Understanding community family medicine preceptors' involvement in educational scholarship: perceptions, influencing factors and promising areas for action

Comprendre la participation des superviseurs en médecine familiale communautaire au scholarship de l'éducation : perceptions, facteurs d'influence et pistes d'action prometteuses

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Abstract

Background: Residency training is increasingly occurring in community settings. The opportunity for community-based scholarship is untapped and substantial. We explored Community Family Medicine Preceptors' understanding of Educational Scholarship (ES), looked at barriers and enablers to ES, and identified opportunities to promote the growth of ES in this setting.

Methods: We conducted semi-structured interviews with fifteen purposively chosen community-based Family Medicine preceptors in a distributed Canadian family medicine program.

Results: Community Family Medicine Preceptors strongly self-identify as clinical teachers. They are not well acquainted with the definition of ES, but recognize themselves as scholars. Community Family Medicine Preceptors recognize ES has significant value to themselves, their patients, communities, and learners. Most Community Family Medicine Preceptors were interested and willing to invest in ES, but lack of time and scarcity of primary care research experience were seen as barriers. Research process support and a connection to the academic center were considered enablers. Opportunities to promote the growth of ES include recognition that there are fundamental differences between community and academic sites, the development of a mentorship program, and a process to encourage engagement.

Conclusions: Community Family Medicine Preceptors identify foremost as clinician teachers. They are engaged in and recognize the value of ES to their professional community at large and to their patients and learners. There is a growing commitment to the development of ES in the community

Résumé

Contexte : Les stages de résidence se font de plus en plus en milieu communautaire, un milieu qui offre des possibilités de scholarship intéressantes demeurant inexploitées. Nous avons étudié la compréhension qu'ont les superviseurs en médecine familiale communautaire au sujet du scholarship de l'éducation (SÉ), examiné les obstacles et les facteurs favorables au SÉ et identifié les possibilités de le promouvoir dans le cadre communautaire.

Méthodes : Nous avons mené des entretiens semi-structurés avec quinze cliniciens enseignants en médecine familiale communautaire choisis à dessein dans un programme de médecine familiale décentralisée au Canada.

Résultats : Les superviseurs en médecine familiale communautaire se définissent fermement comme cliniciens enseignants. Peu familiers avec la définition du SÉ, ils se considèrent néanmoins comme érudits. Ils reconnaissent l'importance considérable du scholarship de l'éducation autant pour eux que pour leurs patients, les communautés et les apprenants. La plupart des superviseurs en médecine familiale communautaire se disent intéressés et disposés à s'investir en SÉ, mais se sentent limités par le manque de temps et le peu d'expérience en recherche en soins primaires. Le soutien au processus de recherche et un lien avec le centre universitaire sont considérés comme éléments favorables. La possibilité de développer le SÉ passe par la reconnaissance des différences fondamentales entre les sites communautaires et universitaires, la création d'un programme de mentorat et la mise en place d'un processus visant à encourager l'engagement.

Conclusions : Les superviseurs en médecine familiale communautaire se définissent avant tout comme des cliniciens enseignants. Ils s'investissent dans le SÉ et ils reconnaissent son importance pour leur communauté professionnelle, leurs patients et leurs apprenants. Il y a un engagement croissant envers le développement du SÉ dans la communauté.

Introduction

For more than a decade, medical schools in Canada have extended medical education from academic university-based teaching hospitals to distributed, community-based medical centers that rely heavily on the interest and good will of local clinicians.[1] One of the reasons for this new model is to resolve the lack of connection between communities and medical schools, specifically to allow learners to gain experience with and learn from a larger variety of patients in the community, and, to learn in a setting most likely to resemble where they will practice.[2] The community-based educational model is intended to provide training that is 'relevant to community needs'[2] and sensitive to variations in culture and the 'social contract' with the community.[3] This extension of teaching into the community requires contracting and supporting community physicians as preceptors.[4] This transition to a distributed medical education model has been successful in linking learners to communities, and retaining learners within communities, but has been less successful in creating scholarship that 'is expanded and distributed into the community.'[2] Training in this community-based model is typically delivered by full time clinicians who often have little or no research training, lack financial support or incentive for engaging in scholarship, lack mentorship and role models, and have little interest in engaging in scholarship.[5,6]

