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**Title: Application of the Person-Centered Care to Manage Responsive Behaviors in Clients with Major Neurocognitive Disorders: A Qualitative Single Case Study**

**Short running title: Person-Centered Care and Responsive Behaviors**

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## **Abstract**

**Objectives:** Our study aimed to describe “how” and “why” the person-centered care (PCC) approach was applied within a long-term care (LTC) community to manage responsive behaviors (RBs) in individuals with major neurocognitive disorders (MNDs).

**Methods:** A descriptive holistic single case study design was employed in the context of an LTC community in Quebec, using semi-structured interviews and non-participatory observations of experienced care providers working with clients with RBs, photographing the physical environment, and accessing documents available on the LTC community’s public website. A thematic content analysis was used for data analysis.

**Results:** The findings generated insight into the importance of considering multiple components of the LTC community to apply the PCC approach for managing RBs, including a) creating a homelike environment, b) developing therapeutic a relationship with clients, c) engaging clients in meaningful activities, and d) empowering care providers by offering essential resources.

**Conclusions:** Applying and implementing the PCC approach within an LTC community to manage clients’ RBs is a long-term multi-dimensional process that requires a solid foundation.

**Clinical Implications:** These findings highlight the importance of considering multiple factors relevant to persons, environments, and meaningful activities to apply the PCC approach within LTC communities to manage RBs.

**Keywords:** Person-centred care, Neurocognitive disorders, Responsive behaviors, Long-term care settings, Care providers

## Introduction

Providing continuous care is necessary to improve the quality of life of persons with Major Neurocognitive Disorders (MNDs) as the disease progresses. One of the challenges that imposes a significant burden on caregivers and increases lifetime costs of care for these patients is managing agitated, stressful, and confusing expressions called responsive behaviors (RBs) (Gottesman & Stern, 2019). Following the shift from a biomedical to a person-centered approach of care, RBs has been chosen as the term to describe these clients' reactions and means of communication to their unmet social, physical, and cognitive needs, as well as to other factors that can contribute to those behaviours (Dupuis et al., 2012; Alzheimer Society Canada, 2022). This term has been widely used in literature when adopting a person-centered approach (Westera et al., 2022; Hung et al., 2021) To manage RBs, these individuals require to receive more comprehensive supportive care within a context such as long-term care (LTC) settings. Research has shown that the severity of RBs, degree of functional impairments, and caregivers' burden significantly increase the likelihood of admission to LTC settings (Cepoiu-Martin et al., 2016; Harrison et al., 2017; Huyer et al., 2020). Thus, LTC settings play a crucial role in providing continuous care to this population (GBD 2019).

Despite the growing need for LTCs, many questions have been raised about the quality of care provided to individuals with RBs (Mileski et al., 2019). Considering RBs through the biomedical lens has led to overlooking the environmental and interactional causes of RBs, which has in turn, resulted in prescribing unnecessary and ineffective medications for treating RBs rooted in psychosocial and environmental factors (Bazzari et al., 2019; Tampi et al., 2016; Mausbach et al., 2014; Dyer 2018).

One of the influential movements seeking to improve the provision of care in this population is the cultural shift to transfer clients from institutions to the homelike community while applying the person-centered care (PCC) approach (Kim & Park, 2017). This approach is based on the social-psychological theory, which proposes that a person's life experience is framed by their social-psychological factors, with a more significant impact on the person than the illness itself (Brooker D, 2004). There is growing awareness among healthcare providers in using this approach with clients with MNDs, particularly in managing RBs within LTC (Fazio et al., 2018; Fazio & et al., 2020; Institut national d'excellence en santé et en services sociaux (INESSS) 2018; Chenoweth et al., 2019). The key principles of PCC include person-oriented care and activities, a homelike environment, relationships with care providers, family, and clients, empowering care providers, developing collaborative management, and performing continuous measurement of the PCC impact (Koren, 2010; Santana et al., 2018).

