

IDENTIFYING INNOVATIVE AND PROMISING MODELS OF CARE TO SUPPORT RESIDENTS IN LONG-TERM CARE HOMES (LTCHs) BOTH DURING AND BEYOND COVID-19

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LAND ACKNOWLEDGEMENT

The Knowledge Translation Program (KTP) is located on land now known as Tkaronto (Toronto). Tkaronto is the traditional territory of many groups, including the Mississaugas of the Credit and the Chippewa/ Ojibwe of the Anishinaabe Nations; the Haudenosaunee, and the Wendat. It is now home to many diverse First Nations, Inuit and Métis peoples. We also acknowledge that Tkaronto is covered by Treaty 13 with the Mississaugas of the Credit and The Dish with One Spoon treaty between the Anishinaabe, Mississaugas and Haudenosaunee that connected them to share the territory and protect the land. All Indigenous Nations and peoples, Europeans and newcomers, have been invited into this treaty in the spirit of peace, friendship and respect.

We would like to honour the Elders and Knowledge Keepers, both past and present, and are committed to continuing to learn and respect the history and culture of the communities that have come before and presently reside here.

We acknowledge the harms of the past and present, and we dedicate ourselves to work with and listen to First Nations, Inuit and Métis communities in the spirit of reconciliation and partnership.

We recognize and are grateful to have this opportunity to work on this land and commit to caring for this land and continuously and actively working towards reconciliation. We recognize that Indigenous practices of health and well-being have been in place in this territory for over 10,000 years and are maintained to this day.



EXECUTIVE SUMMARY

The Knowledge Translation Program (KTP) identified innovative and promising models of care that were implemented in long-term care homes (LTCHs) during the COVID-19 pandemic and provided suggestions on best practices that could be integrated into LTCHs to potentially improve resident care. The project included a quantitative survey and semi-structured key informant interviews with LTCH managers across Canada to identify these promising models of care and understand their impact on resident care.

The most frequently reported models of care were related to healthy food options, exercise, music, and art programs, and planned social activities for residents. These models were perceived to improve resident care. Furthermore, LTCH managers planned to sustain these models of care beyond the pandemic.

Common barriers for the models of care were identified through semi-structured interviews with LTCH managers. The KTP identified five barriers to implementing these models, which included: lack of funding, resources, or staffing; staff not being familiar with/reluctant to use the model; lack of resident buy in; fear of COVID-19; and pandemic regulations. Common facilitators to implementation were also identified; they included: staff support; resident/family buy in; funding, legislation and/or resources provided; familiarity model prior to COVID-19; and collaboration with other LTCH's.

This study found that LTCH planned to sustain most models of care post pandemic. LTCHs also perceived these models to be effective and believed they should be integrated into LTCH. Managers also discussed the need for policy makers to focus on funding and legislation to improve LTC and support the implementation of promising, effective models of care.



PROJECT BACKGROUND

As we move towards a post-pandemic recovery, it is important to identify effective and efficient models of care for long-term care home (LTCH) delivery to support LTCH staff and residents. The Knowledge Translation Program (KTP) aimed to identify innovative and promising models of care that were implemented in LTCHs in Canada along with barriers

To identify and understand promising models of care, we contacted LTCH managers across Canada through a quantitative survey (Phase I) and semi-structured key informant interviews (Phase II).

Objectives

The **objectives** of this project were to:

and facilitators to their implementation.

- 1. Identify innovative and promising models of care that were used to support resident care in LTCHs during the COVID-19 pandemic and to describe their intervention components, processes of implementation, and impact
- 2. Identify whether innovative and promising models of care were implemented in response to the pandemic with plans for removal once the crisis period ends, or if plans to sustain these models were developed.



Phase 1: QUANTITATIVE DATA COLLECTION

METHODS

In both Phase I and Phase II models of care implemented in LTCHs were explored.

Table 1 describes models of care explored in this project. Participants also had the opportunity to share models of care not listed below.

Table 1: Models of care and descriptions

Moving the care of some patient groups from health workers with higher levels of training to health workers with lower levels of training (1)
Incorporating family members and/or other essential care partners in supporting residents
Incorporating residents' thoughts, opinions, and feedback into their care
Providing staff with the appropriate knowledge and/or skills needed to better care for residents
Service designed to assist employees who are experiencing personal and job-related problems that affect work performance, general health, and well-being
Social support from staff given by colleagues at a similar job level
Provision of nutritious and culturally appropriate foods for LTCH residents
Coordinating resident involvement with spiritual life, such as connecting residents with spiritual leaders
Provision of therapies, wellness activities (e.g., guided meditation) for LTCH staff
Use of technologies (e.g., iPads, Zoom) to connect LTCH residents with loved ones outside of LTCHs
Organized internal events for LTCH residents to interact and spend time with one another and/or engage in LTCH community events
Organized internal events for LTCH residents, focused on physical activity, music, or art programs.

Participants

Individuals who identified as being a manager of a LTCH completed the survey. People were eligible to participate if they were a LTCH manager in Canada and were able to complete the survey and/or interview in English. We used passive and active recruitment to identify managers from a variety of sources, including professional and LTC networks (e.g., Healthcare Excellence Canada's LTC+, Wellness Hub). We sent targeted emails to



organizations (e.g., Ontario Long Term Care Home Association) and LTCHs throughout Canada to facilitate recruitment. We posted the study advertisement in newsletters and on social media pages (e.g., Twitter) targeted to LTCH staff. We also invited managers who received our targeted emails to disseminate the survey to their professional networks.

Survey Development

The survey (see Appendix A) included questions about respondents' LTCH setting and whether participants implemented any new models of care during the pandemic to support resident care. The survey listed different models of care and asked respondents to select the models of care that they implemented in their LTCH(s). An open-text box option was included to allow participants to specify other models of care they may have implemented in their LTCH(s). For each of the models of care selected, participants were asked: 1) if they planned to sustain the model post-pandemic and 2) if they found the model of care to be effective in improving resident care. Survey participants were also asked if they were interested in participating in a follow-up interview (i.e., Phase II: Key Informant Interviews) to discuss their experiences. The survey was prepared with input from HEC and assessed for face validity.

