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Healthcare professionals' experiences with the use of antipsychotics in dementia

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ABSTRACT

Background: Antipsychotics are commonly administered to nursing home residents with dementia, despite the associated risk of severe adverse events.
Objective: This study aimed to explore healthcare professionals' experiences in caring for nursing home residents with dementia, with a focus on rationales behind the use of antipsychotics.
Method: Twelve semi-structured interviews with healthcare professionals' from Danish nursing homes were conducted and analyzed using the method Systematic Text Condensation.
Results: Nonpharmacological interventions were reported as the primary approach to care and the first-choice treatment for behavioral and psychological symptoms of dementia (BPSD). Use of antipsychotics was considered to serve as a last resort, reserved for residents with severe symptoms. However, most informants preferred a more limited use. The study identified four main barriers to reduce the use of antipsychotics: *"Scarcity of resources", "Perceiving antipsychotic use to provide relieve", "Reluctance towards deprescribing"* and *"Limited access to medical counseling",* and three potential enablers: "*Updating knowledge and nonpharmacological competencies*", "*Management support and clear procedures*" and "*Regularity in interdisciplinary collaboration*".
Conclusion: The treatment and care were reported as primarily following guidelines in BPSD. Several barriers were perceived to challenge the healthcare professionals' preference of limited use of antipsychotics. To further reduce the use, this study highlights the importance of understanding the adverse effects caused by limited resources, enhancing employee knowledge and competencies and ensuring regular interprofessional collaboration for assessing and reassessing the need to use antipsychotics.

1. Introduction

Dementia is a progressive syndrome that globally affects millions of people.[1] In Denmark, it is estimated that more than 106,000 people will live with dementia by 2025, and the prevalence is expected to increase further in the future.[2] In Danish nursing homes, two-thirds of the residents are estimated to be affected by dementia.[3] Up to 90% of people with dementia develop behavioral and psychological symptoms of dementia (BPSD), implying distress for the affected individual and caregivers.[4] Nonpharmacological interventions are widely recommended as the first-line treatment in BPSD.[5–7] Despite these recommendations, antipsychotics are often used to alleviate BPSD.[8] The efficacy of using antipsychotics to treat BPSD seems modest,[9–11] and use is associated with severe adverse events, including an increased risk of falls,

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cerebrovascular events, and higher mortality rates.[12–14] Hence, antipsychotic use should be limited in dementia, and reserved for people who experience severe symptoms and distress or may pose a danger to themselves or others.[12]

With the national action plan on dementia 2025, a goal was set to reduce the use of antipsychotics in dementia in Denmark.[15] Despite this initiative, the level of antipsychotic use in dementia has remained relatively unchanged in the past years. Approximately 20% of people living with dementia aged +65 years redeemed one or more prescriptions for antipsychotics in 2022, and the use in nursing home residents with dementia was even higher (27%).[16] Most nursing home residents are found to initiate antipsychotic therapy in nursing homes, while around one-third of prescriptions were initiated in outpatient clinics or during hospitalizations.[17] Nursing home nurses were found to be the primary drivers of re-prescribing antipsychotics that had been previously deprescribed.[18] Therefore, nursing home providers may play a significant role in promoting the use or non-use of antipsychotics and in deprescribing.

The current study serves as a pre-study to the DECADE project (Deprescribing and Care to reduce Antipsychotics in Dementia) carried out prior to launching the full-scale intervention as described in detail elsewhere,[19] to inform the content of the intervention and implementation. The aim was to explore healthcare professionals' experiences of caring for nursing home residents with dementia and the use of antipsychotics, and to explore interpretations potentially influencing their use.

2. Methods

2.1. Design

The study used an explorative and qualitative design, utilizing individual semi-structured interviews.

To enhance reporting quality, this study was inspired by the Consolidated Criteria for Reporting Qualitative Research (COREQ).[20]

2.2. Setting

Interviews were conducted in six nursing homes, housing between 13 and 88 residents with dementia, in a middle-sized municipality (approximately 54,000 inhabitants) in Denmark.[21] The staff members in direct resident contact include registered nurses, social and health assistants (training length 39–44 months[22]), social and health helpers (training length 19–24 months[22]), managers, and unlicensed care assistants.

