Canadian Journal on Aging / La Revue canadienne du vieillissement

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Understanding the Barriers to and Facilitators of Anxiety Management in Residents of Long-Term Care

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Article

Cite this article: Atchison, K., Toohey, A.M., Ismail, Z., & Goodarzi, Z. (2024). Understanding the Barriers to and Facilitators of Anxiety Management in Residents of Long-Term Care. *Canadian Journal on Aging / La Revue canadienne du vieillissement* **43**(1), 57–74.
https://doi.org/10.1017/S0714980823000417

Received: 23 March 2022
Accepted: 18 September 2022

Mots-clés:
vieillissement; anxiété; soins de longue durée; analyse qualitative; prise en charge de l'anxiété; résidents; fournisseurs de soins; environnement de prestation de soins

Keywords:
aging; anxiety; long-term care; qualitative

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Résumé

Les personnes âgées qui vivent dans des établissements de soins de longue durée souffrent souvent d'anxiété. Cette étude vise à comprendre les points de vue des fournisseurs de soins à propos des obstacles et des facteurs de facilitation inhérents à la prise en charge de l'anxiété chez les résidents d'établissements de soins de longue durée. Nous avons mené dix entrevues semi-structurées avec des fournisseurs de soins dans des établissements de soins de longue durée. Des méthodes d'analyse du cadre ont été utilisées pour classer les obstacles et les facteurs de facilitation par thème, les coder et en établir la correspondance avec le Cadre des domaines théoriques (Theoretical Domains Framework – TDF). Les thèmes ont été catégorisés en trois niveaux opératoires : résident, fournisseur ou système, et les facteurs ont été étiquetés comme des obstacles à, ou des facilitateurs de, la prise en charge de l'anxiété. Les principaux obstacles à la prise en charge de l'anxiété à chacun des niveaux étaient le déficit cognitif ou ses comorbidités chez les résidents, la formation du personnel, l'adoption et la mise en œuvre du traitement par le personnel, l'environnement de prestation de soins et l'accès aux ressources. Afin d'améliorer la prestation de soins axée sur l'anxiété chez les résidents, il est nécessaire de prioriser la prise en charge de l'anxiété basée sur des paramètres, d'accroître l'accès aux traitements non pharmacologiques et de favoriser le développement d'un environnement de prestation de soins qui soutient la prise en charge de l'anxiété.

Abstract

Older adults, 65 years of age and older, living in long-term care (LTC) commonly experience anxiety. This study aimed to understand care providers' perspectives on the barriers to and facilitators of managing anxiety in residents of LTC. Ten semi-structured interviews with care providers in LTC were completed. Framework analysis methods were used to code, thematically analyze, designate codes as barriers or facilitators, and map the codes to the Theoretical Domains Framework. Themes were categorized as acting at the resident, provider, or system level, and were labelled as either barriers to or facilitators of anxiety care. Key barriers to anxiety care at each level were resident cognitive impairment or co-morbidities; lack of staff education, staff treatment uptake and implementation; as well as the care delivery environment and access to resources. There is a need to prioritize measurement-based care for anxiety, have increased access to non-pharmacological treatments, and have a care delivery environment that supports anxiety management to improve the care for anxiety that is delivered to residents.

Introduction

Older adults, 65 years of age and older, living in long-term care (LTC) frequently experience anxiety symptoms and disorders (Creighton, Davison, & Kissane, 2016). Anxiety can result from disorders such as generalized anxiety disorder, may present as a neuropsychiatric symptom in dementia, or could represent an acute response to an event (Cerejeira, Lagarto, & Mukaetova-Ladinska, 2012; Creighton et al., 2016; Fagundes et al., 2021). In residents of LTC, anxiety is associated with negative outcomes including poorer well-being and higher use of health care services (Goyal, Bergh, Engedal, Kirkevold, & Kirkevold, 2018; Smalbrugge et al., 2006).

Anxiety in residents of LTC is often under-detected and under-treated (Bor, 2015; Creighton, Davison, & Kissane, 2018; Koychev & Ebmeier, 2016). The medical complexity of residents resulting from advanced age, frailty, and medical co-morbidities can make anxiety difficult to detect and, as a result, difficult to treat (Canadian Institute for Health Information, 2020; Pifer,

Segal, Jester, & Molinari, 2020). The lack of evidence supporting approaches to anxiety detection and treatment in LTC was identified as a gap in knowledge (Katzman et al., 2014).

In response to the lack of guiding evidence, two systematic reviews were first completed to (1) identify all anxiety detection tools validated against established diagnostic criteria (i.e., *Diagnostic and Statistical Manual of Mental Disorders* (*DSM*) or International Classifications of Diseases) within LTC (Atchison, Shafiq, Ewert, Leung, & Goodarzi, 2022), and (2) identify all treatments for anxiety trialled in LTC (Atchison, Watt et al., 2022). The Geriatric Anxiety Inventory (GAI) (Creighton, Davison, & Kissane, 2019) and the Hospital Anxiety and Depression Scale-Anxiety (HADS-A) (Creighton et al., 2019) had adequate sensitivity and specificity for use in LTC (Atchison, Shafiq, et al., 2022). Many low-risk, non-pharmacological treatments but few pharmacological treatments for anxiety management in the LTC population were identified (Atchison, Watt, et al., 2022).

After identifying evidence-based detection tools and treatments for anxiety, it is critical to understand the behaviours that may influence how evidence-based care is implemented. Behaviour change theories are an important resource that can inform behaviour change interventions for implementing evidence-based practice (Abraham, Kelly, West, & Michie, 2009). The Theoretical Domains Framework (TDF) is a validated behaviour change framework with 14 behavioural domains that address intervention implementation (Cane, O'Connor, & Michie, 2012). Each behavioural domain has related constructs and interview questions. The interview questions address the behaviours underpinning actions and can be used in qualitative work to identify and understand problems behind a given practice (Cane et al., 2012). All TDF domains and related behaviours can be directly linked to the Capability, Opportunity, Motivation, and Behaviour (COM-B) model of the Behaviour Change Wheel (BCW) (Michie, Van Stralen, & West, 2011). The BCW maps each COM-B source of behaviour to intervention functions and policy categories (Michie et al., 2011). The BCW can be used to select tailored interventions that address identified behaviours, allowing for evidence-informed implementation strategies (Michie et al., 2011). Mapping behaviours to the domains of the TDF is the first step in understanding behaviours that are barriers to implementing evidence-based anxiety management strategies and developing interventions that improve the implementation of these strategies (Michie et al., 2011).

Having synthesized the existing evidence for anxiety management in LTC, it is important to understand why particular interventions may or may not be used in practice. It is essential to understand the barriers to and facilitators of anxiety detection and treatment in LTC in order to identify behaviour change interventions that can improve the implementation of evidence-based care for anxiety. The purpose of this study was to understand care providers' perspectives on the barriers to and facilitators of anxiety management in LTC to inform future behaviour change interventions.

Methods

Population and Context

LTC was defined as facility living with 24/7 registered nursing support (Government of Alberta, 2017). Residents of LTC have care needs that exceed that of those accessing in-home or designated supportive living (e.g., assisted living) services. For this study, nurses included advanced practice nurses, registered nurses, licensed practical nurses, or health care aides. Physicians were defined as general practitioners, general practitioners with a care of the elderly designation, geriatric psychiatrists, geriatricians, palliative care physicians, or nurse practitioners. Allied health professionals included social workers, occupational therapists, physiotherapists, or recreation therapists.

Interviews took place during the second wave of the COVID-19 pandemic in Alberta, between January and March 2021. Participants were asked to speak about anxiety management in LTC generally but were able to discuss how the COVID-19 pandemic had altered typical procedures.

