

SHORT REPORT



Geriatric Interdisciplinary Team Training 2.0: A collaborative team-based approach to delivering care

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ABSTRACT

Interprofessional collaborative education and practice has become a cornerstone of optimal person-centered management in the current complex health care climate. This is especially important when working with older adults, many with multiple chronic conditions and challenging health care needs. This paper describes a feasibility study of the Geriatric Interdisciplinary Team Training 2.0 (GITT 2.0) program focused on providing interprofessional care to complex and frail older adults with multiple chronic conditions. A concurrent triangulation mixed-methods design facilitated program implementation and evaluation. Over three years (2013–2016), 65 graduate students from nursing, midwifery, social work, and pharmacy participated along with 25 preceptors. Participants were surveyed on their attitudes toward interprofessional collaboration pre and post-intervention and participated in focus groups. While attitudes toward interprofessional collaboration did not change quantitatively, focus groups revealed changes in language and enhanced perspectives of participants. Based on the evaluation data, the GITT 2.0 Toolkit was refined for use in interprofessional education and practice activities related to quality initiatives.

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Introduction

The Institute of Medicine (2008) report underscored how ill-equipped our current health care system and workforce is to care for a rapidly aging population. The report delineates challenges caring for complex, underserved older adults and recommends well-trained interprofessional teams provide quality care to this aging population. The *Core Competencies for Interprofessional Collaborative Practice* report emphasized the workforce be responsive to health care needs, work collaboratively and incorporate the patient/family, and/or the community as a team member (Interprofessional Education Collaborative Expert Panel, 2011). Efforts have focused on integrating concepts of interprofessional practice into educational programs. For interprofessional models of care delivery to grow, we must educate the existing and future workforce. The Triple Aim framework to optimize health system performance (improving care experiences, improving the health of populations, and reducing cost) prioritizes the provision of interprofessional, quality care (Berwick, Nolan, & Whittington, 2008).

In geriatrics and gerontology, clinicians, policymakers, and researchers have a significant interest in team-based health-care approaches to assess, manage, and evaluate complex issues crucial to delivering timely, well-coordinated, comprehensive care to older adults, especially those frail with

multiple conditions. The aim of this article is to describe the implementation, successes, and challenges of Geriatrics Interdisciplinary Team Training (GITT 2.0),¹ an innovative program that brings together health professional students and practitioners to implement a quality initiative and experience what an interprofessional team brings to person-centered care for older adults. The project was designed, implemented, and evaluated using a concurrent triangulation mixed-methods design.

Background

The national GITT Program, with its Resource Center based in the Hartford Institute for Geriatric Nursing (HIGN) at New York University (NYU) Rory Meyers College of Nursing (NYU Meyers), was funded by The John A. Hartford Foundation in the 1990s. A coalition of eight schools' professional programs developed resources to integrate interprofessional training into their curricula. GITT 2.0 builds on this work by providing new resources to help academic and healthcare organizations implement interprofessional education and practice. With funding from a United States (U.S.) Health Resources and Services Administration, Nursing Education, Practice, Quality and Retention grant, HIGN at NYU Meyers developed the GITT 2.0 model. This feasibility study of an interprofessional educational program