2.3. Sampling

A purposive sampling method was applied to ensure representation of all the municipality's six nursing homes and different job areas (nurses, social and health assistants, and managers). A project team member, employed at the municipality, acted as gatekeeper, and facilitated the recruitment of two healthcare professionals from each nursing home. The process involved the gatekeeper contacting local management to designate employees working with residents with dementia and recruiting them. Everyone invited accepted the invitation. In two cases, snowball sampling[23] was used due to dropout because of absence on the day of scheduled interviewing. In these cases, local management secured allocation of the necessary time for interviewing after forwarding the request to a present healthcare professional who consented to participate.

2.4. Data collection

A semi-structured interview guide (Supplementum 1) was developed by a research assistant, pharmacists, clinicians, and post-docs. Three healthcare professionals, who were members of the project team and employed at the municipality, with experience in the field of dementia and the local context, supported the development and contributed to the adaption of target group-relevant questions. The guide was subsequently pilot tested with one healthcare professional, resulting in only minor rephrasing. An opportunity to revise the guide based on the first interviews was available but was not deemed necessary. The guide was structured into two main areas: 1) experiences of workflows in relation to residents with BPSD (with and without the use of antipsychotics), and 2) experiences related to local needs and implementation proposals to reduce the use of antipsychotics.

The interviews were conducted and digitally audio recorded by the first author, at the informants' workplace in a private room. There was no prior relationship between interviewer and informants.

Verbal informed consent was obtained from each informant and recorded. Informants were encouraged to speak freely. Open-ended questions, invitations to provide examples, and follow-up questions were used to ensure a comprehensive understanding. To ensure accuracy of the data, techniques such as summarization and reflections were utilized during the interviews to validate the narratives provided by informants.

2.5. Analysis

The interviews were anonymized, transcribed verbatim, and analyzed using systematic text condensation,[24] with the assistance of the NVIVO IT program, version 12 (QSR international).[25] An inductive approach was applied due to the explorative nature of the research aim. The transcripts were initially read and coded independently by two of the authors, to ensure objectivity in the analysis process. The first author is a female research assistant, with clinical experience as a physiotherapist, including relevant experience in dementia and interviewing. The second author is experienced in qualitative research. The analytical steps included four phases: 1) gaining overview by reading the data thoroughly, 2) identification of meaning units, 3) decontextualization and creation of narratives, and 4) recontextualization and final themes, including revisiting data to ensure alignment with the overall meaning (illustrated in Fig. 1). The analysis was conducted iteratively, with the analysts engaging in discussions forward and backward concurrently to all steps. Several factors were identified as barriers and enablers to reduce the use of antipsychotics. The factors were characterized according to the dominant informant perspective. The last author supervised the process, read selected transcriptions, and contributed to deciding the final themes.

2.6. Ethics

All informants received verbal and written information before providing informed consent to participate, and information about the voluntariness of participation, confidentiality, safe data handling, and the anonymization of all data dissemination. According to Danish legislation, interview studies do not need ethical board approval.[26] Data processing agreement is approved by the Capital Region of Denmark (P-2022-454).

3. Results

From May to June 2022, a total of 12 semi-structured face-to-face interviews were conducted (mean duration of 57 min). The interviews involved two healthcare professionals (nurse, manager, or social and health assistant) representing each nursing home, with a mean age of 49 years, and a mean professional experience in the field of dementia of 16 years. To protect anonymity, the details of demographics are not provided.

Fig. 1 illustrates the analytical steps and the identified main themes. Theme one explores the informants' experiences of work procedures