Participant Recruitment

Care providers were recruited using purposive snowball sampling methods (Green & Thorogood, 2018; Patton, 1990). The study team identified clinical managers who distributed recruitment materials via e-mail within their networks. Participants were also encouraged to share the study within their respective networks (Green & Thorogood, 2018; Patton, 1990). Recruitment e-mails included the research team's contact information, the study poster, and a one-page description of the study.

All interested participants contacted the study team directly via e-mail to receive more details about the study and complete the informed consent process. Interviews were scheduled for a day and time selected by the participant. Eligible participants were care providers in LTC settings, fluent in English, and able to provide informed consent. No restrictions were placed on the location within Alberta or the characteristics of the LTC facility in which the participant practiced. All participants who contacted the research team completed interviews included in the analysis.

Data Collection

The semi-structured interview guide was informed by findings from the anxiety detection (Atchison, Shafiq, et al., 2022) and treatment in LTC systematic reviews (Atchison, Watt, et al., 2022) as well as the interview questions within the TDF to address specific sources of behaviour (Michie et al., 2005). The interview guide addressed how anxiety is detected, diagnosed, and managed with pharmacological and non-pharmacological treatments in LTC. The interview guide was reviewed by knowledge users to ensure that questions sufficiently addressed anxiety management in LTC.

Demographic and interview data collection was completed by one researcher. Interviews were audio-recorded, took place over the phone, and lasted 30–60 minutes. Before each interview, demographic data were collected to describe the participants' age, gender, role in LTC, time spent working both in their role and in LTC, and whether they practiced in multiple LTC facilities. Interviews were transcribed verbatim with identifiable information removed. Transcripts were reviewed for completeness by one researcher.

Data Coding and Analysis

A framework analysis approach was selected to facilitate comparison across and between cases as well as to produce practice-oriented findings (Gale, Heath, Cameron, Rashid, & Redwood, 2013; Green & Thorogood, 2018). The five steps of framework analysis (familiarization, identification of a thematic framework,

https://doi.org/10.1017/S0714980823000417 Published online by Cambridge University Press

indexing, charting, and mapping and interpretation) were followed (Gale et al., 2013; Green & Thorogood, 2018).

First, interview transcripts were read to promote familiarization with the data. During thematic analysis, interview transcripts were inductively coded line by line and then reviewed by two independent reviewers. A third reviewer independently confirmed coding using a sub-sample of transcripts. Lines could be assigned multiple codes to capture the meaning in the data. Initial interview coding occurred independently of the TDF.

Interviews were coded in NVivo© as they were completed (QSR International Pty Ltd., 2020). Participant sampling ceased when there was repetition in the codes identified and no new codes were identified within progressive interviews (Green & Thorogood, 2018). Codes were classified within the TDF and labelled as a barrier to or facilitator of anxiety management. Codes were assigned to the TDF by one researcher and verified independently by a second researcher. Each code was assigned one primary TDF domain to promote the feasibility of actionable results for future implementation. Each domain of the TDF was linked to the corresponding component of the BCW to support the future identification of evidence-based interventions (Michie et al., 2011).

The two primary analysts were a graduate student (K.A.) new to the LTC area of study and an academic geriatrician (Z.G.) with expertise in treating dementia and in clinical care for older adults, whereas the third analyst (A.M.T.) was a qualitative researcher with training in gerontology. The present research was approved by the University of Calgary Conjoint Health Research Ethics Board (REB20-1077) and reported according to the COnsolidated criteria for REporting Qualitative research (COREQ) checklist (Tong, Sainsbury, & Craig, 2007).

Results

Participants

Ten interviews with care providers practicing in the LTC setting were completed. Interviews were completed with physicians or nurse practitioners (Group 1; $n = 5$) and nurses or allied health professionals (e.g., social workers, occupational therapists) (Group 2; $n = 5$). Demographic details of participants are presented in Table 1.

Table 1. Characteristics of participants completing interviews

Characteristics of Participants	% of Participants and Total Number (*n*)
Age	
20-40	40% (4)
41-60	60% (6)
>60	-
Self-identified gender	
Cisgender woman	90% (9)
Cisgender man	10% (1)
Role in long-term care	
Physicians or nurse practitioners	50% (5)
Nursing and allied health	50% (5)
Highest level of education	
Doctor of Medicine (MD)	40% (4)
Masters or equivalent	60% (6)
Time practicing in role (years)	
≤10	40% (4)
11-20	40% (4)
>20	20% (2)
Time practicing in long-term care (years)	
0-5	30% (3)
6-10	30% (3)
≥11	40% (4)
Works in more than one long-term care facility	
Yes	60% (6)
No	40% (4)

Barriers to and Facilitators of Anxiety Management

The results are presented based on barriers and facilitators at the resident, provider, or system level. Codes at each level were grouped based on common themes identified throughout the data related to anxiety detection, diagnosis, treatment planning, pharmacological or non-pharmacological treatment, or overall anxiety management. The themes identified and related codes are displayed in Table 2. All codes, classified within a TDF domain, have been reported for anxiety detection or diagnosis (Table 3) and treatment (Table 4). A matrix of all codes by case, either physicians and nurse practitioners or nurses and allied health professionals, is reported for each domain of the TDF (Supplementary Table S1).

Resident-level barriers and facilitators

The presence of cognitive impairment or co-morbidities in residents was identified as a factor that added to the complexity of anxiety detection, diagnosis, treatment planning, and management with either pharmacological or non-pharmacological treatments.

> …And the fact that they often have cognitive impairment or dementia, and that does make the diagnosis more difficult. – Participant 1; Group 1

Participants identified resident-level risks or factors such as polypharmacy and variable responses to medications as barriers to pharmacological treatment. The ability of residents to engage in activities and challenges with leaving the facility to access interventions such as psychotherapy were identified as barriers to non-pharmacological treatment. Residents who could communicate changes or symptoms facilitated the detection and diagnosis of anxiety. Anxiety detection, diagnosis, and treatment planning were facilitated by care providers being familiar with the resident, knowing their history, and noticing changes.

> Having a motivated staff and team on the unit who know the patients well and can recognize those non-verbal cues and triggers. – Participant 2; Group 1

Utilizing collateral sources to obtain information about the resident helped providers personally know the resident and facilitated anxiety detection and diagnosis, while having a baseline understanding of the resident facilitated the ability to consult specialized services. Diagnosis and treatment planning were facilitated by care

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Table 2. Themes and codes within each theme labelled as a barrier or facilitator, organized by themes at the resident, provider, and system level

