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RESEARCH

Staff Engagement for Practice Change in Long-Term Care: Evaluating the Feasible and Sustainable Culture Change Initiative (FASCCI) Model

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Context: Interventions aimed at increasing the provision of person-centred care in long-term care (LTC) homes, that do not address contextual and system issues, most often fail. Promoting positive change in LTC homes requires requires a multilevel, systems approach.
Objectives: Evaluate the effectiveness of the Feasible and Sustainable Culture Change Initiative (FASCCI) model for improving the provision of person-centred mealtime practices in a LTC home.
Methods: A single-group, time series design was used to assess the impact of the FASCCI model for change on outcome measures across four time periods (pre-intervention, 2-month, 4-month and 6-month follow-up). Differences in scores from baseline were assessed utilizing Wilcoxon signed-rank tests. Interviews (n = 21) were also conducted to examine treatment fidelity and to ascertain the study participants' perceptions of the process for making improvements using the FASCCI model.
Findings: We observed increases in care staff's capacity to consistently provide relational and person-centred care during mealtimes. Mealtime environment scores started increasing immediately following the intervention, with statistically significant improvements in all mealtime environment scales by six-months, including: the physical environment (W = 55.00, p = 0.008); social environment (W = 55.00, p = 0.008); relationship-centred care (W = 45.00, p = 0.014); and overall quality of dining environment (W = 55.00, p = 0.010). Analysis of data from qualitative interviews demonstrated that use of the FASCCI model resulted in improved team leadership, communication, and collaborative decision-making.
Limitations: Generalizability is limited due to the small sample size and use of convenience sampling methods.
Implications: Outcomes indicate that the FASCCI model seems promising in its ability to improve PCC mealtime practices in LTC homes and is worthy of a larger scale study. The results further demonstrate the value of supportive team environments in quality dementia care.

Keywords: Person-Centred Care; Nursing Home; Organizational Culture; Empowerment; Leadership; Process Assessment

Background

Person-centred care (PCC) is described as a care philosophy in which a positive relationship is established between a resident and staff member that respects the care recipient's preferences and life history, honours identity, and enables engagement in meaningful activity (Fazio et al., 2018). Research in long-term care (LTC) homes demonstrates that interventions aimed at increasing the provision of PCC, but not addressing contextual and system issues (e.g., deeply rooted care routines and regulatory standards that impede individuality, resident choice and staff flexibility), most often fail (Caspar et al., 2016). There is growing evidence demonstrating that the implementation of PCC in practice requires a multilevel, systems approach (Brooker, 2007; Evans, 2017). Review of the literature indicates that the following organizational factors may be especially salient in their ability to influence the extent to which PCC is really improved in practice:

1. The presence of leaders and managers who embrace a leadership style of 'supporting and valuing staff' combined with being 'responsive to staff needs' and offering 'solution-focused approaches' to care decisions (Caspar et al., 2017a; Kirkley et al., 2011; McGilton, 2010; Sjogren et al., 2017).
2. The cultivation and implementation of empowered workforce practices that enable and encourage

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collaborative decision making and increase care staff's autonomy and self-determination (Caspar et al., 2017b; Caspar and O'Rourke, 2008; Grand et al., 2011; Elliot et al., 2014).

3. The development of effective, supportive, and trusting teams (e.g., social support from colleagues and leaders, effective and open communication, a shared vision of care philosophy (Sjogren et al., 2017; Caspar, 2014; Brooker and Woolley, 2007; Leutz et al., 2010; Vikstrom et al., 2015).

These factors guided the development of the Feasible and Sustainable Culture Change Initiative (FASCCI) model—a model for change specifically developed to support the successful implementation of PCC principles into everyday care practices in LTC homes. This model showed promising results when it was tested in a pilot study aimed at increasing the provision of person-centred mealtimes in a LTC home located in Southern Alberta (Caspar, 2017). Results from that study found statistically significant improvements noted in all mealtime environment scales by six months (Caspar, 2017). Care practice changes sustained during the 7-month study period included, but were not limited to: enabling residents to assist with mealtime set-up and clean-up, discontinuing the use of trays and the practice of pre-portioning food and beverages, offering increased choices related to beverages and food selection, health care aides (HCAs—care workers in LTC homes who provide care to residents related to all aspects of their activities of daily living) sitting down with residents during the mealtimes for increased socialization, and turning the TV off during mealtimes (Caspar, 2017). These outcomes demonstrated that this new model for change is worthy of further evaluation. The purpose of this study was twofold—1) attempt to replicate the pilot study, and 2) more fully examine how the application of the FASCCI model influences both the implementation and outcomes of culture change initiatives aimed at increasing the provision of PCC practices in LTC homes.

PCC encompasses all aspects of care; however, mealtimes were purposefully selected as a focus for our study because mealtimes are concrete, regular, frequent, and discrete events that, when designed in a person-centred way, can have positive outcomes for both care staff members and residents. Research demonstrates that training is needed to support mealtimes with a person-centred, social focus (Reimer and Keller, 2009; Murphy et al., 2017; Ducak et al., 2015); this training needs to emphasize the importance of the social aspects of meals (e.g., communicating with residents in an affective, or personal, way that promotes relationships) (Reimer and Keller, 2009). The CHOICE educational program helps to address these training needs and is based on evidence to support relationship centred-dining in LTC settings (Wu et al., 2018). The 'best practice' principles of the CHOICE educational program include Connecting, Honouring Dignity, Offering Support, Identity, Creating Opportunities and Enjoyment (Wu et al., 2018).

It is widely recognized that providing education alone is rarely effective in producing actual change in practice (Caspar, et al., 2017; Aylward et al., 2003; Kuske et al., 2007; Nolan et al., 2008). Thus, for this project, we used the FASCCI model to support the successful implementation of the CHOICE best practice principles into everyday mealtime care practices. The FASCCI model for change has 12 steps for implementation, and draws significantly from the Model for Improvement developed by Langley et al., (2009). See **Table 1**. The FASCCI model adds two key features that are not included in the Model for Improvement. The first is the provision of responsive leadership training (Caspar et al., 2017a) to team leaders who, in this study, were Licensed Practical Nurses (LPNs, i.e., care staff members who have received a 2-year diploma in nursing) working at the selected LTC home. This training was added because research demonstrates that supportive and positive leadership practices play a fundamental role in the transfer and sustained use of best practice guidelines in clinical decision making (Clarke and Marks-Maran, 2014; Gifford et al., 2006) and empowers health care aides (HCAs, their equivalent in the US would be a certified nursing assistant) to provide person-centered care for residents who have dementia (Caspar et al., 2017a; Caspar et al, 2017b; Ericson-Lidman et al., 2013).

