Implementing advanced access to primary care in an academic family medicine network

Participatory action research

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Abstract

Objective To support the implementation of the advanced access model in a network of family medicine academic settings, and to identify solutions to teaching advanced access to family medicine residents.

Design Participatory action research study using descriptive methods.

Setting A network of 11 academic family medicine settings, mostly located in the province of Quebec.

Participants Eighteen academic-setting directors and deputy directors and 125 clinical preceptors.

Methods The study was carried out from August 2015 through January 2017. Settings were represented by a "community of practice" of academic-setting directors and deputy directors. Data were collected via questionnaires, online surveys, and 4, 60-minute focus groups. Data were analyzed using descriptive statistics or thematic analysis. Findings were validated with the community of practice.

Main findings Nearly all of the academic family medicine settings implemented advanced access for their clinical preceptors (90.9%). Four main solutions to teaching advanced access were identified: establishing an optimal panel of patients; ensuring continuity of care during absences and away rotations; optimizing team collaboration; and creating a positive experience of immersion in advanced access.

Conclusion An academic-setting community of practice contributed to sharing solutions that were instrumental in broadly implementing the advanced access model and that also paved the way for the integration of advanced access for future family physicians, further supporting timely access to primary care.

Editor's key points

- One of the most important dimensions of high-quality primary care is timely access for patients. Advanced access—also known as *same-day scheduling* or *open access*—has been proven to be an effective and efficient organizational model for improving the timeliness of primary care access.
- This project aimed to build leadership capacity to support the implementation of the advanced access model in an academic network of family medicine settings and to identify potential challenges and solutions for teaching the advanced access model to family medicine residents.
- This participatory action project, initiated by a community of practice of academic-setting directors and deputy directors, supported by an Accompanying Committee, led to benefits beyond implementation of advanced access and identification of challenges and solutions to teaching this model in academic settings. Overall, the study contributed to building leadership capacity, catalyzed the implementation of advanced access, and helped to mitigate challenges by sharing solutions that were instrumental to teaching the advanced access model to family medicine residents.

Points de repère du rédacteur

- Un accès en temps opportun aux soins primaires par les patients représente l'une des dimensions les plus importantes des soins de grande qualité. Il a été démontré que l'accès avancé, aussi appelé *rendez-vous le jour même* ou *accès ouvert*, était un modèle organisationnel efficace et efficient pour améliorer la rapidité de l'accès aux soins primaires.
- Ce projet avait pour but de renforcer les capacités de leadership dans le but de soutenir la mise en œuvre du modèle de l'accès avancé dans un réseau universitaire de cliniques de médecine familiale, et de cerner les problèmes et les solutions possibles relatifs à l'enseignement du modèle de l'accès avancé aux résidents en médecine familiale.
- Ce projet d'action participative, amorcé par une communauté de pratique formée de directeurs et de directeurs adjoints du monde universitaire qui était appuyée par un comité accompagnateur, a produit des bienfaits allant au-delà de la mise en œuvre de l'accès avancé et de l'identification des problèmes et des solutions relatifs à l'enseignement de ce modèle en milieu universitaire. Dans l'ensemble, cette étude a contribué à renforcer les capacités de leadership, a servi de catalyseur dans l'implantation de l'accès avancé, et a contribué à atténuer les difficultés en favorisant le partage des solutions s'étant avérées déterminantes pour l'enseignement du modèle de l'accès avancé aux résidents en médecine familiale.

Mise en œuvre de l'accès avancé aux soins primaires dans un réseau universitaire de médecine familiale

Recherche-action participative

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Résumé

Objectif Soutenir la mise en œuvre du modèle de l'accès avancé dans un réseau universitaire de cliniques de médecine familiale.

Type d'étude Étude de recherche-action participative à l'aide de méthodes descriptives.

Contexte Un réseau universitaire de cliniques de médecine familiale situées majoritairement dans la province de Québec.

Participants Dix-huit directeurs et directeurs adjoints de cliniques universitaires, et 125 précepteurs cliniciens.

