

BMJ Open Perceptions of older adults in Ontario, Canada on the implementation and impact of a primary care programme, Health Teams Advancing Patient Experience: Strengthening Quality (Health TAPESTRY): a descriptive qualitative study

Jenny Ploeg,¹ Ruta Kristina Valaitis,¹ Laura Cleghorn,² Marie-Lee Yous,¹ Jessica Gaber,³ Gina Agarwal,² Monika Kastner,^{4,5} Dee Mangin,² Doug Oliver,² Fiona Parascandalo,² Cathy Risdon,² Lisa Dolovich⁶

To cite: Ploeg J, Valaitis RK, Cleghorn L, *et al*. Perceptions of older adults in Ontario, Canada on the implementation and impact of a primary care programme, Health Teams Advancing Patient Experience: Strengthening Quality (Health TAPESTRY): a descriptive qualitative study. *BMJ Open* 2019;**9**:e026257. doi:10.1136/bmjopen-2018-026257

► Prepublication history for this paper is available online. To view these files, please visit the journal online (<http://dx.doi.org/10.1136/bmjopen-2018-026257>).

Received 23 August 2018
Revised 5 March 2019
Accepted 9 May 2019



© Author(s) (or their employer(s)) 2019. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

For numbered affiliations see end of article.

Correspondence to

Dr Jenny Ploeg;
ploegj@mcmaster.ca

ABSTRACT

Objectives The aim of the study was to explore the perceptions of older adults on the implementation and impact of Health Teams Advancing Patient Experience: Strengthening Quality (Health TAPESTRY), a multicomponent primary care programme that seeks to improve care coordination for individuals through health-related goal-setting supported by trained lay volunteers who are an extension of an interprofessional team, and the use of technology to support communication among the team.

Design This study used a qualitative descriptive design.

Setting The setting for this study was two primary care practice sites located in a large urban area in Ontario, Canada.

Participants The sample consisted of community-dwelling older adults aged 70 years and older. Participants were recruited from a convenience sample obtained from 360 clients who participated in the 12-month Health TAPESTRY randomised controlled trial.

Methods Semistructured interviews were conducted with 32 older adults either face-to-face or by telephone. Interviews were transcribed verbatim. Data were analysed using a constant comparative approach to develop themes.

Results Older adults' perceptions about the Health TAPESTRY programme included (1) the lack of a clear purpose and understanding of how information was shared among providers, (2) mixed positive and negative perceptions of goal-setting and provider follow-up after inhome visits by volunteers, (3) positive impacts such as satisfaction with the primary care team, and (4) the potential for the programme to become a regular programme and applied to other communities and groups.

Conclusions Older adults living in the community may benefit from greater primary care support provided through enhanced team-based approaches. Programmes such as Health TAPESTRY facilitate opportunities for older adults to work with primary care providers to meet their

Strengths and limitations of this study

- The study included community-dwelling older adults with a variety of health conditions.
- A rigorous analytic method was used involving multiple researchers with expertise in primary care, qualitative and ageing research, as well as programme evaluation.
- Study limitations were that most of the participants self-identified as Caucasian and only English-speaking older adults were interviewed.
- Only two practice sites from a family health team in one area of Ontario, Canada, were included in this study.

self-identified needs. By exploring perceptions of clients, primary care programmes can be further refined and expanded for various populations.

INTRODUCTION

Since the early 2000s, the province of Ontario in Canada has implemented reforms to improve access to primary care services and chronic disease management, target health promotion and disease prevention, implement interdisciplinary teams, and increase coordination between primary care and other services.¹ Previous studies have explored the impact of interprofessional primary care teams for older adults with complex needs.^{2,3} However, few studies describe the experiences and perspectives of clients in relation to innovative primary care models that use this approach.⁴

Efforts to improve the quality of healthcare have increasingly focused on the 'triple aim' of improving individual experience of care, improving population health and reducing costs.⁵ Focusing on clients' experiences provides clear guidance for quality improvement of programmes, enhances client safety, improves compliance with treatment plans and promotes the use of preventative care services.^{6,7} It can also provide insight into what is lacking in community programmes and how to efficiently use healthcare system resources to better meet clients' needs.⁷ Client engagement in programme planning and improvement ensures that programmes are directly applicable to clients and can maximise the transferability of innovations into clinical practice.^{8,9}

There is a positive association between stronger primary care systems and better population health and longevity.^{10–13} The core primary care attributes underpinning this effect include first contact care, person-centred care, continuity, comprehensiveness and coordination.¹⁴ This evidence is congruent with endeavours to place client-centred, coordinated care at the forefront of efforts to improve primary care.¹⁵ Person-centred care ensures that healthcare consumers are being acknowledged as capable human beings and that their preferences, needs and values are respected.¹⁶ This paper reports on the experiences of older adults who participated in a new multicomponent programme designed to improve person-centred, team-based primary care.

Health TAPESTRY

Health Teams Advancing Patient Experience: Strengthening Quality (Health TAPESTRY) is an innovative primary care programme improving care coordination for clients, centred on their health goals and needs, while optimising ageing.¹⁵ Person-centred approaches address common issues affecting older adults' health. Multiple components are involved, including inhome visits with trained volunteers, technology-based applications (eg, TAP-App and an electronic personal health record (PHR)), increased accessibility and involvement of interprofessional primary care teams, and integration of community resources.¹⁵

Inhome visits were conducted by pairs of volunteers, typically an older individual and a younger university student. They received training on how to engage with older adults with complex health needs and helped them to set their personal health and life goals. A feasibility substudy of the goal-setting process in the Health TAPESTRY programme found it to be feasible and supported interprofessional teams to help improve care management of older adults.¹⁷ They collected information for the primary care teams using the 'TAP-App' on tablet computers. Information collected about clients' health risks, needs and goals was summarised in an electronic report, which was transferred to their primary care electronic medical record.¹⁸ The interdisciplinary team reviewed the report and followed up on goals by developing a plan of care to address identified health risks

and goals. Clients were also provided with access to their PHR so that they could track their own medical information within health modules (eg, medication tracker and immunisation record) and have increased access to their primary care team through secure messaging.¹⁷ Common gaps in care were identified from the aggregate information collected during volunteer home visits. These gaps were addressed for clients during group education visits known as the Healthy Aging Series offered to clients and their friends and family.¹⁹ Topics covered included an overview of healthy ageing, nutrition, physical activity and advance care planning.