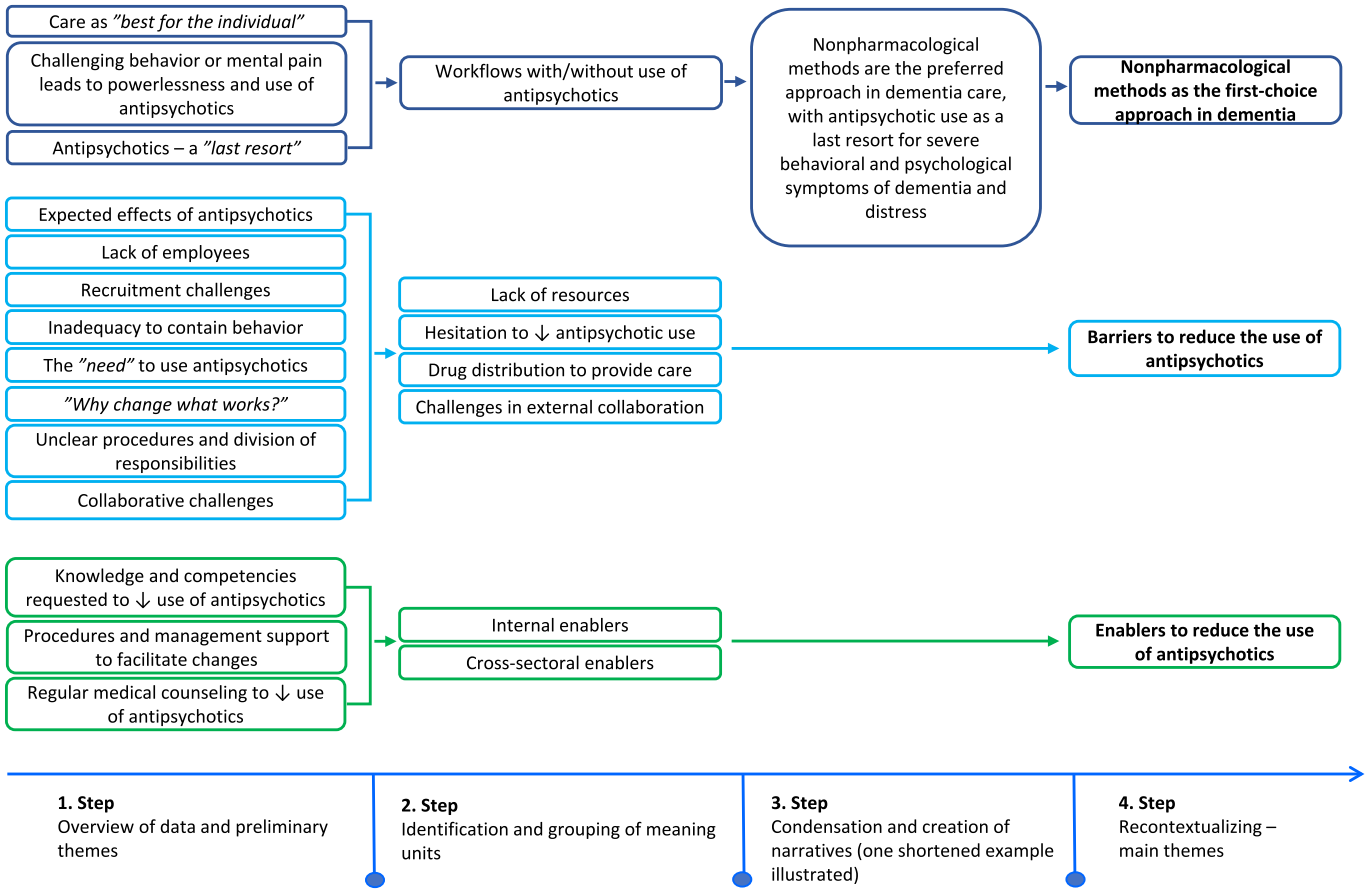

Fig. 1. Illustration of the steps of analysis.

concerning residents with dementia and BPSD. The results section is then divided into barriers and enablers to reduce the use of antipsychotics.

3.1. Themes

3.1.1. Theme 1: nonpharmacological interventions as the first-choice approach in dementia care

All informants expressed primarily encountering BPSD with non-pharmacological interventions.

> *"…if it can be managed nonpharmacological, that is what we must do. Medications [antipsychotics] should only be used as a last resort."* (Informant 4).

Person-centered care was highlighted as a widespread practice to prevent, and manage BPSD, such as addressing potential BPSD triggers. This also created what several perceived as a demanding field of work, as accommodating the focus on the individual required skills of adaptability.

Two informants reported the level of antipsychotic use in local practice as appropriate. However, the vast majority of informants aspired for its use to be lower and perceived this as a general preference among the caregivers. Use was often considered a last resort when nonpharmacological interventions failed to relieve distress, especially when residents posed a risk of harm to themselves or others or experienced severe distress. Still, room for improvement was identified, as some employees were reported to have a lower threshold when opting for antipsychotic use instead of thoroughly testing nonpharmacological strategies.

> *"I sometimes observe that staff may contact the general practitioner too quickly and ask for a drug prescription. Because: 'Her behavior is disruptive or outgoing. Something must be wrong. May we have some medicine?' I observe such a tendency. I would like it to be different."* (Informant 7).

3.1.2. Theme 2: barriers to reduce the use of antipsychotics

The informants provided several reasonings behind the use of antipsychotics, identified as significant obstacles to decreasing the use, parted into four barriers: "scarcity of resources", "perceiving antipsychotic use to provide relieve", "reluctance towards deprescribing", and "limited access to medical counseling".