Méthodes L'étude a duré d'août 2015 à janvier 2017. Les cliniques étaient représentées par une « communauté de pratique » formée de directeurs et de directeurs adjoints du milieu universitaire. Les données étaient recueillies au moyen de questionnaires, de sondages en ligne et de 4 groupes de discussions d'une durée de 60 minutes. Les données ont été analysées à l'aide de statistiques descriptives ou d'analyses thématiques. La communauté de pratique a validé les constatations.

Principales constatations Presque toutes les cliniques universitaires de médecine familiale ont mis en œuvre l'accès avancé pour leurs précepteurs cliniciens (90,9%). L'analyse a permis de dégager 4 principales pistes de solution pour l'enseignement de l'accès avancé : l'établissement d'un panel optimal de patients; l'assurance de la continuité des soins durant les absences ou les stages à l'extérieur; l'optimisation de la collaboration au sein de l'équipe; et la création d'une expérience positive d'immersion dans l'accès avancé.

Conclusion Une communauté de pratique du milieu universitaire a contribué au partage de solutions s'étant avérées déterminantes pour l'implantation généralisée du modèle de l'accès avancé, et a également ouvert la voie à l'intégration de l'accès avancé par les futurs médecins de famille, ce qui favorisera encore plus l'accès en temps opportun aux soins primaires.

As the gateway to accessing health care, primary care forms the cornerstone of any strong health system, ensuring positive health outcomes.[1-3] One of the most important dimensions of high-quality primary care is timely access for patients.[4] In the United States (US), Canada, and other developed countries, patients' access to timely, acceptable, and affordable health care is an issue of concern to medical organizations.[5-7] The Commonwealth Fund's 2016 International Health Policy Survey of Adults in 11 Countries revealed that the US, Canada, and France ranked last on performance overall[8] and were also below international averages for timely access to patient care.[9]

Advanced access—also known as *same-day scheduling* or *open access*—has been proven to be an effective and efficient organizational model for improving the timeliness of primary care.[1,10,11] Comprehensively described by Murray and Berwick,[12] advanced access is a quality improvement model based on a principle of scheduling that offers the opportunity for patients to access their own primary care providers in a timely manner.[13] The model of advanced access has existed in the primary care literature for more than a decade[12] and it is endorsed by both the US Institute for Healthcare Improvement and the College of Family Physicians of Canada, as well as the Royal College of General Practitioners in the United Kingdom.

Most family medicine department–affiliated settings have distinct organizational, funding, and staffing models. However, like other primary care practices,[14] they must focus on access in order to make vital contributions to patient care, while also training tomorrow's health care work force in exemplary environments. Because practices affiliated with departments of family medicine play a leading role in shaping the primary care work force,[15] implementation of the advanced access model in academic settings has received growing attention in recent years.[16-18] Advanced access has been successfully implemented in various academic family medicine residency practices.[17-22] Despite this, strategies to improve implementation and teach advanced access in an academic network of family medicine settings remain to be studied.

Context of the study

In 2015, the association representing general practitioners in Quebec (the Fédération des médecins omnipraticiens du Québec) and the Quebec provincial health ministry (the Ministère de la Santé et des Services sociaux) agreed to address the concern of limited access to primary care.[23] To honour this agreement, primary care practices intend to build on the best practices that have proven effective in improving access to care, and implementing the advanced access model is viewed as essential.[23] Cognizant of these issues, directors and deputy directors in academic primary care settings requested that the Department of Family Medicine and Emergency Medicine at the University of Sherbrooke form an ad hoc Accompanying Committee mandated to foster the "community of practice" of academic-setting directors and deputy directors affiliated with the department; to provide support to the community of practice for change management during advanced access implementation, by way of practice tools, specific training, and monitoring of relevant indicators; and to forward reflection and discussion to set achievable and realistic collective goals.

The Accompanying Committee, chaired by the department's Research Director (C.H.), oversaw the study project and included a coordinator (M.L.), a family medicine resident (N.C.), a partner patient (S.C.), an organizational change expert (M.F.), a quality improvement expert (I.B.), an expert on advanced access (M.B.), a departmental representative (J.F.D.), and a representative of the family medicine residency program (M.C.B.). Two academic-setting directors (L.C., P.V.) from the community of practice were also involved in the committee, facilitating liaison between both groups.