We report on qualitative findings obtained from older adults who were recruited for a large, mixed-methods, randomised controlled trial (RCT) that examined the effectiveness of the Health TAPESTRY intervention.¹⁵ Results of the RCT are forthcoming in a paper focused on patient outcomes. Findings from the RCT for clients who received Health TAPESTRY compared with the control group were the following: (1) no significant difference in goal attainment scaling, (2) an increase in the number of primary care visits (mean 4.9 vs 3.5; $p < 0.0001$), and (3) reduced odds of experiencing one or more hospitalisations during the 6-month intervention period (OR 0.44, 95% CI 0.2 to 0.95). The triple aim for healthcare system improvement includes a focus on 'patient experience'.⁵ To further understand the patient experience and perceived outcomes, this paper aims to explore the perceptions of older adults who received the Health TAPESTRY programme. The following was the research question: What are the perceptions of older adults who received the Health TAPESTRY programme in relation to (1) programme goals, (2) experiences in the programme, (3) impact, and (4) its sustainability and scalability potential?

METHODS

Study design

We used a qualitative description approach.^{20,21} This approach was suitable in providing an in-depth description of patient experiences in the programme.^{20,21}

Sample

The sample included older adults who were (1) patients from the McMaster Family Health Team, (2) aged 70 years or older, (3) living in the community in Southern Ontario, Canada, and (4) allocated to the Health TAPESTRY programme. Convenience sampling was used to seek clients who participated in the Health TAPESTRY programme. Clients were excluded if they (1) were living in long-term care facilities, (2) expected to be out of Canada for more than 50% of the study duration, (3) were palliative or receiving end-of-life care, or (4) did not speak English.

Setting

The study was conducted in two primary care clinic sites of the Family Health Team located in a large urban area

within Southern Ontario, Canada. These sites provide services to over 36 000 patients within the region who are followed up by 37 family physicians. The teams are composed of family physicians, medical residents, nurses, nurse practitioners, pharmacists and various allied health professionals.

Recruitment

Research team members purposively sampled two groups of clients who completed the Health TAPESTRY programme and invited them to take part in an interview. One group consisted of clients who were the first to be recruited in the RCT. The second group consisted of clients who were recruited near the end of the RCT. This approach captured diverse perspectives and minimised the influence that confidence levels of team members had over the clients' perspectives as they gained experience in delivering the intervention. In total, 129 clients were approached, 83 agreed to participate and 32 were recruited. Some research team members had prior contact with participants from the evaluation of the Health TAPESTRY programme. This recruitment strategy was later modified to ensure we obtained a more diverse sample of older adults based on gender, age (70 years and older) and number of 'alerts' (five or more 'alerts') generated from the Health TAPESTRY programme inhome assessment such as inadequate physical activity, risk for poor nutrition and urinary incontinence.

Data collection

Semistructured individual interviews were conducted face-to-face at the university or by telephone from September 2015 to March 2016 at 6 months postenrolment in the RCT. The interview guide was developed through a literature review of primary care interventions and older adults with feedback from research team members and was pilot-tested with three clients (see [box 1](#)). Interviews were conducted by five research team members (MB, LC, NF, JG, FP) and took 40 min to complete. No interviews were repeated. Interviews continued until data saturation was reached (ie, no new themes emerged).

Data analysis

Interviews were audio-taped, transcribed verbatim and then transcripts were coded independently by RKV, LC, NF, FP and JG. NVivo V.10 was used to organise data.²² Initially, a coding framework was created by LC and RV and was refined by transforming codes into themes. The refined framework was shared with the larger research team for review and feedback. Monthly research team meetings were held during data analysis to clarify themes. Data were analysed using the constant comparative approach.²³ To identify differences in perceptions by clients across the two practice sites (site A and site B), we conducted matrix queries in NVivo V.10.²² Themes were identified by staying true to the words of the participants and developing themes by describing participants' responses. Verbal counting was conducted to reveal how

Box 1 Interview guide for older adults participating in Health TAPESTRY

Overall understanding of Health TAPESTRY

1. How would you describe the Health TAPESTRY programme to others? What is its main purpose?
2. What do you think are the benefits of Health TAPESTRY?

Implementation of Health TAPESTRY

1. Can you tell me about your experiences of:
 - a. Getting signed up for Health TAPESTRY?
 - b. The process of scheduling your first volunteer visit?
 - c. Receiving your first inhome volunteer visit?
 - d. Completing various health-related surveys with volunteers?
 - e. Setting up goals?
 - f. Being introduced to the electronic personal health record by volunteers?
 - g. Receiving follow-up from a family physician or the interprofessional team (eg, dietitian, pharmacist, occupational therapist and so on) at the clinic based on the report sent to them by the volunteers?
2. How has the Health TAPESTRY programme affected your experiences communicating and working with members of your healthcare team?
3. As a result of Health TAPESTRY, were you linked or referred to any community programmes or services such as home support or community groups? If so, tell me about your experiences with these programmes or services.
4. How would you describe how your care was coordinated over the last 6 months?
5. How did Health TAPESTRY help you to meet your life and health goals?
6. What risks or challenges might exist from participating in Health TAPESTRY for you or other participants?

Sustainability and scalability

1. Based on your experiences, do you think Health TAPESTRY could be a regular programme?
2. How do you see Health TAPESTRY being delivered or offered to older adults or other populations in Ontario or Canada?
3. Do you think Health TAPESTRY is ready to be spread elsewhere? Why or why not and what is needed to get there?

