

RESEARCH

Open Access



Enhancing ward rounds for older patients with frailty: a modified Delphi process

Lene Holst Andersen^{1,2*} , Bo Løfgren^{1,2*} , Mads Skipper^{3*} , Kristian Krogh^{4*}  and Rune Dall Jensen^{2,5*} 

Abstract

Background Despite their prevalence, ward round practices are not well described, leading to challenges in achieving proficiency. We aimed to identify consensus-based content items for conducting ward rounds with older patients with frailty to provide clearer guidelines and enhanced understanding of best practices for medical professionals.

Methods A nationwide Danish five-round Delphi study was conducted during 2023. Geriatric medicine (30) and medical communication (5) experts were invited to participate. The participants' comments and an iterative thematic approach were used to identify and refine content items and themes, after which participants assessed items for consensus. Consensus was defined as 75% of participants voting 7–9 on a 1–9 Likert scale. Items without consensus returned to the next Delphi round with elimination if no consensus was reached after the second assessment.

Results Delphi study response rates were 26(74%), 21(81%), 18(86%), 13(72%), and 11(85%) in Delphi rounds 1–5, respectively. Experts reached consensus on 108 content items on conducting ward rounds with older patients with frailty. Items were organised into four themes: (1) preparing ward rounds, (2) conducting ward rounds, (3) competencies, (4) circumstances related to the patient group. Ward round preparation and the conduction of ward round detailed the process of managing older inpatients with frailty, including conducting a holistic review of patient history and functional status, as well as improving the environment, such as by reducing noise. Competencies and patient circumstances related to the patient group included knowledge, skills, and attitudes to improve ward round quality, including flexibility in terms of reading patient cues and adjusting content to changes in cognition and alertness and knowledge on how to communicate with patients living with cognitive impairment.

Conclusions Geriatric medicine and medical communication experts reached consensus on 108 content items for conducting ward rounds with older patients with frailty. The items were grouped into four themes: preparing for ward

*Correspondence:
Lene Holst Andersen
lehane@rm.dk
Bo Løfgren
bl@clin.au.dk
Mads Skipper
madsskip@rm.dk
Kristian Krogh
krikrogh@rm.dk
Rune Dall Jensen
rune.dall@rm.dk

Full list of author information is available at the end of the article



© The Author(s) 2025. **Open Access** This article is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License, which permits any non-commercial use, sharing, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if you modified the licensed material. You do not have permission under this licence to share adapted material derived from this article or parts of it. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by-nc-nd/4.0/>.

rounds, conducting ward rounds, required competencies, and patient-related circumstances. The authors believe that this study serves as a valuable resource for medical training and future research.

Keywords Continuous professional development, Ward rounds, Geriatric medicine, Frailty, Curriculum development, Delphi methodology

Introduction

Ward rounds are essential for clarifying diagnoses, coordinating management plans, and monitoring patient progress during hospitalisation [1]. They also establish patient and team goals, plan discharges, and educate healthcare professionals (HCPs) [1]. A patient-centred approach is preferred to ensure patient involvement and shared-decision making [2]. The skills required for effective inpatient care are integral to medical education, but conducting ward rounds is not clearly defined, making it difficult to teach and incorporate into curricula [3, 4].

Hospitalised older patients are increasingly complex due to rising levels of multimorbidity, polypharmacy, and frailty [5, 6]. Despite its recognised importance, managing frailty during ward rounds is challenging, even in medical education in general [1, 7–10]. Frailty, an age-related syndrome characterised by a functional decline in physical, cognitive, and social domains, complicates ward rounds [11]. Patient deterioration, such as delirium or fatigue, challenges communication and patient involvement [7, 12, 13]. Additionally, the nonspecific and subtle symptoms common in this population can make it difficult to identify complaints, potentially leading to misdiagnoses and extended hospital stays [14, 15].

To address these challenges effectively, ward rounds for older patients with frailty must involve collaborative, multidisciplinary, and profession-specific medical assessments, as well as tailored care plans [6]. As the number of older inpatients with frailty rises, there is a need for a collective responsibility for their care [16–18]. Overall, conducting ward rounds for patients with frailty is a complex and frequent task, but inadequate education can lead to improper care for older patients with frailty [19]. Therefore, the purpose of this study was to identify key items for curriculum development on conducting ward rounds for this patient group.