3.1.2.1. Scarcity of resources. Limited resources were perceived to compromise the availability and quality of nonpharmacological care, contributing as a risk factor for BPSD and associated with increased use of antipsychotics. This was primarily experienced as a shortage of staff, which meant less time per resident and challenged planning, prioritizing, and providing of nonpharmacological care. Several informants pointed out that the shortage was particularly challenging during night shifts, with fewer staff resources and increased symptom manifestations such as restlessness and anxiety compared to day shifts.

> *"…we would like to offer the elderly something else than a sedative pill. I'll take you by the hand. We'll go for a walk. It requires time. It requires you to be present … Hence, it is a matter of resources. It is. It is human contact we should offer to substitute a pill."* (Informant 8).

Informants secondly stressed that a lack of trained and permanent employees challenged the quality of nonpharmacological care because many employees were unskilled with fewer competencies in the field of

dementia. Additionally, difficulties to recruit and retain employees resulted in a high staff turnover in some nursing homes. Employee instability was expressed to challenge sustaining a stable environment, which was presented as fundamental for the residents' well-being.

> *"… then you bring in unskilled staff. Partly because it is cheaper and partly because unskilled staff are the only ones applying. But they do not have a solid understanding of dementia or the approaches. I think that has a great impact."* (Informant 10).

3.1.2.2. Perceiving antipsychotic use to provide relieve. Informants described an action-oriented culture with employees dedicated to acting according to what they perceived as optimal to sustain or improve the residents' quality of life, which sometimes involved using antipsychotics, including a tendency to view the use as an effective, problem-solving strategy.

> *"…There is a lot of talk about medicine. That is, what is the effect of the drug? People talk a lot about and are taught a lot about medicine being a good thing … You must use the medicine. Then all will be good. Then we will solve the problem."* (Informant 11).

Managing residents with disruptive behaviors or distress that were difficult to relieve was perceived as particularly challenging. This created a feeling of inadequacy and powerlessness in several healthcare professionals. Hence, a dilemma of balancing the preference to reduce the use of antipsychotics with the well-being of individuals emerged among some informants.

3.1.2.3. Reluctance towards deprescribing. Several informants mentioned a tendency of continued use of antipsychotics once initiated, influenced by a reluctance towards deprescribing. This was primarily related to concerns about symptom relapse. For instance, informants reported worrying about potential risks, such as assaults. Additionally, some experienced hesitant residents due to concerns about worsening symptoms.

Some informants reported a tendency of inattention towards deprescribing due to a reliance on the effectiveness of antipsychotics with a mindset of "*Why change what works?"*. They expressed concerns that implementing changes might be perceived as more demanding than continuing treatment, potentially linked to ongoing use.

Several informants said that the use of antipsychotics was often initiated before residents moved in, due to instability in the surroundings, such as hospital admissions. This use was often continued for months to help residents adjust to a new environment. Different approaches to deprescribing were reported, with some experiencing systematic follow-up procedures, while others described unclear or unknown procedures potentially leading to irrational use of antipsychotics.

3.1.2.4. Limited access to medical counseling. Internal collaboration, such as receiving competent feedback from nursing home staff or municipal dementia experts, was perceived as widely utilized, typically accessible, and beneficial. Several informants also reported constructive collaborations with external partners, such as general practitioners (GPs) and specialists. However, some also perceived these collaborations as more challenging, especially when multiple practitioners were involved in a resident's medical treatment. Some informants linked this to a lack of coherence and follow-ups on medication use.

> *"Usually, the physician is involved in something, and the psychiatrist is involved in something else. And the Memory Clinic. As so, there are many people involved. I sometimes experience that one does not notice what the others are doing … The coherence in the resident's medicine. It's not there. We often experience that."* (Informant 8).

Furthermore, accessing medical counseling and sparring was considered challenging due to the need to invest time and initiative to establish contact. This could delay exclusion of somatic causes to BPSD and planning of appropriate approaches. GPs and specialists were also perceived to have limited time for face-to-face assessments, which sometimes hindered interdisciplinary collaboration in medical treatments.

The limited access to medical counseling led to some employees feeling overly responsible for decision-making related to the use of antipsychotics. This was expressed to contribute to concerns about potential adverse effects from decreasing or discontinuing the use, which decreased motivation towards deprescribing.