The second feature we added is the active exploration and application of three key intervention factors that are necessary in ensuring the feasibility and sustainability of the change initiative. These include: 1) predisposing factors (e.g., effective dissemination of information regarding new skills or practices), 2) enabling factors (e.g., conditions and resources required to enable staff members to implement new skills or practices), and 3) reinforcing factors (e.g., mechanisms that reinforce the implementation of new skills) (Caspar et al., 2016). Caspar et al. also (2016) demonstrated that the use of education alone (i.e., predisposing factors) as an intervention to change practice is most often unsuccessful. They concluded that, for successful practice change to occur, conditions and resources must be developed to enable staff members to implement their new skills (i.e., enabling factors), and mechanisms must also be in place to support the sustained implementation of new skills into day-to-day care practices (i.e., reinforcing factors).

Methods

Using principles consistent with Critical Participatory Action Research (CPAR) (Torre, Fine, Stoudt, & Fox, 2012), we collaborated with people who were directly experiencing organizational practices (members of the management team and care providers) that supported or impeded care staff members' ability to provide person-centred care during mealtimes in LTC settings. These individuals were key decision makers as well as research participants in the study. A single-group, time series design with repeated measures was used to assess the impact of the practice change initiative on outcome measures across four time periods (pre-intervention, 2-month, 4-month, and 6-month follow-up). We also conducted observations and interviews to examine treatment fidelity and to ascertain the study participants' perceptions of the process and outcomes of the intervention.

Table 1: FASCCI model implementation steps.

Step	Name	Description
Step 1	Decide to Make a Change	All change initiatives must begin with the decision to make a change.
Step 2	Form the Team	A Process Improvement Team (PIT) is comprised of key stakeholders associated with the selected area of change (i.e., care staff members, family members, administrators, managers, and interdisciplinary care team members)
Step 3	Participate in Responsive Leadership Training	All PIT members participate in a day-long training session on responsive and supportive leadership skills (e.g., communication and team building strategies to improve information exchange, collaboration, and timely follow-up to concerns).
Step 4	Educate the Team	Educate the PIT members on current best practices associated with the selected area of change
Step 5	Create a Shared Vision	Following the education session, the PIT members actively engage in creating a shared vision associated with the area of change that they wish to make.
Step 6	Select Specific Changes in Care Practices	Ideas for changes in care practice come directly from the PIT members.
Step 7	Develop Strategies Associated with Three Key Intervention Factors	The PIT members select and enact the requisite predisposing, enabling and reinforcing factors that address the selected changes in care practice. This critical thinking on how to implement the change is essential to the success of the project.
Step 8	Establish Measures	Outcome measures and process assessments are used to determine if specific changes actually lead to improvements.
Step 9	Test Changes	Follow the Plan-Do-Study-Act (PDSA) cycle, used to test change in real work settings, by planning, testing, observing the results, and acting on what is learned. Several PDSA cycles are conducted throughout the change initiative.
Step 10	Conduct Weekly PIT Meetings	Meeting facilitators apply leadership skills as presented in the Responsive Leadership Training. PIT meetings last approximately 20 min and meeting minutes with follow-up action items are documented for each meeting. These minutes are shared with everyone on the care team.
Step 11	Celebrate and Communicate Successes!	Celebrating and communicating successes is essential to sustaining change efforts. Effective communication about the successes of the project help the change process become integrated into the work culture in positive ways.
Step 12	Implement Changes	After testing a change on a small scale, learning from each test, and refining the change through several PDSA cycles, the teams implement the change as a permanent way of providing person centred care on the unit.

Setting and sample

This study was conducted in a care home located in Western Canada that provides Designated Supportive Living services to 152 senior residents. Convenience sampling, based on partner engagement, was employed for site selection (senior administrators within the organization, which owned and operated the site, enabled the site administrator to have the ultimate decision as to whether or not the study could be conducted at her site). The neighbourhood (the specific part of the care home within which the residents live—the equivalent in other care homes would likely be referred to as a 'unit', 'wing', or 'floor') within which the study was implemented was home to 46 residents, the majority of whom were female and were living with a physical disability, mental health diagnosis, or mild dementia. The neighbourhood was one of four neighbourhoods on two floors in the care home. The administrator of the care home had the ultimate decision regarding which neighbourhood was selected for participation in this study. She informed the research team that she selected this neighbourhood because of the program manager's long tenure.

HCAs provided the majority of direct care (care related to the residents' activities of daily living, such as dressing, eating, bathing) to the residents on this neighbourhood and were supervised by LPNs. The home practices consistent assignment; thus, once assigned to a specific neighbourhood, the HCAs stayed on it for all or most of their shifts.

Ethics approval was granted by the University of Alberta ethics review board (Pro00080065). Following ethics approval, the research assistant (RA) and the principal investigator (PI) provided several study information sessions for care staff members at the care home. During the study information sessions, participants were also invited to become active members of the Process Improvement Team (PIT). Care staff members self-selected themselves to become members of the PIT and, by doing so, took a leadership role in the practice change initiative. The PI ensured that representatives from key members of the interdisciplinary team were included in the PIT. Upon completion of recruitment, the PIT was composed of nine HCAs, six LPNs, two dietary staff members, two recreation staff members, the program manager, the research and innovative practice manger, and the care home administrator. All

PIT members provided signed, informed consent to participate. In addition, nearing the conclusion of the study, two residents self-initiated an interview by approaching the RA and informing her that they wanted to share their perceptions about the intervention. We obtained signed, informed consent from these residents to participate in an interview.

The observational data collection procedure was based on dining room-level observations (i.e., RAs only assessed global aspects of the mealtime experience). This level of observation enabled the residents and care staff members to remain anonymous to the RAs during the observations periods; thus, written consent was not required from individual care team members and residents and no demographic data was collected. However, the RAs consistently monitored whether or not residents were expressing dissent to being observed during the observation periods. Dissent can be expressed or indicated verbally (saying 'I don't want that person watching me while I am eating'), behaviorally (being agitated, wanting to leave the dining room in response to having an observer present during the mealtimes), or emotionally (showing distress, unhappiness as a result of having an observer present during the mealtime) (Slaughter et al., 2007). As per our study protocol, if, at any time, a resident demonstrated dissent, the RAs were to leave that area of the dining room and no longer observe the resident.