The aims of this project were to build leadership capacity to support the implementation of the advanced access model in an academic network of family medicine settings, and to identify potential challenges and solutions for teaching the advanced access model to family medicine residents.

Methods

Design

A participatory action research project was conducted[24] from August 2015 through January 2017, generating both qualitative[25] and quantitative data.[26]

Setting

The University of Sherbrooke Department of Family Medicine and Emergency Medicine comprises a network of 11 academic settings. These are mostly located in the province of Quebec (10 in the province of Quebec and 1 in the province of New Brunswick). The department's network of academic settings encompasses 125 clinical preceptors hosting 220 family medicine residents.

Participants

The network is represented by a community of practice of 18 academic-setting directors and deputy directors. The community of practice meets 4 days per year with the purpose of gaining knowledge about educational innovations and sharing academic experiences. Directors and deputy directors contact one another by e-mail and telephone the remainder of the year. Although directors and deputy directors shared the mutual goal of implementing strategies to enhance best clinical and pedagogic practices, our project was a first opportunity to obtain support from an Accompanying Committee that facilitated the realization of this goal empirically.

Data collection

Data collection included questionnaires (quantitative and qualitative data), online surveys (quantitative data), and notes taken during focus groups held with the community of practice (qualitative data). Academic-setting directors and deputy directors were asked, through a questionnaire, to share their expectations for the committee's first meeting, held in October 2015, as well as to express their needs throughout the implementation process. Directors and deputy directors also rated, on a scale ranging from 0 to 10, their relative degree of satisfaction with the implementation support provided at the end of each advanced access meeting. A questionnaire outlined the implementation stages for the settings before and after the implementation process. In order to monitor the progress of timely access, all clinical preceptors (N=125) received an e-mail invitation from their respective academic-setting director to participate in an online survey, hosted on SurveyMonkey. The anonymous survey used the health care sector's standard measure for access to health care[27]—ie, the time to the third-next available appointment (TNAA) in days. The survey was conducted 3 times during the study period, in May, October, and December 2016.

Potential challenges and solutions for teaching advanced access to family medicine residents were collected through 4, 60-minute focus groups. Focus groups were held with heterogeneous groups of academic-setting directors and deputy directors from practices at differing stages of implementation. Focus groups were led by 2 members (M.L., C.H.) of the committee; a moderator guided participants through the discussion topics, while an assistant moderator took notes on any challenges, facilitators, solutions, and outcomes discussed. Handwritten notes of the participants were also compiled for analysis.

Data analysis

Descriptive statistics were used to depict the basic features of the data, and results were presented to the community of practice throughout the study. Qualitative data generated from the focus groups were analyzed using thematic analysis (performed by M.L. and C.H.), and findings were then validated with the community of practice.

Ethics approval

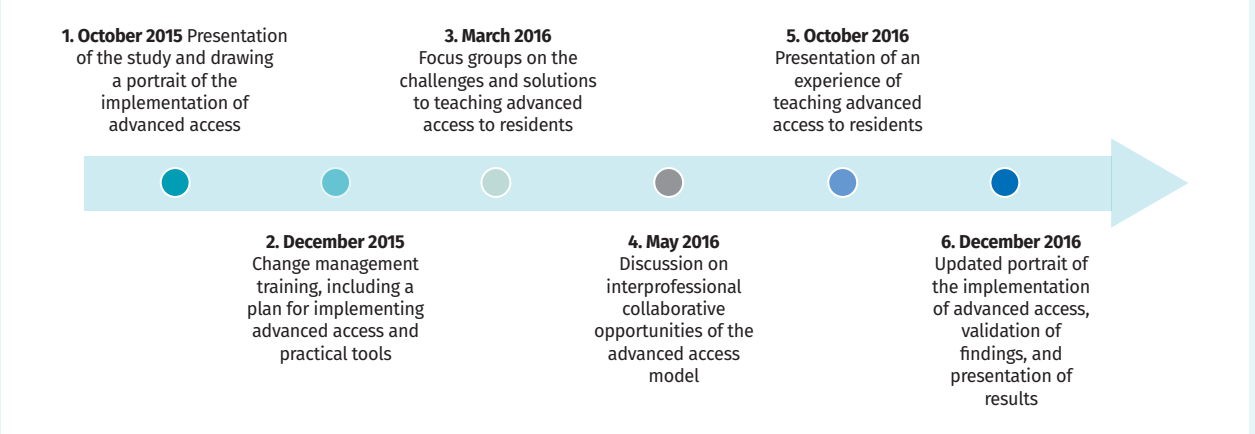
The study protocol was reviewed and duly approved by the University of Sherbrooke Academic Hospital Centre's (Centre intégré universitaire de santé et de services sociaux de l'Estrie–Centre hospitalier universitaire de Sherbrooke) Research Ethics Board.