3.1.3. Theme 3: enablers to reduce the use of antipsychotics

The data in general contained a greater focus on potential obstacles than on facilitating factors. Informants provided brief and general answers regarding potential facilitators and implementation proposals. The suggested factors with the potential to enable a reduction of antipsychotic use are presented as follows: 1) updating knowledge and nonpharmacological competencies, 2) management support and procedures, and 3) regularity in interdisciplinary collaboration.

3.1.3.1. Updating knowledge and nonpharmacological competencies. Informants suggested updating knowledge and competencies of employees as a potential enabler to reduce the use of antipsychotics. They recommended an update on dementia types, symptoms, nonpharmacological care methods, and on antipsychotics, including guidance on use and adverse effects. It was emphasized that it was important for employees to gain a uniform understanding of the reasons why antipsychotics should not be used without careful consideration. Given the limited resources, some suggested specific updating of unlicensed care assistants and social and health helpers to enhance the quality of care.

3.1.3.2. Management support and procedures. A clear and straightforward outline of work processes and a priority order of tasks were requested to strengthen the management of symptoms to facilitate a reduced use of antipsychotics.

Management support was often highlighted as important to implement changes locally. Specifically, a need for allocation of time, and facilitation of joint agreements related to prevention and treatment of BPSD, such as systematic resident conferences, were perceived to facilitate continuity in care and as important to enable lowered use. One informant expressed that developing and upholding agreements could strengthen the care by: *"Focusing on a common ground."*

3.1.3.3. Regularity in interdisciplinary collaboration. Informants pointed to an annual medication follow-up by GPs as the primary means to evaluate medicine use, including antipsychotics. However, more regular visits by GPs, geronto-psychiatric teams or psychiatrists were requested, as these visits provided a platform for interdisciplinary collaboration and medical counseling. Informants who had experiences with designated nursing home GPs expressed positive views towards the collaboration. Regular contact was perceived to enable interdisciplinary reflections on treatment options and optimize decision-making related to prescribing. It was suggested to extend the function to include all nursing homes and residents.

> *"It's a huge potential! All residents should be referred to a nursing home doctor … It makes it easier to deprescribe or to say, ugh, we can't reduce the use because of this or that reaction."* (Informant 4).

4. Discussion

In this study, healthcare professionals' experiences of working with residents with dementia and the use of antipsychotics were investigated. The findings revealed that healthcare professionals preferred

nonpharmacological interventions as the primary choice of care, limiting the use of antipsychotics to severe BPSD cases. Still, several reported barriers were perceived to challenge a preference for lower antipsychotic use. To enable a reduced use, suggestions included regular interdisciplinary collaboration, clear priorities and procedures, and ensuring relevant knowledge and competencies of nursing home providers.

The perception of nonpharmacological interventions as the first choice in dementia care, aligns with existing guidelines.[5] Hence, in this study, informants seemed aware of the recommendations and did not consider antipsychotic use acceptable in routine BPSD management, contrary to the suggestion in another study.[27] Nevertheless, a prominent preference for less use of antipsychotics was present, which may be supported by descriptions in a qualitative review about deprescribing of psychotropics for BPSD.[28]

Limited resources were found to pose a significant barrier to the quality and adequacy of nonpharmacological care, similar to the findings of other studies in relation to deprescribing of psychotropics[28] and benzodiazepines in older patients.[29]

This study identified a perceived pattern of continuation of antipsychotic use, which is supported by a Danish study identifying that more than 50% of all people with dementia remained in treatment one year after initiation, and more than 40% remained in treatment after five years.[30] Furthermore, another study found a lack of systematic prescription reviewing as a barrier to optimizing prescribing.[31] One study suggested that psychotropic deprescribing was sometimes perceived as linked to a risk of worsened symptoms.[28] Similarly, a fear of symptom relapse in deprescribing of antipsychotics was found alongside a request for updated knowledge (e.g., about the associated effects and risks). A review suggested that long-term antipsychotics can be deprescribed without harm in many elderlies with BPSD, but encouraged caution in more severe symptoms.[32] To address the identified fear of relapse and inattention towards deprescribing, it may be beneficial to update healthcare professionals' knowledge about deprescribing recommendations, relapse risk and management, and stressing adverse effects of antipsychotic use.

