



**Aging, Community  
and Health**  
RESEARCH UNIT



# **Feasibility of Interprofessional Education to Support a Team Approach to Stroke Rehabilitation for Older Stroke Survivors and their Family Caregivers in the Home Care Setting**

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# Objectives

- To report findings from a feasibility study including the development, implementation, and preliminary outcomes of a theory-based IPE training program for home care providers who care for older adults living with stroke and multiple chronic conditions
- To describe learners' reactions and perceived impact of the intervention
- To describe the barriers and facilitators to implementing the intervention
- To discuss implications for ongoing interprofessional education & professional development for home care providers caring for community-living older adults

# Background

- Stroke poses a significant burden to individuals, families and society (DiCarlo, 2009)
- 75% of older stroke survivors often live with one or more chronic diseases (MCC) (Griffith et al., 2014)
- Stroke combined with MCC adds complexity to the treatment and care of older stroke survivors, often challenging their recovery (Griffith et al., 2014; HSFO, 2014; Karatepe et al., 2008)

# Background

- Best Practice Guidelines for Stroke Rehabilitation advocate for interprofessional team approaches for community-based stroke rehabilitation (Allen, 2016; HSFO, 2013)
- Interprofessional collaboration (IPC) can enhance patient safety and result in improved patient and provider outcomes (IOM, 2015)
- IPE is considered a necessary prerequisite for collaborative practice (CIHC, 2010)
- However, many providers working in the home care setting have not received IPE or training related to IPC (Ploeg et al., 2017)
- Ongoing IPE as continuing professional development is recommended as one strategy to improve collaboration among health care providers (Curran et al., 2007; Reeves et al., 2017)

# Interprofessional Education

*“when individuals from two or more professions interactively learn with, from, and about each other to improve collaboration and quality of care.”*



*(CAIPE, 2002)*

# Interprofessional Collaboration

*“ an evolving interpersonal process, involving a diverse team of health care and other providers who interdependently engage in frequent communication and shared decision-making, for the purposes of providing optimal health and social care services to community-living older adults and their families. Team composition includes older adults and their caregivers; team processes are flexible and consistently evaluated to effectively and efficiently meet client needs.”*

(Bookey-Bassett et al., 2017)

# Study Context

- Doctoral research in the context of a larger pragmatic RCT – ACHRU-CPP (Markle-Reid et al.)
- Aim of trial – 6-month community navigation and rehabilitation intervention
- ***To promote successful community reintegration, enhance health-related quality of life, and reduce the on-demand use of expensive health services and support family caregivers to older stroke survivors living with multiple chronic conditions (MCC).***

# Key Components of RCT

- IP team Intervention offered in addition to usual care
- **Two core components**
  - In-home visits for stroke survivors
  - Monthly case conferences\*
- **Key Active Ingredients**
  - Strengths-based practice
  - Holistic care
  - Engaging and supporting family caregivers
  - Collaborative Practice\*



# RCT Versus IPE Intervention

	Stroke Intervention Study	IPE Intervention Study
<b>Study Title</b>	Aging Community and Health Research Unit Community Partnership Program (ACHRU-CPP) for older stroke survivors with MCC using home care services and their family caregivers ( <a href="https://achru.mcmaster.ca">https://achru.mcmaster.ca</a> )	An Interprofessional Education Intervention to Support an Interprofessional Team Approach to Stroke Rehabilitation for Older Stroke Survivors and their Family Caregivers: A Feasibility Study
<b>Purpose of Intervention</b>	To promote stroke survivors' community reintegration, increase their HRQoL, and reduce the effects of stroke	To provide an education/training program as a strategy to prepare home care providers to work collaboratively to deliver the community navigation and stroke rehabilitation intervention
<b>Primary Research Question</b>	What are the feasibility, acceptability, and effects of a six-month community navigation and rehabilitation intervention compared to usual home care services for stroke survivors with MCC and their primary caregivers?	What is the feasibility, acceptability & preliminary effectiveness of implementing an IPE intervention to support community-based stroke rehabilitation for older stroke survivors with MCC and their family caregivers?

# Study Setting

- Conducted between January and August 2016
- Two branches of a Community Care Access Centre (CCAC) in Ontario
- 4 teams were created; each consisting of:
  - 1 CCAC care coordinator
  - 1 RN
  - 1 OT
  - 1 PT
  - 3 PSWs (Personal Support Worker)
  - 1 PSW Supervisor
- Participants were not working in formal teams prior to study

# Research Questions



## Primary Research Question

- What is the feasibility and acceptability of implementing an IPE intervention to support community-based stroke rehabilitation for older stroke survivors with MCC and their family caregivers?