Methods

We applied a modified Delphi methodology to achieve expert consensus on the best practices for conducting ward rounds with older patients with frailty [20, 21]. The process comprised two parts: a focus group interview and a Delphi study conducted from January 2023 to June 2023. We opted not to specify a fixed number of rounds, thereby modifying the traditional Delphi process of three rounds [22]. Following Kern's six-step approach to curriculum development, this study offered a both a general and targeted needs assessment, and further, insights

goals and objectives to improve ward rounds (steps 1 to 3) [23].

Study participants

Focus group participants were geriatric doctors with expertise in communication. They were peer-nominated by members of the Danish Geriatric Society and included via convenience sampling. Delphi study participants included geriatric medicine and medical communication experts. Geriatric medicine experts included key opinion leaders, such as medical directors and clinical leads, from all departments with geriatric medicine in Denmark [21]. Medical communication experts were contacted via email and asked to nominate peers. Work experience in the field of study served as a proxy for expertise, and we invited participants with at least five years of field experience [24]. We decided to include 35 participants for the Delphi study to ensure a broad range of perspectives and experiences [25, 26]. Five focus group participants were also invited to the Delphi study. The authors did not participate in any of the processes.

Preparing the Delphi study

A focus group interview was conducted to design the initial round of the Delphi study. The focus group interview was held online for convenience and to secure multiple site attendance. Focus group participants were asked to describe the ward round, competencies needed for undertaking ward rounds, and special circumstances related to older patients with frailty. Participants were asked to be as specific and operationalizable as possible. Medical communication experts were not included in the focus group as these interviews focused on ward round structure and content. The experts were included at the next stage of the Delphi study to refine findings with broader perspectives. The semi-structured interview guide can be found in Additional file 1. The focus group meeting was audio recorded, transcribed verbatim, and inductively coded using NVivo software [27]. The thematic analysis identified overarching themes, which informed the development of the open-ended questions in Delphi Round 1 [28].

The Delphi study

The five-round Delphi study aimed to generate consensus-based content items for conducting ward rounds with older patients with frailty. Frailty was defined using the Clinical Frailty Scale, where a score of 5–8 indicate

Table 1 Study participants

		Focus group interview <i>n</i> = 8	Delphi study expert panel <i>n</i> = 35
Peer nomination, <i>n</i>	Geriatric Medicine	18	-
	Medical Communication	-	5
Experts in, <i>n</i> (%)	Geriatric Medicine	8 (100)	30 (86)
	Medical Communication	-	5 (14)
Gender, <i>n</i> (%)	Female	5 (63)	23 (66)
	Male	3 (37)	12 (34)
Workplace, <i>n</i> (%)	University hospital	5 (63)	9 (26)
	Regional hospital	3 (37)	23 (66)
	Other		3 (9)

varying levels of frailty [29, 30]. Questions for each round can be found in Additional file 2. Delphi rounds were conducted via email, and participants were given two weeks to respond. Reminders were sent to maximise participation. Proceeding to the next round required a response rate of >60% of the panellists who participated in the preceding round. Only participants who completed the previous round could participate in the proceeding Delphi rounds. In accordance with previous Delphi studies, consensus was defined as >75% of participants responding '7–9' to a content item [31]. Items reaching a consensus level below 75% after the second rating were eliminated [31].

Round 1: identifying content items

Round 1 contained six open-ended questions to facilitate a brainstorming phase. Questions covered ward round preparation, conduction, and follow-up. Questions also encompassed competencies required and challenges met during ward rounds. Lastly, participants were asked to list competencies that physicians in training should practice when conducting ward rounds. Using an inductive, thematic approach, all responses were analysed and organised into themes, sub-themes, and content items by authors LA and RD [28].