Data Collection

The survey was created using Qualtrics (2), an online platform. All survey questions were voluntary, and consent was collected before beginning the survey. The survey did not include identifying information. Data collection for the survey began in August 2022 and ended in November 2022.

Data Analysis

Data was downloaded from the Qualtrics (2) server and summarized using descriptive statistics functions in Microsoft Excel.

This study received ethics approval from the St. Michael's Research Ethics Board, REB #145-2013.





RESULTS

Participant demographics

Four hundred and thirty-five (n=435) participants completed the survey. The participants were from Ontario, British Columbia, Alberta, Manitoba, New Brunswick, Nova Scotia, Quebec, Newfoundland and Labrador, Saskatchewan, and Prince Edward Island. See Table 1 for a breakdown on the number of LTCH managers from each province.

Four hundred and fourteen participants (414) completed the optional demographic questions at the end of the survey. Participants had an average of 7.6 years of managerial experience (range 0.5- 27 years). Participants also answered further demographic questions, see Table 1 for demographic information on participant workplace funding, gender, age, and ethnicity.

Table 2: Participant demographic information

	Number of Times Selected (Count and percentage of selection)
Province	
Ontario	163 (38%)
British Columbia	99 (23%)
Alberta	29 (7%)
Manitoba	28 (6%)
New Brunswick	25 (6%)
Nova Scotia	23 (5%)
Quebec	23 (5%)
Newfoundland and Labrador	18 (4%)
Saskatchewan	14 (3%)
Prince Edward Island	5 (1%)
Funding of workplace	
Privately funded (for-profit)	215 (50%)
Publicly Funded (not-for-profit)	195 (46%)
Both private and public	8 (2%)
Not sure	4 (1%)
Prefer not to answer	2 (0.5%)
Gender	
Male	209 (51%)
Female	192 (46%)
Prefer not to answer	12 (3%)
Age	
18-44	117 (28%)
45-64	286 (69%)
65+	3 (15%)
Ethnicity	
White-North American	118 (27%)
Black-North American	73 (16%)
White European	41 (9%)





Middle Eastern	31 (11%)
Black African	14 (3%)
East Asian- Chinese	13 (3%)
Black Afro-European	9 (3%)
Latinx- Central American	7 (2%)
Southeast Asian- East Indian, Pakistani, Sri Lankan	6 (1%)
East Asian- Japanese, Korean	5 (1%)
Southeast Asian- Filipino, Thai	4 (1%)
Central Asian	3 (1%)
LatinX- South American	3 (1%)
Prefer not to answer	92 (20%)

Implementation of models of care

The most frequently reported models of care implemented during the COVID-19 pandemic included: healthy food options for residents (n=300, 69%), exercise, music, or art programs for residents (n=237, 54%), and planned social activities for residents (n=194, 45%).

Table 3 summarizes results on all models of care, along with a count and a percentage of the number of times the model was mentioned.

Table 3: Count and percentages of models of care selected by participants

Model of Care Implemented During COVID-19 Pandemic	Number of Times Selected (Count and percentage of selection)
Healthy food options for residents	300 (69%)
Exercise, music or art programs for residents	237 (54%)
Planned social activities for residents	194 (45%)
Mental health and wellness support, and resources for staff	164 (38%)
Technology to connect residents with family and friends	117 (27%)
Staff education	114 (26%)
Employee and Family Assistance Plans (EFAP)	113 (26%)
Peer support	104 (24%)
Spiritual/worship services for residents	93 (21%)
Staff engaging families/essential care partners in resident care	88 (20%)
Staff including the voice of residents in developing care models	77 (18%)





Task shifting for staff	58 (13%)
Other: e.g., "Butterfly model," "clinical triad to case manage residents," "work as a team"	3 (0.7%)

Plans to sustain models of care beyond the COVID-19 pandemic

Commonly reported models of care to be sustained beyond the pandemic were: healthy food options for residents (n=298, 100%), planned social activities for residents (n=191, 99%) and exercise, music, or art programs for residents (n=229, 97%). (Table 4)

Table 4: Plans to sustain models of care beyond the COVID-19 pandemic

Model of Care Implemented During COVID-19 Pandemic		eyond COVID-19 par ntage of sustainmer	
	Yes	No	Unsure
Healthy food options for residents	298 (100%)	0	0
Exercise, music, or art programs for residents	229 (97%)	1 (0.4%)	5 (2%)
Planned social activities for residents	191 (99%)	0	1 (0.5%)
Mental health and wellness support and resources for staff	156 (96%)	1 (0.6%)	5 (3%)
Technology to connect residents with family and friends	106 (92%)	1 (0.9%)	8 (7%)
Staff education	108 (96%)	0	4 (3%)
Employee and Family Assistance Plans	102 (91%)	0	10 (9%)
Peer support for staff	96 (94%)	2 (2%)	4 (4%)
Spiritual/worship services for residents	87(95%)	2 (2%)	3 (3%)
Staff engaging families/essential care partners in resident care ¹	47 (96%)	0	2 (4%)
Staff including the voice of residents in developing care models	64 (83%)	4 (5%)	9 (12%)
Task shifting	37(64%)	4 (7%)	10 (29%)
Other: "Butterfly model," "clinical triad to case manage residents," "work as a team"	3 (100%)	0	0



1 Please note that data on *Staff engaging families*/essential care partners in resident care was not collected until September 16, 2022, due to an error in survey production. This resulted in lower responses for plans to sustain beyond the pandemic for that model of care.