Implementation overview – Following participant recruitment and the process improvement team (PIT) formation, members of the PIT participated in two workshops. The first workshop was a 4-hour education session presented by the research team, which included the responsive leadership training (Caspar et al., 2017a) and the CHOICE education materials (Wu et al., 2018). Approximately one week later, the PIT members participated in a half-day workshop facilitated by the research team, during which they selected the person-centred mealtime strategies they wished to implement. Each of the selected strategies was associated with the principles presented in the CHOICE education session. In total, 16 person-centred mealtime strategies were selected by the PIT members. **Table 2** provides a list of each of the strategies and the corresponding CHOICE principle to which it is associated.

Following this, the PIT members determined the predisposing, enabling, and reinforcing factors they deemed necessary for their successful implementation of each strategy. **Table 3** provides an example of a selected strategy and the predisposing, enabling and reinforcing factors that were developed for it.

The PIT members then engaged in weekly 20-minute meetings to monitor success and collaborate for solutions to any barriers that may have been preventing them from implementing the selected person-centred mealtime strategies. These weekly PIT meetings continued for the full six months of the study and were facilitated by the care home team leaders who had attended the responsive leadership training. Mid-way through the study, the PIT members attended a 4-hour, mid-study celebration during which they reviewed and celebrated their successes to that point. During this meeting, the PIT members selected additional mealtime strategies to implement and began discussions about how to sustain and spread the change initiative. After the completion of data collection, an end-of-study celebration was held for all PIT members.

Table 2: Selected strategies to improve PCC in mealtimes using the FASCCI model.

CHOICE Principle	Selected Mealtime Strategies
Connection	1. We make sure that residents are happy where they sit and who they sit with. 2. We sit with residents at the table to visit or socialize. 3. We chat socially with all residents, including those who communicate without words. 4. We make eye contact, smile, and use gentle touch with residents who communicate without words.
Honoring dignity	1. We ask residents whether they are finished eating before clearing their places. 2. We enable residents to come and go from the dining area based on their personal choice (i.e., the door is not locked).
Offering support	1. We use safe practices when assisting residents (e.g., sitting down to assist with eating, resident is in a safe eating position, reasonable amount of food on a teaspoon, relaxed pace). 2. We support residents to eat on their own through verbal or physical prompts (e.g., assistive eating utensils, hand-over-hand support). 3. We do not rush residents to finish eating, regardless of how long it may take them.
Identity	1. We use birthday placemats to celebrate each resident's birthdays. 2. We get to know the resident's food preferences (e.g., find out their favourite foods and what their comfort foods are).
Creating opportunities	1. We encourage residents to help out with mealtime activities (e.g., table setting). 2. We assist in planning theme nights or other fun activities to engage residents at mealtimes.
Enjoyment	1. We make sure that mealtimes are focused on eating and not other activities (e.g., medications, especially those that are crushed, are all consistently delivered before the meal). 2. We keep noises at a minimum (e.g., stacking or scraping dishes, grinding of medications). 3. We try to minimize distracting noises (e.g., TV is turned off if no resident has requested it be on).

Table 3: Example of practice change factors for a selected strategy.

Selected Mealtime Strategy: We keep noises at a minimum	**Suggestion from PIT member: 'We should no longer use silverware to scrape plates when residents are finished with their meals. Instead, we should use a rubber spatula because this will decrease the noise levels in the dining room and that will help make the overall dining experience more enjoyable'**
Predisposing Factors	1. Ensure all staff are aware of that we have selected 'keeping noises at a minimum' as a strategy to improve the residents' enjoyment of the mealtime experience. 2. Write in the staff communication book that we no longer use silverware to scrape the residents' plates and instead use a rubber spatula.
Enabling Factors	1. Purchase rubber spatulas 2. Place the rubber spatulas in a location that is easy to see, find, and use so that staff will use them 3. Purchase replacement rubber spatulas and have them available for when/if they go missing.
Reinforcing Factors	1. Post a colourful reminder note on the cart where plates are scrapped that we now use the rubber scraper instead of the silverware. 2. Buy brightly coloured rubber spatulas so they act as their own "reminder" to help staff remember to use them. 3. PIT members will all "lead by example" by ensuring that they use the spatulas when in the dining room. 4. PIT members will all acknowledge and thank staff when they remember to use the spatula instead of the silverware. 5. When the majority of staff begin using the spatulas instead of silverware post a "We DID it!" note in the staff communication board.

Outcome assessment

Measures

To understand the impact of the practice change initiative on outcomes associated with the mealtime experience, multiple mealtime observations were completed with the Mealtime Scan (MTS+) (Keller et al., 2019). This valid and reliable observational tool measures the psychosocial environment, as well as physical aspects of a dining environment that impact the mealtime experience (Keller et al., 2018; Iuglio et al., 2018). The MTS+ provides detailed observation on the social environment and scaling to promote responsiveness on repeat measurement (Keller et al., 2019) and is an adaptation of the original MTS (Keller et al., 2018). The MTS+ includes four summative scales that assess the following:

1) The physical environment: assessment of the physical environment includes such mealtime elements as noise levels, seating arrangements, sufficiency of lighting, aroma of food, decorations and ambiance, and availability of condiments for residents to choose from. Global assessment of physical environment was scored on a scale from 1 (Low, Inadequate) to 8 (High, Adequate).
2) The social environment: assessment of the social environment is based on the quality/type of five social interactions (between residents; residents to staff; staff to residents; residents to family; staff to staff) and their frequency. Ratings (0 = never, 4 = frequent) are based on the frequency of the interaction as observed, and scoring for the social environment scale is based on the predominance of social interactions that involve residents, in contrast with task-focused interactions that exclude residents. Global assessment of social environment was scored on a scale from 1 (Low, Inadequate) to 8 (High, Adequate).
3) Relationship-centred care: relationship-centred care practices are primarily evaluated by assessing the degree of choice given to residents regarding mealtime activities (e.g., did they have the opportunity to assist with mealtime tasks, were they given a choice of where to sit, were they offered a choice regarding use of clothing protectors) and whether or not the residents' needs were prioritized over the mealtime care tasks (e.g., was the meal interrupted by the distribution of medications, were residents needs met when they became evident to staff). Global assessment of relationship-centred environment was scored on a scale from 1 (Low, Inadequate) to 8 (High, Adequate).
4) The overall quality of the dining environment: overall ambience of the dining environment is rated on an 8-point scale, from "Low" (Chaotic, stressful, several things went wrong, not enjoyable for staff or residents) to "High" (One of the best meals witnessed, staff and residents engaged, all are enjoying the experience).

