

Barriers to the Management of Heart Failure in Ontario Long-Term Care Homes: An Interprofessional Care Perspective

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Abstract

Background: With population aging, the prevalence of heart failure (HF) is rising in long-term care (LTC) homes. Given this burden, there is an urgent need to establish effective HF management programs.

Methods and Findings: To understand what barriers would need to be addressed to develop such a program, we conducted a series of consultations among various LTC staff, as well as residents and their family caregivers. This article uses data obtained from the consultations to describe the interprofessional (IP) barriers that exist among the various LTC staff roles. Consultation methods included a Delphi survey followed by focus group interviews of LTC staff, and then personal interviews with LTC residents with HF and their family caregivers. Data were interpreted using an IP care framework in which interpersonal relationships among LTC staff provide the most direct influence on collaborative resident-centred practice, within the broader context of conditions within the LTC home, which in turn are housed in the broader context of systemic determinants.

Conclusion: Across all data sets, the most consistently mentioned determinant was *communication* between the resident and the healthcare team, between different healthcare providers, between shifts, between medical specialists, and between the long-term care home and the hospital.

Keywords: Long-term care; Interprofessional barriers; Heart failure

Introduction

With population aging, the prevalence of heart failure (HF) is rising in long-term care (LTC) homes, facilities that provide 24-hour nursing care to persons with complex chronic illnesses or disabilities, and for whom community care provision is no longer feasible [1,2]. A systematic review found that the prevalence of HF in LTC is approximately 20%, ranging from 15% to 45% [1]. The burden of HF in LTC is significant: one-year mortality exceeds 40%, a rate 50% higher than among residents without HF [3,4]. Furthermore, HF in seniors is associated with frailty, functional decline, and cognitive impairment, conditions also known as *geriatric syndromes*. Geriatric syndromes are associated with worse health outcomes, and they also complicate the management of HF [5]. Frail seniors can present with non-specific HF signs and symptoms, leading to diagnostic delays. Delirium from decompensated HF can result in psychosis, agitation, or aggression, which may be mistakenly attributed to dementia, leading to further diagnostic and treatment delays, and inappropriate use of psychotropic drugs or restraints [5]. HF accounts for up to 20% of

unplanned transfers of LTC residents to acute care. Those discharged back to LTC experience further decline and survival as limited as 4 months [4,6]. Admissions to acute care could be significantly prevented if appropriate care protocols were in place to manage HF in LTC [7].

The Canadian Cardiovascular Society HF guidelines endorse the use of standard therapies for older residents [8]. However, frail older LTC residents with HF are less likely to receive recommended therapies due to prescriber concerns over geriatric syndromes, diagnostic accuracy, polypharmacy, and skepticism about the benefits of these therapies for such frail residents [8,9]. HF management programs in LTC homes abroad have been shown to reduce hospitalization rates [10-12]. However, these programs benefited from specialist support and diagnostic testing, targeted less frail residents destined to return to the community, and were designed with little input from LTC stakeholders. These results are not generalizable to Canadian LTC homes, where residents are unlikely to return to the community and access to specialists and diagnostic testing is limited.