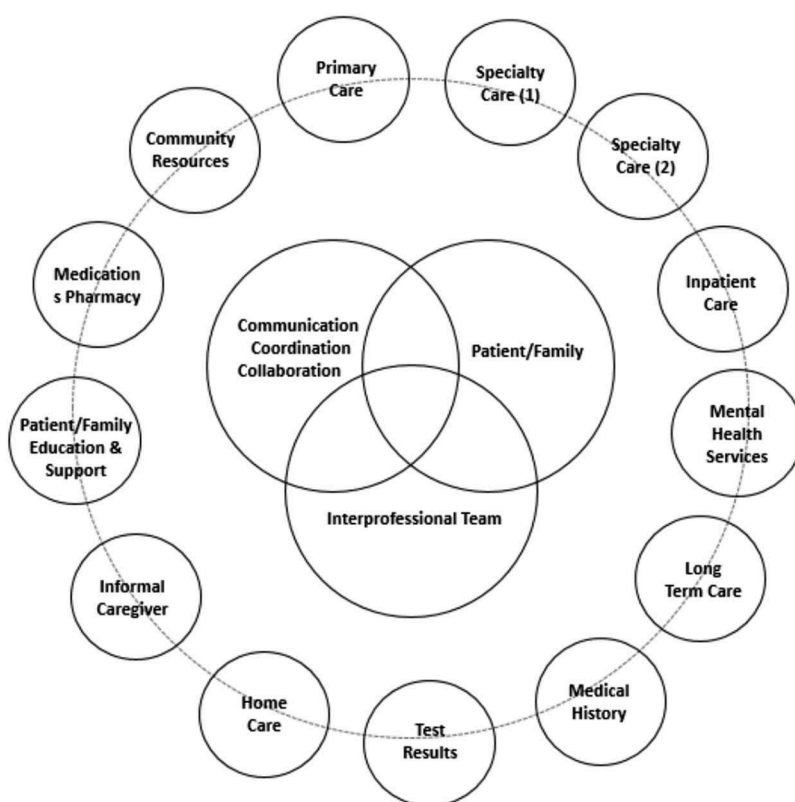


Figure 1. The GITT 2.0 model.

(Source: Tara Cortes, Health Resources and Services Administration grant #UD7HP26049)

focused on coordination of care, collaboration, and communication to address medication complexity among older adults, a population at risk for medication-related health problems especially after discharge from hospital (Chang, Kowalski, Sorich, & Alderman, 2017; Lenz, Monaghan, Ekeler, & Hayes, 2006). As shown in the GITT 2.0 Model (Figure 1), the patient/family and interprofessional team overlap with coordination of care, collaboration, and communication as this relation is important to team effectiveness.

Description of the interprofessional intervention

HIGN brought together three academic partners, NYU Meyers, NYU Silver School of Social Work and Touro College of Pharmacy. Students representing three professions (nurse practitioner, social work, and pharmacy) were placed at the Visiting Nurse Service of New York (VNSNY) and paired with practitioners matching their own profession. Each team, composed of students, professionals, and preceptors from three professions, addressed medication management with older adults with complex medication regimens after discharge home from the hospital.

From Fall 2013 through Fall 2016, each nurse practitioner (NP) student ($n = 29$) worked with a pharmacy student ($n = 14$) and social work (SW) student ($n = 22$), as well as a VNSNY preceptor from each profession (NP ($n = 10$), pharmacist ($n = 2$), social worker ($n = 13$)). This provided a total of 65 interprofessional students and 25 preceptors to participate in the GITT 2.0 model in the large, urban,

community-based VNSNY organization. Each team did home visits over one 15-week semester with geriatric home care recipients ($n = 192$) to address medication complexity and chronic disease management. The patients and family members reviewed medications, dosages, and indications with the students and preceptors to help identify medication complexity issues.

Interprofessional team members analyzed medication lists given upon discharge from the hospital. A Medication Regimen Complexity Index score was calculated per patient (George, Phun, Bailey, Kong, & Stewart, 2004; McDonald et al., 2013), quantifying the numbers of different dosage forms, dosing frequencies, and additional instructions. Together, interprofessional teams aimed to decrease duplicate medications, eliminate medications without clear indications, decrease medication dosing regimens by switching to long-acting medications when possible, and reconcile medication(s) not included in the medication list but should have been. The teams also addressed other medication management issues including adherence, educational deficits, cost, and insurance issues, compensating for cognitive deficits, promoting caregiver involvement, and appointment keeping. This involved ongoing communication and collaboration amongst the interprofessional team members, home care patient, family, and caregivers. In addition, 64% of the interprofessional teams collaborated with other professionals such as physicians, home care nurses, and caseworkers.