In Canada, about one-third of seniors with MND live in LTC settings (Dementia in long-term care, Accessed 2021). Following this cultural evolution, a few LTC for older adults with MNDs in Quebec, Canada, integrate the PCC concept into clinical practice by focusing on individuals' needs, developing therapeutic relationships, and optimizing living environments (Le Brun, 2016; Poirier, 2009). Although studies have shown the effectiveness of the PCC approach, strategies derived from it are rarely reported with well-defined details in the literature, which hinders their reproducibility and makes implementing PCC principles challenging and unclear to care providers (Chenoweth et al 2019, Calkins, 2018, Ericson-Lidmanand & Strandberg, 2021). To bridge this gap and articulate a clear vision of PCC,

we made a partnership with an LTC community in Quebec where the PCC approach was used as the main care model to manage RBs in individuals with MNDs to address the following questions: **How** and **why** were the PCC approach and related principles implemented within this LTC community to manage RBs in individuals with MNDs?

## **Methods**

### ***Study Design***

To answer our study questions, we employed a descriptive holistic single case study design (Yin 2014). This method allowed us to capture experiences and reveal rich contextual information on how the PCC approach was implemented using a variety of data sources (Yin, 2014). We considered an LTC community for individuals with MNDs as a case unit design (Yin, 2014). The project was approved by the Ethics Review Board of the University Institute of Geriatrics of the Université de Montréal (CRIUGM), Aging-Neuroimaging Ethics Committee.

### ***Case description***

This study took place at a private LTC community for seniors in the province of Quebec. This LTC community is a not-for-profit organization, established in 2002. This LTC community provides services to 12 individuals with MNDs with moderate to severe cognitive and physical impairments.

To ensure that this community met our criteria regarding the application of the PCC approach, the research team visited the setting and met with managers several times. A partnership was made with the LTC community, which was found to be an appropriate setting for our project since they followed PCC principles from the outset and embedded this approach in their mission, vision, and services. The overarching goal of this LTC community is to offer adapted services and provide a safe and homelike living environment, while client-centeredness is considered the core principle of providing care (Intermediary Resources, Accessed 2022).

### ***Data Collection***

To meet our study goals and for the purpose of triangulation, we employed multiple data sources, including 1) in-depth semi-structured interviews with nurse assistants (NAs), 2) non-participatory direct observations of the care process provided by NAs, and photographs of the physical environment, 3) a review of the LTC website information and the unit's internal documents, comprising those about the mission and vision of the LTC community and job descriptions of NAs (Miles et al., 2014). All data were collected by CP, IS, JD, AD, and SZ in consultation with experts in LTC services (CA, AB) and qualitative research (AB, MC). Also, NAs' socio-demographic information was gathered via a questionnaire. Data collection began in January 2019 and ended in April 2019 once we accessed adequate data to illustrate the implementation of PCC approach (how and why) and when no new data emerged during interviews and ongoing data analysis (Yin, 2014).

## **Semi-structured Individual Interviews**

We conducted interviews with NAs since their contributions to implementing PCC within the LTC could provide us with the comprehensive information required to attain our study goals. NAs were enrolled if they: a) had been working at our target LTC community for at least two years, b) provided direct care and carried out various daily activities as a full-time NA in this LTC community, and c) were fluent in French, the primary language in Quebec. Individuals who expressed interest in the project were contacted via email or phone and informed about the project, and their admissibility was verified. Participants provided written informed consent at the time of data collection. An interview guide with open-ended questions was developed and tested by the research team members to create a coherent structure for interview questions and its process (Supplemental File 1). Interview questions aimed to compile a description of RBs, clients' routines, and the physical and social environment by considering the PCC approach. Each interview lasted about 40 minutes and was conducted at the LTC community. All interview sessions were audio-recorded to facilitate transcription and analysis. All data were translated into English by one of the team members and validated by another bilingual member of the team.

