Frailty Management Practices for Older Adults in Primary Care Clinics: A Cross-Sectional Study

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Abstract

Objective: To describe practices used to diagnose and manage frailty in primary care clinics, prior to the implementation of the Canadian Foundation for Healthcare Improvement Initiative.
Methods: This is a cross-sectional study of the current frailty management practices in a convenience sample of five primary care clinics in Ottawa, Canada. Data was collected using a survey and qualitative content analysis of the survey data was performed.
Results: None of the clinics had established a systematic frailty screening or management program. Primary care providers reported informally using select screening tools, clinical instinct, and case findings in their day-to-day practice to identify patients with frailty and refer them to community resources. Frailty identification and management varied across the clinics and across providers within the same clinic.
Conclusion: Our findings indicate that primary care providers recognize the need to identify and manage frailty in their clinical practice. In the absence of guidelines or training, providers are developing their own strategies to address frailty.

Keywords: frailty, health care improvement initiative, primary care

Introduction

Frailty management is becoming a significant topic in health care, specifically in primary care. Globally, the number of older adults with frailty is increasing with the prevalence rates varying between 4% and 59%, and an overall weighted estimate of 13% (Collard et al., 2012). Frailty is a public health concern as it negatively impacts individuals, their families, society and the health care system (Clegg et al., 2013). Research on frailty has demonstrated the need for early detection of vulnerable individuals to intervene and put into place care plans that will help maintain their health status, build resilience and reduce frailty (Abbasi et al., 2018). Primary care providers play an important role in diagnosing frailty as they are often the first point of contact in the health care system. However, in Canada there are no standard guidelines to identify and manage frailty as standard practice (Muscedere et al., 2016; Okpechi et al., 2020). As such, it is unclear whether or how primary care providers are identifying and caring for their patients with frailty.

The Advancing Frailty in the Community Collaborative is an initiative of the Canadian Foundation for Healthcare along with the Canadian Frailty Network which was created to enhance the capacity to partner with patients and caregivers to improve the identification, assessment and implementation of tailored evidence-informed interventions that address frailty in primary care (Canadian Frailty Network, 2020). Specifically, the Champlain Care Frailty Network, a team of clinicians, researchers, patients and caregivers was tasked with the implementation and evaluation of initiatives to improve frailty care in the Champlain region of Eastern Ontario, Canada. The aim of this study was to describe practices used to diagnose and manage frailty in primary care clinics, prior to the implementation of the Canadian Foundation for Healthcare Improvement Initiative.

Methods

Design and setting

We conducted a cross-sectional study using a survey to gather information on frailty management practices at primary care clinics. We used a convenience sample of five primary care clinics that had joined the Champlain Care Frailty Network. The revised Standards for Quality Improvement Reporting Excellence Standards checklist was used when conducting this work (Ogrinc et al., 2016).

Survey development

The Chronic Care Model (CCM) (Bodenheimer et al., 2002) guided the development of the survey. The six elements of the CCM are healthcare organization, self-management support, delivery system design, decision support, clinical information systems and community resources and policies. These elements are essential to optimizing patient-centred care for people with chronic conditions. The six elements of the CCM can be seen in Table I.

Table I: Elements of the Chronic Care Model (Bodenheimer et al., 2002)

Elements	**Brief Description**
Healthcare organization	Providers' goals, values and relationships align with others
Self-management support	Support patients and caregivers to manage their own care
Delivery system design	Creation of teams to manage care and follow up
Decision support	Use of guidelines for optimal care and access to specialists when needed
Clinical information systems	Reminder systems to ensure guidelines use, provider feedback on care performance, and registries to better plan care
Community resources and policies	Connect providers with community-based resources to support patients' needs

The twenty-one-item survey consisted of two sections, namely clinic characteristics, and frailty management practices.

Data collection and analysis

All clinics were recruited during an Advancing Frailty in the Community Collaborative in-person meeting held in February 2020. The research assistant explained the study prior to providing the paper-based survey. All responses were then entered into Microsoft Word. A qualitative content analysis method (Hsieh et al., 2005) was used to identify and analyze the themes. The University Research Ethics Board approved this study.