In addition to their basic field work, preceptors and students from each profession participated in activities to enhance

interprofessional learning. Seminars focused on interprofessional team building. Leadership and interprofessional case conferences provided opportunities for students to practice reversed roles—NP students reported social, economic issues; SW students reported medical, medication issues; pharmacy students reported how nursing and social work notes influenced recommendations. Feedback loops were built into the clinical experience; NP students let the pharmacy team know what they learned from the pharmacy recommendations. All activities were refined and enhanced through the semesters based on the evaluation.

Methods

An independent evaluator, not involved in the design of the educational intervention, conducted a concurrent triangulation mixed-methods evaluation of the interprofessional component of the GITT 2.0 program.

Data collection

The Assessment of Interprofessional Team Collaboration Scale (AITCS) is a reliable and valid survey instrument designed to measure collaboration within healthcare teams ($\alpha = 0.98$) (Orchard, King, Khalili, & Bezzina, 2012). A Canadian team developed the AITCS survey and this was the first testing of the instrument in the United States, to the best of our knowledge. The survey was sent to participating students and preceptors via email pre- and post-intervention. At least three email reminders were sent with each point of data collection to encourage adequate response rates.

Focus group interviews were conducted before and after clinical rotations with all NP, SW students, and preceptors to capture qualitative data. Pharmacy students, because of scheduling challenges, participated through individual interviews instead of focus groups. Participation was not mandatory at any point and everyone had the option to not participate. Summary feedback of qualitative interviews was provided to the implementation team after each semester to inform the evolution of the GITT 2.0 program.

Data analysis

All identifying information about student participants was removed from the email survey response database prior to data analysis. The AITCS survey data were analyzed using descriptive statistics. Pre- and post-intervention responses were tested for differences with simple t-tests. The team did not complete a one-way ANOVA to compare responses between health professions groups because the variances in responses were not homogeneous.

For the qualitative data, general thematic analysis using an open coding approach guided analyses. The evaluator had achieved data saturation across health professions by the end of the program, with 53 out of 65 (81%) participants completing interviews. Themes and categories emerged iteratively during the analytic process. The evaluator then reported the themes and categories to the implementation team for a member check and to establish the trustworthiness of the analyses.

Ethical considerations

This initiative, IRB# 13-9731, was deemed exempt after review by the NYU Institutional Review Board, University Committee on Activities Involving Human Subjects. Completion of AITCS was optional to meet IRB guidelines.

Results

Sixty-eight percent of participants completed the AITCS pre-intervention survey; 21% completed the AITCS post-intervention survey. Results from the pre-intervention survey are found in Table 1. Due to the low response rate on the post-intervention survey, we were not able to detect significant differences in AITCS responses between the two measurement times. However, consistent qualitative reports from 65 interprofessional student participants emphasized the program's value for enhancing existing interprofessional collaboration skills.

The combination of NPs and SWs seeing a total of 192 patients together in the home was reported as the most valuable experience for those students. Feedback was positive on actual interprofessional collaboration. Almost all students reported on how much seeing a patient in their home provided them with a better understanding of difficulties people face adhering to recommended treatment plans, such as those with non-working refrigerators. Several students felt that they wanted to work in home care in their future. Students and preceptors also expressed that they learned a lot about other professions' scope of practice and capabilities. Table 2 (online supplementary file) provides illustrative quotes focused on the "teamwork" theme that resulted from the analysis and best reflect the student and preceptor experiences with interprofessional collaboration. Overall, the qualitative evaluation was better at capturing changes in students' perspectives about interprofessional collaboration and education in pre- and post-interviews than the AITCS.

In collaboration with academic and clinical leadership teams, program modifications were implemented after each semester. Adjustments largely focused on scheduling, access to technology, and communication. See Table 3 (online supplementary file) for examples of modifications made after initial implementation.