Data collection

Forty mealtime observations were completed over six months in two dining rooms—ten observations at baseline, two months, four months, and six months. Observations represented different mealtimes at the LTC home, with four observations during lunchtime and six during suppertime at each collection point (i.e. at baseline and every two months thereafter). These observations were completed during the entire course of the meal (usually 30–60 minutes). Two trained assessors completed the observations. To promote consistency, each assessor was assigned

to a specific dining room and completed all assessments in that dining room throughout the study. The assessors arrived in their respective dining room several minutes before the scheduled meal start time, before residents entered, and continued observation until the end of the meal when most residents had departed from the dining room. The assessors were acclimatized to the care home before observations began and remained as inconspicuous as possible. While care team members may be 'reactive' to observers, this effect is estimated to be only about a 10–20% effect size (Romanczyk et al., 1973).

Analytic approach

Each of the four MTS+ summative scales were tested for normality and described (mean, standard deviation) by time point. Changes from baseline were evaluated utilizing Wilcoxon signed-rank tests because the sample size was relatively small and the assumptions for parametric statistics were not met. Data were analyzed using SPSS Statistical Software (Version 25).

Treatment fidelity assessment

Consistent with recommendations by Slaughter, Hill, and Snelgrove-Clarke (2015), treatment fidelity was monitored by assessing dose, adherence, and participant responsiveness.

Assessment of dose

We assessed dose by keeping detailed records of the number of participants at each of the education sessions and the subsequent weekly PIT meetings. We also recorded the number and length of PIT meetings that occurred through the duration of the study.

Assessment of adherence

Assessment of adherence occurred during each of the PIT meetings. The selected mealtime strategies and their requisite predisposing, enabling, and reinforcing factors (which were developed by the PIT members to enact each of the CHOICE principles) were reviewed and analyzed at every PIT meeting. As a result of this analysis, PIT members were enabled to assess challenges to (and deviations from) the selected changes in care practice, and then collaboratively identify solutions to address those challenges via plan-do-study-act (PDSA) cycles. Detailed meeting records created by the team leaders charted the progress of changes made to the mealtime experience of the residents.

Assessment of responsiveness

At the end of the study, we conducted brief interviews with PIT members to understand their experiences with the practice change initiative. We also interviewed two residents to better understand their perceptions regarding the outcomes of the change initiative.

The methodological approach that guided these interviews came from Dorothy Smith (2005), who asserts that adhering strictly to an interview script limits the researcher to what s/he has already anticipated and hence forestalls the process of discovery. Accordingly, interviews with PIT members began with basic questions such as, 'What was the best part of participating in this project?' followed by 'What strategy do you believe made the biggest impact on outcomes?', and 'Tell me about what has troubled or frustrated you during this change initiative?' Similarly, we asked residents to describe, in their own words, what they felt the outcomes of the project were.

Analytic approach

Microsoft Word® was used to manage and group the data into categories from the interviews. The decisions regarding how the data were to be categorized were not predetermined. Rather, they evolved from a review of the transcribed interviews and the detailed notes taken during the PIT meetings. The focus of the analysis of the qualitative data was on discovering, from the perspective of the participants, what was working and what was not regarding the implementation of the FASCCI model to produce changes in care practices.

Results

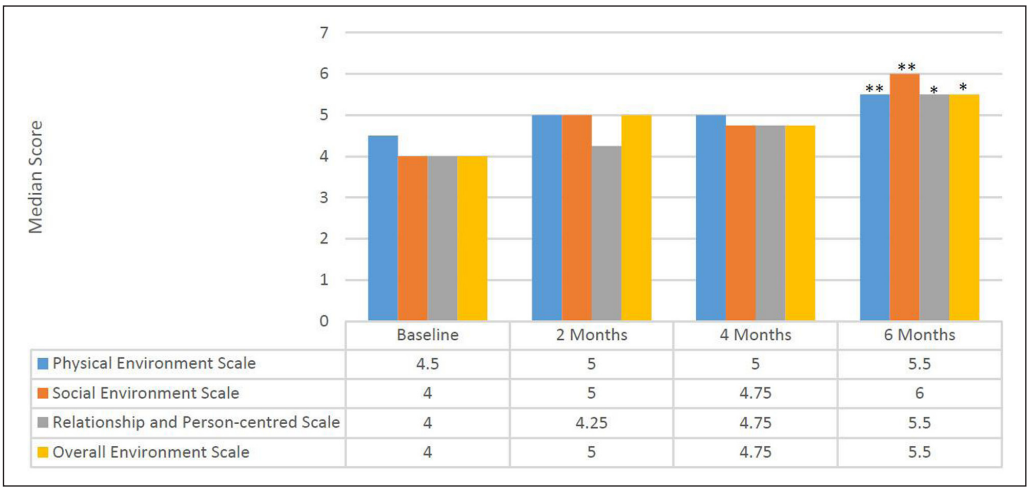
Changes in mealtimes

Mealtime environment scores started increasing at the first observation following the introduction of the practice change initiative, with Wilcoxon Signed Rank (1-tailed) tests indicating statistically significant improvements in all mealtime environment scales by six-months, including the: physical environment ($W = 55.00$ ($z = 2.88$) $p = 0.008$); social environment ($W = 55.00$ ($z = 2.84$), $p = 0.008$); relationship-centred care ($W = 45.00$ ($z = 2.70$), $p = 0.014$); and overall quality of dining environment ($W = 55.00$ ($z = 2.84$), $p = 0.01$). See **Figure 1**.