## **Non-participatory Direct Observation and Photography**

The observation of NAs and the LTC environment was documented through field notes based on a grid and a protocol validated by experts in the field (CA, AB) (Supplemental File 2). This strategy provided us with information on non-pharmacological interventions by NAs to monitor RBs. This information was supported by photographing available materials and resources while considering architectural features (e.g., color, temperature, furniture layout).

## **The LTC Website and Official Documents**

This publicly available information included a comprehensive explanation of the LTC community framework, goals and therapeutic activities, NAs' required knowledge and skills, and photos of LTC spaces. NAs' job descriptions with detailed explanations of PCC components were provided by general manager of the LTC community.

## **Data Analysis**

All data collected from interviews and observations were organized and analyzed using a descriptive qualitative approach developed by Miles and colleagues (Miles et al., 2014). Key steps of the analysis included 1) transcribing all audio records and field notes, and becoming familiar with data by reading transcripts, 2) carrying out a first cycle coding via an inductive approach and making a preliminary list of codes, 3) carrying out a second cycle coding to create themes and provide an operational definition for themes, 4) exploring data using a content-analytic summary table to bring together all related data from the different sources collected into a single format for analysis, and 5) finally, creating a matrix to present all major themes while merging information from photos and the LTC community website to draw conclusions.

To ensure data validity, an initial coding list was generated through team meetings and peer debriefing by CP, IS, JD and AD, NB, and AB using Microsoft Excel. After the first cycle of coding, NB and AB

validated the codes (Yin, 2014; Saunders et al., 2018). Once a consensus was reached, codes were organized into themes with specific definitions until a coherent pattern of codes was achieved, and matrices were created. Any discrepancy in the analytical process was discussed among team members to reach a consensus. To enhance the trustworthiness of data collection and ensure the validity of participants' responses, we used strategies such as obtaining feedback from participants by reviewing our summary notes with them at the end of each interview (Miles et al., 2014). Also, the varied clinical experience of multidisciplinary team members (e.g., occupational therapist, nurse) involved in the analysis and their ability to challenge each other's assumptions and interpretations helped minimize the risk of bias (Miles et al., 2014). The three matrices (interviews, observation, and photographs, and the LTC website information and official documents) were then merged to craft a single combined matrix. All names of all individuals were removed from transcripts to ensure confidentiality.

## **Results**

A total of eight NAs out of 12 who were eligible took part in the study. Seven of them participated in the interviews and eight participated in three observation sessions carried out on various work shifts. Approximately 20 hours of observation data were collected. The demographic characteristics of NAs are presented in Table 1. According to the website information, NAs were required to have formal training with at least five years of experience working with older adults with cognitive deficits.

To report the results, RBs and associated sources of triggers were presented as the context to describe the themes that emerged from all three data collection resources on how and why the PCC approach was implemented within the LTC (Table 2).

### **Main Responsive Behaviors and Associated Triggers**

The observation data revealed that clients' RBs mainly emerge as vocal (e.g., monologues and word repetition) and non-physical agitated behaviour (e.g., ignoring caregivers' requests). NAs described several situations that could trigger RBs such as clients' resistance to performing self-care activities (e.g., taking a shower). Another example was emerging repetitive behaviors following daily distress due to memory impairments (e.g., asking the same questions). NAs also considered that sometimes RBs originated from delusional thoughts (e.g., the presence of a thief in the building).

### **Strategies and Motives Apply the PCC Approach**

#### **Theme 1: Adaptations in the Living Environment**

NAs expressed that one of the characteristics that makes this community a special place for these clients is its homelike features that support a person's right to privacy, safety, and comfort.

##### ***A Homelike Atmosphere***

As mentioned in the LTC community's documents and shown in the architectural plan, this community has private bedrooms, a kitchen, a conference room for social gatherings, a living room, adapted bathrooms with grab bars and transfer bath benches, and a chapel. Its open-concept interior design, with the kitchen and living room at the center and bedrooms surrounding them, prevents clients from

becoming lost in hallways, while encouraging socialization. NAs explained that having the kitchen at the center of the building encourages clients to sit around kitchen tables and communicate with each other, which may also create a sense of unity.