Rounds 2 and 3: refining content items

Rounds 2 and 3 refined the identified content items from previous rounds. Therefore, each participant had to decide if every content item was adequately described and operationalizable. If not, participants could suggest alternations and were also allowed to add new content items. The refinement process was split into two rounds to reduce participant workload in Round 2, although this resulted in an additional Delphi round. Authors LA and RD revised content items with respect to participant comments and removed items due to merging or redundancy.

Table 2 Response rates per Delphi round

	Round 1	Round 2	Round 3	Round 4	Round 5
Surveyed participants, <i>n</i>	35	26	21	18	13
Responded, <i>n</i> (%)	26 (74)	21 (81)	18 (86)	13 (72)	11 (85)
Geriatric Medicine experts, <i>n</i> (%)	24 (92)	19 (90)	16 (89)	12 (92)	10 (91)

Round 3 to 5: Building consensus

In rounds 3–5, participants were asked to build consensus on refined content items by rating items on a 1–9 Likert scale from 1 being 'Not relevant' to 9 being 'Should be included in the curriculum'. Participants were encouraged to clarify or qualify their responses. Participants could provide additional comments or add content items. Items without consensus returned to the next round with the participants' score, the average agreement score, and the interquartile range.

Results

A total of 8 experts participated in the focus group preparing the Delphi Study and 35 experts were invited to participate in the Delphi study (See Table 1 for participant demographics). Medical communication experts included three consultants in non-geriatric fields, one nurse, and a professor in medical communication with a PhD in medical education. The response rates for each Delphi round appear from Table 2, illustrating a decline in the number of participants from 35 in the first round to 13 in the final round. Reasons for non-response were not formally investigated, and as mentioned in the Methods section, only participants who completed the previous round could participate in the proceeding Delphi rounds.

Generating content items, sub-themes, and themes

Participants generated 129 content items, of which 68 were revised, and 11 were removed due to merging or redundancy. After Round 1, content items were categorised into four overall themes and 22 sub-themes, illustrated in Table 3. Participants proposed no extra themes or sub-themes after Round 1.

Rating content items

First rating of 118 content items included 98 (83%) items. Second rating of 20 content items included 10 (50%) items. Details regarding refinement and the rating process can be found in Additional file 3. The mean rating scores of all content items were 7.0 (of 9.0), with a range of 4.2–9.0. On average, participants placed 2.6 comments pr. content item (ranging 0–14), and Additional file 4 illustrates the data analysis and revision of a content item. In total, 108 (91%) content items were included.

Table 3 Themes and sub-themes generated from round 1 responses

Themes				
	Preparing ward rounds	Undertaking ward rounds	Competencies	Circumstances related to the patient group
Sub-themes	Current patient state Previous conditions and hospitalisations Treatment and examination planning Patient preparation Interdisciplinary collaboration Settings	Introduction Negotiating agenda Shared decision making Summarising and closing Short- and long-term planning	Adjustment of language to meet patient needs Management of meetings and prioritisation Flexibility Building relationship Credibility/reliability Patient involvement	Patient characteristics Ward round characteristics Patients with cognitive impairments Patients with delirium Relatives/informal caregivers

Additional file 5 contains the entire list of content items included.

Discussion

Based on expert consensus on the best practices for conducting ward rounds with older patients with frailty, four overall themes were identified: Preparing ward rounds, undertaking ward rounds, competencies, and circumstances related to the patient group. Our study addresses a common healthcare activity, and some findings may be generalised to all patients, while others are specific to the unique characteristics of older patients with frailty.

Ward round Preparation

The theme of ward round preparation included a holistic evaluation of patient history, including functional status and medication reviews, and a reflection on how to optimise ward round settings, such as recognising the need for hearing aids and relatives' support. What differentiates our results from other patient groups are the additional focus on the patient's functional level prior to admission, the advanced directives, and the assessment of whether the patient will benefit from intensive care treatment. Our findings support the multidimensional and interdisciplinary process of Comprehensive Geriatric Assessment (CGA). CGA is a well-established tool for managing older admitted patients with frailty [32]. Ellis and colleagues described CGA as "the cornerstones of modern geriatric care" [33]. In addition to the CGA, our study participants highlighted the importance of optimising hospital environments, such as emphasising noise reduction, which may lead to improved overall health with aging [34].