Results

All five clinics completed the survey. The clinics' characteristics are provided in Table II.

Table II: Clinics' characteristics.

Clinics	**1**	**2**	**3**	**4**	**5**
Clinic settings					
Suburban	**X**		**X**		
Urban		**X**			**X**
Rural				**X**	
Single site or multiple sites					
Single setting	**X**		**X**	**X**	
More than one setting working independently		**X**			
Not known					**X**
Primary setting of practice site (primary care providers)					
Family health team / Community health centre (physicians and nurse practitioners)		**X**	**X**		**X**
Physician group practice (physicians only)	**X**			**X**	
Languages of services offered					

Clinics	**1**	**2**	**3**	**4**	**5**
English				**X**	
English and French	**X**	**X**	**X**		**X**
Other		**X**	**X**		
Number of patients registered or active					
0-5,000		**X**			
5,001-10,000	**X**				
10,001-15,000					
15,001-20,000					**X**
20,001-25,000			**X**		
Unknown				**X**	

Frailty management practices are presented below according to the elements of the CCM.

Healthcare organization

All clinics indicated that there were no formal processes in place to systematically screen older adults for frailty. However, some clinics indicated the use of clinical instinct, case finding, or a fall risk assessment to screen patients for frailty. Furthermore, some clinics indicated that frailty was informally assessed. Two clinics also identified the need for specialists to be aware of frailty as several guideline-based interventions interfered with frailty care provided by the primary care provider.

Self-management support

Primary care providers in each clinic discussed goals of care with patients. One clinic mentioned that their primary care providers engaged in advance care planning discussions with their patients living with frailty. All clinics also described providing patient education and information (including paper handouts or website links) based on their individual needs. Some clinics said that there were no processes in place to assess family and/or caregiver support at their clinic. However, one clinic indicated that their primary care providers used a caregiver burden scale and referred the patients to the social worker on the care team. Another clinic mentioned arranging follow-up appointments for their patients as required.

Delivery systems design

Despite no formal processes in place for frailty screening of older adults, all clinics did refer their patients to various community resources. One clinic explained that this process varied across primary care providers in their clinic. Two clinics confirmed that they have a formal team in place to manage frailty in older adults and the team members' roles were clearly defined.

Another clinic highlighted the need to designate an individual to perform the frailty screening. Clinics that did not have a formal team in place managed patients with frailty informally by collaborating with other members of their healthcare team.

Decision support

All clinics were familiar with some frailty screening tools. Despite having no standardized tool in place in their clinics, some clinics occasionally used a screening tool, the Clinical Frailty Scale (Rockwood et al., 2005). One clinic reported that their primary care providers collaborate with other health care professionals on the team to develop a management plan based on clinical findings. Another clinic described that their primary care providers were encouraging patient participation in goals of care discussions.

Clinical information systems

Some clinics identified electronic tools as a way to provide information to patients and their caregivers. However, issues with the electronic medical record interfering with frailty care management were brought up by one clinic. Though, no details of these issues were specified.

Community resources and policies

Providers in each clinic demonstrated knowledge of community resources and services available to older adults with frailty in the community. However, one clinic mentioned an internal barrier to referring patients to services within their own clinic. All clinics also indicated that there were gaps in services for older adults with frailty, such as affordable transportation, cost of allied health services and home support.

Discussion

Although none of the clinics had established screening programs, primary care providers were using their own approaches to identify and manage older adults with frailty. Using the CCM (Bodenheimer et al., 2002) as a framework, we identified several gaps in care for patients with frailty. Our findings confirm the need among primary care providers for guidance and resources to implement a formal process to routinely screen for frailty. Primary care providers were also interested to provide family and/or caregiver support, identify a dedicated team and clear roles, educate the interdisciplinary team members, and use technology to better support primary care providers care for older adults with frailty.