*“The kitchen atmosphere and food smells are amazing. If you compare it to a traditional nursing home, you never smell fresh homemade food there. Also, families are welcome to join their loved ones in the dining room.” (NA2)*

Also, as shown in the building plan, the kitchen and living rooms open directly to the outdoor courtyard, which encourages people to use the outdoor space (Figure 1). NAs expressed that taking some measures such as placing personal belongings in the client’s room could help create a pleasant and friendly living environment, and make rooms more individualized (e.g., decorating rooms with personal furniture and photos). Also, individuals’ preferences are considered in their room's decoration, bed duvet cover, and curtain to create a personalized atmosphere. These statements are consistent with the setting documents describing the rooms. Additionally, observation notes described other features of the LTC community's design, such as windows letting in natural sunlight, adjustable ceiling lights, light-colored walls, and unpatterned floors.

### ***Tempo-spatial Orientation and Wayfinding Supports***

NAs expressed that, to enable clients’ temporal and spatial orientation, all hallways are equipped with landmarks to support them in finding their routes, thereby preventing arising RBs. As confirmed by observations, these landmarks include varying door colors, name tags, arrows, and a shelf with persons’ clients’ photos with special meanings for the client outside their room. NAs noted that, in addition to physical arrangements, having night workers wear pajamas helps individuals to understand that it is bedtime, particularly during night-time wandering. Also, visual cues, such as a clock and a calendar, are available in the shared space to support clients' temporal orientation. We also observed that around 9:00 AM, the scent of toast and coffee wafted through the air, and the television was on at a medium volume, showing the morning news.

### ***A Safe Environment***

Observation findings indicated that the LTC community applies specific strategies to increase safety inside and outside the building. For instance, they created a clutter-free outdoor environment, and increased its privacy with a cedar hedge. Furthermore, all emergency equipment is available inside and outside of the building, while main entrances are supplied with ramps and grab bars to facilitate the use of mobility aids (e.g., walkers, wheelchairs, and crutches).

## **Theme 2: Encouraging Effective Communication**

NAs mentioned that facilitating a trusting relationship and communicating effectively with clients are essential factors in managing RBs.

### ***Smiling, Being Patient, and being Cognizant of Sensitive Situations***

According to the job descriptions, communicating effectively in sensitive situations is a critical skill for NAs. NAs noted that specific skills and attitudes are necessary to interact with clients appropriately. They expressed that these skills allow them to interact positively with clients and develop a robust

therapeutic bond to lower the possibility of emerging RBs. For instance, having a conversation about the person's topics of interest was suggested as a strategy to initiate communication with these individuals (e.g., their life stories or experience) and learn more about their values and family history/experience. Also, participants mentioned that showing empathetic behavior and respect for clients' dignity may help shape better communication and strengthen relationships with them.

*"I am doing my best to be an empathetic person. I behave like my family members, and I do what I expect to be done for myself later." (NA 4).*

Further, NAs suggested some strategies for successful communication with these individuals, such as using words consistently to indicate a specific item, using short, straightforward, encouraging sentences, and appropriate application of non-verbal gestures (e.g., eye contact). For instance, to manage refusal behaviors, strategies such as simplifying/ paraphrasing the request through verbal and non-verbal expressions can be helpful. This statement was confirmed by the observation of NA6 when she tried to persuade a client to take a shower before bedtime. NA6 spoke in a calm and warm tone while making eye contact and explaining that taking a warm shower could help a person sleep better. Being patient was identified as another strategy to avoid intensifying RBs when a client shows anxiety and repetitive behaviors.