Health TAPESTRY, Health Teams Advancing Patient Experience: Strengthening Quality.

many participants brought up a theme.²⁴ When the terms *most* or *many* are used, this means that 75% or more of participants discussed a theme, 'half' means about 50% of participants discussed a theme, and 'some' or 'few' means that 20% or less discussed a theme.

Rigour and trustworthiness

The Consolidated criteria for Reporting Qualitative research was used to report findings.²⁵ To increase the rigour and trustworthiness of findings, we used Lincoln *et al*'s²⁶ validation criteria (credibility, transferability, dependability and confirmability). To establish credibility, we used investigator triangulation by including researchers who brought different perspectives and experiences to data analysis, including gerontology, qualitative research and primary care. To increase the transferability

of findings, rich, thick descriptions were used to describe the study sample and setting.²⁷ Dependability and confirmability were considered by clearly documenting the research process and maintaining an audit trail.²⁶

Patient and public involvement

Health TAPESTRY was designed by key stakeholders including patients, caregivers, providers, volunteers and community service agency staff.²⁸ The programme was designed by stakeholders using small group sessions that included discussing and analysing 13 persona-scenario exercises. The persona-scenario exercise consists of a structured approach where group members create a fictitious character and find solutions to address a problem.²⁸ The research questions and outcome measures were determined by stakeholders' priorities, preferences and experiences. The patients were not involved in the recruitment to and conduct of the study. The results of the study will be shared with participants by providing them with a lay-language version description of the study and the results following the publication of the trial. The burden of the intervention was assessed by the patients themselves as they helped to design the programme.

RESULTS

Demographic characteristics

A total of 32 older adults participated in this study, with a mean age of 78.7 years (SD=6.1) (see table 1). Half of the participants were female (50%), and most were married or had common-law partners (68%). Most participants were Caucasian (96%) and had completed postsecondary or higher education (58%). Most participants had two or more chronic conditions (67%).

Categories

Themes describing older adults' perceptions of the Health TAPESTRY programme are organised under four overarching categories, including (1) programme goals, (2) experiences, (3) perceived impact, and (4) programme sustainability and scalability. Each theme is described below. Differences in perceptions by clients in site A and site B are noted only where they exist. Tables 2, 3 and 4 provide an overview of the categories, related themes and participant quotations to support them.

Programme goals

One theme that emerged was a lack of clarity about the programme's purpose and sharing of information as most participants were unsure about Health TAPESTRY's goals and the process for sharing information with providers. Other themes indicate that participants perceived that the main goals of the programme were to (1) obtain a comprehensive assessment of clients, (2) support older adults to live at home and (3) improve care processes for healthy ageing (see table 2).

Lack of clarity about the programme's purpose and sharing of information: 'I don't really know'

Most participants (more from site B than site A) were unclear about the purpose of Health TAPESTRY and how

Table 1 Demographic characteristics of participants (N=32)

Characteristics	n (%)
Gender	
Female	16 (50.0)
Male	16 (50.0)
Age (years), mean (SD)	78.7 (6.1)
Age range	
70–79	19 (59.0)
80 and above	13 (41.0)
Highest level of education, n=31	
High school	11 (35.5)
University (undergraduate)	5 (16.1)
College diploma	4 (12.9)
Professional degree (nursing, teachers' college)	4 (12.9)
Master's	3 (9.7)
Elementary	2 (6.5)
PhD	2 (6.5)
Country of birth	
Canada	19 (59.4)
UK	6 (18.8)
Europe	5 (15.6)
Asia	2 (6.3)
Caucasian/white ethnicity, n=24	23 (95.8)
Language spoken: English	32 (100)
Marital status, n=31	
Married or common-law	21 (67.7)
Widowed/divorced/separated/single/never married	10 (32.3)
Total number of chronic conditions*, n=27	
1 chronic condition	9 (33.3)
2 or more chronic conditions	18 (66.6%)
Chronic conditions/diseases	
Diabetes, n=26	9 (34.6)
Heart disease†, n=27	9 (33.3)
Cancer, n=26	7 (26.9)
Osteoarthritis, n=26	6 (23.1)
Hypertension, n=25	7 (21.9)
COPD/lung disease, n=25	5 (20.0)
Stroke/cerebrovascular disease, n=26	4 (15.4)
Implementation site	
Site A	20 (62.5)
Site B	12 (37.5)

*Based on conditions listed above.

†Arteriosclerosis, angina pectoris and heart failure.

COPD, chronic obstructive pulmonary disorder; N, total sample; n, number of participants who provided data.

their information was made available to providers. They perceived that researchers were simply collecting research data without clinical follow-up to provide concrete recommendations to improve their health. Participants

Table 2 Themes and sample participant quotes for programme goals

Category	Themes
Programme goals	<p>Lack of clarity about the programme's purpose and sharing of information: <i>'I don't really know'.</i> <i>"I was always waiting for a purpose...the reason why you are doing this research, and really I never get the answer... And research, in my mind, it's when you are taking data, data, data, data and then you will come back to certain suggestions or a certain way or recommendation what I should do or what I will do...but it never came to that."</i> (R-106) <i>"Well, my understanding it's for some kind of a program or a record...that maybe you want to compare with other people...I don't know how specific it is to me, or is it a group thing or a widespread thing...And it may have been more help to your end than my end, to be honest."</i> (R-29) <i>"Well, I don't really know [how information from the home visit is shared.] I just figure you put it in the computer and I really don't know."</i> (R-30)</p> <p>Obtain a comprehensive assessment of clients: <i>'acquire as much information as possible'.</i> <i>"...there will be a central data bank for me that will allow practitioners and professionals to access that file, which could save them hours and hours of doing the same research over and over again [...] they have available to them all of the information on me, my whole DNA, if I can call it that..."</i> (R-36) <i>"...an attempt to acquire as much information as possible about senior citizens, their lifestyles, their diet, health and everything that one encounters as you approach old age."</i> (R-48)</p> <p>Support older adults to live at home: <i>'keep people healthy'.</i> <i>"...the purpose of TAPESTRY, to make sure that people that are at home are being looked after properly and getting the proper care and know where they can get the proper care."</i> (R-270) <i>"...the goal is to keep people healthy, keep them out of the hospital, nursing homes...but that's a big job."</i> (R-03)</p> <p>Improve care processes for healthy aging: <i>'see if it's working and where they can improve'.</i> <i>"...to try and fill in holes or see if it's working and where they can improve to help to take care of seniors that we, perhaps, made me feel I was important."</i> (R-145) <i>"...you're going to come to certain conclusions; with the ultimate goal of being able to identify all the various issues that an aging person experiences and then being able to sort of put the theory into practice in your treatment of the elderly."</i> (R-114) <i>"...I guess it [Health TAPESTRY] really was sort of encompassing the life of a senior or somebody coping with difficulties, but managing."</i> (R-118)</p>