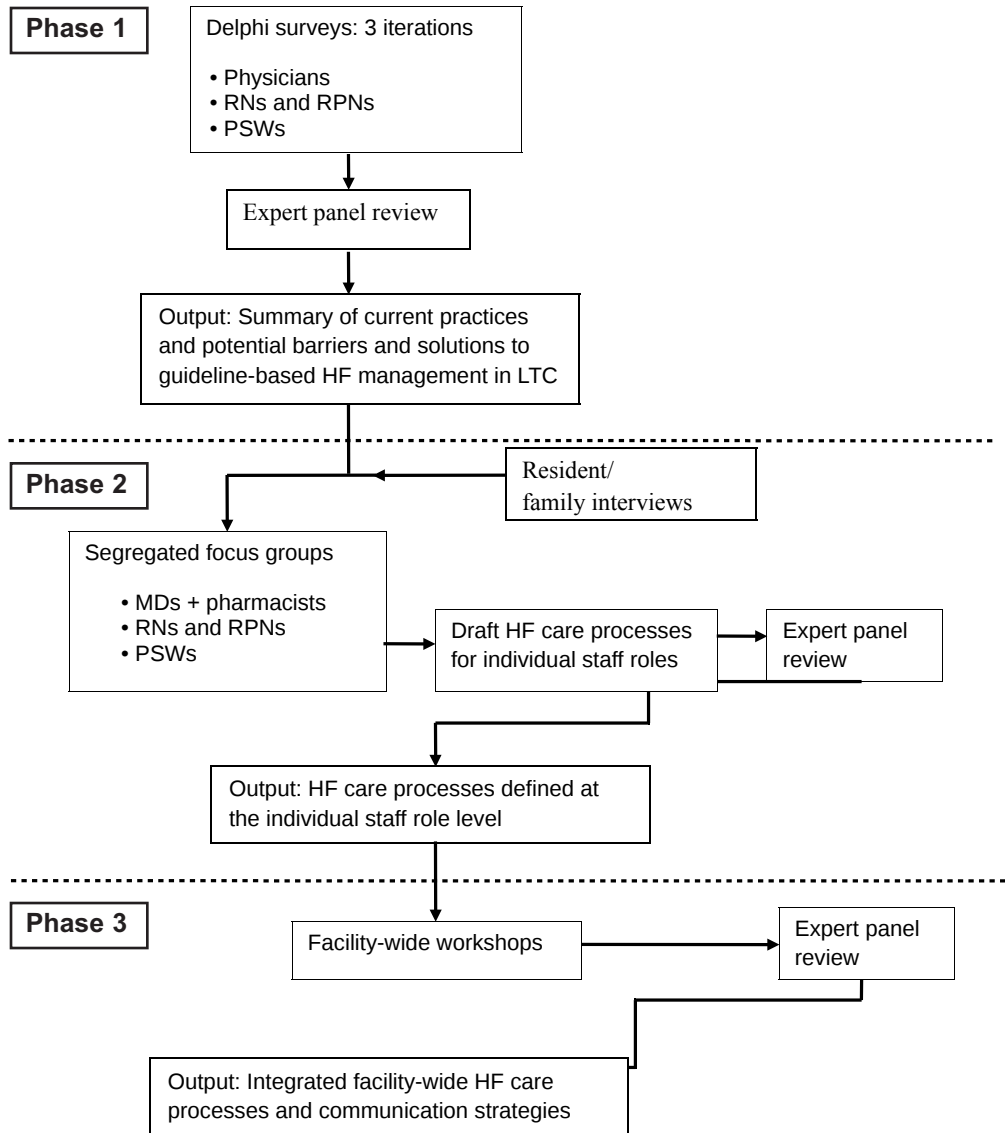
The process of implementing clinical practice guidelines in LTC can be complicated by staff and care process characteristics [13]. Medical care is often overseen by off-site physicians, clinical pharmacist visits are intermittent, and few homes have advanced practice nurses (APNs) on staff. Importantly, care is structured around daily routines and timed events, and by unregulated care providers with limited health literacy, high workloads, and high turnover [13]. A significant proportion of this turnover can be attributed to strained or difficult working relationships among the different LTC staff roles, which in turn has been associated with poor quality of resident care [14-17]. The current interest in interprofessional (IP) care has been fueled by the increasing medical complexity of an aging population, which requires that care be interprofessional, collaborative, and resident centred. Evidence suggests that IP care can improve access to health care, outcomes related to chronic diseases, and reduce the stress of both formal and informal caregivers [18].

Given the burden of HF within LTC, there is an urgent need to implement effective HF-specific clinical practice guidelines within the context of LTC settings. The overarching goal of our research program is to develop and implement a feasible and effective HF management program for LTC. This program will be built upon care processes that are consistent with the Canadian Cardiovascular Society HF guidelines, will optimally use the skill sets of all LTC staff roles, will be minimally disruptive to work routines, and will focus on achieving outcomes relevant to residents. As a step toward this goal, the primary objective of this article is to describe the interprofessional (IP) barriers that exist among the various LTC staff roles, using data from a Delphi survey, focus group interviews of LTC staff, and personal interviews with LTC residents with HF and their family caregivers.

Methods

This study used a qualitative interpretive design [19] based on a template organizing style [20]. We obtained input to guide cardiac care processes through three phases of consultations (Figure 1), with the results of each phase informing the subsequent one.

Figure 1
Flow diagram illustrating heart failure care process development activities.



RN = Registered Nurse, RPN = Registered Practical Nurse, PSW = Personal Support Worker, MD = Medical Doctor, HF = Heart Failure

To ensure that the HF care processes developed would respect the scope of practice of each LTC staff role and remain consistent with the Canadian Cardiovascular Society HF guidelines, the results of each phase were reviewed by a panel of experts in cardiology, geriatrics, primary care, pharmacology, and nursing.

Ethics approval was obtained from the Office of Research Ethics at the University of Waterloo, the Research Ethics Board of McMaster University, and the Office of Research Ethics at Lakehead University.