Physical environment

Almost all elements of the environment that scored low at baseline demonstrated improvement as a result of the practice change initiative. For example, baseline observations demonstrated that, prior to the practice change initiative, the television was turned on during 100% (10/10) of the observed meals and excess and distracting noise (e.g., scraping of plates, residents calling out) was absent during only 20% (4/10) of the observed meals. Whereas, at the conclusion of the practice change initiative, the television was turned off during 100% (10/10) of the meals and excess and distracting noise was absent during 80% (8/10) of the meals. Of note, many items that did not improve as a result of the practice change initiative were not in need of improvement (e.g., at baseline, menus and table settings were provided at all tables during 100% (10/10) of the observations and these practices were sustained through the duration of the study).

Although not measured on the MTS+, it is also important to note that, prior to the practice change initiative, the doors to the dining room were locked, and residents were unable to enter the dining room until approximately 10 minutes before the meal was served. This process resulted in residents lining up in the hallways "waiting" for the doors to open prior to each meal. Once opened, residents and staff had to be cognizant of the time spent during the meal since there was a rather strict schedule regarding when the doors would be closed again to ensure



	Baseline	2 Months	4 Months	6 Months
Physical Environment Scale	4.5	5	5	5.5
Social Environment Scale	4	5	4.75	6
Relationship and Person-centred Scale	4	4.25	4.75	5.5
Overall Environment Scale	4	5	4.75	5.5

Figure 1: Median Mealtime Environment Scale Improvement throughout Intervention.
Note: Baseline serves as the reference category for Wilcoxon Signed Rank Test pairwise statistical tests to evaluate changes over the study period; * $p < 0.05$; ** $p < 0.01$.

that dietary and housekeeping staff were able to clean the dining area between meals. One of the first changes the PIT members implemented was to open the doors to the dining room so that residents were enabled to come and go as they chose. Implementing this strategy had a significant impact on the overall dining experience, as it enabled staff and residents to focus more on the social aspects of the dining experience rather than ensuring that the tasks associated with dining were completed within a strict timeframe.

Social environment

Improvements in the amount of social interactions during mealtimes occurred as a result of the practice change initiative. For example, high resident-to-resident social interactions (i.e., score ≥3) increased from occurring during 40% (4/10) of observed meals at baseline to occurring during 90% (9/10) of the observed mealtimes at six months. High resident to staff social interaction also increased from occurring during only 40% (4/10) of mealtimes at baseline to over 80% (8/10) at six months. Finally, staff to resident affection, including positive non-verbal communication (e.g., hugging), increased from occurring during 10% (1/10) of the observed meals at baseline to 70% (7/10) at six months.

Relationship-centred care

Significant improvements were made in multiple aspects of relationship-centred care following the practice change initiative. For example, prior to the practice change initiative, crushed medications were given to residents during 100% (10/10) of the observed meals; however, after two months this practice no longer occurred during any of the observed mealtimes. In addition, during only 50% (5/10) of the observed meals at baseline, residents were consistently informed of staff's actions (e.g., when assisting with feeding), and this positive practice increased to being observed during 100% (10/10) of the meals at six months. Finally, residents' needs were consistently met when they became evident to staff during 30% (3/10) of the observed meals at baseline and this positive practice increased to 90% (9/10) at six months. Despite significant effort to alter practice, only slight improvements were made to how often residents were encouraged and enabled to assist with mealtime activities such as setting and clearing the tables. However, during our end-of-study celebration we learned that the PIT members were continuing to run PDSA cycles on this strategy, despite the fact that we were no longer collecting data.

Treatment fidelity and acceptability of the change initiative to participants

Multiple methods were used to assess treatment fidelity and the acceptability of the practice change initiative to study participants. In this section, we report our assessment of dose, adherence, and PIT members' and residents' perceptions of the practice change initiative.

Assessment of dose

During the study, PIT members attended four half-day sessions (two education sessions at the start of the study, one combined celebration and education booster session at the mid-point of the study, and one end-of-study celebration at the conclusion of the study). Attendance at these sessions ranged from 90% to 100% of the PIT members.

In total, 27 PIT meetings occurred over the course of the study. These meetings lasted on average 20 minutes each and were held on a weekly basis, on a set day, time, and location in the care home. Attendance of PIT members at these meetings was variable. On average, 50% of the members were present at each meeting. Throughout the duration of the study, no PIT meetings were cancelled due to insufficient attendance.

Assessment of adherence

The selected mealtime strategies and their associated predisposing, enabling and reinforcing factors were reviewed at each of the PIT meetings. When a strategy was not being implemented by the majority of the care staff mem-

bers, the PIT members would review, in detail, the factors that were either enabling or impeding the strategy from being successfully implemented. For example, during our first PDSA cycle we found that, even though the doors to the dining room were now open, residents and staff were not accessing the dining room until approximately 5 min before the meal. In response to this, the PIT members examined and assessed the predisposing factors by asking questions such as, *Did residents and staff know that they are 'allowed' to enter the dining room whenever they want now? Had this been effectively communicated to all residents, family members, and staff (including casual staff members)?* and *Did all staff understand why it is important for residents to be able to come and go from the dining room based on their personal choice?*

PIT members also considered enabling factors by asking questions such as, *Since the door was unlocked but still closed, could it safely be propped open so that everyone sees this as a visual 'welcome' sign?* and *How could the housekeeping staff still feel able to clean the dining room even though there may still be residents and family members present?* Finally, to strengthen reinforcing factors, PIT members asked questions such as, *Are staff members recognized, appreciated and celebrated for encouraging and enabling residents to come early to the dining room and to stay for as long as they like? Are staff reminded, via such things as report, communication books, and posters on the unit, that this is a selected strategy to improve our mealtimes for residents?* These assessments of the change factors enabled the PIT members to collaboratively identify solutions to address the challenges, and then implement these solutions via the PDSA cycles.

Review of the detailed records kept during the PIT meetings demonstrated that 88% (n = 15) of the selected mealtime strategies were successfully implemented and sustained for the duration of the study. The two strategies that were not successfully implemented included enabling the care staff members to regularly sit and socialize with the residents during mealtimes and enabling the residents to regularly assist with the mealtime activities (e.g., helping to set and clear the tables). Although these care practices were observed, it was sporadic and very dependent upon the focus and workload of individual care staff members during the mealtimes. Thus, despite significant effort, we were not successful in making changes to these care practices in ways that were considered feasible or sustainable by all staff.