Health TAPESTRY, Health Teams Advancing Patient Experience: Strengthening Quality.

reported that the collection of their data and the benefit of this activity were unknown to them. They felt unsure about the process that was used to collect their health information and pass on information to physicians. A few participants felt that the programme may have been more helpful for the researchers than for older adults.

Obtain a comprehensive assessment of clients: 'acquire as much information as possible'

Participants perceived that one of the goals of Health TAPESTRY was for providers to collect information about their current health status, medical and social history, and lifestyle. Some participants felt that obtaining a comprehensive health assessment of older adults and providing their health information to providers ensured that their information can be shared with multiple providers. This resulted in saved time for practitioners. The programme was also perceived as helping clinicians gain a broader understanding of the challenges that older adults face as they age.

Support older adults to live at home: 'keep people healthy'

Some participants perceived that another of Health TAPESTRY's goals was to ensure that older adults had their health and social care needs met so they could continue to live at home. They felt the programme aimed to help them understand how to access health and social care services. Participants remarked that Health TAPESTRY aimed to develop

strategies to improve how older adults live at home by first understanding their current health status and lifestyle.

Improve care processes for healthy ageing: 'see if it's working and where they can improve'

Some participants indicated that a goal of Health TAPESTRY was to improve general health and well-being by understanding the everyday life of older adults. Participants felt that the programme encouraged providers to explore where the gaps in health screening lie and come up with approaches to improve them. The programme was perceived to explore various issues that impact the health of older adults at multiple levels (eg, emotionally, physically and intellectually) to be able to develop better plans of care.

Experiences with Health TAPESTRY

Five themes were identified that describe the category client experiences with Health TAPESTRY: (1) variable personal benefit from goal-setting, (2) open and caring inhome visits by trained volunteers, (3) mixed experiences with provider follow-up after volunteer visits, (4) satisfaction with the Healthy Aging Series and (5) challenges with the PHR technology (see [table 3](#)).

Variable personal benefit from goal-setting

About half of the participants felt that they benefited from Health TAPESTRY's goal-setting and that it encouraged

Table 3 Themes and sample participant quotes for experiences with Health TAPESTRY

Category	Themes
Experiences with Health TAPESTRY	Variable personal benefit from goal-setting. “...the goals were good because they jogged me to think...when you know you have got a finite piece of life left, it's probably a good idea to plan what you are going to do with it as well.” (R-118) “...I think I'm too old to get those goals; because it was about exercising, right, and about walking. Well, I still don't walk that much because my back is so sore...Then I had an operation on my foot...So, you know, I do as good as I can.” (R-148) “Well, I just, for me it just wasn't relevant. I mean, I joked and said, 'well my goal is to be able to get up in the morning and function'; but I was, you know, being a bit facetious because at the time I wasn't feeling very well and it was sometimes very hard to just get out of bed.” (R-15)
	Open and caring inhome visits by trained volunteers. “...they [volunteers] explained everything and they interacted a lot; there was a lot of social interaction, so it was very good.” (R-118) “They were all very personable and attentive, caring, and listening with good listening skills.” (R-105)
	Mixed experiences with provider follow-up after volunteer visits. “...TAPESTRY sends in volunteers to assist the patient or the client; and depending on what their needs might be, they send in a specialist that might be of assistance...Myself I had an appointment with the doctor and the pharmacist to go over my drugs and that was very helpful.” (R-105) “I found it very helpful in that as a result of the personal interview I got some feedback from my doctor, I don't know, I won't say immediately, but almost; ...and she requested me to go into the office for a visit as a result of the TAPESTRY program.” (R-146) “They [clinicians] certainly don't contact me and say, well we received this from the TAPESTRY program or whatever and we're wondering if you could come in and talk to us...But none of that has happened; so I feel there's a disconnect...between the clinic and this program.” (R-15)
	Satisfaction with the Healthy Aging Series. “Very well done...one of the best sort of seminars I've been to in a long, long time...They didn't talk down to you, they asked you questions.” (R-99) “The information was fabulous. I was just blown away with the clients that came, they were so knowledgeable and so articulate and very attuned to the whole health issues.” (R-100)
	Challenges with PHR technology. “My computer has been down for about a month...and I think there's also a problem with my technology, it's probably pretty old. So I never was able to really access that [PHR].” (R-105)

Health TAPESTRY, Health Teams Advancing Patient Experience: Strengthening Quality; PHR, personal health record.

them to plan ahead. Participants were encouraged to take initiative in planning their own health and take better care of themselves by setting achievable goals, which were often related to improving diet and exercise habits. The other half of the participants reported few benefits from goal-setting. Some felt that goals were irrelevant at their age and health conditions impacted their ability and need to set goals. Some participants reported frequently changing their goals, often due to their changing health status, therefore leading to unmet goals.