Perceived effectiveness of implemented models of care

Participating managers perceived the following models of care to be effective at improving resident care: healthy food options for residents (n=296, 99%), planned social activities for residents (n=191, 99%), exercise, music, or art programs for residents (n=228, 97%). (Table 5)

Table 5: Respondents' perceptions on effectiveness of models of care

Model of Care Implemented During COVID-19 Pandemic	Do you believe this model of care has been effective in improving resident care? (Count and percentage of sustainment)			
	Yes	No	Unsure	
Healthy food options for residents	296 (99%)	0	2 (0.6%)	
Exercise, music, or art programs for residents	228 (97%)	1 (0.4%)	6 (3%)	
Planned social activities for residents	191 (99%)	0	1 (0.5%)	
Mental health and wellness support and resources for staff	148 (91%)	0	14 (9%)	
Technology to connect residents with family and friends	102 (89%)	8 (7%)	5 (4%)	
Staff education	109 (97%)	0	3 (3%)	
Employee and Family Assistance Plans	89 (79%)	5 (4%)	18 (16%)	
Peer support for staff	93 (91%)	3 (3%)	6 (6%)	
Spiritual/worship services for residents	82 (90%)	2 (2%)	8 (8%)	
Staff engaging families/essential care partners in resident care ²	47 (96%)	1 (2%)	1 (2%)	
Staff including the voice of residents in developing care models	58 (75%)	9 (12%)	14 (18%)	
Task shifting	45 (76%)	5 (9%)	8 (14%)	
Other: "Butterfly model, clinical triad to case manage residents, work as a team"	3 (100%)	0	0	

Please note that data on *Staff engaging families/essential care partners in resident care* was not collected until September 16, 2022, due to an error in survey production. This resulted in lower responses for perceived effectiveness for that model of care.



Results Summary

The survey revealed that LTCH managers most frequently reported healthy food options for residents, exercise, music, or art programs for residents, and planned social activities for residents as care models implemented during the COVID-19 pandemic. LTCH managers perceived the following models of care to be effective and planned to sustain them: healthy food options for residents, planned social activities for residents, and exercise, music, or art programs for residents.

Phase II - QUALITATIVE DATA COLLECTION

METHODS			

Participants

Email invitations were sent to survey respondents who expressed interest in completing an interview. Thirty-seven (37) LTCH managers expressed interest in participating in the key informant interviews. Aiming for cross-country and demographic representativeness, email invitations were sent to 30 of those participants. Thirteen (13) of those who received the invite were still interested in participating, and 10 of those participants were scheduled and attended their key informant interview.

Managers were invited to participate in an interview at their convenience. We attempted to speak to a diverse group that represented a range of intersecting identities (by gender, race, and province/territory). We also aimed to include managers from profit and not-for-profit LTCHs.

Interview guide

During the interview, (see Appendix B) we collected information about participants' LTCH setting, role, responsibilities, and whether they implemented new models of care during the pandemic to support resident care. The interview guide listed different models of care (Table 1) and asked respondents to identify the care models they implemented in their LTCH(s). Subsequently, participants were asked about each care model they implemented, barriers and facilitators to implementation, perceived effectiveness of the care model, whether they planned to sustain the model post-pandemic, and whether it should be integrated into LTC. Interviewers probed interviewees on constructs within the Consolidated Framework for Implementation Research (CIFR) (3) and Theoretical Domains Framework (TDF) (4) to inform implementation context and on policy impact on care models.



Data Collection

From September 15, 2022, to December 2, 2022, an experienced interviewer from the KTP conducted ten (10) 30-60-minute-long semi-structured interviews (See Appendix B) with LTCH managers.

Data Analysis

Interviews were recorded then transcribed verbatim. Transcribed interviews were uploaded into NVivo 12 qualitative software (5). The KTP project team developed a codebook to guide the analysis. A Research Coordinator and Research Assistant independently coded three transcripts. Inter-rater reliability was determined by calculating kappa values. Coding discrepancies less than 0.60 were discussed and resolved via consensus. The remaining transcripts were single coded by the Research Assistant. Barriers and facilitators were categorized by the Consolidated Framework for Implementation Research (CFIR) (3) and Theoretical Domains Framework (TDF) (4).

RESULTS

Participant Demographics

Ten LTCH managers were interviewed. The managers were from Nova Scotia (n=2), New Brunswick (n= 1), Saskatchewan (n= 1), Alberta (n= 1), and Ontario (n= 5). Five participants were managers at publicly funded LTCHs, and five participants were managers at privately funded LTCHs.

Implemented Models of Care

LTCH managers reported implementing: task shifting (n= 6), engaging families/essential care partners in resident care (n= 6), including the voices of residents in developing care models (n= 8), staff education (n= 8), employee and family assistance plans (EFAP) (n= 9), peer support for staff (n= 5), technology to connect residents with family and friends (n= 8), mental health and wellness support for staff (n= 9), spiritual/worship services for residents (n=9), planned social activities for residents (n= 9), exercise, music or art programs for residents (n= 8), healthy food options for residents (n= 9), and any other innovative models of care they have implemented (n=4).

Barriers when implementing

We identified five barriers to implementing the models of care. Barriers included: fear of COVID-19; lack of staff familiarity with model; lack of resident buy in; lack of funding, resources, or staffing; and pandemic regulations.

The barriers that were most prevalent across all models of care were: lack of funding,



resources, or staffing (n=22), staff not being familiar with or reluctant to use model (n=19), and lack of resident buy in (n=9).

See Table 6 for all models of care, and prevalent barriers found. See Table 7 for the barrier's definitions, and quotes demonstrating them.

Table 6: Barriers to models of care when implemented

Table 6: Barriers to models of care when implemented					
			Barriers		
Model of Care	Fear of COVID-19	Staff not familiar with or reluctant to use the model, or have differing perceptions about the model impact/benefit	Lack of resident buy in (i.e., residents are not able to/ do not support implementati on of model)	Lack of funding, resources, or staffing	Alignment with pandemic regulations (i.e., social gatherings prohibited due to COVID-19)
Task shifting	X (n=1)	X (n=3)			
Staff engaging families/ essential care partners in resident care		X (n=4)		X (n=1)	X (n=1)
Staff including the voices of residents in developing care models		X (n=2)	X (n=3)		
Staff education		X (n=1)		X (n=2)	
Employee and family assistance plans (EFAP)		X (n=3)			
Peer support for staff				X (n=1)	
Healthy food options for residents				X (n=2)	
Spiritual, worship services for residents		X (n=2)		X (n=3)	
Mental health, wellness support and resources for staff		X (n=2)		X (n=6)	
Technology to connect residents		X (n=2)	X (n=5)	X (n=7)	





with family and friends				
Planned social activities for residents	X (n=2)	X (n=1)	X (n=1)	X (n=5)
Exercise, music, or art programs for residents				X (n=2)