NAs also mentioned that using a respectful sense of humor when talking to clients and smiling could help build rapport in the communication process. Another quality identified as essential was being aware of sensitive situations to avoid (e.g., which sensitive topics to avoid with a specific person) and using diversions and reassurance (e.g., to manage repetitive questioning).

*"Indeed, when you come into a client's room with a happy face, your positive emotions can make them relaxed and less agitated." (NA5)*

### **Theme 3: Enabling Active Engagement in Meaningful Activities**

According to the Nas' statements and observations, one of the LTC community's characteristics that may distinguish it from traditional settings is the constant availability of assistance and various activities for different functional levels. These strategies may encourage clients to participate in meaningful daily activities and decrease the possibility of emerging RBs.

#### ***Variety of Activities***

Participants mentioned that the LTC provides various opportunities for clients to engage in different individual and group activities as part of their daily routines. For instance, clients have different options for leisure activities (e.g., board games, art materials, word books, and computers) that provide them with opportunities to make choices guided by their own preferences. These opportunities could encourage a sense of accomplishment, gratification, and creativity. Participants mentioned that social and recreational activities might distract clients from their anxiety. This statement was consistent with the responsibility, referred to in the NA's job description, to provide clients with various individual and group-based activities to facilitate their involvement. *"We all sit around the table, and after having meals, we ask clients if they want to help fold clean dresses. Also, they can help with meal preparation by setting tables and washing dishes." (NA1)*



This statement was confirmed during observation of Nas, when they encouraged clients to participate in daily living activities (e.g., setting the table at mealtime).

#### ***Tailoring Activities to the Clients' Needs and Values***

Nas noted that each client should be considered a unique person with specific needs. They believed that customizing activities to the client's needs, abilities, values, and habits is critical in managing RBs.

*"There was a lady who had difficulty waking up in the morning. To deal with this manner and prepare her for a day, I opened her room curtain, greeted her with kind words, and gave her enough time to get dressed."* (NA1)

To support clients' participation and allow them to carry out various activities successfully, some Nas mentioned the importance of applying compensation and adaptation strategies (e.g., visual cues, simplifying activities, or modeling).

*"Often, we provide them with a pattern to put cutlery on the table, and then we ask them to follow that pattern to set the table. Otherwise, they may get confused."* (NA5).

This information was consistent with the responsibilities listed for the care team on the LTC website, such as developing intervention plans to meet the clients' needs, supervising their performance, and providing them with assistance according to their needs.

However, participants pointed out that their strategies were not always successful in preventing RBs due to the severity of cognitive deficits. This statement was confirmed by the observation information as well. For instance, although cabinets were organized by large font size labels listing their contents, some clients continued to have difficulty locating items.

#### ***Availability of Assistance***

Nas attempted to ensure clients were supported in performing activities by providing them with different levels of assistance (e.g., verbal cues, rephrasing words, using clear, encouraging, and simple directions, or physical assistance) taking into account their disability levels and comorbidities (e.g., diabetes, hypoglycemia, and high cholesterol). These statements were consistent with the requirement in Nas' job description to "purchase ingredients and prepare meals according to client's condition and diet."

*"To support clients to be independent, we provide them with opportunities to be involved in simple tasks such as closing dress buttons under the care providers' supervision. Also, clients are invited to pick up their plate, and when possible, they are allowed to choose the side dish or food dressings such as condiments for their burgers."* (NA1)

#### ***Theme 4: Empowering Care Providers***

Making various resources available to Nas was considered imperative to facilitate the effective application of the PCC approach within the LTC community.

#### ***Flexibility of Time Spent with Clients***

Nas mentioned that the LTC community's intervention plans are flexible enough regarding the time they need to spend with clients, which makes them more effective in implementing interventions. For

instance, they can adjust activities based on clients' pace to decrease potential RBs (e.g., during bathing). Thus, they will have enough time to shape the trusted bond, customize interventions based on clients' needs, and involve them in activities.