	Theme	Barrier, Facilitator, or Both Barrier & Facilitator
Resident	Cognitive impairment or co-morbidities	Barriers • Cognitive impairment is a barrier to using formal screening tools • Cognitive impairment makes diagnosing anxiety more challenging • Cognitive impairment and co-morbidities are barriers to anxiety management • Medication safety, co-morbidities, and polypharmacy are challenges to providing pharmacological treatments • Co-morbidities and lack of engagement are challenges to using non-pharmacological treatments • Responses to medication changes are variable • Cost and challenges for residents in leaving the facility are challenges to accessing psychotherapy • Psychotherapy is not effective for severe anxiety • Temporary distractions do not address the root cause of anxiety Facilitators • Cognitively intact residents are able to communicate how they feel, which helps detect anxiety • History, collateral, and non-verbal cues are important for anxiety diagnosis in those with cognitive impairment
	Being familiar with resident and their history	Barriers • Having casual rather than regular staff is a barrier to knowing residents and noticing changes • Cognitive impairment in residents is a barrier to knowing resident history Facilitators • Being familiar with residents helps to identify anxiety • Ability of residents to communicate history and self-report facilitates anxiety diagnosis • The process of diagnosing anxiety is individualized and specific to the unique presentation and needs of each resident • Option available to create individualized or generic care plans for anxiety management • Treatment plans for anxiety are individualized and specific to the unique needs, capabilities, and preferences of each resident • Knowing which treatments have worked in the past • Having access to collateral sources including staff and family to identify changes or report symptoms of anxiety • Patient medication compliance facilitates pharmacological treatment Both • A baseline understanding of the resident is needed before mental health clinicians will consult
Provider	Education	Barriers • Staff need to be educated on how to use screening tools so that staff can administer the screening tools appropriately • Personal assumptions and beliefs of staff are barriers to providing education to staff • Lack of understanding around how pharmacological management works and expectations around efficacy • Frontline staff may not be trained in anxiety detection and management Facilitators • Behaviour management team helps educate staff on anxiety, how it presents, and how to treat it • Behaviour tool that staff can use as a resource for anxiety management is introduced as part of staff education and onboarding • Mental health clinicians tailor educational approach for staff Both • Staff education on anxiety would facilitate detection • Staff education is important for anxiety management • Engagement and support is required to educate staff
	Provider beliefs	Barriers • Anxiety disorders are not common in LTC and are not often new diagnoses • Diagnosing anxiety can lead to blanket statements that ignore acute issues • Diagnosing anxiety only matters if there are resources available to manage it • Use of chemical restraints leads to a lot of extra paperwork for staff because of the regulatory environment • Titrating medications can be challenging Facilitators • Familiarity with treatment options helps in developing treatment plans • Non-pharmacological and pharmacological treatments are often paired together • Non-pharmacological treatment is the mainstay treatment Both • Important to manage anxiety that may or may not be formally diagnosed • Nurses and doctors prefer pharmacological treatments based on their clinical training
	Treatment uptake and implementation	Barriers • Getting staff to implement the care plan is a challenge to treatment planning • Challenge of getting staff to implement non-pharmacological treatments • Staff capacity and time constraints are barriers to treatment planning • Non-pharmacological treatments are not a priority for staff • Pharmacological therapies alone do not provide a sufficient solution to anxiety treatment • Lack of access to more supportive, non-pharmacological therapies that would decrease reliance on pharmacological treatments Facilitators • Pharmacological treatment is used if non-pharmacological treatment fails to manage anxiety • Non-pharmacological approaches are used when pharmacological treatment does not work

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Table 2. *Continued*

	Theme	Barrier, Facilitator, or Both Barrier & Facilitator
		Both • Relationships between mental health clinicians and staff facilitates uptake of treatment recommendations made by mental health clinicians • Family presence viewed by staff as a reason to not offer non-pharmacological treatments
	Staff well-being	Barriers • Staff anxiety is a barrier to staff carrying out recommended interventions • Staff burnout is a barrier to providing different treatment suggestions • Resident anxiety is time and energy consuming for staff
	Professional attributes	Facilitators • Active listening, non-verbal observation, clinical observation, and interview skills facilitate anxiety detection • Communication, collaboration, and active listening skills facilitate treatment planning • Assessment, observation, information synthesis, and diagnostic interview skills facilitate anxiety diagnosis • Knowing how to identify and treat anxiety facilitates everyone's work • Anxiety is screened for during regular assessments and global assessments • Clinical interviews and mental status examinations are used to detect anxiety • Clinical interviews are used to diagnose anxiety • Identifying barriers to why treatment plans were not implemented Both • Trial and error is required when developing a treatment plan
	Team approach	Barrier • Management of anxiety is challenging because of the complexity of multiple teams involved Facilitators • Having dedicated and engaged staff facilitates management of anxiety • Frontline staff support, follow-through, and accountability facilitates management of anxiety • Trusting relationships between the resident and staff facilitates management of anxiety • Multidisciplinary coordination is a key aspect of anxiety management • Family involvement is a key aspect of anxiety management • Care plans and medication reconciliation forms are used to communicate treatment changes • Communication among team members when diagnosing anxiety • Communication among care providers and involvement of family and resident supports treatment plan development • Communication with resident's social network facilitates non-pharmacological management
System	Environmental factors	Barrier • Multiple occupancy makes having personalized or private space to benefit anxiety management difficult Both • Home-like quality, natural lighting, ability to go outdoors, and safe outdoor spaces create an ideal environment for anxiety management
	Access to resources	Barriers • Lack of staff, funding, time, and access to mental health resources are barriers to anxiety management • Lack of accessible resources for anxiety management is a barrier to knowledge of evidence • Lack of accessibility to non-pharmacological approaches, time, and funding for support teams are challenges to using non-pharmacological approaches • Anxiety detection tools are not used and validated tools available for use in LTC are lacking • Funding model for resources in LTC dictates importance and availability of non-pharmacological activities Facilitators • Access to consultive services and allied health resources help manage anxiety • Specialists facilitate management of complex cases • Modeling is used to teach non-pharmacological interventions Both • Access to mental health specialist resources to support anxiety diagnosis • Access to specialized staff for complex cases impacts treatment planning • Access to psychotherapy would help manage anxiety
	Culture and stigma	Barriers • Lack of recognized need to diagnose anxiety is a challenge to anxiety diagnosis • Society views anxiety as the responsibility of the individual, which makes it hard to treat • Judgement about approaches to care • Family hesitance regarding pharmacological treatment choices • Stigma around certain pharmacological approaches is a barrier to management • Stigma around staff providing emotional versus medical support to residents Facilitator • Formal diagnosis reduces stigma around certain medications Both • Recognition of the importance of mental health is starting to become normalized in LTC • Facility culture and leadership determine the priority of non-pharmacological interventions

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https://doi.org/10.1017/S0714980823000417 Published online by Cambridge University Press

Table 2. *Continued*

Theme	Barrier, Facilitator, or Both Barrier & Facilitator
Operating during pandemic conditions	Barriers • COVID-19 has limited the availability of non-pharmacological interventions and changed service priorities • COVID-19 has required heightened work demands for staff in providing interventions in the absence of family • COVID-19 has restricted in-person consultation, disrupting opportunities to detect and diagnose anxiety • Anxiety in residents of LTC has increased during COVID-19 • COVID-19 has resulted in changed routines, disrupting opportunities for management of anxiety • COVID-19 personal protective equipment made communication with residents more challenging • COVID-19 has led to staff burnout and less interest in delivering new interventions

providers making individualized diagnoses and individualized treatment plans:

> I think it should be an approach that works best for them that matches their needs and matches where they're at. – Participant 10; Group 2

Provider-level barriers and facilitators

Care provider education was identified as a barrier to anxiety detection, diagnosis, pharmacological treatment, and general management. Education for staff was necessary for them to be able to use screening tools, detect anxiety in residents, and advocate for a diagnosis as needed.

A poor understanding of how pharmacological treatments worked and unrealistic expectations for pharmacological treatments were identified as barriers to using pharmacological treatments. Participants voiced uncertainty about frontline staff's training in anxiety detection and management and noted that the personal assumptions and beliefs of staff were barriers to providing education to staff.

> … I find in general staff want a quick fix so they want a medication that's going to work quickly and work well, and that generally doesn't exist. So, I think the challenges are just managing realistic expectations about treatment. – Participant 5; Group 1

Provider-level beliefs that anxiety disorders are not common in LTC and that an anxiety diagnosis was only relevant if resources were available to manage it were barriers to diagnosing anxiety. Providers being unfamiliar with different treatment options was identified as a barrier to anxiety treatment planning, while titration challenges and increased paperwork for staff were noted barriers to pharmacological treatment.

Participants noted that it could be challenging to get staff to implement care plans and non-pharmacological treatments. Issues with implementing care plans were attributed to a lack of uptake of the treatment suggestions made by mental health specialists, a lack of staff capacity and/or time, and non-pharmacological treatments not being prioritized by staff or not being offered if family was present, as this was deemed unnecessary for residents occupied with family.