# Research Questions

## Secondary Research Questions:

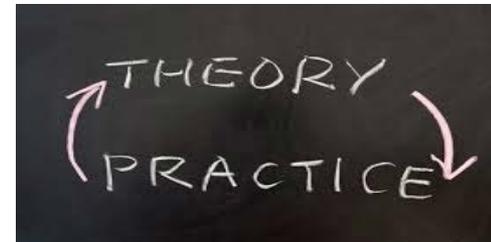
- What is the effectiveness of the IPE intervention on the level of collaborative practice and team functioning among home care providers?
- What is the perception of providers regarding the impact of the intervention on providers, the team, organization, clients & family caregivers?

# Study Methods

- 6 month feasibility study (Sidani & Braden, 2011)
- Qualitative and quantitative data were used to understand feasibility, acceptability, implementation and preliminary effectiveness of the intervention
- Participants were recruited from the group interventionists delivering the stroke intervention
- Total sample over 6 months  $n = 41$

# Development of the IPE Intervention

- Conceptual Frameworks – informed content
  - WeLearn Framework for Interprofessional Education (MacDonald et al. 2009)
  - Canadian Interprofessional Health Collaborative (CIHC, 2010)
- Theory-based – informed delivery mode
  - Adult learning, Interprofessionalism
  - Socioconstructivist theories
  - Reflective learning



# IPE Intervention Components

1. A standardized 3h training session on collaborative practice for all members of the team (baseline)
2. Standardized 2h training for care coordinators on facilitating collaborative practice (baseline)
3. Reflection on team collaboration @2,3,4,6 mos.
4. Outreach education visits to foster communication and collaboration among team members @2,3,4, & 6 mos.

# Collaborative Practice Reflective Huddle

## Three reflective questions:

- What is our team doing well with regards to collaborative practice?
- In caring for older stroke survivors with MCC and their family, what are the most difficult challenges to collaboration?
- How is our team collaboration impacting the care of clients and their family caregivers?

# Data Collection & Analysis

Data Collection	Analysis
<ul style="list-style-type: none"><li>• Post-IPE Standardized Training Session on Collaborative Practice (baseline)</li><li>• Demographic Questionnaire (baseline)</li><li>• Questionnaire to evaluate care coordinator training</li><li>• 3 and 6 months post-training – CPAT and TCI questionnaires</li><li>• CPRH Meeting Notes from 2, 3, 4, 6 months CPRH</li><li>• 3 Focus groups at 6 months</li></ul>	<ul style="list-style-type: none"><li>• Quantitative data – SPSS version 22.0 for Windows</li><li>• Descriptive statistics (means, SD, frequencies)</li><li>• Qualitative description (Sandelowski, 1995; Creswell &amp; Plano Clark, 2011)</li><li>• Thematic analysis (Braun &amp; Clarke, 2006)</li></ul>

CPAT = Collaborative Practice Assessment Tool (Schroder et al., 2011)

TCI – Team Climate Inventory (19-item Beaulieu et al., 2014)

# Results: Participant Characteristics

Item	Categories	n (%)
Gender	Male	5 (12.2)
	Female	36 (87.8)
Age	21-30	11 (26.9)
	31-40	10 (24.4)
	41-50	13 (31.7)
	≥ 51	7 (17.1)
Education	Technical or trade school	2 (5.1)
	Some College/university	10 (25.6)
	Diploma/Bachelor's Degree	19 (48.7)
	Graduate Degree	8 (20.5)
	Missing	2 (4.9)
Professional Background	Case Manager/Care Coordinator	4 (9.8)
	Occupational Therapist	4 (9.8)
	Physiotherapist	5 (12.2)
	Registered Nurse	7 (17.1)
	Personal Support Worker	15 (36.6)
	Registered Practical Nurse	1 (2.4)
	Nursing Supervisor	2 (4.9)
	PSW Supervisor	3 (7.3)