*"At bath time, there is no rush; we go through the steps slowly to keep client's dignity and respect up and make them more comfortable with the situation." (N3)*

Nas mentioned that various factors, such as a low caseload, might contribute to expanding this flexibility. Also, similar client functional profiles may allow a balance between the time invested in assisting them with their daily living activities and other activities. However, the fact that NAs are responsible for performing housekeeping duties in addition to their professional roles was identified as an obstacle that may prevent them from spending enough therapeutic time with clients.

### **Equipment and training**

The NAs had access to various resources to support them in their roles. They stated that using an organized documentation system (non-medical records) helps NAs access all recent interventions performed by various NAs for each client. Additionally, NAs were delighted with the culture of teamwork in their workplace, which was necessary to access resources and tackle potential problems. NA3 explained, *"I think the management team plays an important role in expediting access to required tools and equipment and they are very responsive to the NAs' needs."*

NAs reported that training increased their knowledge of MNDs, RBs, and strategies to respond to clients' unique needs. This information was consistent with the LTC community documents regarding professional development through training and assessing the quality of care.

Some NAs considered the LTC community as a desirable work environment. Although the low salary was often identified as a concern, participants minimized its impact given the collaborative and friendly environment. For instance, NA1 mentioned, *"Although the salary is not high, the friendly atmosphere and all the perks and facilities for all staff make the LTC an ideal workplace."*

Despite these various resources being available to NAs, they noted that the comprehensive application of these qualities and skills (e.g., identifying clients' needs and values and providing appropriate intervention accordingly) could be challenging in the short term since these skills are achieved through practice and experience.

### **Discussion**

While previous studies mostly used a quantitative approach to examine the effects of PCC-related interventions on psychological symptoms (Chenoweth 2019), our study employed multiple data sources to qualitatively describe RBs, associated triggers, care providers' strategies to implement PCC principles (**how**), and the purposes of implementing these principles (**why**) within an LTC for clients with MNDs (Koren, 2010; Santana et al., 2018). The strategies and motives included: 1) adaptations in the living environment to meet the clients' needs and creating a homelike atmosphere, 2) fostering effective communication to develop positive interactions with clients and an understanding of their needs, and 3) enabling clients to be actively involved in the LTC community's daily living activities to

support their own independence and increase their sense of satisfaction. Furthermore, 4) NAs noted the importance of empowering them to access various resources to implement these three strategies effectively.

### ***Adaptations to the Living Environment***

NAs followed the PCC principles to tailor the LTC environment to the clients' needs as a strategy to prevent emerging RBs (furniture layout, color codes, and landmarks). This strategy helps clients improve their interaction with the living environment, facilitates their active participation in personal tasks, and ultimately supports their quality of life (Barrett et al., 2019; Puxty et al., 2019; Woodbridge & Sullivan, 2018).

Our findings on the advantages of a clutter-free and organized environment with greater safety and better accessibility to personal and shared items are consistent with results of previous studies (Barrett et al., 2019; Éthier et al., 2021; Jakob & Collier, 2017). While the literature to date mainly focused on adjustments in designing interior spaces for clients with MNDs, our results underline the importance of accessing a safe outdoor space as an environment with potential to involve clients in more activities with fewer visual distractions.

### ***Fostering Effective Communication***

Our findings concur with those of recent studies regarding the use of positive and effective social interaction between clients and care providers in LTC communities as a therapeutic method with PPC to decrease RBs (Abbott & Pachucki, 2017; Abbott et al., 2017; Adlbrecht & Bartholomeyczik, 2021). Our participants particularly considered one-to-one interaction with clients, simplifying sentences, using short answer questions, employing non-verbal expressions, and rephrasing requests as effective strategies to manage refusal behaviours in this population (Savundranayagam & Moore-Nielsen, 2015; Swan & Wenke, 2018). Moreover, showing empathy and respecting a person's dignity were mentioned as therapeutic communication tools to facilitate the interaction process between care providers and clients, which is consistent with prior studies (Abrams et al., 2019; Ostaszkiwicz et al., 2018; Vassbø et al., 2019).