Table 7: Barriers to Implementing Models of Care in LTCH

Table 1. Barriers to iiii	Barrier, as informed by		
Barrier	the Consolidated Framework for Implementation Research (CFIR) (3) and Theoretical Domains Framework (4)	Description of Barrier	Illustrative Quote
Fear of COVID-19	Emotion (fear) (4)	Fear from staff, residents, families of residents, and/ or LTCH from COVID-19.	"People at the beginning of the pandemic were so fearful of even being in a building or in a collective type of setting." -Participant 102 "I think there was still fear largely on the behalf of the staff in bringing the residents back together because they didn't want to cause an outbreak or cause somebody to get sick." -Participant 108
Staff not familiar with model; are reluctant to use model; or have differing perceptions about the model impact/benefit	Knowledge and Skills (4)	Staff not familiar with the model, or have differing views/beliefs about model	"I think this is a generation thing too. Some of my staff are not familiar with you know, turning on phones, computers, so we have to go back to the basics"-Participant 105





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			challenge was the recognition that we had a very diverse group of individuals, all of whom come with different background and different educational preparation" -Participant 103
Lack of resident buy in	Lack of model fit with the residents' personal circumstances and health status (3)	Lack of appropriate strategies to engage residents with communication and cognitive impairment	"Some of the residents, you know they can't communicate effectively, some of them have a cognition issue" -Participant 106 "The cognitive level wasn't there to understand that they were calling from home, but they could see a picture through the phone. That was alien to some of our residents." -Participant 110
Lack of funding, resources, or staffing	Financing, relative priority, and staff skill (3)	The LTCHs not being provided with adequate funding or resources to assistant in implementation.	"Resources was the biggest onegetting the proper technology to implement our goals, eventually we came up with, were successful getting some iPads but they were very few and far between" -Participant 104 "We don't have psychologist or psychiatrist, so we don't have the area of expertise." -Participant 101





Alignment with pandemic regulations	Policies and Laws (i.e., Pandemic regulations) (3)	Government or LTCH regulations/policies limit aspects of implementation.	"What our challenge was, was to figure out how do we increase the level of activity and the level of opportunities to participate in activities while at the same time
			participate in activities while at
			residents because of the pandemic" -Participant 101

Facilitators to implementation

We identified six facilitators to implementing the models of care. Facilitators included collaboration between staff and/or other LTCH's; familiarity with model before COVID-19, support from residents and/or family; policy funding, support, legislation, or resources.

The facilitators that were most commonly described across all models of care were: collaboration between staff/teamwork/support (n=24), resident/family buy in (n=21), and funding, legislation and/or resources provided (n=13). Table 8 describes all models of care and relevant facilitators; Table 9 provides definitions of the facilitators and supporting quotes from the interviews.

Table 8: Facilitators to models of care when implemented

		Facilitators										
Model of Care	Familiarity with model before COVID-19	Collaborat ion between staff/ teamwork /support	Resident/ Family Buy In	Funding, legislation, and/or resources provided	Pre-existing care model supports implementati on	Collaboration with other LTCH's						
Task shifting		X (n=3)	X (n=1	X (n=1)	X (n=1)	X (n=1)						
Staff engaging families/esse ntial care partners in resident care		X (n=1)	X (n=4)		X (n=1)	X (n=1)						
Staff including the voices of residents in developing care models		X (n=2)	X (n=2)		X (n=2							
Staff education		X (n=3)		X (n=1)								





Employee and family assistance plans (EFAP)		X (n=2)				
Peer support for staff		X (n=2)				
Healthy food options for residents				X (n=1)	X (n=1)	
Spiritual, worship services for residents	X (n=1)		X (n=2)			
Mental health, wellness support and resources for staff	X (n=1)	X (n=5)		X (n=2		X (n=2)
Technology to connect residents with family and friends	X (n=2)	X (n=4	X (n=5)	X (n=6)		X (n=1)
Planned social activities for residents		X (n=2)	X (n=5)	X (n=2)		
Exercise, music, or art programs for residents	X (n=2)		X (n=2)			

Table 9: Defining the facilitators, and participant quotes demonstrating the facilitators

Facilitator	Facilitator, as informed by the Consolidated Framework for Implementation Research (CFIR) (3) and Theoretical Domains Framework (TDF) (4)	Description	Illustrative quote
Familiarity with model before COVID-19	Knowledge and Skills (4)	Staff/ LTCH were familiar with components/ concept of model before COVID-19	"The residents are, you know they're already using this, because some of the family members here are not necessarily in Ontario, they're actually in other provinces" Participant 103





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			was all either in place or being put in place before the pandemic, and in this case mostly that on the part of external parties, the churches" -Participant 107
Collaboration between staff/ teamwork/support	Relational connections and communication (3)	Staff is collaborative and communicates effectively/ is supportive to implement model of care	"Especially in the beginning. I think it's getting old now but, in the beginning, it was amazing how the teams came together." Participant 105 "The staff was so receptive. Knowing this is LTC environment, and the need to have the proper information to come to work every day and feel at ease" Participant 104
Resident/Family Buy In	Characteristics of the Model of Care, relative to residents' (i.e, innovation relative advantage) (3)	Residents or families of residents are supportive with implementation of model of care (in comparison to existing or other models of care)	"It made if easy that we had the support and the time to meet with families, have families who were engaged and positive and wanting to do what we at the time knew with the information that was safest for the residents" Participant 102 "There was enthusiasm from some of the residents and families and that's a major driving factor for me. If they're excited about something even if it's as simple as seeing a family member





			that's very
			motivational" Participant 107
Funding, legislation,	Financing, Available	The LTCHs are provided	"I think the
and/or resources provided	Resources, Policies & Laws (3)	with adequate funding or resources, or legislation to facilitate implementation of model of care.	Ministry funding helped out a lot. We were able to get a lot more technology and staff into the building to set that up" Participant 106
			"We had additional funding from the government to have LTC assistant, and those individuals were very instrumental in the early stages, when families were not able to come in". Participant 109
Pre-existing care model supports implementation	Compatibility (3)	LTCH's care model assists in implementation of specific model of care.	"I would say it was existing as part of the structure of the care that is supposed to be delivered for the resident and it's also part of the program itself" Participant 102 "The other thing that made it was there's this sort of an internal focus on resident-centered care, and this just became part of also operationalizing resident-centered care." Participant 104
Collaboration with other LTCH's	Partnerships & Connections (3)	Communication between other LTCHs assists in implementation of model of care.	"We felt supported in the sense that another home had shared their experience so all the work they had done they shared with us, so we





didn't have to start from scratch." Participant 109
"We as a LTCH we have our community and when we talk to each other we can now look at what is happening in your home. What are you doing in this sort of home? We kind of share information, what's good, what your challengers are, and it helps us to build on that."
Participant 103

Additional insights on each model of care

Model of Care: Task shifting

Five (n=5) participants answered questions about task shifting. They reported that task shifting was implemented to address the challenge of being short staffed. Participants perceived task shifting to improve resident's quality of life and care, as more staff were able to assist residents and task shifting allowed them to maintain their current level of care. Funding and legislation assisted in hiring new staff to support the model.