Open and caring inhome visits by trained volunteers

Many participants, mostly from site A, enjoyed receiving Health TAPESTRY home visits, stating they were convenient, relaxing, stimulating and encouraged social interaction. Volunteers listened and were personable, caring and empathetic. Participants felt comfortable disclosing personal information to volunteers within their home environment and felt privileged to receive one-on-one attention and enough time to discuss their health in detail. They felt that scheduling of visits was flexible to meet their needs and they did not need to worry about transportation. None of the participants stated that they would have rather received home visits by healthcare professionals. Some participants felt that volunteers had

different levels of knowledge and confidence in discussing health issues.

Mixed experiences with provider follow-up after volunteer visits

Participants reported mixed experiences with primary care provider follow-up after volunteer visits for Health TAPESTRY. About half of the participants felt that receiving follow-up with clinicians related to issues identified during home visits worked well. Clients perceived that appointments were quickly booked and healthcare providers took initiative in following up on reported issues of clients. The process of collection and reviewing health information, from volunteer to healthcare team to specialist referral, made them feel that their well-being was important.

About half of the participants perceived that there was limited or inadequate provider follow-up of issues identified during inhome visits with volunteers. Some participants explained that they expected to be contacted by primary care providers after home visits or referred for tests or other services, but this did not happen. A few participants were not interested in receiving follow-up and felt confident in managing their own health independently.

Table 4 Themes and sample participant quotes for impact, sustainability and scalability

Category	Themes
Perceived impact	<p>Small or no difference in the lives of clients.</p> <p><i>"I guess [Health TAPESTRY] just makes me more and more aware, I think, of what I am doing. I didn't make any particular or specific changes to the way I live or eat or do anything."</i> (R-172)</p> <p><i>"I don't think there's anything that TAPESTRY said or did that made any changes that I can see, no."</i> (R-30)</p> <p>Satisfaction with the primary care team and healthcare system.</p> <p><i>"...I am happy that I did join with TAPESTRY, because it really speeded up my [care]- and hopefully this second problem what I have here with that hand, if that can be speeded up somehow to get the results, then I am happy with the practice of TAPESTRY."</i> (R-106)</p> <p><i>"Well, I'm pretty sure that whatever connection you had with the clinic did promote a few points in my favour. And even my pharmacist, he even got word from the clinic that things were changing for my prescriptions. So, they were acting on the advice that you gave them."</i> (R-250)</p> <p><i>"...I would also find that there are areas that the doctor can't possibly cover and TAPESTRY is certainly making an attempt to cover all facets of the healthcare system, particularly through the Healthy Aging Series."</i> (R-146)</p> <p>Change in health behaviours or ways of thinking.</p> <p><i>"...I wasn't walking before that. I wouldn't walk farther than my nose. But now I've started walking, and even as I say, some days when I don't feel it, now I say, go do it."</i> (R-129)</p> <p><i>"...the TAPESTRY program improved my knowledge of what my own health was about and it helped me to be more prepared...going into a doctor's appointment or whoever I am talking with...to be able to discuss and understand what I have to do to improve."</i> (R-75)</p>
Sustainability and scalability	<p>The programme 'could and should be a regular program'.</p> <p><i>"It should be [Health TAPESTRY should be a regular program]...because they always say an ounce of prevention in healthcare, and you know what, if you can catch things before they become too serious, or identify possible health outcomes through your interviews and through regular monitoring, then that would be really desirable, especially for the elderly."</i> (R-114)</p> <p><i>"Well, you've got a good location here because, first of all, you've got the doctors with all the information and you've got places to hold these [Healthy Aging] seminars."</i> (R-99)</p> <p>The programme may be relevant for different communities and populations.</p> <p><i>"...it should be a program that's offered to a much wider scope of people... or even healthy people that are healthy at the moment."</i> (R-146)</p> <p><i>"I think that [Health TAPESTRY] could apply to people much younger who are confined to their homes."</i> (R-95)</p> <p>Barriers to maintaining the programme exist.</p> <p><i>"I don't know how much publicity you have been able to use, but I think if everybody involved are aware of your services and there are things that you could bring to the table, I'm sure they wouldn't resist that. But my feeling is that...Maybe not enough people know about it."</i> (R-29)</p> <p><i>"...I think systematically it's [Health TAPESTRY] not sustainable because that's not how the system works...every time there's this big initiative to push toward prevention, it's with an eye on saving money, but then that cost usually does mean that some other program that's really needed is just not going to get funded...if you can't measure the dollars, you lose a lot of the buy-in."</i> (R-1)</p> <p><i>"Barriers would probably be people to work in the program. For example, the number of doctors and nurses, to have enough staff to continue the program."</i> (R-75)</p>

Health TAPESTRY, Health Teams Advancing Patient Experience: Strengthening Quality.

Satisfaction with the Healthy Aging Series

Participants were very satisfied with the Healthy Aging Series. The series was seen as interactive and educational, and addressed a range of topics (eg, falls, exercise, nutrition, advanced care planning). Participants enjoyed learning from other older adults who shared their life experiences.

Challenges with PHR technology

Approximately half of the participants experienced challenges when attempting to access their PHR. Some older adults reported having issues with their computers and were therefore not able to access their PHR. Some participants preferred not to create a PHR account as they favoured having hard copies of their information instead.

Perceived impact of Health TAPESTRY

Three themes denote clients' perceived impact of Health TAPESTRY. Half of the participants felt that

Health TAPESTRY resulted in small or no difference in their lives. Positive impacts perceived by some participants were (1) satisfaction with the primary care team and healthcare system and (2) change in health behaviours or ways of thinking (see [table 4](#)).

Small or no difference in the lives of clients

More participants from site B than from site A felt that the programme resulted in little to no change in their lives. These participants explained that Health TAPESTRY did not result in lifestyle changes, but in some cases made them aware of healthy lifestyle choices. Some felt that they were already aware of available community services.