> I do find non-pharmacological stuff does not get implemented as much…we do find it a bit harder just because of people remembering or, you know, losing track of time, getting tied up with a million other things that they're doing. Those are the types of things that get missed or are less of a priority by day-to-day staff. – Participant 8; Group 2

Participants identified that pharmacological treatments could not adequately address anxiety when used alone, but noted a general reliance on pharmacological treatments given the lack of other supportive, non-pharmacological therapies.

Staff well-being was a noted barrier to anxiety management and included the impact of staff anxiety on residents, how resident anxiety was time and energy consuming for staff, and how burnout in staff led to a lack of interest in delivering new treatments.

> … there's been instances even where the staff might be anxious about working with some of the residents or just anxious about going to work in general with the pandemic and that has been difficult in terms of engaging the staff to try and implement some of the interventions… – Participant 10; Group 2

Professional attributes including active listening, clinical observation, and interview skills facilitated anxiety detection. Completing global assessments or clinical interviews was also identified as facilitating anxiety detection and diagnosis. Providers attempting to understand why treatment plans were not implemented and their willingness to use trial and error facilitated treatment plan development.

> I think because the anxiety is so multi-factorial, that there is no one treatment that works for everyone and there's a lot of trial and error in figuring out the treatment plan. – Participant 2; Group 1

The importance of having a dedicated, engaged staff who cares about residents as well as the importance of support, follow-through, and accountability by front-line staff was noted. Multidisciplinary coordination, family involvement, and trusting relationships between residents and staff were noted as being key to anxiety management. Communication was also identified as a facilitator of non-pharmacological treatment and overall management of anxiety, and included adding non-pharmacological treatments to the care plan, talking with residents' social networks to identify treatments, staff helping educate family on approaches for anxiety management, and communication within teams.

Participants identified that anxiety was optimally managed by pairing pharmacological and non-pharmacological treatments together, and highlighted that anxiety, whether diagnosed or not, should be managed. It was noted that non-pharmacological treatments were used as the first line of treatment, to address the root cause of anxiety, manage temporary anxiety, and treat anxiety secondary to dementia or related behavioural symptoms. Participants often suggested that anxiety was informally managed through the approach or manner in which staff delivered care.

Providers' knowledge about medication safety measures, including being transparent about the risks and benefits of treatment, valuing the resident's quality of life over ease of care, knowledge of medication profiles, and regular medication reviews and monitoring facilitated pharmacological treatment.

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Table 3. Codes related to anxiety detection and diagnosis mapped to the domains of the Theoretical Domains Framework and linked to the COM-B model

COM-B		TDF Domain	Codes	Barrier or Facilitator
Capability	Psychological	Knowledge	• A variety of anxiety detection tools are used	Facilitator
			• Screen for other co-morbid anxiety disorders in those with an anxiety disorder	Facilitator
			• Anxiety disorders are not common in LTC and are not often new diagnoses	Barrier
			• Knowledge of anxiety and clinical presentation facilitates diagnosis	Facilitator
			• Anxiety is prevalent in LTC	Facilitator
			• How anxiety may present in residents is variable	Barrier/Facilitator
			• Differentiating between anxiety disorders and symptoms	Facilitator
			• Anxiety detection tools are not used and validated tools available for use in LTC are lacking	Barrier
			• Anxiety is not routinely screened for	Barrier
			• Tools are used to track changes in behaviours or symptoms	Facilitator
			• Clinical interviews are used to diagnose anxiety	Facilitator
			• Clinical interviews and mental status examinations are used to detect anxiety	Facilitator
		Cognitive and interpersonal skills	• Active listening, non-verbal observation, clinical observation, and interview skills facilitate anxiety detection	Facilitator
			• Clinical interviews are subjective and based on clinical and professional judgement	Facilitator
			• Experience dealing with anxiety helps with detection and diagnosis	Facilitator
			• Staff education on anxiety would facilitate detection	Barrier/Facilitator
			• Assessment, observation, information synthesis, and diagnostic interview skills facilitate anxiety diagnosis	Facilitator
			• People management and patient care skills are needed to advance an anxiety diagnosis	Facilitator
			• Staff need to be educated on how to use screening tools so that staff can administer the screening tools appropriately	Barrier
		Memory, attention and decision processes	• Anxiety symptoms can be subjective	Barrier/Facilitator
			• Duration and severity of anxiety determine if a formal diagnosis is required	Barrier/Facilitator
		Behavioural regulation	• Staff consulting other professions for help is the greatest facilitator of anxiety diagnosis	Facilitator
	Physical	Physical skills	–	–
Opportunity	Social	Social influences	• Cognitively intact residents are able to communicate how they feel which helps detect anxiety	Facilitator
			• Ability of residents to communicate history and self-report facilitates anxiety diagnosis	Facilitator
			• Having access to collateral sources including staff and family to identify changes or report symptoms of anxiety	Facilitator
			• Being familiar with residents helps to identify anxiety	Facilitator
			• Communication among team members helps when diagnosing anxiety	Facilitator
			• Lack of recognized need to diagnose anxiety is a challenge to anxiety diagnosis	Barrier
	Physical	Environmental context and resources	• Better access to history and an anxiety detection tool would facilitate anxiety diagnosis	Barrier/Facilitator
			• *DSM* criteria facilitates anxiety diagnosis	Facilitator
			• History, collateral, and non-verbal cues are important for anxiety diagnosis in those with cognitive impairment	Facilitator
			• Access to mental health specialist resources to support anxiety diagnosis	Barrier/Facilitator

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Table 3. *Continued*

COM-B		TDF Domain	Codes	Barrier or Facilitator
Motivation	Reflective		• Having casual rather than regular staff is a barrier to knowing residents and noticing changes	Barrier
			• Chain of command for anxiety detection and diagnosis	Facilitator
			• A baseline understanding of the resident is needed before mental health clinicians will consult	Barrier/Facilitator
		Social/Professional role and identity	• Team effort is used to identify the cause of anxiety	Facilitator
			• Anxiety disorders are diagnosed by trained practitioners	Facilitator
			• Not all roles diagnose anxiety	Barrier/Facilitator
			• No specific role should be diagnosing anxiety, it should be a team approach	Barrier/Facilitator
			• Staff documentation is important for anxiety diagnosis	Facilitator
			• Team approach is used to support anxiety diagnosis	Facilitator
		Beliefs about capabilities	• Does not find it difficult to detect anxiety in dementia	Facilitator
			• Hard to identify the root cause of anxiety	Barrier
			• Staff does not always provide the right information to mental health clinicians to detect anxiety	Barrier
			• Does not find it difficult to diagnose anxiety	Facilitator
			• Finds diagnosing anxiety in residents difficult	Barrier
			• Lack of certainty about process for anxiety diagnosis	Barrier
			• Psychiatrists are the best at diagnosing anxiety	Facilitator
		Optimism	• Clinical interviews can build rapport with residents	Facilitator
			• Low threshold to assess for anxiety	Facilitator
			• Important to manage anxiety that may or may not be formally diagnosed	Barrier/Facilitator
		Beliefs about consequences	• Cognitive impairment is a barrier to using formal screening tools	Barrier
			• Clinical interviews do not allow for trends or severity to be assessed and can miss things	Barrier
			• Cognitive impairment in residents is a barrier to knowing resident history	Barrier
			• Lack of resource capacity to do a complete work-up that is required if anxiety is present	Barrier
			• Not consistently seeing residents is a barrier to detecting anxiety	Barrier
			• Cognitive impairment makes diagnosing anxiety more challenging	Barrier
			• Diagnosing anxiety can lead to blanket statements that ignore acute issues	Barrier
			• Diagnosing anxiety only matters if there are resources available to manage it	Barrier
		Intentions	• Anxiety is screened for during regular assessments and global assessments	Facilitator
			• The process of diagnosing anxiety is individualized and specific to the unique presentation and needs of each resident	Facilitator
			• Completing assessments with an open mind facilitates anxiety detection	Facilitator
			• Anxiety disorders should be formally diagnosed	Barrier/Facilitator
		Goals	• Tool that is quick to administer facilitates anxiety detection	Facilitator
			• Interest in increasing education and understanding of anxiety facilitates detection	Facilitator
	Automatic	Reinforcement	• Detecting anxiety facilitates access to specialized resources	Facilitator
			• Staff screening for anxiety would facilitate detection	Barrier/Facilitator
			• Advocacy for anxiety diagnosis would facilitate diagnosis	Barrier/Facilitator
		Emotion	–	–

https://doi.org/10.1017/S0714980823000417 Published online by Cambridge University Press

Pharmacological treatment was identified as being utilized as the first line of treatment based on the clinical training of nurses and physicians and the ease of delivery. Participants identified that pharmacological treatments were important for anxiety management and may be especially appropriate for residents with severe anxiety symptoms. Antidepressants were identified as the first line of pharmacological treatment, but the use of antipsychotics was suggested for use with severe behaviours and benzodiazepines were used for quick effects.