Commonly, and incorrectly, scholarship has been associated solely with research.[7] Boyer has refined the concept of scholarship to include discovery of new information, integration of new knowledge, application of this knowledge and finally, teaching.[8] Reynolds and Candler have proposed that Educational Scholarship (ES)[9] "refers to any material, product, or resource originally developed to fulfill a specific educational purpose that has been successfully peer-reviewed and is subsequently made public through appropriate dissemination for use by others." Scholarship is so much more than just research. A need to broaden the view of scholarship has evolved: "a recognition that knowledge is acquired through research, synthesis, practice and teaching."[9] This need is especially relevant where educational models involve more community placements of learners, community physicians act as preceptors, and where scholarship is expressed in ways not described by a traditional research-based model.[10] Community scholarship in general is valuable in generating knowledge that can improve the health of communities, support alignment between academic and community medical education programs/sites, and include community members in the process.[11]

All Family Medicine training programs in Canada are required to meet accreditation standards defined by the College of Family Physicians of Canada (CFPC). In the recently updated Accreditation Standards for medical education programs, the CFPC identifies that teachers must be 'effective role models for residents' and should strive to contribute to 'scholarship on an ongoing basis.'[12] "Scholarship," defined broadly by the CFPC, would include the scholarships of discovery, application, integration, and teaching.

Community-based preceptors are primarily engaged in their clinical work which includes little or no ES. Law and his colleagues identify this as a 'missed opportunity.'[10] They suggest there is a rich opportunity for the development of ES in the community that would require nurturing and support, and a fundamental shift in the way community preceptors value scholarship. Community preceptors generally view scholarship as a low priority when compared to their clinical work.[13] In contrast, among academic university-based clinicians, the role of scholarship has extrinsic value relating to tenure, promotion, and retention,[14] as well as more intrinsic value including professional satisfaction, team building, and mentorship opportunities.[15] Factors that affect engagement in scholarship, including ES, at the community level include a lack of confidence to produce scholarly work,[10] limited supports and resources,[10,13,15] few role models,[10] and a lack of time.[5]

In their study to understand perceptions of ES, Law et al.[10] found that community preceptors viewed themselves as clinicians and teachers first. At that time, they did not see themselves as medical education scholars nor perceived a personal or professional benefit from ES. We hypothesized that with the increased prominence of evidence-based medicine and the spread of ES from academic teaching centers to community-based teaching programs we might see new patterns of interest in ES among clinicians teaching in the community. Thus, understanding current barriers and enablers to community-based ES needs further exploration.

The purpose of our research was threefold: 1) To gain insight into community preceptor perceptions of ES; 2) To understand the barriers and enablers in their pursuit of ES; and 3) To identify opportunities to grow ES at community-based teaching sites.

Table 1. Educational scholarship defined*

Types of Educational Scholarship	Description	Examples of Activities
1. Scholarship of discovery	Traditional research	• Writing grants • Presenting at conferences • Publishing in journals
2. Scholarship of integration	Interdisciplinary connections	• Designing interprofessional course • Developing integrative seminars • Creating faculty development initiatives
3. Scholarship of application	Interactions between research and practice: translating new knowledge to practical interventions in clinics	• Developing a quality improvement project • Teaching a seminar
4. Scholarship of teaching	Promoting active learning, critical thinking, and commitment to life-long learning	• Studying effective teaching methods (e.g., problem-based small group learning, case-based learning) • Developing innovative curriculum • Revising courses based on student feedback • Evaluating programs and/or clinical teaching and learning techniques

*Educational scholarship refers to any material, product or resource originally developed to fulfill a specific educational purpose that has been peer-reviewed and made public for use by other colleagues, residents, or medical students (Reynolds & Candler, 2008).

Adapted from Boyer and Urban (8, 17).

Methods

This was a descriptive study using qualitative methods and a constructivist paradigm.[16] The goal of constructivist research is to understand how individuals assign meaning. This approach recognized the subjective interpretation of ES to community preceptors.

The university Health Sciences Research Ethics Board reviewed and provided ethical clearance for this project.

Setting and participants

In 2012, Queens University expanded its academically-situated Family Medicine post-graduate program to add three community-based and geographically dispersed sites in Ontario. These community-based sites are the setting for this study. These sites serve urban populations of 40,000 - 100,000, and host 12 - 16 residents per site per year.