Satisfaction with the primary care team and healthcare system

Some participants, relatively more from site B, described satisfaction and confidence with the primary care team and healthcare system as a result of the programme. Participants in general attributed faster follow-up of health-related issues to Health TAPESTRY versus usual

care and indicated that the programme ensured that they received test results. Participants felt that the programme increased collaboration between older adults and providers and ensured they participated in managing their own health. The programme also increased client satisfaction by connecting them to community programmes such as exercise classes and providing suggestions to improve their daily functioning.

Health TAPESTRY was perceived as filling existing gaps in primary healthcare by complementing the practice of physicians and offering informative health-related seminars. Family physicians were perceived by participants as having to fulfil many responsibilities in usual care. Health TAPESTRY was therefore seen as an efficient approach for physicians to understand how clients live at home and their care needs through lay volunteers' reports.

Change in health behaviours or ways of thinking

About one-third of participants felt that Health TAPESTRY resulted in a positive change in health behaviours, such as improved diet and increased physical activity. Clients felt better prepared to discuss their health with providers. Some participants felt they had a more positive attitude towards their health and were optimistic about improving it. Having meaningful interactions with volunteers made participants more aware of potential health issues associated with ageing.

Sustainability and scalability of Health TAPESTRY

Participants provided insight into the category sustainability and scalability of Health TAPESTRY. Themes that emerged were the following: (1) the programme 'could and should be a regular program', (2) the programme may be relevant for different communities and populations, and (3) barriers to programme sustainability exist.

The programme 'could and should be a regular program'

Health TAPESTRY was perceived by some participants to be sustainable and could be part of a regular programme offered through family practices. Participants perceived that the programme could be helpful for the prevention of disease and poor outcomes frequently encountered by older adults.

The programme may be relevant for different communities and populations

Most participants felt that Health TAPESTRY could be helpful for various communities and populations throughout Canada. Participants explained that particular communities and populations had the potential to benefit from the programme, such as clients living in rural and isolated communities, younger clients, clients confined to their homes, and Indigenous communities.

Barriers to maintaining the programme exist

About half of the participants reported barriers to sustainability of Health TAPESTRY. They perceived that the availability of staff and salary costs of providers to maintain the programme could negatively impact sustainability.

Participants identified public perceptions that the health-care system is focused on cost-efficiency and that essential programmes may not necessarily be funded due to high costs. They also reported that it may be challenging to increase awareness of the programme to new users.

DISCUSSION

Key findings

This study revealed that the Health TAPESTRY programme was perceived by older adults as having many positive attributes (eg, home visits, comprehensive assessments and satisfaction with the team). However, most clients were not clear about the purpose of the programme. Some clients were unaware of how the programme was meant to benefit them and thought that they were primarily helping the researchers by providing them with data. There were mixed findings related to the value of goal-setting, with some clients finding it helpful for behaviour change and others finding it irrelevant or difficult. Participants also had mixed experiences with follow-up by the primary care team after volunteer visits. Some clients felt that there was a disconnect between the Health TAPESTRY programme and the primary care clinic as they felt their information was either not given to or acted on by the primary care team. Other clients felt that Health TAPESTRY had actually sped up actions taken by the team as they were able to book earlier appointments with providers to discuss their health issue.

Using PHR technology was found to create numerous challenges and some clients preferred not to use the technology. Participants felt the programme was sustainable and scalable but identified potential barriers to sustainability and scalability, such as funding, staffing and publicity. Although there were minor differences between site A and site B in patient perceptions in four areas (ie, clarity about the purpose of the programme, perceptions related to whether the programme resulted in little or no change in their life, enjoyment of home visits, and satisfaction with the primary care team and health system as a result of the programme), given the lack of a clear pattern in the results, it is difficult to explain the reasons for these differences.

Comparison with existing literature

Previous studies have similarly found that providing inhome visits by volunteers and peer mentors positively impacted the health and general well-being of older adults.^{29 30} A home-based programme targeting physical activity, nutrition and social support conducted by trained non-professional volunteers has been found to improve the nutritional status of community-dwelling prefrail and frail older adults and decrease the prevalence of frailty.³⁰ Peer volunteers who provide client support to learn self-management skills can increase physical activity among older adults living in the community.²⁹ Community-dwelling older adults have been found to have improved health outcomes with social support alone,³⁰ revealing

that many older adults are impacted by social isolation.³¹ Health TAPESTRY clients felt that inhome visits by volunteers encouraged social interaction and created awareness about their health. Volunteer support and PHR technology have been known to have positive effects in improving health^{29 30} and create active client engagement in care.³² In the current study, however, when combined, they provide a link between clients living in their homes and communities and the primary care practices where they receive healthcare.

Goal-setting has been shown to encourage shared decision-making between clients and physicians³³ and improve outcomes associated with clinical interventions aimed at disease prevention and maintaining function.³⁴ The current study revealed that there were mixed experiences related to health goal-setting and receiving follow-up by providers. Although typically found in mixed-methods research, conflicting findings can also be found among complex issues in social research.³⁵ Integrating differing views from participants can help provide a complete description through a complementary approach.³⁵ Goal-setting in this current study was seen as having varied benefits in improving health for older adults. This finding may be related to differences in available social support systems. Saajanaho *et al*³⁶ found that older adults with poor social resources were at a greater risk of having no health goals in their lives compared with older adults with greater social support. Goals focusing on maintaining health were often made by older adults with good health resources, while older adults with poor resources typically made goals related to health recovery.³⁶

Findings from the current study support previous evidence that interdisciplinary team-based primary care enhances quality of care for individuals, increases confidence and satisfaction with the healthcare system, and enhances client-centred practice.³⁷ Using this approach also helps older adults better connect with community support services (eg, meal, transportation and volunteer visit services).³⁸ Many participants in the present study had multiple chronic conditions, and findings provide support for an interprofessional team approach for community-dwelling older adults to provide ample time for clients to discuss their health needs and meet their needs through a single visit.³ Health TAPESTRY was perceived as providing multiple opportunities to consult with various healthcare providers and provided inhome visits with volunteers who were interested in hearing clients' perspectives on health.