> … there's a need and a purpose for anti-anxiety medications. I'm not a fan of benzos [benzodiazepines]. I won't use those in seniors because of the side effect profile but … say we're going to start an SSRI [selective serotonin reuptake inhibitor] of some kind if there's no contraindications, then we will start a low dose, go slow, monitoring. – Participant 9; Group 1

System-level barriers and facilitators

Environmental factors specific to LTC such as rooms with multiple occupancies and the medicalized environment were barriers to anxiety management. Participants identified that a home-like environment with natural lighting and a safe space to go outside would facilitate anxiety management.

Access to resources was identified as a barrier to anxiety detection, treatment planning, and pharmacological and non-pharmacological treatment. Anxiety was not routinely screened for in residents, with a noted lack of resources such as valid screening tools or the availability of tools required to complete a full assessment.

> I actually don't think I ever have [used anxiety detection tools] as part of my protocol … I don't know if any of my colleagues use anything official. – Participant 8; Group 2

Access was identified as a barrier to non-pharmacological treatment and anxiety management and included issues related to limited availability of non-pharmacological treatment options, lack of psychotherapy in LTC, and limited facility funding and capacity of staff and facility management. Participants identified the funding model within LTC and a lack of resources available for staff to manage anxiety, including champions to ensure consistent delivery of interventions, in-house expertise in anxiety management, and variable access to resources among LTC sites as barriers to anxiety management.

> … the availability of the resources and the ability to implement particularly non-pharmacological treatments would be a challenge [to treatment planning], and probably access to resources and specialty care for more complex cases. – Participant 7; Group 1

Participants did, however, identify that access to specialist resources or community supports facilitated the use of non-pharmacological and pharmacological treatments as well as anxiety management. Mental health specialists were able to support the treatment and management of complex cases as well as provide tailored education for staff, model interventions for staff, and provide site-specific recommendations.

Culture and the stigma around treating anxiety were noted barriers to diagnosing anxiety, the use of pharmacological and non-pharmacological treatments, and anxiety management. Culture, which included how society views anxiety as the responsibility of the individual (making it hard to treat) and how mental health issues are not yet normalized in LTC, was identified as a barrier to anxiety management.

The stigma associated with pharmacological treatments was a recognized barrier and included family's hesitancy regarding pharmacological treatment, staff worries about certain pharmacological treatment options, and how a formal diagnosis impacted how pharmacological treatment was viewed. Stigma related to staff providing emotional versus medical care was a barrier to non-pharmacological treatment.

> … there's a lot of stigma around the use of benzodiazepines … However, I find that there's less judgment – you know unconscious generally – but judgment from staff if somebody has a PRN [as-needed prescription] Ativan and they have a formal diagnosis of longstanding anxiety disorder … – Participant 8; Group 2

The culture within facilities was found to facilitate the use of non-pharmacological treatments. Facility leadership was noted to impact the priority of non-pharmacological treatments, with some facilities encouraging the use of non-pharmacological treatments.

The impact of the COVID-19 pandemic was viewed as a barrier to many aspects of anxiety management. During COVID-19, resident anxiety was noted to have increased, staff burnout had led to less interest in trying new interventions, the non-pharmacological interventions offered were limited, and service priorities and routines were altered.

> … a lot of the facility staff and individuals, the residents, are extremely burnt out and their capacity to initiate new ideas and to try new things is quite low just because they've been so stressed and their bandwidth is so low with regards to the pandemic - that's been a huge issue in terms of interventions. – Participant 10; Group 2

Discussion

Interviews with care providers were completed to understand the perceived barriers to and facilitators of managing anxiety in residents of LTC. The range of care provider roles represented in the data provided different perspectives on anxiety management and allowed us to obtain a nuanced understanding of this issue. Using the TDF, behavioural domains that address the noted barriers to anxiety detection or diagnosis and treatment, organized also by care provider group, were identified. By linking the TDF to the BCW, findings were situated within behavioural intervention categories to form the basis of future intervention identification, development, and implementation to address the barriers to anxiety management, while also leveraging the facilitators.

The key barriers to anxiety management identified indicate that there is a need for:

1. Prioritization of measurement-based care for anxiety inclusive of early and accurate identification and management of anxiety in residents;
2. Accessible provision of non-pharmacological treatments that are tailored to the resident's needs; and
3. A care delivery environment that supports anxiety management, inclusive of both resident and staff well-being.

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Table 4. Codes related to anxiety treatment planning, pharmacological and non-pharmacological treatment, and management mapped to the domains of the Theoretical Domains Framework and linked to the COM-B model

COM-B		TDF Domain	Codes	Barrier or Facilitator
Capability	Psychological	Knowledge	• Co-morbidities are a major consideration when planning treatment	Barrier
			• Familiarity with treatment options helps develop treatment plans	Facilitator
			• Knowing which treatments have worked in the past	Facilitator
			• Knowing what questions to ask collateral sources facilitates treatment planning	Facilitator
			• Antidepressants are used as the first line of treatment for anxiety	Facilitator
			• Antipsychotics are used to treat severe behaviours	Facilitator
			• Medications being used to treat other conditions can improve anxiety	Facilitator
			• Important to know medication profiles and sedative or addictive medications	Facilitator
			• Knowing the sites facilitates levels of non-pharmacological suggestions needed from mental health providers	Facilitator
			• Non-pharmacological treatment is the mainstay treatment	Facilitator
			• Non-pharmacological treatment helps manage temporary anxiety	Facilitator
			• Psychotherapy is not effective for severe anxiety	Barrier
			• Sensory interventions help manage anxiety in those with cognitive impairment	Facilitator
			• Lack of understanding around how pharmacological management works and expectations around efficacy	Barrier
			• Anxiety secondary to dementia is treated with non-pharmacological treatments	Facilitator
			• Intentional rounding is a way to manage anxiety	Barrier/ Facilitator
			• Self-harm and suicide resulting from anxiety is overlooked	Barrier
			• Lack of evidence for geriatric medicine in general, for treating anxiety in LTC, and for treating anxiety in dementia	Barrier
			• Literature and resources seem to reflect what works in practice	Facilitator
			• Applying anxiety guidelines or evidence from other population to LTC	Facilitator
			• Knowledge of treatments for anxiety outside of LTC	Facilitator
			• Unclear if research or evidence takes into account resource constraints in LTC	Barrier
		Cognitive and interpersonal skills	• Communication, collaboration, and active listening skills facilitate treatment planning	Facilitator
			• Experienced or intuitive team facilitates provision of non-pharmacological treatments	Facilitator
			• Behaviour Management team helps educate staff on anxiety, how it presents, and how to treat it	Facilitator
			• Behaviour tool that staff can use as a resource for anxiety management is introduced as part of staff education and onboarding	Facilitator
			• Expertise in anxiety management in facility is required to support management	Barrier/ Facilitator
			• Formal education services for residents, family, and staff on anxiety management	Facilitator
			• Staff education is important for anxiety management	Barrier/ Facilitator
		Memory, attention, and decision processes	• Option available to create individualized or generic care plans for anxiety management	Facilitator
			• Medication safety, co-morbidities, and polypharmacy are challenges to providing pharmacological treatments	Barrier
			• Trial and error is used rather than evidence	Barrier
			• Trial and error is required when developing a treatment plan	Barrier/ Facilitator
			• Non-pharmacological and pharmacological treatments are often paired together	Facilitator
			• Non-pharmacological treatments are not a priority for staff	Barrier

