Specialists and Family Physicians in Interprofessional Teams – Shifting Perspectives in Caring for Patients with Multimorbidity: A Qualitative Study

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Abstract:	Background: Patients with multimorbidity encounter fragmentation, conflicting information, and gaps in care. They often require services across different healthcare settings, yet team processes among settings are rarely implemented. The study explored perceptions of specialists and family physicians collaborating in a telemedicine interprofessional consultation for patients with multimorbidity (TIP/IMPACT) to better understand the value of bringing together physicians across the boundaries of health care settings. Methods: This is a descriptive qualitative, interview-based study. The participants included nine specialists and six family physicians who previously participated in a TIP/IMPACT clinic. An iterative and interpretive process was conducted with both individual and team analysis to identify themes. Results: Three themes emerged in the analysis: 1) perceived benefits of practicing in an interprofessional team model that facilitated a transfer of knowledge, skills and attitudes; 2) the shift from a consultant model to an interprofessional team model, allowing a window into the community, extending discussions beyond the medical model, and focusing on the

	patient's health in context; and 3) benefits for trainees including learning about interprofessional collaboration and gaining exposure to a 'real-world' model for caring for people with multimorbidity in outpatient/community settings. Interpretation: These results demonstrate that the TIP/IMPACT program provides a model of care for patients with multimorbidity in which providers across different settings and disciplines create a synergy. By creating new knowledge through collaboration rather than just circulating knowledge between professionals, this model adds new perspectives to the care of complex patients with multimorbidity and provides additional personal and system benefits.

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Consolidated criteria for reporting qualitative studies (COREQ): 32-item checklist

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No. Item	Guide questions/description	Reported on Page #
Domain 1: Research team and reflexivity		
Personal Characteristics		
1. Inter viewer/facilitator	Which author/s conducted the inter view or focus group?	Page 6
2. Credentials	What were the researcher's credentials? E.g. PhD, MD	Page 1
3. Occupation	What was their occupation at the time of the study?	Page 1
4. Gender	Was the researcher male or female?	Page 1 and 6
5. Experience and training	What experience or training did the researcher have?	Page 1 and 7
Relationship with participants		
6. Relationship established	Was a relationship established prior to study commencement?	Page 6
7. Participant knowledge of the interviewer	What did the participants know about the researcher? e.g. personal goals, reasons for doing the research	Page 6
8. Interviewer characteristics	What characteristics were reported about the inter viewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic	Page 7
Domain 2: study design		
Theoretical framework		
9. Methodological orientation and Theory	What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis	Page 6
Participant selection		
10. Sampling	How were participants selected? e.g. purposive, convenience, consecutive, snowball	Page 5 and 6
11. Method of approach	How were participants approached? e.g. face-to-face, telephone, mail, email	Page 6
12. Sample size	How many participants were in the study?	Table 1
13. Non-participation	How many people refused to participate or	N/A Page 6

	dropped out? Reasons?	
Setting		
14. Setting of data collection	Where was the data collected? e.g. home, clinic, workplace	Page 6
15. Presence of non-participants	Was anyone else present besides the participants and researchers?	Page 6
16. Description of sample	What are the important characteristics of the sample? e.g. demographic data, date	Table 1
Data collection		
17. Interview guide	Were questions, prompts, guides provided by the authors? Was it pilot tested?	Page 6, not pilot tested
18. Repeat interviews	Were repeat inter views carried out? If yes, how many?	No
19. Audio/visual recording	Did the research use audio or visual recording to collect the data?	Page 6
20. Field notes	Were field notes made during and/or after the inter view or focus group?	Page 7
21. Duration	What was the duration of the inter views or focus group?	Page 6
22. Data saturation	Was data saturation discussed?	Page 6
23. Transcripts returned	Were transcripts returned to participants for comment and/or correction?	No
Domain 3: analysis and findings		
Data analysis		
24. Number of data coders	How many data coders coded the data?	Page 6
25. Description of the coding tree	Did authors provide a description of the coding tree?	No
26. Derivation of themes	Were themes identified in advance or derived from the data?	Page 7
27. Software	What software, if applicable, was used to manage the data?	Page 6
28. Participant checking	Did participants provide feedback on the findings?	No
Reporting		
29. Quotations presented	Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? e.g. participant number	Page 7 to 11
30. Data and findings consistent	Was there consistency between the data presented and the findings?	Yes, there was. Page 7 to 11
31. Clarity of major themes	Were major themes clearly presented in the findings?	Yes they were. From page 7 to 11
32. Clarity of minor themes	Is there a description of diverse cases or discussion of minor themes?	Discussion of major and minor themes From page 7-11