Discussion

Since most participants were currently working in health care, their main frame of reference for interprofessional collaboration was their current work experience rather than the GITT 2.0 program. The lack of detectable changes in attitudes may be due to the stronger influence of the current employment site over the students' educational experiences with the program. We recommend that similar programs adopt a qualitatively-weighted evaluation approach since small sample sizes involved with most interprofessional education programs may not produce a large enough sample size to statistically detect the full effect of the program.

Our findings are consistent with a recent review about teaching interprofessional teamwork skills to health

Table 1. Results of the pre-intervention AITCS survey.

Stem: When we are working as a team, all of my team members...	Never	%	Rarely	%	Occasionally	%	Most of the Time	%	Always	%	n
Apply a unique definition of interprofessional collaborative practice to the practice setting.	2	2%	3	4%	25	30%	41	50%	11	13%	82
Share the power with each other.	1	1%	5	6%	21	26%	36	44%	19	23%	82
Help and support each other	0	0%	2	2%	15	18%	41	50%	24	29%	82
Respect and trust each other	0	0%	2	2%	10	12%	48	59%	22	27%	82
Are open and honest with each other	1	1%	0	0%	15	18%	45	55%	21	26%	82
Make changes to how they work on a team based on reflective reviews	1	1%	4	5%	16	20%	45	55%	16	20%	82
Establish agreements on patient care goals	0	0%	2	2%	14	17%	45	55%	21	26%	82
Are committed to the goals set out by the team	0	0%	2	2%	11	13%	46	56%	23	28%	82
Strive to achieve mutually satisfying resolution for differences of opinions	1	1%	1	1%	9	11%	48	59%	23	28%	82
Include patients in setting goals for their care	0	0%	2	2%	11	13%	40	49%	29	35%	82
Equally divide patient care goals among the team	2	2%	7	9%	13	16%	43	52%	17	21%	82
Listen to the wishes of our patients and caregivers when determining the process of care chosen by the team	0	0%	1	1%	8	10%	45	55%	28	34%	82
Encourage and support open communication, including the patients during team meetings	1	1%	1	1%	12	15%	46	56%	22	27%	82
Use and agree upon a process to resolve conflicts	2	2%	4	5%	12	15%	48	59%	16	20%	82
Understand the boundaries of what each other can do	1	1%	4	5%	20	24%	38	46%	19	23%	82
Understand that there are shared knowledge and skills between health professions	0	0%	2	2%	14	17%	43	52%	23	28%	82
Exhibit a high priority for gaining insight from patients about their wishes/ desires	0	0%	3	4%	12	15%	44	54%	23	28%	82
Create a cooperative atmosphere among the members when addressing patient situations	0	0%	3	4%	9	11%	48	59%	22	27%	82
Establish a sense of trust among the team members	0	0%	4	5%	8	10%	48	59%	22	27%	82
Meet and discuss patient care on a regular basis	3	4%	4	5%	17	21%	32	39%	26	32%	82
Feel supported by the organization for working in teams	0	0%	5	6%	16	20%	41	50%	20	24%	82
Coordinate health and social services (e.g. financial, occupational, housing, community-based, spiritual) based on patient care needs	0	0%	2	2%	12	15%	44	54%	24	29%	82
Use a variety of communication means (e.g. written messages, e-mail, electronic patient records, phone, informal discussion, etc.)	1	1%	0	0%	11	13%	39	48%	31	38%	82
Consistently communicate with each other to discuss patient care	0	0%	4	5%	18	22%	40	49%	20	24%	82
Are involved in goal setting for each patient	0	0%	2	2%	12	15%	44	54%	24	29%	82
Listen to and consider other members' voices and opinions/views in regards to individual care planning processes	1	1%	2	2%	11	13%	44	54%	24	29%	82
Vary the team leader depending on the needs of our patients	8	10%	7	9%	14	17%	39	48%	14	17%	82
Select the leader for our team	14	17%	8	10%	15	18%	29	35%	16	20%	82
Openly support the inclusion of the patient in our team meetings	6	7%	5	6%	14	17%	38	46%	19	23%	82
Expect the leader to strive for consensus when care decisions are made	5	6%	2	2%	14	17%	43	52%	18	22%	82
Feel a sense of belonging to the group	2	2%	3	4%	15	18%	45	55%	17	21%	82
Establish deadlines for steps and outcome markers in regards to patient care	0	0%	2	2%	16	20%	45	55%	19	23%	82
Jointly agree to communicate plans for patient care	1	1%	3	4%	10	12%	48	59%	20	24%	82
Consider alternative approaches to achieve shared goals	1	1%	4	5%	15	18%	42	51%	20	24%	82
Encourage each other, patients, and caregivers to use the knowledge and skills that each of us can bring when developing plans of care	1	1%	2	2%	12	15%	45	55%	22	27%	82
Focus teamwork consistently on the patient	1	1%	4	5%	8	10%	43	52%	26	32%	82
Work with the patient and caregivers to adjust care plans	1	1%	2	2%	9	11%	46	56%	24	29%	82

