Vocation (%)	
Nurse	9 (42.9)
Oncologists	12 (57.1)

Source: Prepared by the authors.

Delphi Method Expert Consensus Level

The Delphi study consisted of a series of rounds, where the responses from the first round were used to revise the chart and inform the subsequent round. Figure 1 provides a schematic representation of the Delphi study procedure.

Figure 1. Schematic Diagram of the Delphi Study (16)



The results of the expert evaluation of the nursing assessment chart for a palliative care patient at home, conducted using the Delphi method, are presented in Table 2.

Table 2. Ratings Obtained During the Delphi Study

Items of the Nursing Assessment Chart for a Palliative Care Patient at Home	Round 1 (consensus level)	Round 2 (consensus level)
Item I. Vital Signs Assessment	Nurses: n = 9 (60.4%) Oncologists: n = 12 (88.5%)	Nurses: n = 9 (90.7%) Oncologists: n = 12 (92.3%)
Item II. Patient Examination	Nurses: n = 9 (94.3%) Oncologists: n = 12 (98.5%)	-
Item III. Assessment of Patient Problems	Nurses: n = 9 (87.4%) Oncologists: n = 12 (89.2%)	-
Item IV. Pain and Symptom Assessment	Nurses: n = 9 (85.5%) Oncologists: n = 12 (89.2%)	-
Item V. Functional Status Assessment	Nurses: n = 9 (96.5%) Oncologists: n = 12 (98.5%)	-
Item VI. Pressure Injury Risk Assessment	Nurses: n = 9 (89.1%) Oncologists: n = 12 (92.3%)	-
Item VII. Self-assessment of Quality of Life	Nurses: n = 9 (54.2%) Oncologists: n = 12 (76.9%)	Nurses: n = 9 (83.7%) Oncologists: n = 12 (94.5%)
Note - n: number of respondents		

Source: Prepared by the authors

The identification section of the developed assessment chart includes brief information about the patient (name and age), the date of the visit, and the visit status (initial or follow-up).

Item I: Vital Signs Assessment

This includes a group of four primary indicators of bodily condition and vital functions: blood pressure, body temperature, pulse, and respiratory rate.

- *Round 1:* Consensus level reached: 74.4%

Recommendation accepted: Add a “Diagnosis” column and include oxygen saturation in the list of vital signs.

- *Round 2:* Consensus level reached: 91.5%

Item II: Patient Examination

During the examination, the nurse observes the patient, paying special attention to consciousness, mobility, facial expression, skin colour, respiratory condition, urinary and bowel function, eating patterns, oral hygiene.

- *Round 1:* Consensus level reached: 96.4%

Recommendations accepted:

» Add: rash, scratch marks, haemorrhages, and haematomas to skin description;
» Add: urinary retention and incontinence;
» Add: defecation pain and foreign body sensation;
» Add: gingival hyperplasia to oral hygiene;
» Remove: daily protein intake assessment due to nurses' inability to determine it promptly.

Item III: Assessment of Patient Problems

This includes a comprehensive evaluation of the patient's physical, psychological, spiritual, and social needs, as well as those of their family.

- *Round 1:* Consensus level reached: 88.3%

Recommendation accepted:

» Separate religious needs in spiritual assessment;
» Add domestic issues to social and family needs;
» Provide common examples in brackets (e.g. medication access, ability to attend healthcare facilities, housing problems, aggression towards others).

Item IV: Pain and Symptom Assessment

This helps to determine pain location and intensity. As chronic pain is one of the main symptoms causing suffering in severely ill patients, its regular assessment is crucial. The chart includes three subjective pain scales: visual analogue, verbal, and facial expression.

- *Round 1:* Consensus level reached: 87.4%

Recommendation accepted: Expand the assessment to include depression, emotional distress, and anger.

Item V: Functional Status Assessment

This gathers information on the patient's vital system functioning. The Karnofsky Scale and Barthel Index are included. The Karnofsky Scale assesses the patient's independence and ability to work and communicate. The Barthel Index evaluates dependence on assistance for daily activities such as feeding, bathing, shaving, dressing, bowel/bladder care, mobility, and stair use.

- *Round 1:* Consensus level reached: 97.5%

Item VI: Pressure Injury Risk Assessment

The Braden Scale, widely used by nurses worldwide, is included due to its simplicity and comprehensiveness. It considers sensory perception, moisture, activity, mobility, nutrition, friction, and shear. Pressure injuries significantly impact the quality of life of immobile patients, so early prevention using reliable tools is essential.