Findings

Implementation support

The Accompanying Committee endeavoured to approach implementation and teaching of the advanced access model in such a way as to allow improvement and action with the partners expressing interest and need for support, namely academic-setting directors and deputy directors of the community of practice. The committee met 8 times, convening before and after every community of practice meeting in order to foster interactions among directors and deputy directors, and to provide relevant training as well as relevant evidence, indicators, and tools. Following these preparatory meetings, 2 members (C.H., M.L.) of the committee met with the community of practice during their quarterly meetings. External experts were invited occasionally, when required. The community of practice held a total of 6, 2-hour advanced access meetings. Meeting agenda topics were determined based on the needs expressed by members of the community of practice during the implementation process. **Figure 1** presents the implementation discussion topics of each advanced access meeting with the community of practice, illustrating the particular needs expressed during the study to build leadership capacity.

Figure 1. Study flowchart illustrating the contents of the meetings



Box 1 outlines the tools provided to the community of practice to support implementation of the model, including certain change-management tools. Tools were made available to academic-setting directors and deputy directors, to clinical preceptors, and to family medicine residents. Additionally, directors and deputy directors also received an implementation plan and change-management training. All of the 11 academic settings held monthly local team meetings, including a standing item to share progress and next steps on implementation of the advanced access model. The average degree of satisfaction of the academic-setting directors and deputy directors with the implementation support provided was relatively high (85.4%) during the course of the study.

The advanced access model was implemented gradually, and by fall 2015, the 11 academic settings were at different stages of implementation for their clinical preceptors: 3 (27.3%) were at the installation stage, 6 (54.5%) had initiated implementation less than a year ago, and 2 (18.2%) were at the full implementation stage. After the study, most academic settings (90.9%) implemented the advanced access model (all those located in the province of Quebec). Only 1 academic setting (9.1%) was still at the installation stage. Monitoring of the progress of timely access for clinical preceptors began in May 2016. The mean (SD) time to the TNAA for preceptors (N=125) remained stable (10.7 [9.4] days vs 10.5 [7.4] days) and the participation rate for monitoring timely access improved (34% vs 56%) from May through December 2016, respectively.

Challenges and solutions to teaching advanced access

Four important themes illustrating challenges to teaching advanced access to family medicine residents were identified from the focus groups of academic-setting directors and deputy directors: difficulty defining the ideal patient panel size for residents beyond requiring a "variety" of health problems reflective of the family medicine specialty and "adequate" sex and age diversity; tension between designing residents' schedules and ensuring continuity of care from the perspectives of both the patient and the resident during residents' absences, leaves, or away rotations; maximizing the use of limited human health resources by leveraging and optimizing interprofessional collaboration; and providing residents a positive advanced access exposure that would convince them of its relevance to improving timely patient access to care. According to the community of practice, the teaching of advanced access to family medicine residents also comprises a series of facilitators, solutions, and potential effects. These are illustrated in **Figure 2**.

More specifically, academic-setting directors and deputy directors proposed a series of possible solutions, listed in **Table 1**, to address these challenges in order to improve patient accessibility, continuity of care, and pedagogic continuity.