professional students (Fox et al., 2018). Teaching methods may vary across programs and research studies, but the learning experiences where interprofessional teams interact result in positive changes in student perceptions and attitudes about interprofessional education and practice. Additionally, interprofessional trainees in this home care initiative found benefits working within teams to improve the quality of care provided to home care recipients. This supports findings by Boland and colleagues (2016) that studied the implementation and evaluation of a week-long interprofessional training for graduate level trainees that found trainees felt more confident in their ability to work within an interprofessional team and more likely to engage in team-based approaches to care in the future (Boland et al., 2016).

The service setting for the inaugural implementation of GITT 2.0—home care—is one of the fastest growing sectors of health care delivery. The GITT 2.0 program was designed to address gaps in interprofessional home care practice by bringing together students and practicing professionals to

decrease medication complexity. By designing a program actively involving both student and professional participants, important concepts surrounding interprofessional education and practice can be meaningfully introduced in the education of new clinicians and developed within the existing workforce. GITT 2.0 implemented an interprofessional education program that addressed common challenges seen in academia and practice, especially arrangement of interprofessional didactic and clinical experiences among varying professional schedules.

Resources provided in a GITT 2.0 Toolkit, developed after implementation of this project, include guidance on engaging leaders in interprofessional initiatives; launching interprofessional collaborative experiences; selecting a quality initiative; prototype workflows; content slide decks and activity outlines to facilitate interprofessional learning, implementation, and evaluation.²

Older adults have a cadre of issues resulting in increased complexity and needs. The multifaceted approach offered by

interprofessional teams should be highly valued and serve to mitigate the rising cost of health care and improve the quality of care. We see the critical need for team-based care and how it can address the complex care that older adults, families, and caregivers need in the home care setting. Interprofessional initiatives continue at our institutions. Over time, we hope other education programs adopt an interprofessional initiative to help foster improvement in communication, collaboration, and coordination of care for complex older adults.

Limitations of the study include its urban location, the single home care setting, and the low post-intervention response rate. More pharmacy students participating in the qualitative portion of the study may have added additional pharmacy specific dimensions to the work, but the scheduling challenges for their rotation in the home care agency made recruitment difficult. Further assessment of the AITCS in the U.S. context would be warranted since factor loadings may vary between countries due to contextual influences (Brzyski, Kózka, Squires, & Brzostek, 2016; Squires et al., 2013).

Notes

1. While the term 'interdisciplinary' is used here and is part of a title that cannot be altered, given the focus on health care professions, the preferred term is interprofessional.
2. The GITT 2.0 Toolkit is accessible at <https://consultgeri.org/gitt-2.0-toolkit>. The GITT 2.0 Toolkit provides a range of resources to develop or enhance interprofessional education and practice related to quality initiatives.

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Declaration of interest

The authors report no conflicts of interest. The authors alone are responsible for the writing and content of this article.

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