Phase 1: Delphi survey

The objective of this phase was to use a Delphi methodology to gather the perspectives from three separate groups of LTC healthcare providers – physicians (MDs), licensed nurses, and personal support workers (PSWs) – related to their perceptions about the HF guidelines. The Delphi method achieves consensus within a panel of respondents through an iterative survey process [21-23]. It has been shown that stable responses can be obtained from an appropriately selected 23-member panel [24]. We aimed for a sample size of 35 panelists in each of the 3 panels, and thus invited 70 panelists for each panel, based on achievement of 50% response rates in previous similar surveys [25]. We sampled equally from each of the 14 Ontario Local Health Integration Networks (LHIN), organizations responsible for funding health care services in specific Ontario regions. The MD panel was compiled from a random sample stratified by LHIN and drawn from the list of medical directors of the Ontario LTC Association. Participants in the nurse and PSW panels were identified by the directors of care of LTC facilities, stratified by LHIN, and randomly selected from the list of Ontario LTC homes. Members of each of the three panels were asked to consider specific HF management tasks recommended in the Canadian Cardiovascular Society guidelines from the perspective of how confident they were in routinely performing the task, how feasible the performance of that task would be within the constraints of LTC, and their perspective about how clinically useful that task would be for managing HF in LTC residents. Respondents were asked to rate items including vital sign abnormalities, physical signs, symptoms, historical factors, non-pharmacological interventions, diagnostic tests, as well as medical or surgical interventions. In the second iteration of the Delphi survey, participants were again asked to rate the same items; however, scales focused specifically on feasibility. Participants were contacted by surface mail, email, or fax, with a series of reminders occurring at 2-week intervals. After each section of survey questions, space was provided for comments (qualitative data).

Phase 2a: Focus Groups

Focus group interviews were conducted in four medium-sized LTC homes in four different cities in Ontario, 3 from southern Ontario (251 residents, 144 residents, and 96 residents, respectively), and one in northern Ontario (125 residents). These sites were strategically selected as they offered variability with respect to setting (southern vs. northern), affiliation (university-affiliated vs. non-university affiliated), and ownership (public vs. private ownership, and for-profit vs. not-for-profit), characteristics shown to be relevant to HF management and outcomes. Each site employed 22 to 25 nurses and over 30 PSWs, and at least 10 family physicians provided coverage for each site and other surrounding LTC homes. The focus group interviews separately targeted MDs, licensed nurses, including nurse practitioners (NPs), PSWs, and managers of LTC homes, in order to maximize participant compatibility and reduce the risk that real or perceived power imbalances among different staff roles might curtail the sharing of ideas or the identification of IP barriers. Due to the low number of physicians serving each home, we also recruited MDs,

NPs, and pharmacists serving other local LTC homes. A trained moderator facilitated discussions, while a research assistant observed nonverbal communication within groups and took additional field notes. A semi-structured interview guide specific to each staff role was developed, and addressed issues such as the diagnosis and diagnostic work up of HF in a LTC resident, as well as activities related to the management of acute, chronic, and end-stage HF. All discussions were recorded and transcribed verbatim.

Phase 2b: Resident and family caregiver interviews

LTC residents with HF and their family caregivers were interviewed at two sites (one in southern Ontario and one in northern Ontario) about their experience with HF management in LTC, their interactions with LTC staff regarding HF management, and how these might be improved. In each of the participating LTC homes, resident/family member dyads were approached by the director of care to determine interest to participate. After obtaining informed consent, one-hour face-to-face or telephone interviews were conducted, recorded, and transcribed. A semi-structured interview guide was developed and used during interviews (available upon request). In total, ten interviews were conducted.