Assessment of responsiveness

Our interview questions focused on the PIT members' and residents' perceptions of the practice change initiative and the FASCCI approach to making sustainable change. When asked to describe the outcomes of the practice change initiative, the majority of the PIT members spoke about the positive benefits they witnessed for the residents. The benefits they described included increased resident choice, increased socialization, increased pleasurable experiences for residents during mealtimes, and a calmer, more relaxed environment during meals. For example:

> Dietary Aide:
> 'I see a calmer environment—residents enjoy being able to eat earlier and leave at will—as well as a more social environment; there are so many more meaningful conversations'.
>
> HCA:
> 'Residents are a lot more happy, with more choice, extra portions, and second helpings, along with the time to enjoy it. It just feels more like home'.

When asked to specify what strategy they felt made the biggest impact on outcomes for the residents, the majority of the participants indicated that unlocking the doors to the dining area was essential to enabling more person-centred mealtimes. For example:

> LPN:
> 'I really enjoyed having the doors open all day and I see the clients visit with each other while they have their coffees. I enjoy being more resident-focused. It's always a good thing and just reminding us not to forget those little things. They do make a difference to residents'.

The residents we interviewed concurred with the PIT members—to them, unlocking the doors to the dining room provided them with more choice and increased their feeling of 'home' since they felt less rushed during mealtimes. For example:

> Resident:
> 'I like that I feel less rushed and I come in and read my book as long as I want. I can talk with others if I want during this extra time. My table is great, we are always telling each other stories and sharing jokes'.

When asked to describe the best part about participating in this change initiative, the majority of PIT members indicated that it was the increased sense of teamwork and positive collaboration that they had experienced. Many PIT members spoke of how the application of the FASCCI model had broken down silos and increased interdisciplinary collaboration. For example:

> LPN:
> 'Working as a team. Whenever something didn't quite work out we would pull [the team] aside and remind them "Hey, this is the way it should be". To see that sort of grow and blossom, that was the best part'.
>
> Recreation Therapy:
> 'I am grateful for the opportunity I was given to meet with a whole bunch of different staff that I don't normally get to spend time with and talk ideas with'.

The manager and administrator informed us that the best part about the application of the FASCCI model was that it enabled an increased level of empowerment and engagement of the PIT members. These senior members of the management team described how the PIT mem-

bers actively brought forth innovative ideas to enhance person-centred care practices and worked together to ensure their success. For example:

> Manager:
> 'Seeing how empowered the staff felt. How they brought forth ideas; they were challenging barriers, taking risks. And then the impact that had on the residents—that was the best part for me'.
>
> Administrator:
> 'Watching all of the staff speak with such pride. They know they made a difference and they can own that. They are the ones who are day-to-day hands on with the residents and they have brilliant ideas. They just needed the opportunity to bring them forward and be heard and put them into practice. And for me, being able to help facilitate that is huge and so rewarding'.

When asked what they were most proud of, the PIT members unanimously informed us they were proud of how well the team had collaboratively worked together to make so many positive changes for the residents. They spoke about how this ultimately resulted in them feeling increased pride in themselves and in their work. For example,

> LPN:
> 'To be part of a team when nobody said, "no" but said, "yes". And whenever we did deal with a "no" we switched it around and said, "Ok, if we cannot do that, how can we make it better?" The team is so collaborative. We collaboratively worked together to accomplish all our goals and that is something that I'm very proud of!'
>
> HCA:
> 'I'm proud of the way we pushed things forward, we worked together, we strategized together. We were like each other's side, pushing each other to get it all done. And then to see the rewards from the residents in seeing them in the morning reading, talking with each other. I've seen residents pouring coffee for not [just] themselves, but for other residents as well, helping each other with whatever they might need in the dining room'.
>
> Administrator:
> 'I'm most proud of all of the staff. Individually they all grew though this experience in some way, shape or form. And collectively, as a group, they came together as a team and they grew as a team. They achieved probably one of the hardest things to achieve in any organization and that's true culture change. And the only way that happens is through hard work and dedication, and it all came from them and it's spreading through the organization. And because of them and their effort, this home is a better place to work and an even better place for our residents to live'.

Finally, when asked what was frustrating about participating in the practice change initiative, a common theme was the challenges they felt surrounding finding the best time for the weekly PIT meetings to occur. They found it challenging to find a regularly scheduled time that PIT members from both day shifts and evening shifts could attend. As a result, there were many meetings that did not include staff who worked permanently on evenings. This produced some challenges related to effective communication and in ensuring that all PIT members (those who worked on both day and evening shifts) were consistently included in the PDSA cycles.

Discussion

Findings from this study indicate that the FASCCI model provides a promising approach for improving the provision of person-centred mealtime practices in LTC homes. Our findings reinforce the importance of cultivating and implementing workforce practices that increase staff empowerment, and enable and encourage collaborative decision-making. We found these practices to be essential to the outcomes associated with the improved PCC practices that occurred during this study. This is consistent with the small but growing body of evidence demonstrating that staff empowerment has a significant effect on overall quality of resident care (Caspar and O'Rourke, 2008; Hamann, 2014; Barry et al., 2019).

Findings from our study also indicate that creating an environment within which care staff members experience being on a team that is positive, supportive, and inclusive is foundational to increasing their engagement in any practice change initiative aimed at improving resident care. This is consistent with Barry, Longacre, Carney, and Patterson (2019), who found a significant positive relationship between team inclusion (e.g., perceiving to be included by one's supervisor, co-workers, and other clinicians) and staff empowerment in LTC facilities. Of note, they found that feeling included as a team member by supervisors was strongly correlated with the 'participation dimension' of empowerment, which, they assert, increases engagement by demonstrating a sense of having input into the organization and influencing resident care. They concluded by calling for future work that would focus on developing targeted tools and trainings to assist supervisors in their ability to include or engage subordinates or co-workers in caring for residents. This need is further reinforced by Escrig-Pinol, Corazzini, Blodgett, Chu, and McGilton (2019) who found that effective supervisory support fosters improved work environments and increases staff's ability to respond to residents' needs in a timely, effective and compassionate manner. We believe it is reasonable to assert that the leadership training incorporated into the FASCCI model may be one effective way to address this need.