The target population for our study included all Family Medicine preceptors associated with the three distributed sites. We used a purposive method to identify participants. We sought out and chose a diverse group of community preceptors that represented a wide range of teaching experience, and who were at different career stages in order to obtain a variety of perspectives. A letter of invitation was e-mailed to 19 preceptors across the three sites. We anticipated that thematic saturation would be complete with 8-10 interviews, and that this initial recruitment would allow for this sample size.

Data collection

The project team developed interview questions based on Boyer's classic interpretation of scholarship.[8] This model describes four pillars of scholarship, namely that of discovery, integration, application and teaching[8]. We provided study participants with a table that described Urban's[17] working interpretation of Boyer's four pillars of scholarship. This table provided examples of activities for participants to refer to and to relate to when articulating their personal understanding of scholarship (see Table 1). Additionally, we used a 10-point Likert scale to rate engagement with ES pillars.

Participants that agreed to interview were emailed the letter of information about the study and the consent form to review in advance of the interviews that were scheduled for 45 minutes. Data were collected over four months in 2017. Informed consent was received from each participant prior to their interview. One of two investigators (CG and LR) conducted the semi-structured interviews, by phone or in-person, which were between 8-45 minutes in length with an average of 22 minutes. Interviews were audio-recorded, transcribed verbatim and reviewed for accuracy. Saturation was reached and exceeded which was a result of a high response rate.

Data analysis

For analysis, two investigators (LR and CG) used MS Excel organize and store data, develop codebooks, and compare results. Each investigator read all transcripts twice, and one was chosen randomly to develop independent codebooks

for comparison. We used three steps to coding.[18] Initially, open coding of one transcript between the two investigators produced a codebook with minimal discrepancies, which were discussed and resolved. One investigator open-coded all transcripts, which was followed by axial coding and identification of participant quotes. This step produced a summary of themes that the project team reviewed after which selective coding took place in order to gain a clearer understanding of the results and how they related back to research objectives.

Results

Fifteen preceptors from the distributed sites participated in this study. Results are grouped to correspond with the three research objectives: perceptions of faculty, barriers and enablers, and opportunities to enhance growth of ES at community-based sites.

Faculty perceptions

Prior to receiving Urban's illustrative table of the four pillars of scholarship, participants were asked what they understood about ES and the related activities, their interest and engagement, and the value they saw in this area.

Definition of educational scholarship: Most participants (13/15) were unable to define ES, or associated it with only research or publications.

"Educational scholarship is difficult to understand – that's actually a barrier by itself. Hard to get your head around what it refers to" [R7]

"Educational scholarship to me means developing an interest and a skill set around research and doing so with looking ahead to publishing." [R11]

Once provided with Urban's table, (Table 1), preceptors were able to recognize how their current activities fit within Boyer's four pillars of scholarship (discovery, integration, application and teaching) and articulate their activities in each. Respondents identified less activities related to the scholarship of discovery or integration in their teaching practices, but more activities relative to the scholarship of application and teaching.

Current and anticipated engagement in educational scholarship: When asked about current engagement with each of Boyer's four pillars of scholarship, participants identified that they felt most engaged with the scholarship of teaching and least engaged with the scholarship of discovery (Table 2). The majority (13 of 15) felt some level

of commitment to pursuing ES in the future. Two respondents had no intention of pursuing ES, either due to lack of interest or lack of confidence in presentation. It was very clear that the respondents defined their interest in pursuing ES from a research/scholarship of discovery perspective, rather than the broader concept of ES.

"I'm ok with that. I've come to peace with that. That's not my, sort of strength" [R12]

"You have to be good with people, public speaking and all that so those are things I don't think I'm up there with regards to my skills" [R5]

Table 2. Engagement with Boyer's pillars of scholarship

	Self Scale 1-10 (1) Not at all engaged – (10) Extremely engaged			
	Discovery	Integration	Application	Teaching
Average	3.08	4.83	6.58	7.83
Median	2	4.5	6.5	8
Range	0~10	0~10	0~10	5~10

Value of educational scholarship: Despite minimal engagement related to discovery, most viewed traditional research as valuable to themselves as professionals (13/15), to their practice (6/15), their patients (6/15), and the broader community (5/13).