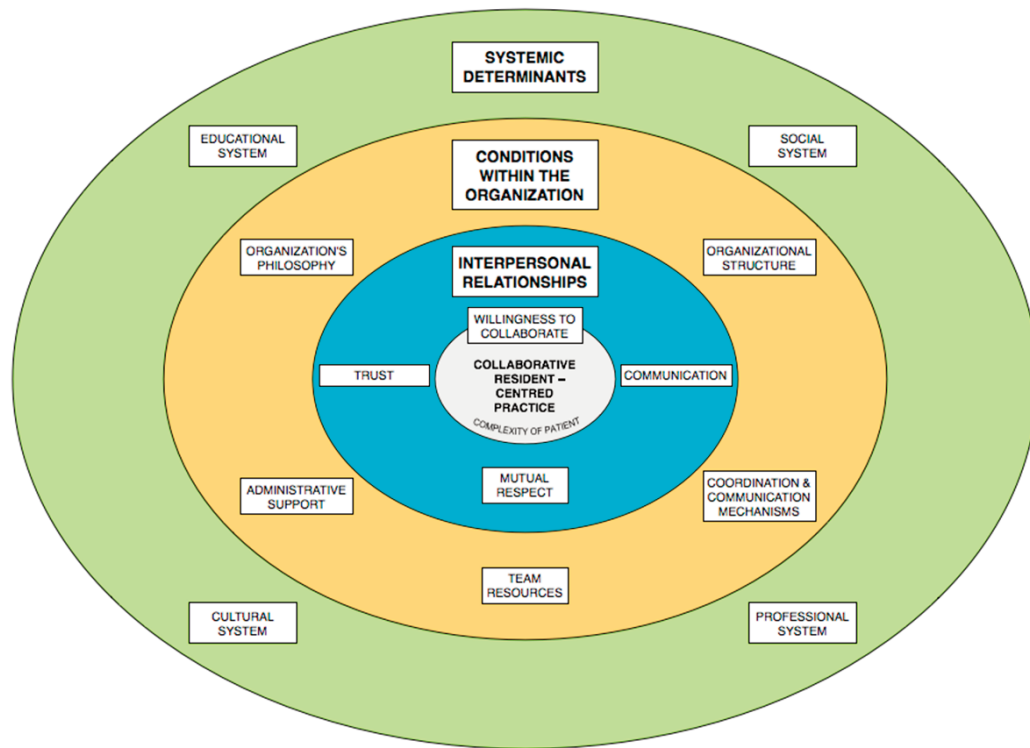
Analysis

Data from the Delphi surveys, focus group transcripts, and resident/family caregiver interviews were interpreted using an IP care framework derived from the work of San Martín-Rodríguez, Beaulieu, D'Armour, and Ferrada-Videla, [27]. These authors systematically reviewed both theoretical and empirical studies to compile and categorize determinants of successful IP collaboration. This model was further refined by Newhouse in a study of healthcare providers' perceptions about successful IP teams and was conceptually organized as shown in Figure 2 [26].

In this model, determinants of resident-centred quality care are categorized into three layers of influence, including a) interpersonal factors (willingness to collaborate, mutual respect, trust, and communication); b) conditions within the organization (coordination and communication mechanisms, administrative support, organizational philosophy, and organizational structure); and c) systemic determinants (educational, professional, social, and cultural) [27].

To identify comments related to the IP themes, information was independently assessed by two researchers familiar with the IP care literature, including the work of San Martin et al. [27] and the model depicted in Figure 2. Based on the model/IP themes, a template was devised *a priori* using a code manual. Two researchers used the code manual to guide the independent coding of transcripts. Themes were kept broad enough to preserve the context of the data. Coded segments were sorted into similar themes and read carefully to make connections among the data by grouping the data. The strength of these themes/codes was assessed in terms of their frequency of reports by participants across all three phases of data collection and across groups of healthcare providers. Finally, our interpretations of the data were subsequently corroborated and legitimized through triangulation of multiple data

Figure 2

**Model to describe the determinants of
collaborative resident-centred practice**

An interactive model which allows the reader to drill down into each determinant can be accessed at <http://www.northwestlin.on.ca/IPC/index.html>.

sources and member checking [20]. Findings were presented at each LTC home to gather feedback and ensure the trustworthiness of data interpretation. Investigator triangulation was used to minimize any idiosyncratic biases. Two researchers independently analysed data, compared notes, and arrived at a consensus that the data were being interpreted in a trustworthy manner.

Results

In the Delphi survey phase, 25 physicians, 22 nurses, and 20 PSWs participated in the first round, and 12 physicians, 13 nurses, and 10 PSWs participated in the second round. Of these, 15 physicians, 12 nurses, and 15 PSWs provided written comments, which are the focus of this analysis. Eleven focus group interviews were held in southern and northern Ontario with physicians, registered nurses, and registered nurse practitioners (RNs/RPNs), NPs, PSWs, and pharmacists. Focus group participants, listed by professional designation, are summarized in Table 1. In addition, 10 personal interviews (2 in northern Ontario and 8 in southern Ontario) were conducted, 2 with LTC residents with HF, 3 with family caregivers of LTC residents with HF, and 5 with both residents with HF and their family caregivers.

Table 1
Focus group participants

Focus Groups	Number of Focus Groups		Total number of participants
	Northern Ontario	Southern Ontario	
Personal Support Workers	1	2	24
Registered Practical Nurses (RPN)	1	0	8
Registered Nurses (RN)	1	1	11
RPN – RN Mixed Group	0	1	9
Nurse Practitioners (NP)	0	1	5
Physicians	0	1	7
Physicians, Pharmacist, NP Mixed Group	1	1	10
Managers (Directors)	1	0	3

Tables 2–4 reflect the broad categories of the interprofessional model (Figure 2) and the frequency with which they emerged from analysis of all three data sources. The results and discussion to follow have been organized according to the IP themes, emphasizing the triangulation of data across mixed methods and participant groups. It should be noted that no one theme can be discussed in isolation, as there is an inevitable intertwining of themes.