Participant feedback, combined with the outcomes of the study, demonstrated that the FASCCI model had enabled the PIT members to challenge the 'way things have always been done'. As a result, the PIT members were empowered to make seemingly small changes that had an immediate and big impact on the quality of the dining experience (e.g., unlocking the dining room doors

and using rubber spatulas to scrape plates instead of silverware). When they looked back on many of the changes they had implemented, they often felt they were 'so obvious'; yet, until they were given the opportunity to have their voices and ideas heard, and to challenge the status quo, these changes had not been considered. Thus, the importance of ensuring that all PIT members were equally involved in decision-making during this change initiative must be emphasized. Care workers in the long-term care sector frequently experience low job satisfaction combined with high levels of burnout and high turnover intention, all of which has negative implications for the quality of resident care (Kim et al., 2019). Significantly, individual perceptions of a lack of control regarding one's job and lack of involvement in decision-making have been found to trigger dissatisfaction and burnout (Glass and McKnight, 1996). In contrast, a cohesive work climate that provides more autonomy and clarity has been found to lead to a higher level of job satisfaction in the long-term care sector (Schaefer and Moos, 1996). Thus, the importance of the numerous positive statements made by our study participants regarding their active participation in decision-making and problem solving, combined with their unequivocal statements about the importance of teamwork and group cohesion, should not be underestimated.

Some limitations of the study should be noted. First, the sample size was small and based on convenience sampling. To account for this, we used repeated measures to further enhance the validity of the conclusions. Repeated measures help to control for factors that cause variability between the subjects, as well as tracking an effect over time. The validity of our findings is further supported given the similarity of the outcomes to those found in the pilot study, which was conducted in a LTC home owned and operated by a different provider, in a different region in the province (Caspar, 2017). Second, we did not include an assessment of resident health outcomes, as collecting resident health data was beyond the scope of our study. We readily acknowledge that including resident nutritional outcomes would contribute to the validity of future research on this important topic. Third, given that the assessors were not blind to the intervention there is a risk of positivity bias in our findings. To address this, we limited any overlap between the developers of the intervention and the RAs who conducted the observations (the PI developed the intervention and conducted the workshops but did not take any part in the observations, while the RAs who collected data via the observations did not take part in the development of the interventions and were not present during the workshops). Finally, the perspectives of residents and family members regarding the processes and the outcomes of the change initiative was not fully explored. Despite these limitations, this study's promising results indicate that the FASCCI model provides a feasible method for improving PCC mealtime practices in LTC homes. It also adds to the body of knowledge suggesting that enhanced teamwork, improved engagement, and supportive supervisory practices are directly related to the quality of care provided in long-term care settings.

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Competing Interests

The authors have no competing interests to declare.

References

Aylward, S, Stolee, P, Keat, N and **Johncox, V.** 2003. 'Effectiveness of continuing education in long-term care: a literature review'. *The Gerontologist*, 43(2): 259–271. DOI: https://doi.org/10.1093/geront/43.2.259

Barry, TT, Longacre, M, Carney, KOS and **Patterson, S.** 2019. Team inclusion and empowerment among nursing staff in long-term care. *Geriatric Nursing*. DOI: https://doi.org/10.1016/j.gerinurse.2019.03.014

Brooker, D. 2007. *Person-centred dementia care: making services better*. London: Jessica Kingsley Publishers.

Brooker, DJ and **Woolley, RJ.** 2007. Enriching opportunities for people living with dementia: the development of a blueprint for a sustainable activity-based model. *Aging & Mental Health*, 11: 371–383. DOI: https://doi.org/10.1080/13607860600963687

Caspar, S. 2014. *The influence of information exchange processes on the provision of person-centred care in residential care facilities*. Doctor of philosophy, University of British Columbia.

Caspar, S and **Davis, E.** 2017. The stakeholder inclusion in practice change project: enabling person-centered mealtime experiences in LTC. Calgary: Community Innovation (CI) Steering Committee.

Caspar, S, Le, A and **Mcgilton, KS.** 2017a. The influence of supportive supervisory practices and health care aides' self-determination on the provision of person-centered care in long-term care facilities. *J Appl Gerontol*, 733464817750275. DOI: https://doi.org/10.1177/0733464817750275

Caspar, S, Le, A and **Mcgilton, KS.** 2017b. The responsive leadership intervention: improving leadership and individualized care in long-term care. *Geriatr Nurs*, 38: 559–566. DOI: https://doi.org/10.1016/j.gerinurse.2017.04.004

Caspar, S and **O'rourke, N.** 2008. The influence of care provider access to structural empowerment on individualized care in long-term-care facilities. *The Journals of Gerontology: Series B: Psychological Sciences and Social Sciences*, 63B: S255–S265. DOI: https://doi.org/10.1093/geronb/63.4.S255

Caspar, S, Ratner, PA, Phinney, A and **Mackinnon, K.** 2016. The influence of organizational systems on information exchange in long-term care facilities: an institutional ethnography. *Qual Health Res*, 26: 951–965. DOI: https://doi.org/10.1177/1049732315619893

Clarke, U and **Marks-Maran, D.** 2014. Nurse leadership in sustaining programmes of change. *British Journal of Nursing*, 23: 219–224. DOI: https://doi.org/10.12968/bjon.2014.23.4.219

Ducak, K, Sweatman, G and **Keller, H.** 2015. Dining culture change in long-term care homes: transitioning to resident-centered and relational meals. *Ann Longterm Care*, 23: 28–36.

Elliot, A, Cohen, LW, Reed, D, Nolet, K and **Zimmerman, S.** 2014. A "recipe" for culture change? Findings from the THRIVE survey of culture change adopters. *Gerontologis*t, 54(Suppl 1): S17–24. DOI: https://doi.org/10.1093/geront/gnt133

Escrig-Pinol, A, Corazzini, KN, Blodgett, MB, Chu, CH and **Mcgilton, KS.** 2019. Supervisory relationships in long-term care facilities: a comparative case study of two facilities using complexity science. *J Nurs Manag*, 27: 311–319. DOI: https://doi.org/10.1111/jonm.12681

Evans, J. 2017. Person-centered care and culture change. *Caring for the Ages*, 18: 6. DOI: https://doi.org/10.1016/j.carage.2017.07.007

Fazio, S, Pace, D, Flinner, J and **Kallmyer, B.** 2018. The fundamentals of person-centered care for individuals with dementia. *The Gerontologist*, 58: S10–S19. DOI: https://doi.org/10.1093/geront/gnx122

Gifford, WA, Davies, B, Edwards, N and **Graham, ID.** 2006. Leadership strategies to influence the use of clinical practice guidelines. *Nursing Leadership*, 19: 72–88. DOI: https://doi.org/10.12927/cjnl.2006.18603