Model of Care: Staff engaging families/essential care partners in resident care

Six (n=6) participants answered questions about staff engaging families/essential care partners in resident care. For some, this model of care was implemented following a directive initiated from local Public Health authorities; for others, this model was a preexisting standard implemented to engage and motivate staff, residents, and families. Managers perceived that engaging families and care partners improved resident care as residents had someone specifically advocating for them.

Model of Care: Staff including resident voices in developing models of care

Five (n=5) managers answered questions about staff including the voice of residents in developing models of care. For some, an existing resident-centered focus was the reason for implementation, for others their LTCH is bound by legislative standards to engage residents in their care. Managers perceived that resident felt heard, valued, and respected with the implementation of this model, leading to improved resident care.

Model of care: Staff Education

Four (n=4) managers answered questions about staff education. They reported it was implemented out of necessity to educate staff, to protect themselves, and the residents. Managers reported that educating staff ensured safety and promoted staff confidence. It



was believed to be effective in improving resident care. Managers perceived that it improved resident care, as staff were more confident in their role.

Model of care: Employee and Family Assistance Plans (EFAP)

Three (n=3) managers answered questions about EFAP. For some, it was implemented to provide staff with a safe and supportive environment during the COVID-19 pandemic. Regarding impacts, most believed EFAP was an effective first step in improving staff mental health. EFAP was perceived to be effective in improving resident care, as it improved staff wellness, and in turn was reflected in interactions with residents.

Model of care: Peer support for staff

Two (n=2) managers answered questions about peer support for staff. They reported that it was implemented support the staff's wellness. Regarding impacts, staff were extremely appreciative with the implementation of it and gave staff a sense of community. It was perceived to be effective in improving resident care. Managers perceived that it improved resident care, as staff having strong relationships among each other resulted in better care.

Model of care: Technology to connect residents with family and friends

Eight (n=8) managers answered questions about technology to connect residents with family and friends. For some, it was implemented as they recognized there was a significant disconnect between residents and their loves one during the pandemic, for others it was necessary in keeping the residents from feeling isolated. Most participants reported that it allowed residents to connect with their loved ones in lieu of in person visits. Most also stated that it improved residents' psychological and emotional health.

Model of care: Mental health and wellness supports, and resources for staff

Seven (n=7) managers answered questions about mental health and wellness supports, and resources for staff. Most reported that they recognized the need to support staff who were experiencing mental health, wellness, and burnout challenges during the pandemic. It was believed to support staff and build resilience, which allowed them to better care for residents. Managers perceived that it improved resident care, as increased staff wellness leads to more positive resident interaction and care.

Model of care: Spiritual, worship services for residents

Three (n=3) managers answered questions about spiritual, worship services for residents. For some it was implemented as they recognized the need for this service for residents, and the importance it held for them; for others, there were resources available to facilitate use of this model in their home (e.g., streaming services). Managers felt that incorporating a sense of community for residents allowed them to feel supported, which in turn allowed them to better care for residents.

Model of care: Planned social activities for residents

Seven (n=7) managers answered questions about planned social activities for residents. Social activities were implemented in response to reducing resident loneliness and reduce deterioration of mental health. Managers perceived the incorporation of social activities to be beneficial for residents and improve their care as it decreased loneliness, and increased motivation for residents to attend programs and interact with others.





Model of care: Exercise, music, or art programs for residents

One (n=1) manager answered questions about exercise, music, or art programs for residents. This manager reported that these programs were already being offered in their home; they perceived residents to be grateful for and supportive of the initiative. It was believed to improve resident care, as it created more social opportunities for them.

Model of care: Healthy food options

Two (n=2) managers answered questions about healthy food options for residents. Both managers noted that healthy food options were in place for residents pre-pandemic; however, one manager highlighted that the LTCH put a greater emphasis on providing healthy food during the pandemic. Managers reported that residents were happy with and appreciated the diverse and healthy food options. It was perceived to be effective in improving resident care, as it focused on their physical health and foods to improve care.

Post-pandemic use and integration into LTC

For all models of care, managers said they would sustain the use of the model of care post-pandemic crisis period. They also believed they should be integrated into LTC.

Other

Three managers (n=3) discussed other models of care they had implemented in their home. See Table 10 for all other models of care, and their descriptions.

Table 10: Other models of care implemented in LTCHs

# Of participants who cited (n)	Description
1	The butterfly model was described as giving the residents choice, and autonomy to take part in their own care:
	"It's very focused on making it a home, getting out of that institutionalized feel and into giving residents the power back to make their own decisions so even though people have dementia it doesn't mean that they can't choose the food they eat, it doesn't mean they can't choose the clothes they wear, they can't have a say in their care." Participant 106
	"Already when you approach one of our units and you sit through a meal service and then you go down to the second floor where we're doing the Butterfly you can feel the change in the atmosphere, it is calm, it's quiet,
	(n)





		it's just a whole different feel."- Participant 106
Clinical Triad	1	The clinical triad was described as a case management approach to resident care: "Our clinical triad is composed of a registered nurse and two licensed practical nurses who together, case manage 14 residentsWhat we did was implement a sort of a case management model for how those 14 residents would be cared for in terms of care planning, evaluation of care, evaluation of progress and to provide for families a consistent person who they would be speaking with about the ongoing status and progress or lack thereof of their loved one."- Participant 101
Social Work Navigator	1	The social work navigator was described as staff who could ease the transition for the resident to LTC: "What I'm working on right now social work instead of just putting a social worker because we do have social worker and making it the experience manager, resident family experience manager because from the moment they accept the bed offer, this type of person will facilitate how they transition to the home with you every step of the way, to your care conference, to your stay to the day that you pass way, right. The same person is going to be there with you."- Participant 102



Opportunities for Policy Improvements

Dedicating funding to support implementation of models of care in LTCH and outlining policies/legislation to require or standardize these models were suggestions provided by LTCH managers.