- *Round 1:* Consensus level reached: 90.7%

Item VII: Self-assessment of Quality of Life

Providing timely and appropriate palliative care improves not only survival but also quality of life. However, only the patient can determine what quality of life means to them, and it often changes as the disease progresses. Quality of life is defined by the perceived gap between expectations and current state.

- *Round 1:* Consensus level reached: 65.6%

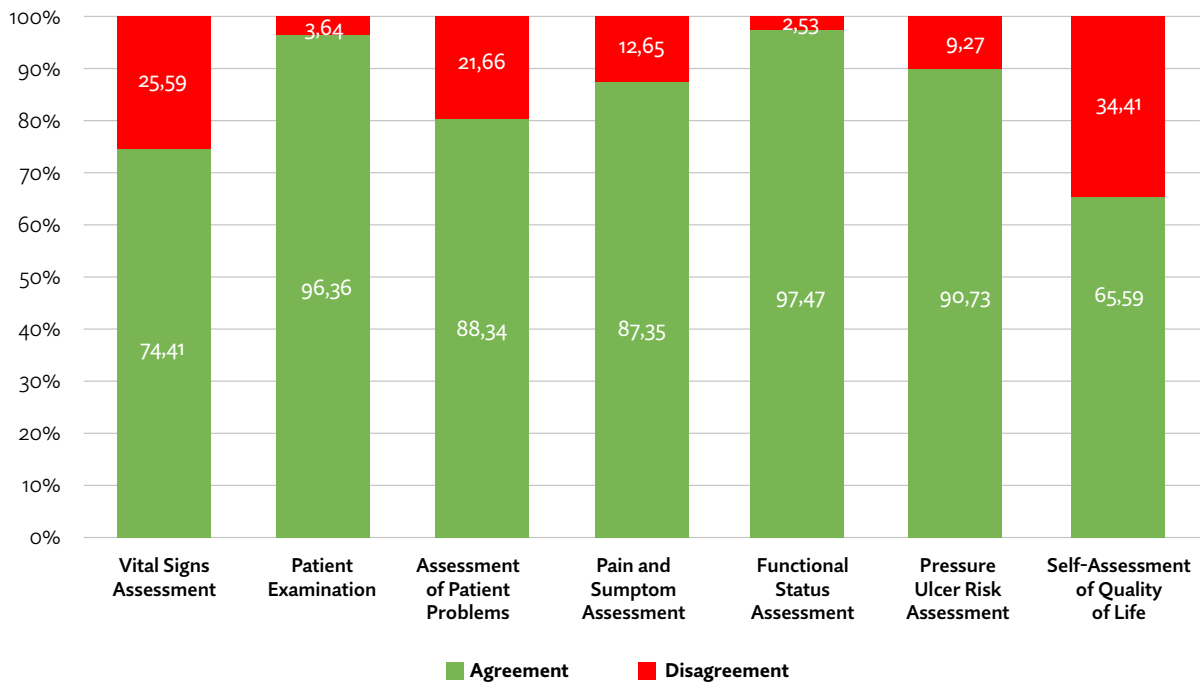
Recommendation accepted: Reduce the response scale from ten to five points — excellent, good, satisfactory, poor, very poor.

- *Round 2:* Consensus level reached: 89.1%

Thus, Items I and VII, which did not reach the required level of expert consensus in Round 1 (74.4% and 65.6%, respectively) (Figure 2a), were revised based on expert recommendations and reached 91.5% and 89.1% in Round 2 (Figure 2b).

Figure 2.

a. Expert Consensus Level in Round 1 of the Delphi Study



b. Expert Consensus Level in Round 2 of the Delphi Study

Source: Prepared by the authors.

Discussion

Although a large portion of the palliative care literature focuses on methodological considerations and conceptual frameworks, a number of studies have examined specific assessment tools relevant to clinical care and nursing practice. Comprehensive reviews of palliative care assessment instruments have identified a wide variety of tools (more than 150) addressing multiple domains of palliative care, including symptom burden, quality of life, psychosocial support, and patient-reported experience, but they have also highlighted significant gaps in tools that are practical for routine clinical use and that cover spiritual, ethical, cultural, and process domains (17).