"it just snowballs from personal benefit, to office benefit, to community benefit and, ultimately the patients" [R1]

"One of the things that I really do like scholarship is it kind of helps further knowledge in our community" [R2]

Most felt that ES offered substantial professional development opportunities for them but also benefitted the residents they supervised.

"evidence is evolving – I'm happy to be part of that evolution" [R11]

"what draws me to it… furthering my own in-depth knowledge on a subject and being able to share that with others" [R4]

Participants saw value to their practice as "*research validates what we do and how we're doing it"* [R7] and to their patients who would benefit from involvement in projects. They viewed their participation in "research" as demonstration to their patients that they remain current and use best evidence.

"I think it [benefit of research] *reminds your patients that you're looking for their best interest and trying to stay up to date."[R7]*

Barriers and enablers in educational scholarship

Although preceptors had been given an opportunity to explore a much broader definition of ES in the beginning of the interview, all continued to envision ES as a research centered concept and identified barriers and enablers focused on the concept of "research." There was little to no comment regarding factors that might be modified in relation to other areas of ES.

***Barriers to participation*:** Participants reported two important barriers; 1) limited time to pursue ES, and 2) the perceived lack of experience in research.

The lack of time to dedicate to pursue ES was cited most often (12/15). Community preceptors identified that time spent pursuing ES would take time away from patients and, ultimately, increase their workload. They recognized patient care as their first priority, and there was a clear tension that dichotomized clinical time/responsibility and the perception of added time required to engage in ES.

"what I don't like about Educational Scholarship is time away from office. Clinical work piles up" [R8]

"I enjoyed doing it and I would love to do it… but it's just that I can't afford it, if you know what I mean. To be able to give so much of your time" [R15]

"everyone here is a community clinician first" [R8]

Preceptors identified lack of experience with the research process as a significant barrier to successful ES. They highlighted a lack of experience with grant writing and research design in particular. Some commented on the onerous process of publication and previous frustrations with this experience.

"I spent 200 hours on a project which I just dumped because nobody was going to publish it. And it was very worthwhile but it just wasn't in a way that it was going to be publishable" [R2]

"I'm not doing scholarship of discovery but I'm not opposed to it. I've just have been in the past, you know, frustrated by the limitations" [R2]

***Enablers for participation*:** Community preceptors identified two key enablers to increased engagement in ES: research process support, and having a connection with their academic colleagues. None of the respondents commented on enablers that might be identified to help support the scholarship of teaching, application, or integration specifically; roles that many were already pursuing, but did not consider to be scholarship.

Respondents felt they needed support throughout the research process to encourage and enable their capacity to produce traditional research products and emphasized that this was a critical step in establishing a viable ES network in the community. This included support for project design, manuscript formulation, grant writing, statistical analysis, and various administrative supports including navigating applications through the ethics approval process:

"support for that (the administrative stuff) is critical… because, it's got to be done and… you don't really know what it entails. So it does take you longer and sometimes, that's where you say – oh well yeah, that's too tough so I'm just going to leave it" [R1]

"I can see that connection with an academic facility is probably the most important thing. Because someone doing it on their own is almost impossible" [R13]

Preceptors recognized the value of a strong connection to their academic center and ongoing relationships with colleagues as critical to advancing ES in their community. They identified that it was the role of the University to *"nurture that culture."* [R14]

"I think the most important thing for a community physician is to have connection and support from an academic facility" [R13]

Opportunity for growth

Thirteen of our respondents articulated a commitment to engage in ES in their respective communities. They described a model upon which this commitment could be realized which included: acknowledging the differences between academic and community-based practices and providing both mentorship and support to preceptors.

***Recognizing the difference between community-based and academic-based practice is critical*:** Participants indicated that efforts to increase ES activities at community sites would have to take into account differences between community and academic practice settings. Many noted that physicians come to the community to practice community medicine and not necessarily to do research. Participants suggested that research was more aptly the realm of academic medicine and less part of their roles as community-based clinicians. Over half of the participants

identified this fact and pointed to the critical role they have within community medicine and that those attracted to community-based practice are less likely to see themselves as researchers. They emphasized that community-based Family Physicians are deeply committed to the care of their patients and recognize this as their professional priority.