### ***Enabling Active Engagement in Meaningful Activities***

One of the PCC strategies suggested by NAs to manage RBs was encouraging clients to participate in meaningful activities. Our findings show that it is necessary to consider clients' preferences, interests, values, and life experiences (Fazio et al., 2018; Kielsgaard et al., 2021). Furthermore, consistent with our findings, prior studies suggested that low-investment non-pharmacological strategies, such as participating in household tasks, are effective in decreasing agitation, anxiety, and resistance to care (Scales & Zimmerman, 2019; Yous et al., 2020).

### ***Empowering Care Providers***

Our findings show that making sufficient equipment and training resources available to care providers, addressing their concerns and teamwork are crucial factors to facilitate the implementation of PCC in LTC for clients with MNDs (Gilster et al., 2018; Kormelinck et al., 2020; Teper et al., 2019). Our results

regarding the advantage of an organized documentation system as a valuable communication strategy between NAs are consistent with the binding domain of the PCC approach (Éthier et al., 2021). Also, like prior studies, our results show that being flexible regarding the amount of time spent with clients may facilitate the therapeutic relationship (Calkins, 2018; Tilburgs et al., 2018). However, our NA participants reported a high workload due to carrying out housekeeping chores in addition to their therapeutic responsibilities. This might be explained by the organization's lack of financial resources to hire more staff. (Clifford & Dip, 2018).

Consistent with our findings, contextual factors such as a lower caseload and availability of training resources were identified as practical elements to improve the quality and, ultimately, the continuity of care (Piercy et al., 2018). The lower caseload in the studied LTC community might be explained by admission criteria regarding clients' clinical profiles, such as the severity of RBs and cognitive and physical dysfunctions (Dubuc et al., 2006; Hutchinson & Chamberlain, 2021).

The professional development program (e.g., training) was reported as another asset of this LTC community. Also, the value of experiential learning was acknowledged by our participants. However, they expressed that applying new skills are learned and implemented gradually. Consistent with the literature, acquiring new intervention skills and tailoring them to individual clients is a long-term process (Teper et al., 2019). Evidence shows that these skills will increase gradually by employing clinical reasonings (Teper et al., 2019).

### **Limitations**

While our study captures valuable information on applying the PCC approach to manage RBs within a not-for-profit LTC community for older adults with MNDs, it also has some limitations. This study mainly targeted NAs' perceptions and did not focus on managerial and staff leadership, who play an important role in policy development and implementation. Also, although a case study was an appropriate design to respond to the question of "how" and "why", the results may not be generalizable to other settings, considering the context of this LTC community and the contribution of multiple factors to the findings of this study, which is a common drawback of the case-study design (Yin. et al, 2014).

### **Conclusion and Future Directions**

The PCC approach used in the studied LTC community differs from the more institutional approach in other settings by insisting on the quality of the relationships between the practitioners and the clients, and opportunities for clients to engage in personalized activities. The large size of institutional facilities, their design, and the high workload makes them less amenable to recreating a homelike environment. Although evaluating the effectiveness of the PCC approach was beyond the scope of this case study, our findings provide very useful information regarding the implementation of this approach within an LTC community and the potential roles of NAs. However, further studies on a larger scale are warranted at both clinical and organizational levels, to examine the implementation of this approach within LTC settings and investigate the changes required to employ and implement it more effectively at the organizational level.

## Clinical Implications

- It is important to consider multiple factors to apply the PCC approach within LTC communities to manage RBs.
- Considering clients' needs, values, and preferences are imperative to enable their engagement in meaningful activities.
- Fostering effective communication strategies may decrease the possibility of emerging RBs.
- Empowering care providers' skills by providing sufficient training is critical to apply the PCC approach and managing RBs.

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