Table 2
Frequency of comments from the Delphi survey falling under the different IP themes

Comment Category	Interview group	Number of comments		
		Physicians	Nurses	PSWs
Interpersonal relationships	Complexity of resident	0	9	4
	Willingness to collaborate	0	0	3
	Trust	5	2	1
	Mutual respect	0	0	1
	Communication	0	0	1
Conditions within the organization	Coord / Commun Mechanisms	4	11	13
	Administrative support	0	0	0
	Philosophy (resident centred)	0	0	10
	Resources (time or human)	5	11	8
	Organizational	0	0	0
Systemic determinants	Education (needs)	3	4	7
	Professional system	0	0	6
	Cultural system	0	0	0
	Social	0	0	0

Table 3

Frequency of comments from the Focus Groups falling under the different IP themes

Comment category	Interview group	Number of comments				
		PSW (N. Ont.)	RPN (N. Ont.)	MD, Phar, NP (N. Ont.)	RN (N. Ont.)	Managers (N. Ont.)
	Complexity of resident		2	2	1	1
Interpersonal relationships	Willingness to collaborate	2	3	11		9
	Trust		4		3	
	Mutual respect	5	11	6	2	1
	Communication	3	9	9	4	4
Conditions within the organization	Coord / Commun Mechanisms	23	12	18	10	19
	Administrative support			1		1
	Philosophy (resident centred)	8	2	8	6	12
	Resources (time or human)	9	4	16	12	20
	Organizational	9	8	9	6	17
Systemic determinants	Education (needs)	8	18	8	10	18
	Professional system		2	6	2	
	Cultural system			1		1
	Social	4			5	4

Table 4

Frequency of comments from the resident/caregiver interviews falling under the different IP themes

Comment category	Group	Total
	Complexity of resident	9
Interpersonal relationships	Willingness to collaborate	4
	Trust	14
	Mutual respect	11
	Communication	19
Conditions within the organization	Coord / Commun Mechanisms	45
	Administrative support	
	Philosophy (resident centred)	21
	Resources (time or human)	6
	Organizational	13
Systemic determinants	Education (needs)	19
	Professional system	1
	Cultural system	
	Social	5

Resident complexity

The current interest in IP care is fueled by the increasing medical complexity of an aging population (i.e., complex patients require a team approach). As one RN commented in the survey, “Our biggest problem is distinguishing between multiple causes of symptoms.” A PSW adds in a focus group that “We are getting more people with tube feeds and catheters that we never used to before.” Further, this is also noted in focus groups with MDs, pharmacists, and NPs:

Well, at some point in time it is nice to have a team, because regardless of how good you are, you always need an expert level of care at some point in time. I don't care how good you are, because if you get your diabetic who goes into hypertensive heart failure, that you call a symptom of heart failure, we need five specialists. You can't do all that by yourself. Suddenly you are dealing with hydration, dehydration, electrolyte imbalance ... so we really do need a person who specializes in one or another field to try and build things. (MD, pharmacist, NP focus group)

Willingness to collaborate and resident centredness

The quote above also points to a *willingness to collaborate* as the individual sees improved quality of care with a team approach. When willingness to collaborate is extended to the resident, there is a merging of the *resident-centred* theme with the willingness to collaborate theme. Resident centredness is captured in Figure 2 and Tables 2–4 under *organizational philosophy*. Organizational philosophy reflects the inherent values that may impact on the degree of collaboration [27]. Resident centredness is a recurring theme and the need for resident centred care is consistent with resident wishes, LTC staff goals, and the strategic direction of the healthcare system. This theme was exemplified in the following excerpt:

Decrease pain and suffering. Forget about death. Like, it's an event that is around the corner, but pain and suffering is something that has a significant impact on the quality of life today. It is going to impact the amount of nursing care and resources available to them, and that is all they really care about anyway. So they are not interested in any study that is going to keep them alive for three more weeks. They are interested in quality of life. They are interested in not going to the hospital, because they don't want to. And they aren't interested in doing anything that they don't want to do. They have to buy into whatever we're going to do. (MD, pharmacist, NP focus group)

The resident centred theme was reiterated a number of times by the PSWs and is no doubt a reflection of a close and caring relationship that can exist between PSWs and residents. One PSW noted,

[p]rovide the residents with tender loving care. Encourage them to eat even though they have poor appetite. Listen to their spiritual needs. Tidy up their room if needed. Encourage the residents for daily activities.