Undertaking ward rounds

Several elements, such as negotiating the agenda, shared decision-making and picking up cues, align with principles in the Calgary-Cambridge guide, a framework for core communication used to structure and assess communication skills between HCPs and patients [35]. The content item, "Ensure that the assessment of caregivers and therapists is included in the joint care plan decided

during ward rounds" underlines the multidisciplinary and integrated care, supported by health policies worldwide [36, 37].

Competencies

The subtheme, "Adjustment of language to meet patient needs" aligns with other studies on communication with patients in general [38, 39]. Our study emphasised the necessity of tailoring communication to accommodate the cognitive and emotional capacities of this patient group. Participants in the Delphi study highlighted the critical role of clear, empathetic, and accessible language in fostering patient understanding and involvement. These adjustments in communication are fundamental to delivering high-quality, patient-centred care during ward rounds [40]. The content item, "Keeping agreements, including not promising things you cannot keep, e.g., coming back later in the day" addresses the issue of trust, which is particularly important to older patients [41]. Gaffney and Hamiduzzaman (2022) highlight that how patients see the credibility and trustworthiness of healthcare professionals affects a lot their willingness to talk and participate in clinical communications [42]. Similarly, the content item, "Being realistic on behalf of the patients, but not draining the patients' hopes and showing respect for the patients who want to maintain hope" applies a universal principle. However, older patients might experience higher rates of hopelessness, a factor associated with adverse outcomes [43].

Circumstances related to the patient group

Previous studies suggest that relatives play a substantial role in older patients with frailty admitted to hospital [44, 45]. The sub-theme, "relatives/informal caregivers", handles the complex process of conducting ward rounds while keeping not only the patient's needs in mind. It emphasises respecting confidentiality, aligning perspectives with the patient, and sensitively addressing emotional reactions and family dynamics. Neither the Calgary Cambridge guide, nor the CGA, as previously mentioned, include relatives' significance [32, 46].

Focusing on the patients' deficiencies tends to perpetuate stereotypes of frailty and dependency and could lead to ageism [47]. Ageism, which is prejudice or discrimination on the grounds of a person's age, could lead to adverse outcomes [48]. Thus, we acknowledge that the inclusion of the term 'patient characteristics' has the potential to cause iniquity and stigmatisation among individuals with frailty, as previously mentioned in the literature [10]. However, content items in this theme aimed at enhancing patient safety, such as general knowledge about patients' response to noise disturbances. Long and colleagues (2013) found that older patients are more prone to experiencing patient safety incidents than younger patients, while others have suggested that frailty increases the risk of adverse events [49, 50]. Including a metatext following the content items list could be advantageous in highlighting physicians' personal knowledge, awareness, and intentions towards diminishing instances of ageism. This holds particularly true in graduate medical education (GME), where geriatric education is not necessarily included in educational programs [51]. As Farrell (2023) states, "Health professions students [in GME] should also understand both the historical context of ageism and its associated harms" [52].

Operationalizability of content items

Unfortunately, a large amount of evidence-based research lacks implementation [53]. One reason for this might be the gap between research-based best clinical practice and the actual behaviour of physicians, implying that behavioural change is challenging [54]. We recognise that managing 108 content items while conducting ward rounds may present a significant challenge. Future research should focus on evaluating the practicality of this content list. By utilising Kern's six-step model for curriculum development, the content items provide the general and targeted needs assessment for improving the practice of conducting efficient ward rounds. To deepen the understanding and perspectives on conducting ward rounds, we have conducted a literature study and an interview study involving patients and caregivers [7, 55]. Building on these findings, the subsequent steps include the co-design of a cognitive aid in collaboration with patient representatives. This cognitive aid will then be implemented and its effect on ward rounds evaluated through further studies [23]. When adapting this study's findings to local practices, engaging local stakeholders is essential to ensure the final list of content items reflects and integrates the unique needs and characteristics of the local context.