Previous studies have reported that primary care providers recognize the need to screen for frailty (Lee et al., 2017; Ambagtsheer, Beilby, et al., 2019). In the absence of established guidelines or consensus identifying frailty in primary care, primary care providers acknowledge the importance of developing their approaches (Ambagtsheer, Archibald, et al., 2019; Korenvain et al., 2019). Whereas some clinics in our study reported using existing frailty screening tools in their practice, others used informal processes. In a study of twenty-two Australian primary care

providers, those who screened for frailty resorted to intuitive screening rather than a formal screening tool. While these clinicians were confident in their ability to recognize frailty based on their frequent contact with patients, they also acknowledged themissed opportunities for early detection when relying on their subjective observation (Ambagtsheer, Archibald, et al., 2019). A sample of eighteen Canadian general practitioners considered physical, functional, and living conditions when assessing a patient's frailty status informally, but also expressed uncertainty in their ability to detect frailty (Korenvain et al., 2019).

The readiness of a primary care system to address frailty has been raised as an important factor in determining whether frailty screening can successfully be implemented (Ambagtsheer, Beilby, et al., 2019). Integrated care based on the CCM has been shown to improve the quality of care for patients with frailty (Vestjens et al., 2018). Our work pointed to several shortcomings in frailty care across the six CCM dimensions. These findings suggest the need for system-level changes to successfully implement screening and improve care for older adults with frailty in primary care. Previous models of frailty in primary care have been identified in the literature (Travers et al., 2019; Theou et al., 2017). These guidelines need to cover all of the six elements of the CCM to optimize care for this patient population.

The involvement of primary care providers in the decision-making process will be essential as we identify ways to embed frailty management in their day-to-day clinical practice (Okpechi et al., 2020). Furthermore, dissemination of practice guidelines in individual clinics will be necessary to better support providers and, at a larger scale, in healthcare networks to better support the community.

Limitations

There were several limitations. Firstly, the small sample size restricted to clinics that had joined the Champlain Care Frailty Network limits the generalisability of the results. Although these clinics are diverse in size, setting, and patient population, repeating this survey in a larger sample of clinics would provide further insight into the interest and need for guidelines and resources for frailty screening programs in the primary care setting. Secondly, the use of short-answer survey questions limited the depth of the data. Semi-structured interviews would allow us to investigate further into some of the responses for clarification, elaboration, or examples. Future research could include a more detailed investigation of the clinics' practices. Given the limited literature on primary care providers' frailty screening practices, this work contributes key insights into the challenges related to frailty faced by primary care clinics and provides several avenues for future research.

Conclusion

In the absence of evidence-based guidelines for frailty screening and management in primary care clinics, some primary care providers are developing their own approaches to care for patients with frailty. There is an urgent need to develop evidence-based guidelines and training to support systematic screening and care processes for the growing number of older adults with frailty in primary care.

References

Abbasi, M., Rolfson, D., Khera, A. S., Dabravolskaj, J., Dent, E., & Xia, L. (2018). Identification and management of frailty in the primary care setting. *CMAJ : Canadian Medical Association journal = journal de l'Association medicale canadienne*, 190(38), E1134–E1140. https://doi.org/10.1503/cmaj.171509

Ambagtsheer, R. C., Archibald, M. M., Lawless, M., Mills, D., Yu, S., & Beilby, J. J. (2019). General practitioners' perceptions, attitudes and experiences of frailty and frailty screening. *Australian journal of general practice*, *48*(7), 426–433. https://doi.org/10.31128/AJGP-11-18-4757

Ambagtsheer, R. C., Beilby, J. J., Visvanathan, R., Dent, E., Yu, S., & Braunack-Mayer, A. J. (2019). Should we screen for frailty in primary care settings? A fresh perspective on the frailty evidence base: A narrative review. *Preventive medicine*, *119*, 63–69. https://doi.org/10.1016/j.ypmed.2018.12.020

Bodenheimer, T., Wagner, E. H., & Grumbach, K. (2002). Improving primary care for patients with chronic illness: the chronic care model, Part 2. *JAMA*, *288*(15), 1909–1914. https://doi.org/10.1001/jama.288.15.1909