Residents and their family members echoed this need for resident centred care (and the most important *communication* skill of listening):

Um, they're managing with food and that, the only thing I could say is listen to her, when she says she is having an angina attack, get her

the nitro. That you have to listen to the resident, I mean I know a lot of them have Alzheimer's. Mom can't move or do anything for herself, but her mind is there, she is quite able to tell you. So they need to listen, listen to her and then listen to her as an individual and a person. (Family member of resident)

Trust and mutual respect

A large number of physician comments related to physicians' capacity to *trust* in other health professionals' abilities and competence. For example, one physician commented:

The main issue is that I visit the nursing home once a week. The nurses would be checking the residents between visits, and I do not think they can accurately assess many of the signs and symptoms listed above. (MD)

When working with other health professionals, one PSW reported a lack of trust and *mutual respect*, themes often tied together. In one story a PSW commented:

Now I had a response where somebody blacked out and there was only me with them, and they were basically on the floor, I couldn't hold them up. So I was yelling for help 'cause I didn't have the phone and um the RPN basically said, "You're not supposed to interrupt because I'm talking to someone." And I'm like ... this is an emergency, like does the resident not come first? (PSW)

However, another PSW reported having good relationships with other staff, stating, "We have a good relationship with our registered staff, and once it is reported they act on it and also we get some feedback from them."

Generally, residents and family were not critical of the care team; in fact, there were a number of comments indicating a trusting relationship existed, as one resident noted, "and I trust them that they will do what she needs to have done and in her best interest."

A more cynical perspective was offered on trust (and resident centredness and willingness to collaborate) in one interview, "What's the use of complaining? It doesn't do any good. ... What can they do? They can only do so much."

This apparent resigned acceptance of the status quo may serve as a barrier to pushing an agenda toward more resident-centred collaborative practice.

Organizational structure

A common theme was *organizational structure*. PSWs often expressed frustration with some policies and procedures under which they work. Nursing staff often enforce "daily routines" rather than individualized care based on the needs of residents. San Martin-Rodriguez et al. [27] define organization structure as conditions that facilitate collaboration, such as shared decision-making or open and direct

communication. For example, there was a recognized need to provide resident centred care, but inflexible policies prevented this from happening:

When they have congestive heart failure, I mean, it's a lot to just do anything, to have energy, and I feel they're pushed right up to the last, in a way, you know, "you gotta come to the dining room for meals, you gotta go for a walk" [laughter] "you gotta do this, you gotta do that," and they are just fightin' to breathe pretty much, right? And that's always been the biggest, the hardest thing to implement is to push 'em when they have so many guidelines. (PSW)

Resources

Limited *resources* were a prominent concern among all staff, usually in reference to a lack of human resources, including LTC staff or specialists, such as geriatricians. Availability of appropriate and adequate human and/or time resources is essential for delivery of IP care. A few typical comments were:

Some geriatricians will do consults in facility, but this is not the usual. Residents have to be referred to another facility or out-patient setting. (MD)

Sometimes there are long waits to get residents to see a cardiologist. One time a patient died waiting to see a cardiologist. (RN)

Having adequate staff is very important to have the time to focus on client's care and view changes. (PSW)

It's very "no time, no time" [laughter]. You know, how many times do you say that? ... You want to do your best you can, but sometimes it's just no one-on-one time. It's just work. Which is not right. I don't think. It's not, it shouldn't be work, it should be something that you enjoy doing and you know you're caring for somebody. I don't think you should consider it as work time. It's care time. (PSW)

Residents and their family members were also critical of the limited human resources available for resident-centred care (e.g., to preserve dignity in toileting instead of soiling disposable adult diapers). In one exchange a family member lamented that her mother

is not going to the toilet at all now. So you know, she just has her Depends or whatever, and that is a struggle for her because I notice, today especially, she said I have to go to the washroom and do it on the toilet. (Family member of resident)

Co-ordination and communication

While the above quotes can illustrate resource challenges, they also imply difficulties in care *co-ordination and communication*, resulting in treatments that may not always be resident centred. Communication mechanisms can take on many forms, including informal hallway chats, mentorship, print media, telephone calls, elec-

tronic media, formal referrals, conferences, or meetings. Ideal resident-centred IP collaboration requires efficient and co-ordinated communication among all health-care providers, with residents and their family caregivers, administrative staff, and more broadly, with external community or professional agencies.

Although good communication practices are part of the *interpersonal relationship* determinants in the IP model, in many instances there are *conditions within the organization* (i.e., resources or co-ordination and communication mechanisms) that facilitate or inhibit good communication. When analyzing the transcripts, it was often hard to separate communication skills (i.e., an interpersonal factor) from facilitating/inhibiting factors (i.e., often a condition within the organization), as the two are obviously linked. Communication predominately surfaced as something to be improved upon:

Better communication I guess between the PSWs and RNs or whoever does the assessments. ... Like, we're kind of left in the dark in a way. Maybe better communication so that we as caregivers know a little bit more of what to look for and how to handle the situation. (PSW)

Communication, or lack thereof, was noted in various contexts between different healthcare providers (particularly between staff working on different shifts) and between hospitals and the LTC facility. Although most of the comments lamented a lack of communication, there were exceptions, which suggests communication can be improved and successful examples examined for their determinant factors. For example, the following quote points out how improvements in resources (time and human) can lead to better communication between shifts. Just prior to this comment there had been a lengthy discussion about barriers to efficient and informative charting.