Some challenges revealed in the current study were related to the limited uptake of technology and not seeing the added benefits of using PHR technology. The uptake of technology has been found to be influenced by multiple factors, such as interest, competency and usefulness. Older adults adopt technology when they feel that there is a need to do so and technology is perceived as user-friendly.³⁹ Older adults require more support in using technology to locate high-quality evidence on the internet, access their health information and explore the risks of privacy breaches online.⁴⁰

Participants in the current study identified barriers that need to be addressed to support sustainability and scalability of Health TAPESTRY. These included funding, human resources and public awareness of the programme to support recruitment. Similar barriers have been found in a review of public health interventions, including intervention costs, inadequate human resources, staff recruitment and turnover, and inflexible funding structures unresponsive of scale-up.⁴¹ A study that explored the perspectives of the Health TAPESTRY team on sustainability and scaling-up found that staffing resources (ie, volunteers and providers) and funding capacities, as well as attempting to gain the interest of stakeholders in the programme, were barriers to sustaining the programme.⁴² To overcome sustainability challenges, strategies such as embedding sustainability assessments as part of an implementation plan are needed to better anticipate and address barriers.

Strengths and limitations

This study included participants with different health conditions and included a rigorous analytic method involving numerous experts in primary care, ageing, evaluation and qualitative research. It explored multiple facets of the programme (eg, goals, experiences, perceived impact, and sustainability and scalability). Other studies do not provide a comprehensive evaluation of primary care programmes by exploring clients' perspectives.^{30 43 44} They are often focused on quantitative outcome measures to determine effectiveness rather than perceived usefulness of programmes by clients. Some limitations of the current study were a lack of cultural diversity among participants and the exclusion of non-English-speaking clients. The two practice sites within one area of Ontario representing one model of primary care, the family health team, limits transferability of results.

CONCLUSIONS

Although the programme was generally perceived as valuable as it incorporated comprehensive assessments, seminars and an interdisciplinary approach, the purpose of Health TAPESTRY and how information was shared were unclear to most clients. Clients were unsure about the kind of benefits they could expect. The study revealed the need to explore client experiences to help modify and adapt primary care programmes. Future research should include older adults as partners in shaping primary care programmes. The purpose of research and programmes need to be clear for clients and their understanding of the aims of primary care programmes should be discussed at the start of an intervention. Researchers interested in testing interventions in primary care should also consider implementing strategies for scaling up programmes in the early phases of research, with active engagement of patients and other partners.

Author affiliations

¹School of Nursing, McMaster University, Hamilton, Ontario, Canada

²Department of Family Medicine, McMaster University, Hamilton, Ontario, Canada

³Department of Family Medicine, McMaster University Faculty of Health Sciences, Hamilton, Ontario, Canada

⁴Research and Innovation, North York General Hospital, Toronto, Ontario, Canada

⁵Institute of Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario, Canada

⁶Department of Family Medicine, McMaster University/McMaster Innovation Park, Hamilton, Ontario, Canada

Acknowledgements We thank all of the study participants and our primary care partners for their contributions to this research. We thank Mehreen Bhamani for assistance with data collection and Nola Fuller for assistance with data collection and analysis. We also thank the members of the stakeholder groups who helped design Health TAPESTRY, including patients, caregivers, healthcare providers, volunteers and community service agency staff.

Contributors RKV conceptualised and led the study. LC, FP and JG collected the data. RKV and LC conducted the initial analysis, and subsequent analysis with FP and JG. JP and M-LY wrote the initial drafts of the paper. GA, DM, DO, CR, JG, LD and MK contributed to validating the analysis, and reviewed and contributed to drafts. All authors read and approved the final manuscript.

Funding This research was funded by a Health Canada Federal Innovations grant (grant no. 6817-06-2013/5570001), the Ministry of Health and Long-term Care of Ontario (grant no. 06547 for INSPIRE-PHC), the Labarge Optimal Aging Initiative, and the McMaster Family Health Organization.

Competing interests None declared.

Patient consent for publication Obtained.

Ethics approval Ethics approval was obtained from the Hamilton Integrated Research Ethics Board (Project #14-726). Each participant provided written informed consent prior to being interviewed. Participants received a \$25 CAD gift card as a token of appreciation.

Provenance and peer review Not commissioned; externally peer reviewed.

Data sharing statement The data for this research consist of interview transcripts. We are unable to make raw data publicly available in order to respect the confidentiality of participants.

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>.