Lastly, we recognise the importance of integrating these content items into resident training programs and national guidelines for ward round practices. While colleagues in Germany have developed an EPA for Internal

Medicine ward rounds, it serves as a behavioural checklist rather than an EPA that incorporates stepwise progression of learners' competencies [56]. As a next step, the development of an Entrustable Professional Activity (EPA) specifically tailored to ward rounds for older patients with frailty seems relevant [57].

Limitations

This study has several limitations. A key limitation of this study is the exclusion of multidisciplinary staff, which have restricted interprofessional perspectives on ward rounds. However, a nurse was represented among the medical communication experts who completed all five Delphi rounds. The sampling of Delphi study participants has no standardised protocol, and the study may have favoured a geriatric opinion in rating of items, as peer nomination only resulted in five medical communication experts. However, the iterative nature of Delphi studies allows participants to reassess and refine their judgments based on feedback from other panellists and the close alignment to the Calgary Cambridge Guide reflects the involvement of the medical communication experts [21]. Another limitation of the study participant sample is the reliance on senior specialists only among geriatric experts, as this may have perpetuated a paternalistic approach. It is important to recognise that involving a broader group of participants could result in different set of content items.

The decline in participants from 35 to 13 across Delphi rounds is an important limitation. While this is a common challenge in Delphi methodology, often reflecting the time-intensive nature of the process and participant fatigue, it may impact the generalisability of the findings [21]. However, as high-performing doctors are more likely to participate, the later rounds likely reflect input from those most invested in the topic, enhancing its relevance [58]. However, the five-round Delphi process was important for moderating content items with participants' feedback, as items were revised during the following round before being assessed for consensus.

Although research implies that the perspectives of patients and relatives may differ from the perspectives of HCPs, no patient or relatives were included in the present study [59]. Nonetheless, this study is an important first step towards creating a framework for conducting more efficient ward rounds with older patients with frailty. Hence, studies on the perspectives of patients and relatives should be made to build on the findings from the present study.

Conclusions

We identified 108 content items for conducting ward rounds with older patients living with frailty, which were categorised into four themes: Preparing ward rounds,

undertaking ward rounds, competencies, and circumstances related to the patient group. Preparing and conducting ward rounds described the management of the ward round. Competencies and circumstances included knowledge, skills, and attitudes to improve ward round quality. This study addresses both theoretical and practical aspects of holistic care, aiming to bridge educational goals with clinical practice. Our findings provide a comprehensive foundation for developing training programs equipping HCPs to handle the complexities of managing ward rounds in older patients with frailty. However, further validation and refinement through multidisciplinary and patient/carer involvement are needed to ensure a more comprehensive and inclusive foundation.

Abbreviations

CanMEDS	Canadian Medical Education Directives for Specialists
CGA	Comprehensive Geriatric Assessment
DNACPR	Do not attempt cardiopulmonary resuscitation
GME	Graduate Medical Education
HCP	Healthcare professionals

Supplementary Information

The online version contains supplementary material available at <https://doi.org/10.1186/s12909-025-07005-0>.

Supplementary Material 1
Supplementary Material 2
Supplementary Material 3
Supplementary Material 4
Supplementary Material 5

Acknowledgements

The authors would like to acknowledge all study participants for their participation. Namely, Geriatricians, Catherine Hauerslev Foss, Aarhus University Hospital, Martin Schultz, Amager and Hvidovre Hospital, Solveig Henneberg Pedersen, Holbæk Hospital, Susanne Stabel Green, Herlev and Gentofte Hospital, and Tina Carlsen, Slagelse Hospital, for their continuous feedback and participation throughout the study.

Author contributions

LA wrote the main manuscript text. All authors reviewed the manuscript.

Funding

The study received funding from Graduate Medical Education, Central Denmark Region, Viborg, Denmark and Randers Regional Hospital, Randers, Denmark.

Data availability

The datasets generated and analysed during the current study are available in the "figshare" repository, available at <https://doi.org/10.6084/m9.figshare.24899412.v1>.