Just to say something a little bit different, what happened in my case, I come at 6:00 in the morning. I get a report every morning from the night nurse. I have no problems as far as that is concerned. And I also go to the 7:00 report because I am an hour ahead as far as the care I have to provide. ... I have plenty of time. Depends on the shift and the unit. (PSW)

The majority of the PSW comments that related to the co-ordination & communication theme were iterations of the need for the PSW to be in close communication with nurses. These comments often reflect on the professional system, or scope of practice, theme. For example:

At the present time it is not within the PSW scope to perform the taking and recording of vital signs. However, we are trained due to the tremendous amount of responsibility that falls within the RPN scope of practice. I believe having the PSW perform this duty would be very beneficial. The team is then taking a holistic rehabilitative approach. (PSW)

Trust and respect are integral to and reflected in good communication, and good communication is required to diagnose and treat any condition. Concern was raised in a number of focus groups that although the PSWs are in the best position to detect changes in the condition of the residents, barriers to communication may limit the extent to which this valuable information is relayed to others. This issue was discussed in the MD focus group:

It's like pain; I trust the PSWs more than anybody, more than the nurses, more than myself, because they see them all the time, they are the ones doing the care. (MD)

This group then probed the underlying barriers to this information making its way to the MDs:

Well probably communication between the PSW and the nurse. That seems to be always where this seems to be this great conflict; they never get along from what I see. (MD)

While this lack of communication appeared to have “hierarchical” boundaries within the LTC setting, the MDs also highlighted the communication boundaries between general practitioners and specialists:

I think a lot of times, and I'm not saying anything against a sub-specialist, but, you know, a cardiologist will treat the heart and just do whatever is good for the heart, and if they toast the kidney that's good, that is the kidney specialist problem...they really only care about their organ. (MD)

In this example, the communication boundary appears to have origins in a lack of holistic resident-centred care and a lack of willingness to collaborate.

Education

When education needs were specifically probed, staff were appreciative of in-service learning opportunities, as they agreed that these directly impact quality of care. Continuing (and collaborative) education would be highly valued by the PSWs, as one staff noted:

A collaborative effort of the healthcare team is essential in recognizing and implementing the proper measures needed—perhaps unit meetings on a bi-weekly basis discussing the at-risk HF residents. Refresher courses and education would be valuable. (PSW)

Significantly, in response to the interviewer asking if in-service learning should be done by PSWs, RNs, and RPNs together, one PSW was of the opinion that this would curtail the willingness of PSWs to participate:

Cause I don't know, I think you just get shot down pretty fast because you don't have the education behind you like they do. (PSW)

The quote reflects a number of intertwined themes: willingness to collaborate, communication, trust, mutual respect, co-ordination and communication mechanisms, organizational structure, the education system, and the professional system. The IP model helps interpret the sentiments expressed: there appears to be an unfortunate but accepted hierarchy that can be expressed through interpersonal relationships, but fueled by conditions within the organization as well as systemic determinants such as education and training. The quote also highlights how challenging a change to an IP culture may be. Additionally, it challenges the effectiveness of educational interventions delivered in a hierarchical care culture in which the PSW does not feel valued.

Another example of education inter-relating to other themes can be noted below:

I think as an RN I have the potential to be more useful to seniors in LTC by being offered the opportunity to learn more/become more confident in some of the identified aspects of cardiology. There are still many things to learn. Operating at maximum knowledge regarding any condition only increases confidence in RNs as well as reassures residents/residents' families and also acute care setting, which routinely receives LTC residents primarily based on assessment from LTC RN. Through our assessment it is possible that potential unnecessary trips to the ER will be reduced, as well as those in need of ER services will be seen accordingly and accurately. (RN)

This quote emphasizes how nurses perceive that enhanced education by the nurse can nurture trust among residents, family caregivers, and acute care staff, which subsequently promotes more efficient care co-ordination and communication.

There were numerous comments linked to residents lacking knowledge about their treatments. For example, one resident, when asked about their medications, noted, "I take a whole dozen every morning, what they're all for, I don't know."

With respect to receiving more information on HF, one resident commented, "You know, I wouldn't mind. I thought maybe we would get something to read on that today. ... It would give me a little more knowledge on heart failure."

Another resident pointed to challenges of receiving appropriate education directly from staff. When asked about the quality of staff responses to resident questions, one resident noted, "Well, I ask them questions, if I know anything to ask [laughs]. That's the thing, I don't always know just what to ask."