REFERENCES

- Hutchison B, Glazier R. Ontario's Primary care reforms have transformed the local care landscape, but a plan is needed for ongoing improvement. *Health Aff* 2013;32:695-703.
- Boyd CM, Boulton C, Shadmi E, et al. Guided care for multimorbid older adults. *Gerontologist* 2007;47:697-704.
- Tracy CS, Bell SH, Nickell LA, et al. The IMPACT clinic: innovative model of interprofessional primary care for elderly patients with complex health care needs. *Can Fam Physician* 2013;59:e148-55.
- Shafir A, Garrigues SK, Schenker Y, et al. Homebound patient and caregiver perceptions of quality of care in home-based primary care: a qualitative study. *J Am Geriatr Soc* 2016;64:1622-7.
- Berwick DM, Nolan TW, Whittington J. The triple aim: care, health, and cost. *Health Aff* 2008;27:759-69.
- Doyle C, Lennox L, Bell D. A systematic review of evidence on the links between patient experience and clinical safety and effectiveness. *BMJ Open* 2013;3:1-18.
- Kuluski K, Nelson MLA, Tracy CS, et al. Experience of care as a critical component of health system performance measurement: recommendations for moving forward. *Healthc Pap* 2017;17:8-20.
- Domecq JP, Prutsky G, Elraiyah T, et al. Patient engagement in research: a systematic review. *BMC Health Serv Res* 2014;14:1-9.
- Sullivan P, Goldmann D. The promise of comparative effectiveness research. *JAMA* 2011;305:400-1.
- Franks P, Fiscella K. Primary care physicians and specialists as personal physicians. Health care expenditures and mortality experience. *J Fam Pract* 1998;47:105-9.
- Starfield B. Primary care and health. A cross-national comparison. *JAMA* 1991;266:2268-71.
- Starfield B. Is primary care essential? *Lancet* 1994;344:1129-33.
- Starfield B, Shi L, Macinko J. Contribution of primary care to health systems and health. *Milbank Q* 2005;83:457-502.
- Mangin D. The contribution of primary care research to improving health services. In: Goodyear-Smith F, Mash B, eds. *International Perspectives on Primary Care Research*. Boca Raton, FL: CRC Press, 2016:67-72.
- Dolovich L, Oliver D, Lamarche L, et al. A protocol for a pragmatic randomized controlled trial using the Health Teams Advancing Patient Experience: Strengthening Quality (Health TAPESTRY) platform approach to promote person-focused primary healthcare for older adults. *Implement Sci* 2016;11:1-14.
- Roy M, Levasseur M, Couturier Y, et al. The relevance of positive approaches to health for patient-centered care medicine. *Prev Med Rep* 2015;2:10-12.
- Javadi D, Lamarche L, Avilla E, et al. Feasibility study of goal setting discussions between older adults and volunteers facilitated by an eHealth application: development of the Health TAPESTRY approach. *Pilot Feasibility Stud* 2018;4:1-13.
- Oliver D, Dolovich L, Lamarche L, et al. A volunteer program to connect primary care and the home to support the health of older adults: a community case study. *Front Med* 2018;5:1-6.
- Lamarche L, Oliver D, Cleghorn L, et al. Using aggregate data on health goals, not disease diagnoses, to develop and implement a healthy aging group education series. *J Community Med Health Educ* 2017;4:1-7.
- Sandelowski M. Focus on research methods-what happened to qualitative description? *Res Nurs Health* 2000;23:334-40.
- Sandelowski M. What's in a name? Qualitative description revisited. *Res Nurs Health* 2010;33:77-84.
- NVivo qualitative data analysis Software; QSR International Pty Ltd. Version 10. 2012.
- Bryman A. *Social research methods*. 5th edn. Oxford, UK: Oxford University Press, 2016.
- Sandelowski M. Real qualitative researchers do not count: the use of numbers in qualitative research. *Res Nurs Health* 2001;24:230-40.
- Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int J Qual Health Care* 2007;19:349-57.
- Lincoln YS, Guba EG. *Naturalistic inquiry*. Sage Publications, 1985.
- Creswell JW. *Qualitative inquiry and research design: choosing among five approaches*. 3rd edn. Thousand Oaks, CA: Sage Publications, 2013.
- Valaitis R, Longaphy J, Nair K, et al. Persona-scenario exercise for codesigning primary care interventions. *Can Fam Physician* 2014;60:294-6.
- Buman MP, Giacobbi PR, Dzierzewski JM, et al. Peer volunteers improve long-term maintenance of physical activity with older adults: a randomized controlled trial. *J Phys Act Health* 2011;8(s2):S257-66.
- Luger E, Dorner TE, Haider S, et al. Effects of a home-based and volunteer-administered physical training, nutritional, and social support program on malnutrition and frailty in older persons: a randomized controlled trial. *J Am Med Dir Assoc* 2016;17:671.e9-16.
- Smith SG, Jackson SE, Kobayashi LC, et al. Social isolation, health literacy, and mortality risk: Findings from the English Longitudinal Study of Ageing. *Health Psychol* 2018;37:160-9.
- Krist AH, Woolf SH, Bello GA, et al. Engaging primary care patients to use a patient-centered personal health record. *Ann Fam Med* 2014;12:418-26.
- Naik AD, Schulman-Green D, McCorkle R, et al. Will older persons and their clinicians use a shared decision-making instrument? *J Gen Intern Med* 2005;20:640-3.
- Schulman-Green DJ, Naik AD, Bradley EH, et al. Goal setting as a shared decision making strategy among clinicians and their older patients. *Patient Educ Couns* 2006;63(1-2):145-51.
- Slonim-Nevo V, Nevo I. Conflicting findings in mixed methods research: an illustration from an Israeli study on immigration. *J Mix Methods Res* 2009;3:109-28.
- Saajanaho M, Rantakokko M, Portegijs E, et al. Life resources and personal goals in old age. *Eur J Ageing* 2016;13:195-208.
- Jesmin S, Thind A, Sarma S. Does team-based primary health care improve patients' perception of outcomes? Evidence from the 2007-08 Canadian Survey of Experiences with Primary Health. *Health Policy* 2012;105:71-83.
- Ploeg J, Denton M, Hutchison B, et al. Primary health care providers' perspectives: facilitating older patients' access to community support services. *Can J Aging* 2016;35:499-512.
- Hanson VL. Influencing technology adoption by older adults. *Interact Comput* 2010;22:502-9.
- Ware P, Bartlett SJ, Paré G, et al. Using eHealth Technologies: interests, preferences, and concerns of older adults. *Interact J Med Res* 2017;6:e3-16.



41. Milat AJ, Bauman A, Redman S. Narrative review of models and success factors for scaling up public health interventions. *Implement Sci* 2015;10:1–11.
42. Kastner M, Sayal R, Oliver D, *et al.* Sustainability and scalability of a volunteer-based primary care intervention (Health TAPESTRY): a mixed-methods analysis. *BMC Health Serv Res* 2017;17:1–21.
43. Counsell SR, Callahan CM, Clark DO, *et al.* Geriatric care management for low-income seniors: a randomized controlled trial. *JAMA* 2007;298:2623–33.
44. Huss A, Stuck AE, Rubenstein LZ, *et al.* Multidimensional preventive home visit programs for community-dwelling older adults: a systematic review and meta-analysis of randomized controlled trials. *J Gerontol A Biol Sci Med Sci* 2008;63:298–307.