Glass, DC and **Mcknight, JD.** 1996. Perceived control, depressive symptomatology, and professional burnout: a review of the evidence. *Psychology & Health*, 11: 23–48. DOI: https://doi.org/10.1080/08870449608401975

Grand, JH, Caspar, S and **Macdonald, SW.** 2011. Clinical features and multidisciplinary approaches to dementia care. *J Multidiscip Healthc*, 4: 125–147. DOI: https://doi.org/10.2147/JMDH.S17773

Hamann, DJ. 2014. Does empowering resident families or nursing home employees in decision making improve service quality? *Journal of Applied Gerontology*, 33: 603–623. DOI: https://doi.org/10.1177/0733464813508650

Iuglio, S, Keller, H, Chaudhury, H, Slaughter, SE, Lengyel, C, Morrison, J, Boscart, V and **Carrier, N.** 2018. Construct validity of the Dining Environment Audit Protocol: a secondary data analysis of the Making Most of Mealtimes (M3) study. *BMC Geriatr*, 18: 20. DOI: https://doi.org/10.1186/s12877-018-0708-4

Keller, H, Awwad, S, Morrison, J and **Chaudhury, H.** 2019. Inter-rater reliability of the mealtime scan. *The journal of nutrition, health & aging*, 1–5. DOI: https://doi.org/10.1007/s12603-019-1210-1

Keller, HH, Chaudhury, H, Pfisterer, KJ and **Slaughter, SE.** 2018. Development and inter-rater reliability of the mealtime scan for long-term care. *Gerontologist*, 58: e160–e167. DOI: https://doi.org/10.1093/geront/gnw264

Kim, B, Liu, L, Ishikawa, H and **Park, S-H.** 2019. Relationships between social support, job autonomy, job satisfaction, and burnout among care workers in long-term care facilities in Hawaii. *Educational Gerontology*, 45: 57–68. DOI: https://doi.org/10.1080/03601277.2019.1580938

Kirkley, C, Bamford, C, Poole, M, Arksey, H, Hughes, J and **Bond, J.** 2011. The impact of organisational culture on the delivery of person-centred care in services providing respite care and short breaks for people with dementia. *Health & Social Care in the Community*, 19: 438–448. DOI: https://doi.org/10.1111/j.1365-2524.2011.00998.x

Kuske, B, Hanns, S, Luck, T, Angermeyer, MC, Behrens, J and **Riedel-Heller, SG.** 2007. Nursing home staff training in dementia care: A systematic review of evaluated programs. *International Psychogeriatrics*, 19(5): 818–841. DOI: https://doi.org/10.1017/S1041610206004352

Langley, G, Moen, R, Nolan, K, Nolan, T, Norman, C and **Provost, L.** 2009. Changes that result in improvement. *The improvement guide: a practical approach to enhancing organizational performance*, 15–25.

Leutz, W, Bishop, CE and **Dodson, L.** 2010. Role for a labor-management partnership in nursing home person-centered care. *Gerontologist*, 50: 340–351. DOI: https://doi.org/10.1093/geront/gnp123

McGilton. 2010. Development and psychometric testing of the Supportive Supervisory Scale. *Journal of Nursing Scholarship*, 42: 223–232. DOI: https://doi.org/10.1111/j.1547-5069.2009.01323.x

Murphy, JL, Holmes, J and **Brooks, C.** 2017. Nutrition and dementia care: developing an evidence-based model for nutritional care in nursing homes. *BMC geriatrics*, 17: 55–55. DOI: https://doi.org/10.1186/s12877-017-0443-2

Nolan, M, Davies, S, Brown, J, Wilkinson, A, Warnes, T, Mckee, K, Flannery, J and **Stasi, K.** 2008. The role of education and training in achieving change in care homes: a literature review. *Journal of Research in Nursing*, 13(5): 411–433. DOI: https://doi.org/10.1177/1744987108095162

Reimer, HD and **Keller, HH.** 2009. Mealtimes in nursing homes: striving for person-centered care. *J Nutr Elder*, 28: 327–347. DOI: https://doi.org/10.1080/01639360903417066

Romanczyk, RG, Kent, RN, Diament, C and **O'leary, KD.** 1973. Measuring the reliability of observational data: a reactive process. *Journal of Applied Behavior Analysis*, 6: 175–184. DOI: https://doi.org/10.1901/jaba.1973.6-175

Schaefer, RS and **Moos, RH.** 1996. Effects of work stressors and work climate on long-term care staff's job morale and functioning. *Research in Nursing and Health*, 19: 63–73. DOI: https://doi.org/10.1002/(SICI)1098-240X(199602)19:1<63::AID-NUR7>3.0.CO;2-J

Sjogren, K, Lindkvist, M, Sandman, PO, Zingmark, K and **Edvardsson, D.** 2017. Organisational and environmental characteristics of residential aged care units providing highly person-centred care: a cross

sectional study. *BMC Nurs*, 16: 44. DOI: https://doi.org/10.1186/s12912-017-0240-4

Slaughter, S, Cole, D, Jennings, E and **Reimer, MA.** 2007. Consent and assent to participate in research from people with dementia. *Nurs Ethics*, 14: 27–40. DOI: https://doi.org/10.1177/0969733007071355

Slaughter, SE, Hill, JN and **Snelgrove-Clarke, E.** 2015. What is the extent and quality of documentation and reporting of fidelity to implementation strategies: a scoping review. *Implement Sci*, 10: 129. DOI: https://doi.org/10.1186/s13012-015-0320-3

Smith, DE. 2005. *Institutional Ethnography: A Sociology for People*. Walnut Creek: Alta Mira Press.

Vikstrom, S, Sandman, PO, Stenwall, E, Bostrom, AM, Saarnio, L, Kindblom, K, Edvardsson, D and **Borell, L.** 2015. A model for implementing guidelines for person-centered care in a nursing home setting. *Int Psychogeriatr*, 27: 49–59. DOI: https://doi.org/10.1017/S1041610214001598

Wu, S, Morrison, JM, Dunn-Ridgeway, H, Vucea, V, Iuglio, S and **Keller, H.** 2018. Mixed methods developmental evaluation of the CHOICE program: a relationship-centred mealtime intervention for long-term care. *BMC GERIATRICS*, 18: 277–277. DOI: https://doi.org/10.1186/s12877-018-0964-3

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