In summary, all data sources revealed common concerns related to communication. Communication issues can have multiple interrelated factors. Physicians, for example, would often cite stretched human resources as a contributing factor to communication challenges, while nurses frequently commented on the complexity of the resident (which necessitates effective communication channels for a co-ordinated collaborative approach). PSWs were very sensitive to resident-centred care, which also requires co-ordinated communication. All staff roles emphasized the need for improved educational interventions related to HF, which they perceived

would not only directly facilitate improved resident care through improved knowledge, but would also indirectly improve communications through enhanced confidence and trust between members of the healthcare team.

Discussion

To identify and understand the barriers to developing a HF management program for LTC, we conducted a series of consultations among various LTC staff, as well as residents and their family caregivers. The purpose of this article was to present the results of these consultations, analyzed in the context of an IP model of care adapted from the work of San Martin-Rodriguez et al. [27].

Data from all sources directly or indirectly involved all of the determinants identified in the IP model. However, the most consistently mentioned determinant was that of communication between the resident and the healthcare team, between different healthcare providers, between shifts, between medical specialists, and between the LTC home and the hospital. It was also possible to discern that the causes of communication breakdowns stem from an interplay of interpersonal factors, including lack of trust and mutual respect. An encouraging finding was the willingness by all staff roles to work toward improved collaboration to achieve greater resident-centred care and improved outcomes. The data also demonstrate the existence of several organizational and systemic determinants that undermine the quality of interpersonal relationships, most notably a lack of time, human resources, and educational opportunities for staff, ingrained staff hierarchies that perpetuate mistrust, and lack of mutual respect. Not only do these barriers constitute significant hurdles in developing an HF management program for LTC, they ultimately result in care that is not resident centred, as identified in the interviews.

For all three data sets, the model (Figure 2) was helpful in identifying IP-related comments and putting them into a theoretical context of IP determinants. Although it is beyond the scope of the model to generate definitive solutions for improving IP-care, it offers a useful guide for generating effective recommendations to resolve these problems and ultimately facilitates the development of an IP HF management program for LTC. Furthermore, the IP model can facilitate the recognition of common themes among LTC staff and residents, such as the desire expressed by all to provide quality resident-centred care, and thus identify common ground upon which to base interventions to improve IP relationships and ultimately provide better care. Finally, using the model we were able to identify examples of successful communication and IP care.

There are a number of directions for future research suggested by this research. Although our research has identified common IP themes that may impact implementation of cardiac care guidelines in LTC, future research should explore the causal roots of these determinants. For example, why is communication less than ideal? And perhaps more importantly, how can it be improved? The model we used may be helpful in providing a framework for teasing out some cause-effect relationships among the determinants. Another tact that could be helpful in this regard is to focus on examples of success. Appreciative inquiry could be used to delve into

success stories, and instead of inordinate amounts of time spent examining barriers, appreciative inquiry may uncover the key facilitators. We would also encourage experimentation in the LTC setting with modest plan, do, study, act (PDSA) cycles to test a change on a small scale and see how it works and refine as necessary before implementing on a broader scale. Assuming improved communication may be a key ingredient, communication would be one of the dependent variables of the PDSA cycle. In-service learning opportunities focused on improved IP care is a logical next step for our research program. The question of how best to deliver this type of learning is an area that needs more attention.

There were limitations to this study. First, the Delphi survey, focus group, and resident/caregiver interviews were not established to probe respondents' opinions or experience with regard to IP care specifically, but rather toward perceived barriers to HF management in LTC. However, the comments and answers provided frequently and directly related to IP themes. In addition, several comments could be interpreted as indirectly related to IP care. For example, while a comment on the lack of human resources may not have been intended as a commentary on IP care, when interpreted in this context, human resource shortages result in compromised resident care. Second, the homogeneity of focus groups was mixed (e.g., in northern Ontario the RNs and RPNs were in separate groups, whereas in southern Ontario they were grouped together). As the transcripts do not identify individual speakers, it was not always possible to make comparisons between specific professional groups. Third, the quantification of themes is limited to providing an indication of the frequency of discussion topics and cannot directly account for the significance or value of responses. Furthermore, responses often included an interplay of various IP themes. However, the independent review and coding of transcripts, followed by discussion to achieve consensus, does provide some validation of the relative importance of the IP themes as they relate to HF management. Fourth, as comments on the Delphi survey were generally handwritten, a few were illegible and could not be included in the analysis. Fifth, our data are specific to barriers related to the development of a HF management program for LTC homes. However, many of the barriers identified in relation to IP care, and specifically those related to communication difficulties, are universal and are therefore likely to apply to the management of other chronic illness in complex patients in the LTC setting, and likely in other care settings as well. Sixth, the study was conducted with a specific sample of respondents and caution should be applied in generalizing to all LTC settings. Finally, although findings identify significant challenges related to the provision of IP care for LTC residents with HF, they cannot link these challenges to HF-specific outcomes. However, recent data suggest that the quality of IP relationships and job satisfaction among LTC staff has a direct impact on the quality of care received by residents [28,29].

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