Box 1. Tools that supported the implementation of the advanced access model

The following tools were provided to the community of practice to support implementation of the advanced access model:

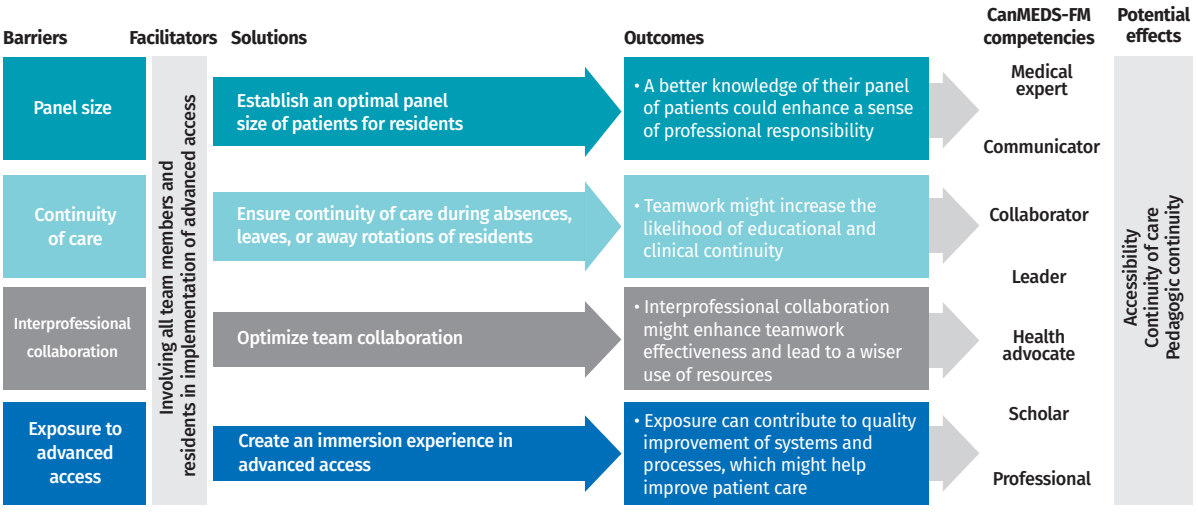
- *How-to guide* for implementing advanced access in an academic setting
- *Panel size equation* for balancing patient demand and provider supply (annual supply and annual demand; if demand was higher than supply, it was suggested that providers' weekly schedules be adjusted or that the number of appointments per day be increased to achieve balance)
- *5 Conditions* for successful organizational change
- *Communication strategy checklist* for achieving change management
- *5 Tips* for managing resistance to change
- *Organizational management approach analysis*
- *Levels of acceptance* by partners within a team

Discussion

Findings from this study indicate that this participatory action project initiated by a community of practice of academic-setting directors and deputy directors, supported by an Accompanying Committee, led to benefits beyond implementation of advanced access and identification of challenges and solutions to teaching this model in academic settings. Overall, the study contributed to building leadership capacity, catalyzed the implementation of advanced access, and helped to mitigate challenges by sharing solutions that were instrumental to teaching the advanced access model to family medicine residents. This study also consolidated a community of practice of academic-setting directors and deputy directors to help overcome the challenges posed by implementing and teaching strategies to enhance best clinical and pedagogic practices.

Because the impetus for this project came from academic-setting directors and deputy directors, it involved their full and active participation during the entire study process. This participatory approach facilitated meaningful engagement in health research partnerships,[28] including stakeholders from family medicine community practices, leading to cogeneration of data from health organization members of diverse academic primary care settings. A recent systematic mixed-studies review has shown that the likelihood of such a participatory approach yielding extra benefits is increased 4-fold when the motivating force for the project comes from the organization, rather than the academic researchers, or from the organization and the academic researchers together.[29] In our study, extra benefits were observed in collaborations, relationships,

Figure 2. Barriers, facilitators, solutions, outcomes, CanMEDS-FM competencies, and the potential effects of teaching advanced access to residents



CanMEDS-FM—CanMEDS–Family Medicine.

and communication among the academic-setting directors and deputy directors of the community of practice.