Declarations

Ethics approval and consent to participate

The Regional Ethics Committee of the Central Denmark Region exempted the study from ethical approval under Danish law, i.e. according to the Act on Research Review of Health Research Projects (reference number: 1-10-72-207-22). The study was conducted in accordance with the principles of the

Declaration of Helsinki. Delphi study participants gave informed consent to participate.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

Author details

¹Department of Medicine, Randers Regional Hospital, Skovlyvej 15, Randers, NE DK-8930, Denmark

²Department of Clinical Medicine, Aarhus University, Nordre Ringvej 1, Aarhus C DK-8000, Denmark

³Postgraduate Medical Education, Northern Region Skottenborg 26, Viborg DK-8800, Denmark

⁴Department of Anaesthesiology and Intensive Care, Aarhus University Hospital, Palle Juul-Jensens Boulevard 35, Aarhus N DK-8200, Denmark

⁵MidtSIM, Central Denmark Region, Hedeager 2, Aarhus N DK-8200, Denmark

Received: 4 November 2024 / Accepted: 12 March 2025

Published online: 27 March 2025

References

- Royal College of Physicians. Modern ward rounds: Good practice for multidisciplinary inpatient review. London, UK; 2021.
- Grover S, Fitzpatrick A, Azim FT, Ariza-Vega P, Bellwood P, Burns J, et al. Defining and implementing patient-centered care: an umbrella review. *Patient Education and Counseling*. Volume 105. Elsevier Ireland Ltd; 2022. pp. 1679–88.
- Bejarano G, Csiernik B, Young JJ, Stuber K, Zadro JR. Healthcare students' attitudes towards patient centred care: a systematic review with meta-analysis. *BMC Med Educ*. 2022;22(1).
- Hearn J, Dewji M, Stocker C, Simons G. Patient-centered medical education: A proposed definition. *Med Teach*. 2019;41(8):934–8.
- Nobili A, Garattini S, Mannucci PM. Multiple diseases and polypharmacy in the elderly: challenges for the internist of the third millennium. *J Comorb*. 2011;1(1).
- Dall TM, Gallo PD, Chakrabarti R, West T, Semilla AP, Storm MV. An aging population and growing disease burden will require A large and specialized health care workforce by 2025. *Health Aff*. 2013;32(11).
- Andersen LH, Jensen RD, Skipper M, Lietzen LW, Krogh K, Løfgren B. Ward round communication with older patients. *Clin Teacher*. 2023.
- Dent E, Martin FC, Bergman H, Woo J, Romero-Ortuno R, Walston JD. Management of frailty: opportunities, challenges, and future directions. *Lancet*. 2019;394(10206):1376–86.
- Winter R, Pearson GME. Exploring the challenges of frailty in medical education. *J Frailty Aging*. 2023;12(2):134–8.
- Mudge AM, Hubbard RE. Frailty: Mind the gap. *Age Ageing*. 2018;47(4):508–11.
- Clegg A, Young J, Iliffe S, Rikkert MO, Rockwood K. Frailty in elderly people. *Lancet*. 2013;381(9868):752–62.
- Roh H, Park KH. A scoping review: communication between emergency physicians and patients in the emergency department. *J Emerg Med*. 2016;50(5):734–43.
- Bastiaens H, Van Royen P, Pavlic DR, Raposo V, Baker R. Older People's preferences for involvement in their own care: A qualitative study in primary health care in 11 European countries. *Patient Educ Couns*. 2007;68(1):33–42.
- Schoevaerdt D, Sibille FX, Gavazzi G. Infections in the older population: what do we know? *Aging Clinical and Experimental Research*. Volume 33. Springer Science and Business Media Deutschland GmbH; 2021. pp. 689–701.
- Kemp K, Mertanen R, Lääperi M, Niemi-Murola L, Lehtonen L, Castren M. Nonspecific complaints in the emergency department - A systematic review. *Volume 28. Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine*. BioMed Central Ltd.; 2020.
- Rechel B, Grundy E, Robine JM, Cylus J, MacKenbach JP, Knai C, et al. Ageing in the European union. *The Lancet*. Volume 381. Lancet Publishing Group; 2013. pp. 1312–22.