Lack of funding was a significant barrier to implementation, cited by all interview participants (n=10). Funding was required to better support staff, technology, and healthy food options. Participants cited the need for increased resources and funding to allow for consistent programs across LTC, as described in the following participant quote,

"Having something like that or money aside to help deal with situations like that would be and having the professional support. It would have been great to have a consultant come in with the expertise". -Participant 104

Further, n=8 participants noted that having this funding was a direct facilitator to implementing models that improve resident care, as described in the following quote,

"The government recognized the need for this connection, recognized that a lot of longterm care homes didn't have the technological supports that they needed and then offered to make those available to the long-term care facilities". -Participant 101

Participants also noted the impact of legislation on implementing models of care consistently across LTCH. Notably, one participant cited the importance of a policy that would empower employers to provide mental health self-care resources to their employees. Other suggestions for legislations included checklists for regulators/licensing, incorporation of resident feedback, and staff education. Participants highlighted the positive impact of having these legislations/policies in place, as demonstrated in the following participant quote,

"Directive from the department of health and wellness to create something called a designated caregiver, which permitted individuals who had received specific training from us around IPAC to be able to come in and assist with the care". -Participant 101

PROJECT LIMITATIONS

This project has some limitations. First, no participants from the territories responded to the survey and thus the results may not be applicable to that context. Second, this project is focused on perceived impact of the models of care as reported by the



managers and does not include quantitative impact on process or resident outcomes. Third, participants identified the models of care they wanted to discuss in the key informant interviews and as such, not all models were discussed. Fourth, interviews were conducted in English only and may not represent experiences from those working in LTCH where English is not the primary language.

CONCLUSION

We conducted a survey and key informant interviews to explore innovative and promising models of care that were implemented in long-term care homes (LTCHs) during the COVID-19 pandemic and provided suggestions on best practices that could be integrated into LTCHs to potentially improve resident care. The quantitative component (Phase I) of the study included 435 participants across 10 Canadian provinces who completed an online survey and the qualitative component (Phase II) included 10 key informant interview participants.

Participants in Phase I identified models of care they implemented including: healthy food options for residents, exercise, music, or art programs for residents, and planned social activities for residents. Participants perceived these care models to have beneficially impacted resident care and planned to continue these care models after the pandemic. Barriers to model implementation included: lack of funding, resources, or staffing; staff not being familiar with/reluctant to use the model; lack of resident buy in; fear of COVID-19; and pandemic regulations. Facilitators to implementation included: staff support; resident/family buy in; funding, legislation and/or resources provided; familiarity model prior to COVID-19; and collaboration with other LTCH's.

Participants emphasized the need for increases in funding and legislation to facilitate successful implementation of these models.



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Appendix A: Survey for Phase I

- Q1. Are you currently a manager of one or more long-term care homes in Canada?
 - Yes
 - o No
- Q2. Do you feel comfortable completing this survey in English?
 - o Yes
 - o No

[If no to one or more questions, participant will be notified of their ineligibility to participate in this study.]

"Unfortunately, you do not meet the eligibility criteria to participate in this study. Thank you for taking the time complete the eligibility survey."

[If yes to both questions, participant will be directed to the survey].

"Thank you for confirming that you meet the eligibility criteria to participate in this study."
Please click "Next" to begin the survey."

Survey

- Q1. How long have you worked as a manager at a long-term care home (LTCH) in Canada?
 - o _____ [open ended] years
 - Prefer not to answer
- Q2. Which province or territory is/are the LTCH(s) you manage located in?
 - o Alberta
 - o British Columbia
 - Manitoba
 - New Brunswick
 - Newfoundland and Labrador
 - Nova Scotia
 - o Ontario
 - Prince Edward Island
 - o Quebec
 - Saskatchewan
 - Northwest Territories
 - Nunavut
 - o Yukon
 - o I am outside Canada
 - Prefer not to answer





Q3. Is/are the LTCH(s) you manage private or publicly funded?

- Privately funded (For-Profit)
- Publicly funded (Not-for-Profit)
- o I manage both private and publicly funded LTCHs in Canada.
- o I am not sure
- Prefer not to answer

Q4.	Have	you	imple	mente	d any	of the	foll	owing	mod	els o	f care	in you	ır lo	ng-term	care
hom	e to	suppo	ort res	ident c	are o	during	the	COVII	D-19	pand	emic?	Sele	ct al	I that ap	oply:

- ☐ Task shifting for staff (move the care of some patient groups from health workers with higher levels of training to health workers with lower levels of training) [If they select this box, the follow-up questions below will appear]
 - Do you plan to continue using task shifting for staff beyond the COVID-19 pandemic?
 - Yes
 - No
 - Unsure
 - Prefer not to answer
 - Do you believe task shifting for staff has been effective in improving resident care in your long-term care home?
 - Yes
 - No
 - Unsure
 - Prefer not to answer
- ☐ Staff engaging families/essential care partners in resident care [If they select this box, the follow-up questions below will appear]
 - Do you plan to continue using Staff engaging families/essential care partners in resident care beyond the COVID-19 pandemic?
 - Yes
 - No
 - Unsure
 - Prefer not to answer
 - Do you believe Staff engaging families/essential care partners in resident care has been effective in improving resident care in your long-term care home?
 - Yes
 - No
 - Unsure
 - Prefer not to answer
- □ Staff including the voice of residents in developing care models (residents are asked about their opinions on what is important in the care home environment, and their opinions are incorporated in the care models implemented in the home) [If they select this box, the follow-up questions below will appear]
 - Do you plan to continue using Staff including the voice of residents in developing care models beyond the COVID-19 pandemic?
 - Yes