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Table 4. *Continued*

COM-B		TDF Domain	Codes	Barrier or Facilitator
			• Focus on providing non-pharmacological treatments first	Facilitator
			• Non-pharmacological approaches are used when pharmacological treatment does not work	Facilitator
			• Pharmacological treatment is used if non-pharmacological treatment fails to manage anxiety	Facilitator
			• Pharmacological treatments are considered when anxiety symptoms are severe or are used initially to get symptoms under control	Facilitator
		Behavioural Regulation	• Challenging behaviours facilitate having additional supports in place	Barrier/ Facilitator
			• Does not follow literature on best practice	Barrier
			• General Practitioners consulting mental health specialists facilitates pharmacological management	Facilitator
			• Trying to stay up to date on research and evidence	Facilitator
	Physical	Physical skills	–	–
Opportunity	Social	Social influences	• Communication among care providers and the involvement of family and the resident supports treatment plan development	Facilitator
			• Relationships between mental health clinicians and staff facilitates the uptake of treatment recommendations made by mental health clinicians	Barrier/ Facilitator
			• Resident, family, General Practitioner, and LTC site may not consent or follow mental health clinicians' treatment suggestions	Barrier
			• Family can be hesitant regarding pharmacological treatment choices	Barrier
			• Formal anxiety diagnosis reduces stigma around certain medications	Facilitator
			• Stigma around certain pharmacological approaches is a barrier to management	Barrier
			• Communication with resident's social network facilitates non-pharmacological management	Facilitator
			• Facility culture and leadership determine the priority of non-pharmacological interventions	Barrier/ Facilitator
			• Family presence can give staff a reason to not offer non-pharmacological treatments	Barrier/ Facilitator
			• Push to provide non-pharmacological treatments over pharmacological ones at the LTC facility	Barrier/ Facilitator
			• Stigma around staff providing emotional versus medical support to residents	Barrier
			• Judgement about approaches to care	Barrier
			• Communication within the team facilitates anxiety management	Facilitator
			• Family involvement is a key aspect to anxiety management	Facilitator
			• Recognition of the importance of mental health is starting to become normalized in LTC	Barrier/ Facilitator
			• Society views anxiety as the responsibility of the individual, which makes it hard to treat	Barrier
			• Trusting relationships between the resident and staff facilitates the management of anxiety	Facilitator
			• Modeling is used to teach non-pharmacological interventions	Facilitator
			• Staff support one another to informally manage anxiety	Facilitator
	Physical	Environmental context and resources	• Standardized tools with objective indicators would facilitate appropriate anxiety management	Barrier/ Facilitator
			• Access to specialized staff for complex cases impacts treatment planning	Barrier/ Facilitator
			• Care plans and medication reconciliation forms are used to communicate treatment changes	Facilitator
			• Staff capacity and time constraints are a barrier to treatment planning	Barrier

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Table 4. *Continued*

COM-B	TDF Domain	Codes	Barrier or Facilitator
		• Access to psychotherapy would help manage anxiety	Barrier/ Facilitator
		• Lack of accessibility to non-pharmacological approaches, time, and funding for support teams are challenges to using non-pharmacological approaches	Barrier
		• Cost and challenges for residents in leaving the facility are challenges to psychotherapy	Barrier
		• Geriatric mental health and intensive case management are community resources that facilitate the use of non-pharmacological interventions	Facilitator
		• Human resources are critical to the delivery of non-pharmacological interventions	Barrier/ Facilitator
		• Staffing resources, space, and resources for activities enable the provision of therapies	Facilitator
		• COVID-19 has limited the availability of non-pharmacological interventions and changed service priorities	Barrier
		• Access to consultive services and allied health resources help to manage anxiety	Facilitator
		• Funding model for resources in LTC dictates importance and availability of non-pharmacological activities	Barrier
		• Home-like quality, natural lighting, ability to go outdoors, and safe outdoor spaces create an ideal environment for anxiety management	Barrier/ Facilitator
		• Multiple occupancy makes having personalized or private space to benefit anxiety management difficult	Barrier
		• Lack of staff, funding, time, and access to mental health resources are barriers to anxiety management	Barrier
		• More staff and facility management would facilitate anxiety management	Barrier/ Facilitator
		• Available resources depends on the site	Barrier
		• Resources for staff to manage anxiety facilitates treatment	Barrier/ Facilitator
		• Anxiety resources and guidelines are available to support management	Facilitator
		• Improved knowledge translation would facilitate anxiety management	Barrier/ Facilitator
		• Lack of accessible resources for anxiety management is a barrier to knowledge of evidence	Barrier
		• Non-pharmacological treatment options are limited in LTC	Barrier
		• Residents need a lot of personal resources to overcome anxiety	Barrier
Motivation Reflective		• Psychiatrists develop treatment plans for anxiety as part of their role	Facilitator
		• Specialized behaviour champions help treatment plans get implemented	Facilitator
		• Staff do not usually develop treatment plans for anxiety	Barrier
		• Team approach is used to develop treatment plans	Facilitator
		• Medication choices are outside scope of practice for some providers	-
		• Mental health team or psychiatry are often needed for prescribing because of the complexity	Barrier/ Facilitator
	Social/Professional role and identity	• Nurses and doctors prefer pharmacological treatments based on their clinical training	Barrier/ Facilitator
		• Difficult for consultive services to provide long-term psychotherapy	Barrier
		• Social workers could delivery psychotherapy	Facilitator
		• COVID-19 has required heightened work demands for staff in providing interventions in the absence of family	Barrier
		• Dedicated and engaged staff facilitates the management of anxiety	Facilitator
		• Management of anxiety is challenging because of the complexity of multiple teams involved.	Barrier

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Table 4. *Continued*

COM-B	TDF Domain	Codes	Barrier or Facilitator
		• Mental health team supports staff and residents in LTC	Facilitator
		• Multidisciplinary coordination is a key aspect to anxiety management.	Facilitator
		• Not all providers are involved in every case	Barrier/ Facilitator
		• Specialists facilitate the management of complex cases	Barrier/ Facilitator
		• Psychiatrists see only a small number of LTC residents	Barrier
		• Described roles in LTC	Facilitator
		• Does not treat a lot of anxiety	Barrier
		• Personal assumptions and beliefs of staff can be barriers to providing education to staff	Barrier
	Beliefs about capabilities	• Getting staff to implement the care plan is a challenge to treatment planning	Barrier
		• Challenging getting staff to implement non-pharmacological treatments	Barrier
		• Pharmacological treatment is easier as it takes less time	Facilitator
		• Titrating medications can be challenging	Barrier
		• Supporting resident socialization and involvement facilitates anxiety management	Facilitator
		• COVID-19 has restricted in-person consultation, disrupting opportunities to detect and diagnose anxiety	Barrier
		• Anxiety creates challenges to delivering care	Barrier
		• Anxiety is difficult to treat	Barrier
		• Anxiety does not create challenges in delivering care	Facilitator
		• Engagement and support is required to educate staff	Barrier/ Facilitator
		• Frontline staff may not be trained in anxiety detection and management	Barrier
		• Frontline staff support, follow-through, and accountability facilitates management of anxiety	Facilitator
		• Staff challenges in command of English language communication and comprehension is a barrier to carrying out care instructions outlined in the care plan	Barrier
		• Mental health clinicians tailor educational approach for staff	Facilitator
		• Nurses rely on physicians to do their work	Barrier
		• Physicians have a cross-sectional view of residents	Barrier
		• Staff should not have to be told to perform non-pharmacological interventions	Barrier/ Facilitator
		• Feels comfortable prescribing without specialist consult based on professional experience	Facilitator
	Optimism	• Medications are important for anxiety management	Facilitator
		• Eagerness to introduce new non-pharmacological activities	Facilitator
		• Holistic approach used to address anxiety treatment planning	Facilitator
	Beliefs about consequences	• Formal anxiety diagnosis helps determine treatment course	Facilitator
		• Assessments, recognizing, and understanding mental health facilitates axiety treatment	Facilitator
		• Understanding the root cause of anxiety and anxiety severity facilitates how treatment is approached	Facilitator
		• Benzodiazepines may be appealing because they work quickly	Barrier/ Facilitator
		• Access to more supportive, non-pharmacological therapies would decrease reliance on pharmacological treatments	Barrier
		• Pharmacological therapies alone do not provide a sufficient solution to anxiety treatment	Barrier