17. Michel JP, Ecarnot F. The shortage of skilled workers in Europe: its impact on geriatric medicine. *European Geriatric Medicine*. Volume 11. Springer; 2020. pp. 345–7.
18. Oksuzyan A, Höhn A, Pedersen JK, Rau R, Lindahl-Jacobsen R, Christensen K. Preparing for the future: the changing demographic composition of hospital patients in Denmark between 2013 and 2050. *PLoS ONE*. 2020;15(9 September).
19. Higashi RT, Tillack AA, Steinman M, Harper M, Johnston CB. Elder care as frustrating and boring: Understanding the persistence of negative attitudes toward older patients among physicians-in-training. *J Aging Stud*. 2012;26(4).
20. Dalkey N. An experimental study of group opinion. *Futures*. 1969;1(5).
21. Hsu CC, Sandford BA. The Delphi technique: making sense of consensus. *Practical Assess Res Evaluation*. 2007;12:10.
22. Hasson F, Keeney S, McKenna H. Research guidelines for the Delphi survey technique. *J Adv Nurs*. 2000;32(4).
23. Thomas PA, Kern DE, Hughes MT, Chen BY. Curriculum development for medical education: A Six-Step approach. 3rd ed. Baltimore: Johns Hopkins University; 2016.
24. Jorm AF. Using the Delphi expert consensus method in mental health research. *Australian New Z J Psychiatry*. 2015;49(10):887–97.
25. Kopf RS, Watts PI, Meyer ES, Moss JA. A Competency-Based curriculum for critical care nurse practitioners' transition to practice. *Am J Crit Care*. 2018;27(5).
26. Krueger RA, Casey MA. Chapter 4: Participants in a Focus Group. In: *Focus Groups: A Practical Guide for Applied Research*. 4th edition. SAGE publications, Inc.; 2009. pp. 63–84.
27. Lumivero. (2023) NVivo (Version 14) www.lumivero.com.
28. Braun V, Clarke V. In: Braun V, Clarke V, editors. *Thematic analysis: a practical guide*. London: SAGE Publications Ltd; 2022.
29. Fournaise A, Nissen SK, Lauridsen JT, Ryg J, Nickel CH, Gudex C, et al. Translation of the updated clinical frailty scale 2.0 into Danish and implications for cross-sectoral reliability. *BMC Geriatr*. 2021;21(1):269.
30. Rockwood K. A global clinical measure of fitness and frailty in elderly people. *Can Med Assoc J*. 2005;173(5):489–95.
31. Diamond IR, Grant RC, Feldman BM, Pencharz PB, Ling SC, Moore AM, et al. Defining consensus: A systematic review recommends methodologic criteria for reporting of Delphi studies. *J Clin Epidemiol*. 2014;67(4):401–9.
32. Ellis G, Gardner M, Tsiachristas A, Langhorne P, Burke O, Harwood RH et al. Comprehensive geriatric assessment for older adults admitted to hospital. *Cochrane Database Syst Reviews*. 2017;2017(9).
33. Ellis G, Langhorne P. Comprehensive geriatric assessment for older hospital patients. *Br Med Bull*. 2005;71(1):45–59.
34. Mate KS, Berman A, Laderman M, Kabcenell A, Fulmer T. Creating Age-Friendly health Systems – A vision for better care of older adults. *Healthcare*. 2018;6(1):4–6.
35. Silverman J, Kurtz S, Draper J. *Skills for communicating with patients*. Third. London: Radcliffe Publishing Ltd; 2013.
36. Kjelsnes A, Feiring A. E. Models of integrated care for older people with frailty: a horizon scanning review. *BMJ open*. Volume 12. NLM (Medline); 2022. p. e060142.
37. Malone ML, Boltz M, Tejada JM, White H. *Geriatrics Models of Care*. 2024.
38. Jack K, Ridley C, Turner S. Effective communication with older people. *Nurs Older People*. 2019;31(4):40–8.
39. Weber H, Stöckli M, Nübling M, Langewitz WA. Communication during ward rounds in internal medicine. *Patient Educ Couns*. 2007;67(3):343–8.
40. Levinson W. Patient-centred communication: A sophisticated procedure. *BMJ Qual Saf*. 2011;20:823–5.