Specialists and Family Physicians in Interprofessional Teams – Shifting Perspectives in Caring for Patients with Multimorbidity: A Qualitative Study

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Key words : multimorbidity, interprofessional collaboration, specialists, family physicians, team

Abstract

Background:

Patients with multimorbidity encounter fragmentation, conflicting information, and gaps in care. They often require services across different healthcare settings, yet team processes among settings are rarely implemented. The study explored perceptions of specialists and family physicians collaborating in a telemedicine interprofessional consultation for patients with multimorbidity (TIP/IMPACT) to better understand the value of bringing together physicians across the boundaries of health care settings.

Methods:

This is a descriptive qualitative, interview-based study. The participants included nine specialists and six family physicians who previously participated in a TIP/IMPACT clinic. An iterative and interpretive process was conducted with both individual and team analysis to identify themes.

Results:

Three themes emerged in the analysis: 1) perceived benefits of practicing in an interprofessional team model that facilitated a transfer of knowledge, skills and attitudes; 2) the shift from a consultant model to an interprofessional team model, allowing a window into the community, extending discussions beyond the medical model, and focusing on the patient's health in context; and 3) benefits for trainees including learning about interprofessional collaboration and

gaining exposure to a 'real-world' model for caring for people with multimorbidity in outpatient/community settings.

Interpretation:

These results demonstrate that the TIP/IMPACT program provides a model of care for patients with multimorbidity in which providers across different settings and disciplines create a synergy. By creating new knowledge through collaboration rather than just circulating knowledge between professionals, this model adds new perspectives to the care of complex patients with multimorbidity and provides additional personal and system benefits.

INTRODUCTION

People increasingly suffer from multiple chronic conditions. Together with the rise in multimorbidity and the increasing complexity of health care, there is often an exponential increase in the number of healthcare professionals involved in the patient's care. (1) A report from the Netherlands on care for people with chronic diseases indicated that these patients visit 4-9 professionals regularly.(2) Patients report concerns with multiple appointments, confusion about who is caring for them, inadequate and conflicting information, communication problems with and amongst clinicians, and lack of access to specialist care.(3) Interprofessional teamwork has been demonstrated to contribute to both quality of care and control of costs.(4-7) Exploring the experiences of providers working in teams has provided valuable insights into the key features of successful interprofessional teamwork.(8-9) However, most research in this field has focussed on primary health care teams or teams collaborating within hospitals or residential settings.(10-11) People with multimorbidity require care from providers across settings, which often include primary care, secondary care and community care. Because clinical care is often organized according to the care setting, team processes that extend beyond these traditional boundaries are rarely implemented.(12) Studies examining a variety of settings including oncology, palliative, pediatrics and memory clinics have demonstrated that the interfaces between primary and secondary care are fraught with challenges to effective teamwork.(13-15) These interprofessional teams consist of multiple providers. Often, primary care and specialist physicians do not have a clear understanding of each other's skill sets and responsibilities, and experience challenges in delivering timely and appropriate communication to each other. Some of these barriers can be removed when the quality of the relationships between primary and

secondary providers improves and when back-and-forth communication is more seamless.(16) The literature about team performance in low-acuity settings is minimal and there is a lack of specific recommendations on how to actually improve these collaborations.(17) Contributing to these challenges, is the lack of inter professional collaboration during both primary care and specialist education and training.(18) Despite multiple professional bodies recommending interprofessional collaboration as a core competence(19-21), providers are frequently left with unstructured and implicit learning, often happening only during forced interactions.(22)