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Table 4. *Continued*

COM-B	TDF Domain	Codes	Barrier or Facilitator
		• Responses to medication changes are variable	Barrier
		• Non-pharmacological interventions are used to address the root causes of anxiety	Facilitator
		• Temporary distractions do not address the root cause of anxiety	Barrier
		• Cognitive impairment and co-morbidities are barriers to anxiety management	Barrier
		• Factors specific to LTC that cannot be controlled are barriers to anxiety treatment	Barrier
		• Monitoring the resident is key to anxiety management	Facilitator
		• Knowing how to identify and treat anxiety facilitates everyone's work	Facilitator
		• Anxiety in residents of LTC has increased during COVID-19	Barrier
		• COVID-19 has resulted in changed routines, disrupting opportunities for management of anxiety	Barrier
		• COVID-19 personal protective equipment made communication with residents more challenging	Barrier
		• Co-morbidities and lack of engagement are challenges to using non-pharmacological treatments	Barrier
		• Non-pharmacological treatments are used to treat behavioural symptoms of dementia	Facilitator
		• Adding non-pharmacological interventions into the care plan can facilitate their delivery	Facilitator
	Intentions	• Treatment plans for anxiety are individualized and specific to the unique needs, capabilities, and preferences of each resident	Facilitator
		• Being transparent with decision makers about risks and benefits of pharmacological treatments	Facilitator
		• Staff rely on pharmacological treatments as the first line of treatment	Barrier/ Facilitator
	Goals	• Identifying barriers to why treatment plans were not implemented	Facilitator
		• Quality of life is the focus, not ease of care when prescribing pharmacological treatments	Barrier/ Facilitator
		• Having a champion to ensure the consistent delivery of interventions	Facilitator
		• New residents should come in with treatment plans that allow staff to manage conditions	Barrier/ Facilitator
		• Aiming to create a psychotherapy pilot position	Facilitator
Automatic		• Identifying anxiety impacts treatment	Barrier/ Facilitator
	Reinforcement	• Reviewing and monitoring medications	Facilitator
		• Patient medication compliance facilitates pharmacological treatment	Facilitator
		• Pharmacological interventions should be on a scheduled routine	Barrier/ Facilitator
		• Safeguards are in place for medication use	Facilitator
		• Use of chemical restraints leads to a lot of extra paperwork for staff because of the regulatory environment	Barrier
		• Lack of prescribed pharmacological treatments forces staff to use non-pharmacological approaches	Barrier/ Facilitator
		• Frequent behaviour assessments decreases interest and perceived value by staff	Barrier
	Emotion	• COVID-19 has led to staff burnout and less interest in delivering new interventions	Barrier
		• Having staff who care about residents facilitates informal anxiety management	Facilitator
		• Health of staff is important to consider for resident anxiety management	Barrier/ Facilitator
		• Resident anxiety is time- and energy-consuming for staff	Barrier
		• Staff anxiety is a barrier to staff carrying out recommended interventions	Barrier
		• Staff burnout is a barrier to providing different treatment suggestions	Barrier

https://doi.org/10.1017/S0714980823000417 Published online by Cambridge University Press

Need to Prioritize Measurement-Based Care for Anxiety in Residents

There is a need to adopt a measurement-based approach to care for anxiety that uses accurate tools to detect and follow up on anxiety symptoms. Specialists, including psychiatrists and mental health clinicians were identified as having limited capacity and saw residents only on a consultive basis. There is a need for staff to be able to detect and manage anxiety before the condition escalates to the point that specialized services are required.

Complexity of anxiety symptoms, disorders, and co-morbidities

Anxiety was viewed as a common experience for residents, often related to dementia or other co-morbidities, and less often as a primary disorder. Anxiety often occurs on a spectrum ranging from temporary anxiety symptoms caused by a situation or event, to anxiety symptoms related to a disease such as dementia, to primary anxiety disorders. Participants from the physician and nurse practitioner group made a clear distinction between anxiety symptoms and disorders and in some cases were hesitant to label anxiety symptoms related to dementia as anxiety. The high prevalence and burden of anxiety symptoms for persons living in LTC, regardless of etiology, calls for regular screening to identify symptoms, and for appropriate processes for diagnosis to be implemented.

Screening with accurate tools required

Anxiety was not regularly screened for by care providers. Participants noted that staff may lack the education necessary to detect anxiety in residents. Previous research supports the finding that there is a need for bedside care staff to be trained in mental health (Ellis, Molinari, Dobbs, Smith, & Hyer, 2015). The inability to identify anxiety in residents can lead to it remaining undetected and untreated, eroding resident quality of life and creating challenges for care providers. Staff training in anxiety recognition and management is needed.

Standardized anxiety detection tools were not used in practice although a previous systematic review identified that tools such as the GAI, HADS-A, and Rating Anxiety in Dementia (RAID) Scale have evidence of validity for detecting anxiety in the LTC population (Atchison, Shafiq, et al., 2022). The prevalence of cognitive impairment was noted to complicate anxiety detection and diagnosis because of symptom overlap and difficulty communicating symptoms. There is a need for anxiety detection tools, such as the RAID Scale (Goyal, Bergh, Engedal, Kirkevold, & Kirkevold, 2017; Shankar, Walker, Frost, & Orrell, 1999) or global measures of neuropsychiatric symptoms such as the Neuropsychiatric Inventory (NPI) (Cummings et al., 1994; Wood et al., 2000), both of which include caregiver/informant reports of symptoms, which have evidence of validity for use in cognitively impaired persons in LTC.

Existing diagnostic criteria are insufficient

To diagnose anxiety symptoms or disorders, specialists often utilized clinical interviews, which may be based on criteria from the *DSM* (American Psychiatric Association, 2013). Clinical interviews were limited by the degree to which residents were able to communicate symptoms and also by collateral sources' knowledge of residents' experiences. Reference standards such as the *DSM* were created for the general adult population and do not take into consideration the complex conditions within LTC, or the biological underpinnings of anxiety in those with neurocognitive disorders. More work and training for care providers in LTC is required around appropriate processes for diagnosis, because a focus on criteria-based diagnoses alone, especially for those living with dementia in LTC, may contribute to underdiagnosis.

Access to history and teamwork needed to diagnose anxiety and develop treatment plans

Participants underscored the importance of understanding the underlying or contributing factors to residents' anxiety symptoms. Resident histories, including documented diagnoses, treatments that had previously worked, and information provided by family helped providers understand resident anxiety. Specialists' cross-sectional view of residents highlighted the importance of a team approach and reliance on collateral sources to access information required to detect and diagnose resident anxiety. Access to residents' histories and involvement of all team members will help with understanding the cause of anxiety symptoms, diagnosing anxiety disorders, and developing appropriate treatment plans.