41. Kar B, Satpathy S. Trust between physicians and older patients: review and qualitative study. *J Geriatr Care Res*. 2021;8(2).
42. Gaffney HJ, Hamiduzzaman M. Factors that influence older patients' participation in clinical communication within developed country hospitals and GP clinics: A systematic review of current literature. *PLoS ONE*. 2022;17(6 June).
43. Hartmann Júnior JAS, de Farias Fernandes ALA, de Medeiros P, de Vasconcelos AGA, de Amorim CAC, de Queiroga LLL et al. MF. Hopelessness in the elderly: a systematic review. *MOJ Gerontology & Geriatrics*. 2018;3(4).
44. Lambotte D, Kardol MJM, Schoenmakers B, Fret B, Smetcoren A, De Roeck EE, et al. Relational aspects of mastery for frail, older adults: the role of informal caregivers in the care process. *Health Soc Care Community*. 2019;27(3):632–41.
45. Bookman A, Harrington M, Family Caregivers. A shadow workforce in the geriatric health care system?? *J Health Polit Policy Law*. 2007;32(6):1005–41.
46. Kurtz S. The Calgary-Cambridge referenced observation guides: an aid to defining the curriculum and organizing the teaching in communication training programmes. *Med Educ*. 1996.
47. World Health Organization. Ageism is a global challenge: UN [Internet]. 2021 Mar [cited 2024 Dec 21]. Available from: <https://www.who.int/news/item/18-03-2021-ageism-is-a-global-challenge-un>
48. Allen JO. Ageism as a risk factor for chronic disease. *Gerontologist*. 2016;56(4):610–4.
49. Long SJ, Brown KF, Ames D, Vincent C. What is known about adverse events in older medical hospital inpatients? A systematic review of the literature. *Int J Qual Health Care*. 2013;25(5):542–54.
50. Schouten B, Merten H, Spreeuwenberg PMM, Nanayakkara PWB, Wagner C. The incidence and preventability of adverse events in older acutely admitted patients: A longitudinal study with 4292 patient records. *J Patient Saf*. 2021;17(3):166–73.
51. Singler K, Holm EA, Jackson T, Robertson G, Müller-Eggenberger E, Roller RE. European postgraduate training in geriatric medicine: data of a systematic international survey. *Aging Clin Exp Res*. 2015;27(5):741–50.
52. Farrell TW. Ageism as a barrier to eliciting what matters: A call for multigenerational action to confront the invisible -ism. *J Am Geriatr Soc*. 2023;71(10):3024–7.
53. Chalmers I, Glasziou P. Avoidable waste in the production and reporting of research evidence. *Lancet*. 2009;374(9683):86–9.
54. Grimshaw JM, Eccles MP, Walker AE, Thomas RE. Changing physicians' behavior: what works and thoughts on getting more things to work. *J Continuing Educ Health Professions*. 2002;22(4):237–43.
55. Andersen LH, Løfgren B, Skipper M, Krogh K, Jensen RD. They forget that I'm a human being—ward round communication with older patients living with frailty and informal caregivers: a qualitative study. *Eur Geriatr Med* [Internet]. 2024; Available from: <https://link.springer.com/https://doi.org/10.1007/s41999-024-01043-5>
56. Schmelter V, März E. Ward rounds in internal medicine: validation of an entrustable professional activity (EPA) observation checklist. *GME J Med Educ*. 2018;35(2).
57. Chen HC, Van Den Broek WES, Ten Cate O. The case for use of entrustable professional activities in undergraduate medical education. *Academic Medicine*. Volume 90. Lippincott Williams and Wilkins; 2015. pp. 431–6.
58. Elston DM. Participation bias, self-selection bias, and response bias. *J Am Acad Dermatol*. 2021.
59. van Seben R, Smorenburg SM, Buurman BM. A qualitative study of patient-centered goal-setting in geriatric rehabilitation: patient and professional perspectives. *Clin Rehabil*. 2019;33(1):128–40.

Publisher's note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.