"we're not an academic site traditionally so a lot of people come here saying I just want to practice medicine" [R6]

"community physicians have a fairly deep feeling of responsibility that their patients are safe and cared for and have access" [R7]

Differing payment structures between university based and community-based models and opportunities for protected time to carry out activities of ES were highlighted as important differences. Several suggested allocations of protected time to community preceptors would help more easily establish programs of ES in the community:

"generally you need protected time to be able to make that work - my perception is, you know, it takes time which you don't get compensated for at all." [R2]

"Whereas in the community, I believe a lot of family doctors don't get involved because they don't have a support system, or they don't have funding to allow them the time to do that"[R13]

Mentorship for community preceptors: A majority of preceptors identified the need to have a mentor that would help guide them through various parts of the research process and collaborate early on. This mentorship would help build experience, increase confidence, and foster independence:

"it would be nice to have someone who's been through that process and is kind of comfortable with it to guide you along the way there." [R8]

"one of the things that would be helpful is to would be to have a veteran researcher within the department to work with us" [R6]

Encouragement needed to engage community preceptors: Respondents felt that regular education surrounding the research process and ongoing communication regarding opportunities to join projects would be an effective way to nurture ES development in the community. Opportunities for preceptors to "piggyback" onto ongoing research activities as junior researchers was viewed favorably. Preceptors saw this level of involvement as a "stepping stone" to help them develop research experience:

*"as a principle investigator I would have to say no. But to work as a co-*investigator?" [R6]

"I think in early days a collaborator, consultant or a participant on a team"[R11]

Additionally, they felt community-based preceptors need ongoing encouragement and structured support to pursue ES which addresses their lack of experience, and in some cases, a lack of confidence in their ability to navigate the research process:

"I don't know if it's going to be practical but someone with a lot of experience has to be more present here to sort of stimulate that (research) a bit more" [R6]

Discussion

In this study the majority of our respondents place a high value on ES and identified potential benefits to themselves, their patients, their learners, and their community. This may represent a significant motivator and act as an enabler to grow and establish ES in community settings. This lies in stark contrast to previous work suggesting community preceptors did not perceive a direct value from engaging in ES.[10]

However, the majority of our respondents had significant difficulty articulating their understanding of ES and what it represented. There was a clear disconnect until they were provided with Boyer's four pillars of scholarship. Following this most respondents identified closely with the scholarship of teaching and application. There was some recognition of the scholarship of integration and discovery in their clinical/education related duties. The respondents ranked their engagement with the scholarship of teaching the highest followed by that of application, integration and discovery. This familiarity and engagement with ES stand in contrast to the study by Law et al.[10] that suggested community faculty did not identify with ES. This difference might be partly explained by our decision to provide preceptors with a definition of Boyer's[8] four pillars of scholarship and with Urban's[17] interpretation (Table 1) of practical examples of each pillar. This provision allowed us to investigate perceptions of ES more fully. This difference may also be explained by a new familiarity formed over the last decade as critical appraisal/thinking and translation of evidence into clinical practice have become more prominent in the clinical environment and in medical education.[19,20,21] Alternatively the differences seen may highlight the multi-faceted nature of ES and offer the

opportunity for community preceptors to appreciate the scholarly nature of the work they are doing.

Also of interest, was the surprising finding that 13 of our 15 respondents felt committed to engaging in the pursuit of ES in the future. This cohort of responders included preceptors that held medical or administrative leadership positions, and included preceptors with no current or previous leadership experience.

We have reaffirmed the finding of common barriers to the implementation and maintenance of ES in the community, identified by Law et al.[10] The significant time constraints full-time clinicians face while trying to develop ES programs and a perceived lack of knowledge relating to research design, data analysis, grant writing, and an ability to publish/communicate their results were clear challenges. Previous cohorts[5,6] identified these same barriers, and represent significant modifiable targets that should be considered to enrich the development of ES in the community.

We identified two important enablers: 1) A structured system for preceptors to support them in project design, data analysis, grant writing, and dissemination of their work; and 2) enhanced relationships with the academic site physicians. The respondents felt these would allow for collaboration and mentoring of community preceptors as they develop their own ES programs. Ongoing process support and relationship building have been established as important enablers.