- No
- Unsure
- Prefer not to answer
- Do you believe Staff including the voice of residents in developing care models has been effective in improving **resident care** in your long-term care home?
 - Yes
 - No
 - Unsure
 - Prefer not to answer
- ☐ Staff education [If they select this box, the follow-up questions below will appear]
 - Do you plan to continue using Staff education beyond the COVID-19 pandemic?
 - Yes
 - No
 - Unsure
 - Prefer not to answer
 - Do you believe Staff education has been effective in improving resident care in your long-term care home?
 - Yes
 - No
 - Unsure
 - Prefer not to answer
- ☐ Employee and Family Assistance Plans (EFAP) (service designed to assist employees who are experiencing personal and job-related problems that affect work performance, general health and well-being). [If they select this box, the follow-up questions below will appear]
 - Do you plan to continue using Employee and Family Assistance Plans (EFAP) beyond the COVID-19 pandemic?
 - Yes
 - No
 - Unsure
 - Prefer not to answer
 - Do you believe Employee and Family Assistance Plans (EFAP) has been effective in improving resident care in your long-term care home?
 - Yes
 - No
 - Unsure
 - Prefer not to answer
- □ Peer support for staff [If they select this box, the follow-up questions below will appear]
 - Do you plan to continue using Peer support for staff beyond the COVID-19 pandemic?
 - Yes
 - No
 - Unsure
 - Prefer not to answer



- Do you believe Peer support for staff has been effective in improving resident care in your long-term care home?
 - Yes
 - No
 - Unsure
 - Prefer not to answer
- ☐ Technology to connect residents with family and friends [If they select this box, the follow-up questions below will appear]
 - Do you plan to continue using Technology to connect residents with family and friends beyond the COVID-19 pandemic?
 - Yes
 - No
 - Unsure
 - Prefer not to answer
 - Do you believe Technology to connect residents with family and friends has been effective in improving resident care in your long-term care home?
 - Yes
 - No
 - Unsure
 - Prefer not to answer
- ☐ Mental health and wellness support and resources **for staff** [If they select this box, the follow-up questions below will appear]
 - Do you plan to continue using Mental health and wellness support and resources for staff beyond the COVID-19 pandemic?
 - Yes
 - No
 - Unsure
 - Prefer not to answer
 - Do you believe Mental health and wellness support and resources for staff has been effective in improving resident care in your long-term care home?
 - Yes
 - No
 - Unsure
 - Prefer not to answer
- ☐ Spiritual/worship services **for residents** [If they select this box, the follow-up questions below will appear]
 - Do you plan to continue using Spiritual/worship services for residents beyond the COVID-19 pandemic?
 - Yes
 - No
 - Unsure
 - Prefer not to answer
 - Do you believe Spiritual/worship services for residents has been effective in improving resident care in your long-term care home?
 - Yes
 - No



Unsure

NoUnsure

□ Other: _____

Prefer not to answer

Prefer not to answer

Planne will ap	ed social activities for residents [If they select this box, the follow-up questions below pear] Do you plan to continue using Planned social activities for residents beyond the COVID-19 pandemic? Yes No Unsure Prefer not to answer
0	Do you believe Planned social activities for residents has been effective in improving resident care in your long-term care home? Yes No Unsure Prefer not to answer
	se, music or art programs for residents [If they select this box, the follow-up ons below will appear] Do you plan to continue using Exercise, music or art programs for residents beyond the COVID-19 pandemic? Yes No Unsure Prefer not to answer
0	Do you believe Exercise, music or art programs for residents has been effective in improving resident care in your long-term care home? Yes No Unsure Prefer not to answer
Health appear	y food options for residents [If they select this box, the follow-up questions below will r] Do you plan to continue using Healthy food options for residents beyond the COVID-19 pandemic? Yes No Unsure Prefer not to answer
0	Do you believe Healthy food options for residents has been effective in improving resident care in your long-term care home? Yes





- o Do you plan to continue using beyond the COVID-19 pandemic?
 - Yes
 - No
 - Unsure
 - Prefer not to answer
- Do you believe this model of care has been effective in improving resident care in your long-term care home?
 - Yes
 - No
 - Unsure
 - Prefer not to answer
- Q5. A) Are you interested in participating in a follow-up interview to discuss your answers further? You will receive a \$50 honorarium for participating in the interview.
 - o Yes
 - Please click the link to enter your contact details (link will open in a new window): [insert external survey link]
 - o No

The next set of questions are demographic questions and are optional for you to answer.

- Q1. Which age group do you belong to?
 - o 18 to 44 years of age
 - o 45 to 64 years of age
 - o 65 years of age or older
 - Prefer not to answer
- Q2. Which province or territory do you live in?
 - Alberta
 - o British Columbia
 - Manitoba
 - New Brunswick
 - Newfoundland and Labrador
 - Nova Scotia
 - o Ontario
 - o Prince Edward Island
 - Quebec
 - Saskatchewan
 - Northwest Territories
 - Nunavut
 - o Yukon
 - o Prefer not to answer

Q3. V	Vhat languages are you comfortable speaking? Select all that apply:
	French
	Arabic
	Bengali
	Cantonese



0000000000000000000	Vietnamese Farsi (Persian) German Greek Gujarati Italian Korean Mandarin Polish Portuguese Punjabi Russian Spanish Somali Tagalog Tamil Urdu Chinese (not Cantonese/Mandarin) Other: Prefer not to answer
0 0	hat was your assigned sex at birth? Male Female Prefer not to answer Prefer to self-describe:
0 0 0 0	hat gender do you currently most identify with? Man Woman Two-spirit Non-binary, gender, queer, gender fluid, agender, or a similar identity Prefer not to answer Prefer to self-describe:
000000000000000	Black-African Black-Afro-Caribbean Black-North American Black-Afro-European Central Asian- Kazakhstani, Uzbekistani, and others East Asian- Chinese East Asian- Japanese East Asian- Korean East Asian- Mongolian, Taiwanese, and others LatinX or Hispanic- Caribbean LatinX or Hispanic- European LatinX or Hispanic- South American Middle Eastern- North American Middle Eastern- Middle Eastern/ West Asian Southeast Asian- Cambodian, Indonesian, Laotian, Vietnamese, and others





Southeast Asian- Filipino
Southeast Asian- East Indian, Pakistani, Sri Lankan, and others
West Asian- Afghan, Iranian, Pakistani, Sri Lankan, and others
West Asian- Afghan, Iranian, Turkish, and others
White- European
White- North American
Prefer not to answer
Prefer to self-describe:
Other:

[Page 5 of Qualtrics Survey]

This is the end of the survey. Thank you for taking the time to participate.