**\* A total of 41 individuals participated during the 6 month study**

# Results: Participant Characteristics

Item	Categories	n (%)
Years in Professional Role	0-10	26 (63.4)
	11-20	9 (22.0)
	≥ 21	6 (14.6)
Years in Current Position	0-3	21 (51.2)
	4-10	16 (39.0)
	11-15	4 (9.8)
Employment Status	Full-time	25 (61.0)
	Part-time/other	16 (39.0)
Previous IPC Training	Yes	17 (41.5)
	No	24 (58.5)*

Total n = 41

# Results: Feasibility of Implementation

Component	Delivered as Planned	Adapted/Modified
Standardized IPE 3 hour training session on Collaborative Practice	Yes	Adapted content and learning activities during delivery
Standardized 2 hour training for Care Coordinators	Yes	Minor adaptations to content
CPRH @ 2 months	Yes	
CPRH @ 3 months Completion of CPAT & TCI	Yes Yes	Data collection (email & in-person)
CPRH @ 4 months Presented 3 months CPAT and TCI results to teams	Yes Yes	
CPRH @ 6 months Completion of CPAT & TCI	Yes Yes	One team @ 7 months*

CPRH = Collaborative Practice Reflective Huddle

# Feasibility of Study Methods

Feasibility of the study methods used to evaluate the intervention:

- Questionnaires were easy to complete – good response rates
- CPRH meeting notes important to track discussions on reflection of team collaboration
- 3 Focus groups held in July 2016

# Results: Feasibility of Intervention Completion of Study Activities

Study Component	n	%
WeLearn (Jan 6, 2016)	31/32	96.8%
CPAT & TCI @ 3 mos	25/31	80.6%
CPAT & TCI @ 6 mos	22/31	70.9%
CPAT & TCI @ 3 and 6 mos.	19/28	67.8%
Focus Groups (July 2016)	20/28	71.4%

Number of individuals enrolled in the study fluctuated over the 6 months due to turnover of staff within the agencies

# Results: Acceptability of Intervention

- Enrollment rate 97%
- Turnover 27% (n =12)
- Attendance at Collaborative Practice Reflective Huddles (CPRH) ranged from 82.1% to 96.8%

	CPRH 2 mos.	CPRH 3 mos.	CPRH 4 mos.	CPRH 6 mos.
Total Attendance	28	30	26	23
# Enrolled*	33	31	31	28
<b>Proportion</b>	<b>84.8%</b>	<b>96.8%</b>	<b>83.8%</b>	<b>82.1%</b>



# Acceptability of Collaborative Practice Reflective Huddles

- *“reflection is always a good thing. There is lots of learning to be had from it, ...you know looking back at what you did and then analyzing what I could have done better.”*
- *“...reflecting individually, I don’t know if that gives you as much learning necessarily as reflecting together.”*

(Focus group 2)

## Results: Impact of Intervention on Providers

*“It’s something that I mean we’ve all done as health care practitioners we’ve done teamwork in some way or shape or form. But I don’t think it’s anything that we’ve actually analysed how we work as a part of a team...so makes you think a little more on how you may be a little more open to people’s comments or receive other peoples or how they receive yours. Basically, just how to work in a team together. So [it] made you think a bit more about that which I thought was good.” (P8)*

# Learner Reactions – Knowledge Gained

Item	% moderately or strongly agreed
The learning experience provide opportunities to learn about each other's profession	74.2%
The learning activities promoted the application of IP competencies	80.7%
The learning activities promoted collaborative problem-solving	74.2%
I enjoyed the learning experience	87.1%
I have learned knowledge that I will apply in practice	77.4%
I have learned skills that I will apply in practice	76.7%
I am motivated to change my practice toward providing more effective IP care	80.7%
I have a deeper appreciation of the approach to collaborative patient-centred care	90.3%

# Perceived Impact of Intervention

Providers and Team	Clients and Family Caregivers	Organization and System
<ul style="list-style-type: none"> <li>• Learning with, from and about each other</li> <li>• Knowing team members as individuals</li> <li>• Changing clinical practice               <ul style="list-style-type: none"> <li>○ Joint visits</li> <li>○ Creative problem-solving</li> <li>○ Sharing assessments</li> </ul> </li> <li>• Improving collaborative practice behaviours and skills               <ul style="list-style-type: none"> <li>○ Understanding and appreciating all roles</li> <li>○ Communicating effectively with team members</li> <li>○ Developing respect and trust within the team</li> <li>○ Shared decision-making and goal-setting</li> <li>○ Collaborating with external agencies</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Valuing a team approach to care</li> <li>• Developing trust with providers</li> <li>• Improved and consistent communication with clients and families</li> <li>• Engaging clients and family caregiver in care planning</li> <li>• Improving care</li> </ul>	<ul style="list-style-type: none"> <li>• Potential cost savings</li> <li>• Translation of new knowledge to work with other teams</li> </ul>