Need for Accessible Provision of Non-Pharmacological Treatments Tailored to Resident Needs

Non-pharmacological treatments favoured or used alongside pharmacological treatments

Non-pharmacological treatments were described as the mainstay treatments for anxiety in LTC. Pharmacological treatments were identified as having a role in anxiety management, but were not thought to be a complete solution. Facilities were noted to have limited or variable access to non-pharmacological interventions. A systematic review of treatments for anxiety identified a variety of non-pharmacological interventions including music therapy (Costa, Ockelford, & Hargreaves, 2018; Ergin & Yücel, 2019; Guetin et al., 2009; Mohammadi, 2011; Raglio et al., 2008; Sung, Chang, & Lee, 2010), cognitive therapy (An, Wang, Sun, & Zhang, 2020; Helmes & Ward, 2017), mindfulness or relaxation (Ikemata & Momose, 2017; Peizhen, Shuming, & Huixian, 2020; Prakash, Seran, & Thilakan, 2019), exercise programs (Rezola-Pardo et al., 2019, 2020), and therapeutic touch (Alp & Yucel, 2020; Fraser & Kerr, 1993; Simington & Laing, 1993; Yücel, Arslan, & Bagci, 2020) that benefitted anxiety in residents; however, most were not identified in interviews as being used in LTC. Literature suggests that non-pharmacological behavioural management techniques, although found to be effective, are rarely used in practice by staff as a result of a lack of knowledge, skills, or resources (Brodaty, Draper, & Low, 2003). There is a need for providers not only to have access but also to take the time to deliver non-pharmacological interventions, regardless of the underlying cause of anxiety symptoms, to reduce resident suffering at that moment.

Non-pharmacological treatments tailored to cognitive status

Residents with cognitive impairment were thought to be limited in their ability to engage with or participate in non-pharmacological interventions. Interventions such as psychotherapy were thought to be ineffective for those with cognitive impairment; however, interventions such as listening to preferred music (Guetin et al., 2009; Sung et al., 2010) have been found to benefit anxiety. Non-pharmacological treatments should be tailored to the cognitive and functional abilities of residents and should be activities that the resident enjoys engaging in, which underscores the importance of having access to resident histories and involving family in treatment planning.

https://doi.org/10.1017/S0714980823000417 Published online by Cambridge University Press

Non-Pharmacological treatments include approaches to patient care and emotional care

The approach to patient care used by staff was a key non-pharmacological intervention that was universally recognized by participants. Approach to patient care included tone of voice, providing reassurance, and how transfers were completed. Approach to patient care is a simple, actionable non-pharmacological intervention for managing anxiety that can readily be implemented.

Residents were identified as often needing one-to-one or emotional care and non-pharmacological interventions that were tailored to their cognitive abilities and needs. It was often thought that staff did not have the capacity or a sense that they had permission to provide such care. Previous research has found that the emotional care provided to residents by staff relies heavily on staff time and is contingent upon knowing the resident (Fjær & Vabø, 2013). Having supportive facility leadership and including time for patient-centred care within care plans helps ensure the delivery of emotional care and may reduce the stigma experienced by staff when providing non-medical care.

Need for a Care Delivery Environment that Supports Anxiety Management

LTC needs to be a home-like environment

The care delivery environment in LTC was identified as a factor that could be modified to become more individualized and home-like and less medicalized. Staff well-being must also be considered when thinking about the care delivery environment for resident anxiety management. Burnout and staff anxiety can lead to staff becoming disengaged in the delivery of care and can negatively impact residents' anxiety symptoms. Staff burnout is a modifiable factor that may be easier and lower risk to address than resident-level interventions. Previous research has found that environmental factors including staff consistency, approach to care, and environmental design can influence resident behaviour (Garcia et al., 2012). To best manage anxiety, LTC facilities should be home-like for residents and create a community where staff and leadership within facilities also feel connected.

Time and resources are needed to support anxiety management

The ability to provide non-pharmacological treatments was limited by staff time constraints. Staff need more dedicated time to deliver non-pharmacological interventions, to reduce the potential for staff to reach a point of care burnout, prevent the absence of treatment, and reduce the reliance on pharmacological treatments.

Whereas specialized services are available to work with staff and provide individualized education on anxiety management and non-pharmacological treatments, there is a need for more education coupled with skills training (Arlinghaus & Johnston, 2018) for nursing staff, to promote independent anxiety management. Staff must understand how to identify anxiety, deliver informal interventions such as a calm and gentle approach or evidence-based interventions including therapeutic touch (Alp & Yucel, 2020; Fraser & Kerr, 1993; Simington & Laing, 1993; Yücel et al., 2020) and music therapy (Costa et al., 2018; Ergin & Yücel, 2019; Guetin et al., 2009; Mohammadi, 2011; Raglio et al., 2008; Sung et al., 2010), and access resources such as specialized mental health services. It is important to ensure that staff have access to the resources they need to manage resident anxiety, are comfortable working in the LTC setting, and have the education required to manage the residents they care for.

Impact of COVID-19

In Canada, LTC was disproportionately impacted by COVID-19, with structural issues, such as staffing levels and infrastructure, being the underlying causes (Canadian Institute for Health Information., 2021). The COVID-19 pandemic response led to many changes within the LTC environment that impacted the anxiety levels of residents and staff as well as the capacity for staff to treat resident anxiety symptoms. Work protocols within LTC (Alberta Health Services, 2020; Government of Alberta, 2022) shifted during the COVID-19 pandemic and were likely more time consuming, which could have contributed to burnout levels in staff. Times of crisis when resident and staff anxiety levels simultaneously increase highlight the need to have adequate resources in place and an environment conducive to anxiety symptom management.

Strengths and Limitations

A strength of this study was that the perspectives of a range of stakeholders such as nurses, physicians, and allied health professionals practicing in LTC were considered; however, the number of participants representing each group, particularly specific allied health disciplines, was small. All care providers worked within the same health care system but the insights generated are likely transferable to similar settings, particularly within Canada. Interviews took place after the second wave of COVID-19 in Alberta and providers may have had an increased awareness of anxiety, which may have impacted the findings. This study is limited by the absence of interviews with bedside nursing staff. Challenges recruiting this population were likely the result of increased demands in care delivery related to the COVID-19 pandemic.

Future Directions

Before interventions can be developed, it is important to garner the perspectives of other key stakeholders including residents, care partners, family, nursing staff, and facility management. Once these perspectives are better understood, then tailored interventions can be designed and implemented to address barriers to the delivery of evidence-based care for anxiety in LTC. In practice, there is an immediate need for staff to be educated on how anxiety presents in the LTC population and how it can be managed. Anxiety management may be best supported by initiating measurement-based care for anxiety inclusive of regular screening protocols and the delivery of non-pharmacological treatments that have evidence of benefit within the LTC setting. At a policy level, there is a need for increased workforce training and increased staffing levels to enable care staff to have the time and ability to provide emotional care to residents, which ultimately points to a need for increased funding for the LTC system.

Conclusions

This study offers the first step toward developing simple interventions that can be disseminated widely to improve how evidence-based care for anxiety is delivered. Although some aspects of anxiety management are progressing, there remain major barriers to providing tailored non-pharmacological therapies, including lack of staff time and resources. Adaptations or interventions focused on care providers or environmental factors pose no immediate risk to residents and should be prioritized. Initiating measurement-based care for anxiety, increasing access to and

https://doi.org/10.1017/S0714980823000417 Published online by Cambridge University Press

delivery of non-pharmacological treatments, and creating a care delivery environment that supports anxiety management are key focus areas that may improve the care delivered to LTC residents, ultimately improving the quality of life for those living and working in LTC.

Supplementary material. The supplementary material for this article can be found at http://doi.org/10.1017/S0714980823000417.

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