Appendix B: Interview Guide

Interview Guide: [30-60 minutes]

Question		Notes			
Section I: Background information					
Time: 7 minutes					
Can you please professional role your LTCH setting	and responsibilities in				
2. Which province of in?	or territory do you work				
a. Private or p	f your LTCH setting.				
Section II: Models of Care Time: 25 minutes					
 4. The following are Yes/No questions. Once we've had a chance to review these, we will discuss each model you've selected. What models of care have you implemented in your LTCH setting during the COVID-19 pandemic? Task shifting (move the care of some patient groups from health workers with higher levels of training to health workers with lower levels of training) (Y/N) Staff engaging families/essential care partners in resident care (Y/N) Staff including the voice of residents in developing care models (Y/N) Staff education (Y/N) Employee and Family Assistance Plans (EFAP) (service designed to assist employees who are experiencing personal and job-related problems that affect work performance, general health and well-being) (Y/N) Peer support for staff (Y/N) 					





Technology to connect residents with family and friends (Y/N) Mental health and wellness support and resources for staff (Y/N)Spiritual/worship services for residents Planned social activities for residents (Y/N)Exercise, music or art programs for residents (Y/N) Healthy food options for residents (Y/N) Are there any other innovative models of care you have implemented in your LTCH to support resident care during the COVID-19 pandemic? If timing is a concern, the participant will be asked to prioritize 2-3 models they would like to discuss in more detail. I want to note that for the sake of time we may not cover all of these questions for each model you have implemented in your LTCH. **5.** For each model of care they have implemented, ask the following questions: Model of Care #1: a. Why did you implement this model of care? Prompt: policy changes, feedback from residents/ their family members/ staff, etc. b. What, barriers did you face when implementing this model of care? Prompt: staff reluctance, resident reluctance, etc. c. What made it easy to use this model of care? o Prompt: staff support, resident

support, etc.
d. What were the impacts of

implementing the model on residents?Do you think it improved the quality of life of residents?





- Do you have any data on the impacts of implementing this model of care in your longterm care home? (Impact on residents, staff etc.)
- e. Do you believe this model of care was effective in improving resident care in your long-term care home?
- f. Do you plan to continue using this model of care beyond the pandemic?
- g. Do you think this model of care should be integrated into LTC to support resident care?

Model of Care #2:	
-------------------	--

- a. Why did you implement this model of care?
 - Prompt: policy changes, feedback from residents/ their family members/ staff, etc.
- b. What, barriers did you face when implementing this model of care?
 - Prompt: staff reluctance, resident reluctance, etc.
- c. What made it easy to use this model of care?
 - Prompt: staff support, resident support, etc.
- d. What were the impacts of implementing the model on residents?
 - Do you think it improved the quality of life of residents?
 - Do you have any data on the impacts of implementing this model of care in your longterm care home? (Impact on residents, staff etc.)
- e. Do you believe this model of care was effective in improving resident care in your long-term care home?
- f. Do you plan to continue using this model of care beyond the pandemic?
- g. Do you think this model of care should be integrated into LTC to support resident care?





Model of Care #3: a. Why did you implement this model of care? Prompt: policy changes, feedback from residents/ their family members/ staff. etc. b. What, barriers did you face when implementing this model of care? Prompt: staff reluctance. resident reluctance, etc. c. What made it easy to use this model of care? Prompt: staff support, resident support, etc. d. What were the impacts of implementing the model on residents? Do you think it improved the quality of life of residents? Do you have any data on the impacts of implementing this model of care in your longterm care home? (Impact on residents, staff etc.) e. Do you believe this model of care was effective in improving resident care in your long-term care home? f. Do you plan to continue using this model of care beyond the pandemic? q. Do you think this model of care should be integrated into LTC to support resident care? Model of Care #4: a. Why did you implement this model of care? Prompt: policy changes, feedback from residents/ their family members/ staff, etc. b. What, barriers did you face when implementing this model of care? Prompt: staff reluctance, resident reluctance, etc. c. What made it easy to use this model of care? Prompt: staff support, resident support, etc.





- d. What were the impacts of implementing the model on residents?
 - Do you think it improved the quality of life of residents?
 - Do you have any data on the impacts of implementing this model of care in your longterm care home? (Impact on residents, staff etc.)
- e. Do you believe this model of care was effective in improving resident care in your long-term care home?
- f. Do you plan to continue using this model of care beyond the pandemic?
- g. Do you think this model of care should be integrated into LTC to support resident care?

Model of Care #5:

- a. Why did you implement this model of care?
 - Prompt: policy changes, feedback from residents/ their family members/ staff, etc.
- b. What, barriers did you face when implementing this model of care?
 - Prompt: staff reluctance, resident reluctance, etc.
- c. What made it easy to use this model of care?
 - Prompt: staff support, resident support, etc.
- d. What were the impacts of implementing the model on residents?
 - Do you think it improved the quality of life of residents?
 - Do you have any data on the impacts of implementing this model of care in your longterm care home? (Impact on residents, staff etc.)
- e. Do you believe this model of care was effective in improving resident care in your long-term care home?
- f. Do you plan to continue using this model of care beyond the pandemic?
- g. Do you think this model of care should be integrated into LTC to support resident care?





Are there any models of care that you want/wanted to implement in your LTCH to improve resident care but are unable to? a. What barriers are/were preventing you from doing so? b. What would help you to implement this model?				
Section III: Wrap-up				
Time: 2 minutes				
7. I want to be respectful of your time. Is there anything else that you wanted to discuss that we missed so we can get a better understanding of your experience implementing new models of care to support residents during the pandemic?				

1. Conclusion

[TURN OFF AUDIO RECORDER]

Before we conclude this call and discuss next steps, do you have any additional comments and or questions? [Address any concerns/questions; if none, continue].

Please do not hesitate to contact [insert name] at any time should you have any additional questions or feedback.

This is the end of our call. Thank you so much again for your time!

Have a good [insert day/evening/night].