Leadership efforts by the community of practice emphasized the importance of several key components in order to successfully implement advanced access across a large network of academic primary care settings. These included change-management training, thinking together, and buy-in from all stakeholders. Other important components were co-construction from experiential knowledge, timely feedback, support from an Accompanying Committee, and provision of various tools. All academic settings implemented the advanced access model with one exception. This exception was not owing to a lack of interest on the part of the stakeholders. Jurisdictional factors,[30] including particular provincial health ministry policies and regulations (outside the province of Quebec), precluded implementation. Participation rates for monitoring the progress of timely access for clinical preceptors improved over the course of the study, demonstrating a growing engagement of stakeholders across local settings.

Findings from our study on advanced access are complementary to those of other studies carried out in family medicine academic settings, in that they propose strategies to enhance implementation of best clinical and pedagogic practices. Previous studies have mostly focused on patient continuity of care[17,19,22,31,32]; patient, provider, or staff satisfaction[19,20,22,33]; patient no-show rates[19-21,31]; physician productivity[19,21]; facilitators of teaching advanced access to family medicine residents[18]; obstacles to advanced access (eg, call volume, cancellations, provider leaves, availability of nursing staff to support the practice, or systems to remind patients of appointments)[18,20,33]; and time to the TNAA.[17,19-22,31] A review of studies tracking time to the TNAA revealed similar results—ie, between 4 and 11 days.[17,19,21,22,31] One such study reported a time to the TNAA of less than 3 days.[20]

In our study, time to the TNAA was assessed independently of the implementation stage of each participating study practice. While the mean was sustained, the standard deviation narrowed during the study period despite the particular constraints of family medicine academic settings,

Table 1. Challenges and solutions to teaching advanced access to family medicine residents

CHALLENGES	SOLUTIONS
Establishing an optimal patient panel size for residents	• Prepare a list of approximately 125 patients, matched for resident level of training • Ensure follow-up of a well balanced spectrum of health problems
Ensuring continuity of care during residents' absences, leaves, or away rotations	• Pair up residents 2 by 2 to ensure continuous resident presence • Provide a designated responsible resident per team when residents are on rotations that limit their clinical time with their own panel of patients
Optimizing team collaboration in primary care that models teamwork and collaborative practice skills	• Provide practice tools to refer to the right professionals • Allow interprofessional discussion to clarify specific roles
Creating an immersion experience in advanced access for residents	• Implement the advanced access model for residents from the very beginning of their residency program • Immerse residents in a culture of accessibility

such as interruptions in the continuity of clinical schedules and day-to-day variations in preceptor availability.[17] Of importance, the consensual, albeit belated, decision from lead stakeholders to measure the time to the TNAA might explain the increasing survey participation rates.

Limitations and strengths

The main limitation of our study is that its direct effects are difficult to measure because of its participatory design. However, when participatory research projects are initiated by the people directly involved in the process, this leads to unexpected and greater benefits.[29] It was interesting to consider in our study the powerful effect that the preceptor role model and exposure to advanced access might exert on competency-based medical education and assessment of the roles and competencies as outlined by the CanMEDS–Family Medicine framework in Canada[34,35] and the Accreditation Council for Graduate Medical Education in the US.[36] Indeed, implementation and teaching of the advanced access model also helped residents acquire certain essential competencies (**Figure 2**), which are a requisite credential for accreditation in graduate medical education.[34-36] Thus, our study contributed to the development of essential competencies in family medicine practice.

Conclusion

Our findings will inform the scaling up of implementation of the advanced access model across an academic network of family medicine settings, as well as similar quality improvement models in other clinical teaching settings looking to enhance access to care by leveraging leadership capacity building. Further, because implementation was carried out with family medicine residents, this might help to pave the way for integration of similar models in future clinical practice, further supporting primary care accessibility.

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Contributors

All authors contributed to the concept and design of the study; data gathering, analysis, and interpretation; and preparing the manuscript for submission.

Competing interests

None declared

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