Concurrently, providers in practice are developing and implementing innovative strategies to address the challenges of interprofessional care for complex patients with multimorbidity. One such example is the Telemedicine Interprofessional Model of Practice for Aging and Complex Treatments (TIP/IMPACT) clinic, which provides an interprofessional primary care consultation model for these patients. The current paper explores the perceptions of specialists and family physicians collaborating within interprofessional team meetings for patients with multimorbidity in order to better understand the value of bringing together physicians across the boundaries of different health care settings.

METHODS

Design

This paper used a qualitative descriptive approach to explore the role of specialists participating on an innovative primary health care interprofessional team model.(23-25) See Figure 1 for an overview of the intervention.(26)

Participants

Participant Recruitment

Program Leads recruited a purposive sample of family physicians and specialists who previously participated in a TIP/IMPACT clinic. Contact with all participants was made either by phone or email to confirm participation. Informed consent was obtained and confidentially was assured.

Final sample see table 1.

Approach

Data Collection

Semi-structured individual interviews were conducted at the participants' practice location. Participants were asked to describe their experience of being a member of this interprofessional team model. The interviews, lasting from 30-60 minutes in duration, were audiotaped and transcribed verbatim. PB, JBB, SMR and two research assistants conducted the interviews.

Data Analysis

The data analysis was both iterative and interpretive. For the first phase of analysis, each transcript was reviewed and coded individually by PB, JBB, SMR to determine key concepts emerging from the data. Next, meeting as a team they examined their independent coding, culminating in the initial coding template. This process was repeated until all the interviews were analyzed, the coding template deemed comprehensive and complete and data sufficiency had been achieved. Once the main themes and sub-themes were input into QSR International's NVivo 10, PB, JBB and SMR reviewed the NVivo data to identify the overarching themes and

exemplar quotes. The data reported in this paper reflects the participants' spontaneous comments and reflections and were not in response to a specific question.

Trustworthiness and Credibility

The trustworthiness and credibility of the analysis was ensured by using verbatim transcripts, independent and team analysis, and field notes written post-interview. A commitment to reflexivity considered how the researchers' professional backgrounds (e.g., social work, family medicine, internal medicine, epidemiology), particularly during the analysis phase , could influence the findings.

Ethics Approval

Ethics approval was received from the Health Sciences Research Ethics Board of Western University (106921).

RESULTS

Three overarching themes emerged from the data: (1) benefits of practicing in an interprofessional team including appreciation of the knowledge, skills and attitudes of various team members; (2) the shift from a consultant model to an interprofessional team model and; (3) opportunities for learners in an interprofessional outpatient team setting.

(1) Creating new perspectives on care for multimorbidity by sharing knowledge, skills and attitudes

All of the participants expressed the value of learning from other team members through a transfer of knowledge, skills and experience. *"I learn a lot from hearing other health care*

professionals and their take on some of the patient´s problems." (Psych) Working in an interprofessional team enhanced their understanding of the unique contributions of other team members. *"You see what the other people are thinking of - the different styles." (Psych)* Participants described how collaborating as a team validated the complexity of the patient's situation and the need to consider different aspects contributing to the patient´s challenges. *"It just validates that there's a lot of different perspectives to look at….. So I think it educates the group in that way and models this need to think of what different things are going on." (Psych)*

Collaborating together as a team provided added value with a shift from a single disease focus to an exploration of the various components of a patient´s multimorbidity.

> "There's an added value by far. … because they have multiple things going on, social, functional, cognitive, medical. It really is useful having that full interdisciplinary team for these particular patients." (Geri)

The specialist participants explained the difference between receiving a case summary versus hearing and discussing the patient's situation in an interprofessional team setting.