Furthermore, scoping reviews have explored nurse-related assessment methods, demonstrating that formalized tools are often limited in practice and that nurses commonly rely on observational and patient-centered methods, with few standardized instruments used consistently in daily care (18). Through two rounds of expert consultation, this study finally formed the home-based nursing assessment chart for palliative care patients.

When developing a tool for the nursing assessment of a palliative care patient, it is essential to include the measurement of oxygen saturation. In the description of the skin, it is necessary

to identify the presence of rashes, scratch marks, hemorrhages, and hematomas. In the assessment of urination, retention and incontinence should be noted; in the description of bowel movements, pain during defecation and a sensation of a foreign body should be considered. The oral hygiene section should include the identification of gingival hyperplasia. In addition to other patient-related issues, spiritual and domestic problems should also be assessed. The evaluation of pain and other symptoms should encompass depression, emotional distress, and anger.

The assessment of a patient's condition is aimed at collecting information about their skills, abilities, and behaviors, which must be considered when planning subsequent nursing care. The initial nursing assessment is conducted to identify the specific needs of an individual with a particular pathology. This requires the nurse to possess skills in observation, communication, knowledge of the pathology, and the ability to provide basic medical assistance (19).

When gathering information about the patient, the nurse may use subjective, objective, and additional methods. Subjective assessment methods include collecting the patient's medical history and their perceptions of the illness, including complaints, the course of the disease, and life history. Complaints may vary, but the most common among palliative care patients is pain (20, 21). Objective methods include general examination, observation, and assessment of vital signs (22, 23). Additional methods refer to laboratory and instrumental diagnostics prescribed by a doctor, for which the nurse must prepare the patient.

The patient's needs should be reassessed throughout the course of their illness during follow-up visits by the nurse. Reassessing patient needs is a key element in understanding their response to treatment and nursing care (24). Sources of information for the nurse may include not only conversations with the patient but also discussions with family members and caregivers, as well as data from the medical record and objective examination (25).

During the Delphi process, two items—Vital Signs Assessment and Self-Assessment of Quality of Life—did not reach the predefined consensus threshold after the first round. These items generated diverse expert opinions, reflecting differences in clinical routines and perceptions of feasibility in the home-based palliative care setting. Rather than excluding these items, they were reworded, expanded, or shortened based on expert feedback. The revised items were subsequently reassessed in the second round, where consensus was achieved, supporting their inclusion in the final version of the assessment chart.

The inclusion of a self-assessment of the quality of life component is particularly important in home-based palliative care, where patient-reported outcomes provide essential insights into physical, emo-

tional, and psychosocial well-being and contribute to the evaluation of care effectiveness. Patient-reported quality of life measures are recognized as a primary outcome in palliative care research and practice, as they capture the patient's own perception of their health and care needs, which may not be fully captured by clinical indicators alone. Incorporating the patient's perspective supports a person-centered approach to nursing assessment and care planning and can enhance joint decision-making between patients, families, and healthcare providers (24, 25). Despite initial variability in expert opinions, consensus was ultimately achieved on this component, underscoring the value of quality of life assessment in guiding nursing interventions and holistic palliative care.

The developed nursing assessment chart provides a structured and feasible tool for nurses delivering home-based palliative care. Its use may support systematic patient assessment, improve documentation, and enhance continuity and coordination of care within multidisciplinary teams. The chart may also strengthen clinical decision-making and contribute to more consistent identification of patients' needs in the home setting.

A key strength of this study is the use of a structured Delphi consensus process that involved experienced clinicians from palliative care practice, to ensure the clinical relevance of the instrument. However, the study has several limitations. The expert panel was limited to one city and predominantly focused on oncology-related palliative care, which may affect generalizability. In addition, the instrument has not yet undergone large-scale psychometric testing in clinical practice.

Future research should focus on pilot testing the instrument in routine nursing practice, evaluating its reliability and feasibility, and conducting cross-cultural adaptation and validation in other healthcare settings and countries.

Conclusions

The Palliative Care for Home Care Nursing Assessment Chart is a tool designed for use by nurses providing palliative care at home. In this study, we developed a chart consisting of 7 points—assessment of vital signs, examination of the patient, assessment of the patient's problems, assessment of pain and other symptoms, assessment of the functional status, assessment of the risk of pressure injuries, self-assessment of the quality of life. This chart provides a more robust and comprehensive framework for quality and safe care for terminally ill people.

Conflict of interest statement: The authors declare no conflict of interest.

Availability of data and materials: All data available by request to corresponding author.

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