Canadian Frailty Network (2019, November). Assessing frailty how screening for frailty helps. https://www.cfn-nce.ca/frailty-matters/how-screening-for-frailty-helps/

Clegg, A., Young, J., Iliffe, S., Rikkert, M. O., & Rockwood, K. (2013). Frailty in elderly people. *Lancet* (London, England), 381(9868), 752–762. https://doi.org/10.1016/S0140-6736(12)62167-9

Collard, R. M., Boter, H., Schoevers, R. A., & Oude Voshaar, R. C. (2012). Prevalence of frailty in community-dwelling older persons: a systematic review. *Journal of the American Geriatrics Society*, 60(8), 1487–1492. https://doi.org/10.1111/j.1532-5415.2012.04054.x

Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative health research*, *15*(9), 1277–1288. https://doi.org/10.1177/1049732305276687

Korenvain, C., Famiyeh, I. M., Dunn, S., Whitehead, C. R., Rochon, P. A., & McCarthy, L. M. (2018). Identifying frailty in primary care: a qualitative description of family physicians' gestalt impressions of their older adult patients. *BMC family practice*, *19*(1), 61. https://doi.org/10.1186/s12875-018-0743-4

Lee, L., Patel, T., Hillier, L. M., Maulkhan, N., Slonim, K., & Costa, A. (2017). Identifying frailty in primary care: A systematic review. *Geriatrics & gerontology international*, *17*(10), 1358–1377. https://doi.org/10.1111/ggi.12955

Muscedere, J., Andrew, M. K., Bagshaw, S. M., Estabrooks, C., Hogan, D., Holroyd-Leduc, J., Howlett, S., Lahey, W., Maxwell, C., McNally, M., Moorhouse, P., Rockwood, K., Rolfson, D., Sinha, S., Tholl, B., & Canadian Frailty Network (CFN) (2016). Screening for Frailty in Canada's Health Care System: A Time for Action. *Canadian journal on aging = La revue canadienne du vieillissement*, 35(3), 281–297. https://doi.org/10.1017/S0714980816000301

Okpechi, I., Randhawa, G., & Hewson, D. (2020). Knowledge and attitude of healthcare professionals to frailty screening in primary care: a systematic review protocol. *BMJ open*, 10(7), e037523. https://doi.org/10.1136/bmjopen-2020-037523

Ogrinc, G., Davies, L., Goodman, D., Batalden, P., Davidoff, F., & Stevens, D. (2016). SQUIRE 2.0 (Standards for QUality Improvement Reporting Excellence): revised publication guidelines from a detailed consensus process. *BMJ quality & safety*, *25*(12), 986–992. https://doi.org/10.1136/bmjqs-2015-004411

Rockwood, K., Song, X., MacKnight, C., Bergman, H., Hogan, D. B., McDowell, I., & Mitnitski, A. (2005). A global clinical measure of fitness and frailty in elderly people. *CMAJ : Canadian Medical Association journal = journal de l'Association medicale canadienne*, *173*(5), 489–495. https://doi.org/10.1503/cmaj.050051

Theou, O., Park, G. H., Garm, A., Song, X., Clarke, B., & Rockwood, K. (2017). Reversing Frailty Levels in Primary Care Using the CARES Model. *Canadian geriatrics journal : CGJ*, *20*(3), 105–111. https://doi.org/10.5770/cgj.20.274

Travers, J., Romero-Ortuno, R., Bailey, J., & Cooney, M. T. (2019). Delaying and reversing frailty: a systematic review of primary care interventions. *The British journal of general practice : the journal of the Royal College of General Practitioners*, *69*(678), e61–e69. https://doi.org/10.3399/bjgp18X700241

Vestjens, L., Cramm, J. M., & Nieboer, A. P. (2018). An integrated primary care approach for frail community-dwelling older persons: a step forward in improving the quality of care. *BMC health services research*, *18*(1), 28. https://doi.org/10.1186/s12913-017-2827-6