> " When I get the case summary and then I hear input from an internist or a family doctor. Oh wow, that was interesting! I wonder why that hadn't been addressed or that's a wrinkle I certainly didn't think of before." (Psych)

Another key benefit of the interprofessional team was the opportunity to discuss various aspects of the patient´s problems.

> "I think the greatest benefit is that because we're all sitting down together at the same table we can talk about how these things interact and intersect. So for example, pharmacy can talk about adverse drug interactions that may be contributing to mental illness or making it worse. And then together with social work at the table we can all comment on how we think this is impacting activities of daily living." (GIM)

Engaging the patient with an interprofessional team of providers at one time, in one location, was described as synergistic. *"I think there's something synergistic about having all those people together and you can build on each other's thoughts and possible avenues." (FP).* A prerequisite for this to successfully transpire was team members having a well-developed and strong professional identity. *"You really need people who have the skills in their discipline at a very high level. … it's not a show for amateurs." (FP)*

(2) Moving away from a consultant model to an interprofessional team model

Specialist participants articulated how the interprofessional model based in primary care helped them to understand the patient's experiences outside the walls of the hospital. The experience provided a window into the community, encouraging them to try to understand all facets of the participant's life. *"Because the environment is present in the picture (telemedicine) people are asking more questions about that kind of stuff than I am used to seeing." (GIM).* While adopting this interprofessional model for patients with multimorbidity, specialists were actively considering how care could be best provided and supported. "*This is really about brainstorming with this patient and family physician about how can we better meet their needs." (FP).* Being a member of the interprofessional team increased the specialist's awareness and respect for

family physician´s roles and consequently enabled them to provide relevant recommendations within the context of primary care. "*I think the family doctors feel very well respected by the specialists and the specialists are always very supportive in terms of giving ideas that could be readily implemented in primary care." (FP)*

Participating in the interprofessional team exposed the specialist participants to a different practice model requiring them to relinquish the traditional consult model.

> "It takes a special kind of consultant to do this because you're not examining the patient. You can't get a very traditional specialist to do this, because they're really used to having all the I's dotted and the T's crossed." (FP)

Specialist participants described how they could be more accessible to this patient population in comparison to the traditional consultation model.

> "I'm not going to have everything done as beautifully as I want, but these patients wouldn't have been able to easily get to my clinic otherwise. And if I can provide a little bit of help and support, then at least I'm getting the patient moving in the right direction." (Geri)

Participants explained how working on this interprofessional team required specialists to extend beyond the traditional medical model and alter their focus from labelling the disease to understanding the patient´s issues and needs.

> "An internist would want to label a disease and with this disease comes an investigation and a treatment that is doctor-driven, evidence-base driven. Whereas with (The Program),

it's completely turned around. The treatment, the drug, the investigation will be driven by what the patient wants." (GIM)

(3) Opportunities for learners

Participants explained how the program addresses important gaps in medical education. First, learners are not routinely well trained in outpatient care. *"These models aren't formally part of educational practice…Everybody talks about how the future of medicine is outpatient, but that's not the way they're necessarily being trained". (GIM).* Second, teachers are traditionally not practicing within an interprofessional care model, leaving trainees without the necessary role models. "*Very few people know how to do interprofessional care; not professionals performing side-by-side, but actually interprofessionally… Often what's called interprofessional is not, it's still parallel play." (GIM)*

Thirdly, participants described the Program as a model for learning how to care for patients with multimorbidity within the community. *"These trainees in ambulatory care need to be in the community, need to be on interprofessional teams. That's the way of dealing with these very complex patients." (FP).* Participating as a learner in the Program's interprofessional teams was felt to be relevant for trainees across different disciplines. *" Whether you are a social work student, a medical student, a psychology student, it allows you to foster that model of interdisciplinary care." (Psych).*

INTERPRETATION

Our study describing family physicians' and specialists' perceptions of an interprofessional consultation for patients with multimorbidity revealed their perceived benefits of this type of

program in caring for this population. The success of the Program may come from its merger of different facilitators for learning through collaboration that have previously been identified in the literature.