# Results: Impact of Intervention on Providers

## *Understanding and appreciating all roles*

*“We have a better understanding as to what each person's role actually is - where does it end, where does it overlap with someone else's role, and how can we use those strengths together to get the patient where they need to?”*

*“I think it's great that the PSW's are part of this study and hopefully will be part of other studies; they are a really important role in the community. I used to be a PSW before I became a nurse, so I know exactly what they deal with day-in and day-out. I just wish they get recognized for what they really do and I think we all have different perspectives and respect for everybody's role”.*

# Results: Impact of Intervention on Providers

## *Learning with, from and about each other*

*“they talk about the Tinetti score. I don’t really know what that is. So it’s good we had the PT there to explain what it is and how to interpret the score or assessment into the care plan and help us create goals” (FG2, P1)*

## *Changing Clinical Practice*

*“having the nurse there at the same time, she was able to add some details that maybe I wouldn’t have thought about...it really complimented the whole process” (FG1, P7)*

# Changes in CPAT Scores

Domain	n	3 months M (SD)	6 months M (SD)	p-value	95% CI for mean score difference
Mission/Purpose	24	6.70 (.34)	6.66 (.43)	0.636	-0.15, 0.24
General Relationships	24	6.68 (.43)	6.63 (.38)	0.647	-0.18, 0.28
Team Leadership	24	6.06 (.61)	6.08 (.57)	0.889	-0.34, 0.29
General Role/Responsibilities	24	5.64 (.61)	5.82 (.47)	0.207	-0.47, 0.11
Communication/Info Exchange	24	6.44 (.66)	6.78 (.33)	0.036*	-0.67, -0.02
Community Linkage & Coordination of Care	24	5.67 (1.10)	6.26 (.71)	0.010*	-1.01, -0.16
Decision-making Conflict Management	24	5.83 (.91)	6.29 (.83)	0.014*	-0.82, -0.10
Patient Involvement	24	6.69 (.44)	6.79 (.37)	0.366	-0.32, 0.12

# Changes in TCI Scores

Subscale	n	3 months M (SD)	6 months M (SD)	p -value	95% CI for mean score difference
Participation	24	4.53 (.41)	4.60 (.45)	0.506	-0.28, 0.14
Support for Innovation	24	4.52 (.46)	4.63 (.49)	0.365	-0.35, 0.13
Objectives	24	6.39 (.71)	6.68 (.44)	0.073	-0.61, 0.03
Task Orientation	24	6.21 (.73)	6.59 (.56)	0.014*	-0.68, -0.09

# Study Strengths & Limitations

Strengths	Limitations
<ul style="list-style-type: none"><li>• Theory-based IPE intervention</li><li>• IPE intervention in home care setting</li><li>• Involved regulated and unregulated providers</li><li>• Study design – feasibility and acceptability; important to assess prior to design of larger trial</li><li>• Provides insight re feasibility, acceptability and implementation of IPE intervention in home care context</li></ul>	<ul style="list-style-type: none"><li>• Small sample size</li><li>• Self-selected</li><li>• Self-report data</li><li>• Contextual challenges of larger RCT and home &amp; community setting</li><li>• Part of a complex intervention with multiple interacting components</li><li>• Study design – purpose is not to establish effectiveness</li></ul>

# Implications for IPE

- IPE is an ongoing process that supports collaborative practice
- Can't assume people know how to collaborate or engage in teamwork
- Education and resources for teamwork were perceived as acceptable/useful
- Establishing a Team Charter facilitated role understanding, trust and respect among team members
- Reflection on team collaboration viewed as being informative and helpful for teamwork and client care planning
- Ongoing coaching offered to support multiple domains of collaborative practice e.g., engaging clients in their care and encouraging all team members to participate (PSWs & RNs)
- Findings align with "2016 Better Home Care Report"

# Key Messages

**What is needed to sustain or integrate intervention into practice?**

- Leadership support & buy-in
- Dedicated resources (meeting time, financial)
- Work structure (team approaches to care)
- Staff training to work in interprofessional teams
- Ongoing support/coaching at team level

# Questions??

Thank you for attending the session.

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