Similar to other studies,[33,34] informants expressed a strong motivation to reduce residents' distress. One study with clinicians revealed that medication cessation was often seen as “giving up” by caregivers and patients, while use was perceived as providing action.[31] This may support the identified influence of action-oriented behaviors on antipsychotic use. Informants requested updated qualifications (e.g., through education). Education was previously identified as a facilitator in deprescribing of benzodiazepines.[29] Some healthcare professionals were hesitant towards deprescribing antipsychotics due to perceived effectiveness in BPSD. This aligns with a previous suggestion that physicians and caregivers viewed drugs for symptoms in dementia as generally effective and safe.[33,34] Furthermore, another study proposed that desired effects of antipsychotics outweighed less noticeable adverse effects, contributing to continued use.[27] Therefore, focusing on employee understandings and behaviors in relation to dementia care and antipsychotic use may be important in reducing use.

Resembling other findings,[28,35] informants reported interdisciplinary communication as a factor potentially influencing processes related to medication use. Challenges in accessing medical counseling and involving multiple practitioners may compromise decision-making about medication use, and regular collaboration was seen as a potential enabler. A Danish study found the implementation of designated GPs promising.[36] In this study, designated nursing home GPs were viewed to optimize assessments related to antipsychotic use and suggested as an enabler.

The study's informants noted that antipsychotic prescriptions often started before nursing home admission. Another study found that most prescriptions began within the nursing home, with hospitalizations or outpatient settings accounting for less than 20% of initiations each.[17] These findings support external initiations but also underline the importance of targeting nursing home providers to reduce the use of antipsychotics.

4.1. Limitations and strengths

The explorative strategy of the study design was a strength which allowed experiences to be expressed without influencing narratives, but it had a limitation as general questions might have elicited broad answers. Direct focus on barriers and enablers in the interviews may have allowed for more in-depth understanding of the identified factors.

Self-reporting introduces a risk of recall and social desirability bias. Informants were briefed in advance on the aim of reducing the use of antipsychotics, a factor that could potentially have influenced their narratives. Social desirability bias may have underestimated accounts of use and overestimated the nonpharmacological interventions.

The decision to employ a purposive sampling strategy was a strength for ensuring appropriate representation of the six nursing homes, which was crucial for decision-making. However, this method led to a relatively small sample size and did not include all employee types, which may limit the generalizability of the findings. Additionally, the sampling method may have introduced selection bias as informants were chosen by managers, representing staff available during daytime, and potentially having a vested interest in the subject. These limitations should be kept in mind when interpreting the findings.

To gain a comprehensive understanding, future studies could include a larger sample with all types of staff with resident contact (e.g., night shift employees, since informants experienced that BPSD often differed during the time of the day). In addition, perspectives of individuals with dementia, and their relatives could provide valuable insights. Notably the study findings may not apply to all nursing homes, as a Danish study revealed geographical variations in antipsychotic usage.[37]

5. Conclusion

While nonpharmacological interventions were considered a first-choice approach in dementia care, informants also reported several factors that challenged further reduction of antipsychotic use. Limited resources were linked to suboptimal circumstances for carrying out nonpharmacological interventions, and restricted access to medical counseling, along with reluctance towards deprescribing, posed challenges to optimal prescribing practices.

This study highlights the importance of being aware of the adverse effect of limited resources, updating employees' knowledge and nonpharmacological competencies, ensuring clear workflow procedures, and promoting regular interdisciplinary collaboration in dementia care. These steps may prove crucial in further diminishing the use of antipsychotics in nursing homes.

CRediT authorship contribution statement

Sidsel Maria Jørgensen: Writing – review & editing, Writing – original draft, Visualization, Project administration, Methodology, Investigation, Formal analysis, Conceptualization. **Laura Victoria Jedig Lech:** Writing – review & editing, Writing – original draft, Methodology, Formal analysis, Conceptualization. **Charlotte Vermehren:** Writing – review & editing, Writing – original draft, Methodology, Funding acquisition, Conceptualization. **Michaela L. Schiøtz:** Writing – review & editing, Methodology. **Jon Trærup Andersen:** Writing – review & editing, Conceptualization. **Kristian Karstoft:** Writing – review & editing, Conceptualization. **Tina Andersen:** Writing – review & editing, Project administration. **Stine Vest Hansen:** Writing – review & editing, Project administration. **Hanne Birke:** Writing – review & editing, Writing – original draft, Visualization, Supervision, Methodology, Formal analysis, Conceptualization.

Declaration of Generative AI and AI-assisted technologies in the writing process

During the preparation of this work the authors used Perplexity.ai in order to improve readability. After using perplexity.ai, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Data availability

The data has not been presented previously by poster or orally at scientific meetings.

The raw data is not available due to confidentiality.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.rcsop.2024.100446.

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