First, the Program was felt to facilitate a transfer of knowledge, skills and attitudes, which enabled teams to create novel perspectives of practice and new knowledge in care for people with multimorbidity. One of the main facilitators appeared to be the synchronous one-time collaboration instead of the traditional asynchronous circulation of patient information amongst providers.(27-29) The Program demonstrated a synergy with the 'communities of practice' learning model(30) which is based on learning through participation, doing things together and discussing with one another, which is different from Bandura's social cognitive learning theory(31) that traditionally focuses on observation, imitation and modeling other professionals.(32) In this way, the Program overcame important barriers described in the literature, such as understanding each other's roles and responsibilities and timely and appropriate communication.(13-15)

Second, participants described a shift from a consultant model to an interprofessional team model, facilitating specialist practice beyond the clinical expert model. Professionals who adopt the role of the clinical expert have been described as finding it more difficult to assimilate their knowledge in an interprofessional consultation process.(27) In the Program, participants explained how specialists were able to contextualize and relate their expert knowledge to the patient situation by adopting a patient-centered approach focused on the person in the community. A shared responsibility for the patient within the context of shared values focused on patient-centered care has also been elicited as an important facilitator for interprofessional

learning.(33-35) The literature also describes a more realistic and relevant view on medicine, providing insight and awareness of one's own and others professional possibilities and roles.(36-40)

Third, the Program was described as an important educational opportunity for trainees. Clinical training for patients with multimorbidity is typically hospital-based and single-system-focused with a strong emphasis on the traditional consultation model. The Program provides a model to address the current lack of established methods for trainees to learn interprofessional collaboration across the primary-secondary-tertiary care divide.(41-42, 22, 43-45) In this context, discussing complex patient cases and creating a collaborative care plan has been described as both a care delivery and teaching strategy.(46-47) Consequently, the Program can provide opportunities for trainees to learn about interprofessional collaboration in the field and gain exposure to a 'real-world' model for caring for people with multimorbidity in outpatient/community settings.

Limitations

The sample was limited to one program and may not be transferable. However, the experiences may resonate with other physicians in similar programs. An important limitation of this study is that the perceptions of specialist and family physicians was not a predefined research question of this study. Rather the perceived benefits of this program for interprofessional collaboration across settings spontaneously emerged in the analysis. Future studies require a deeper exploration of the experiences of both specialists and family physicians working collaboratively in an interprofessional team model. Also, while the educational needs of trainees in caring for

patients with multimorbidity were raised by our study participants, we did not explore the perceptions and experiences of the learners, hence further studies would be valuable in this area.

Conclusions

Overall, we can conclude that family physicians and specialists participating in TIP/IMPACT believe the Program improves their knowledge and skills, while also serving both as an effective care delivery and teaching strategy. The insights gained through the Program can add to the knowledge base of how to care for patients with multimorbidity, while simultaneously supporting the formal and informal training of physicians and learners at all levels in the management of these patients. Ongoing description and evaluation of similar practice-based programs is required to further explore these perceived interprofessional and educational benefits.

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Contributors Statement:

Drs. Pauline Boeckxstaens, Judith Belle Brown and Sonja Reichert contributed substantially to conception and design, acquisition of data, analysis and interpretation of data. Dr. Christopher N.C. Smith contributed to the design of the project and writing of the manuscript. Drs. Moira Stewart and Martin Fortin contributed substantially to the design of the project. All of the authors revised the manuscript critically for important intellectual content. All authors approved the final version to be published and agreed to be accountable for all aspects of the work.

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No conflicts of interest

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Table 1: Characteristics of Final Sample (n=15)

Age	Average 46 (range 34-65)
Gender	
Female	8
Male	7
Type of specialty	
Geriatrician	2
Psychiatrist	3
General Internist	4
Family physician	6
Years of practice	Average 13 yrs
Involvement with TIP/IMPACT Program	Range 1-7 yrs

Figure 1: Overview of the Program