Participants offered suggestions to support community preceptors develop ES programs. We consider this a potential platform for change. These include the critical recognition that the community-based practice environment is different from the academic based one, that the role of mentorship in the community is essential and that there is a pressing need for regular "encouragement" from the university to help create and maintain engagement with community preceptors. However, prior to considering such change, these suggestions will need to be validated via a rigorous survey of the community preceptor population as a whole.

Several respondents recognized the benefit of having protected funded time that would help reduce clinical workload/responsibility and facilitate their engagement in ES. This would require changes at higher levels from motivated departments of medicine and, if successful, would come with expectations and accountability in keeping with those of the academic physicians.

Mentorship and the ability to collaborate and grow from junior positions to more senior positions in ES programs was seen by many as a fundamental requirement of successful development of ES programs in the community. Many preceptors preferred that their mentors be local. This might represent an opportunity to create ES "champions" at distributed sites to help deliver some of the enablers described above, manage barriers where feasible and create mentorship programs that help nurture the development of ES within the local site. These "champions" could be responsible for encouraging the development of collaboration and helping to create links between community and academic preceptors. In addition, they might organize project fairs perhaps biannually, so community preceptors could have an opportunity to see what projects are ongoing and consider how they may "piggy back" onto projects and more effectively engage in ES. Creating this platform of change should represent a step forward in supporting, developing and maintaining programs of ES in distributed communities. Indeed, a recent report of a successful program aimed at renewing and invigorating educational scholarship university-wide provides evidence that change can be brought about through prioritizing, creating a mission statement, and allocating resources.[22]

A new theme emerged from this present study. Although almost half of the respondents felt that clinicians migrate to communities to provide patient care and not to become involved in research, and although there was a strong feeling that research is better conducted in academic settings where physicians have self-selected to become scholars/researchers, thirteen out of fifteen of our respondents expressed an interest in pursuing ES in the future. However, none of the respondents could see themselves as principal investigators at this time. Indeed, several respondents expressed concern regarding a lack of confidence and worry regarding project failure if they assumed this leadership role too soon. It is clear that some respondents felt overwhelmed by the prospect of being responsible for a new research project until such time as they had developed more experience. Reassuringly, a recent guide has highlighted areas in which community-based preceptors may more readily access and participate in scholarly activities.[23] Some options include becoming more involved in learners' academic research project, offering to edit a paper for a colleague, or embarking on a small quality improvement project in the office setting. Increasing access to similar opportunities in the community through organized channels may offer less stressful

avenues to aid in developing scholarly experience and expertise. This option may be facilitated by an on-site ES champion.

The barriers, enablers, and platform for change we have identified are by no means unique to the establishment and maintenance of community ES.[13] Creating an atmosphere conducive to widespread acceptance and practice of ES in community practices will require investment by academic departments and changes in resource allocation as suggested recently.[24] It may also require fundamental shifts in the way community preceptors perceive themselves as clinician-teachers. Recent examples of large-scale change involving implementation of community engaged medical education (CEME) and the development of community teachers from practicing clinicians[3] highlights the potential for success when academic institutions invest in communities and let them grow within the communities' sociocultural network. Much could be gained from a similar investment of program support in the distributed teaching site community at large. This investment will be required to facilitate development of sustainable community-based ES programs.

The assessment of this cohort has provided a platform for the successful development of ES in our community-teaching sites. This study has highlighted our teaching community's grass roots needs moving forward and the collective strengths and ongoing interest in developing and maintaining ES. We need to be recognized as a community-based distributed teaching site, different and distinct from our academic university-based site. We need mentorship, support/encouragement, and investment. We will continue to monitor and adjust our trajectory as we move toward establishing a more formal program of ES. Success in this regard could promote greater proficiency in community-based medical education and create a model that other teaching communities can follow. Academic departments of medicine will need to transform their vision to one that includes community-based clinician educators and scholars and provide the support needed.

Limitations

This study has some limitations that might affect its generalizability and outcomes. This study used Urban's interpretation of Boyer's four pillars of scholarship to provide preceptors with various examples of scholarly activities within each of the four domains. This interpretation could not possibly capture the full range of preceptor's understanding of ES activities and may have falsely narrowed the recognition of their full involvement in ES. In addition, the sampling technique was purposive which may lead to some level of bias in support of community-based ES. For example, several of the of the participants held leadership positions within the department of Family Medicine at their respective sites and might be expected to be more "in tune" with the concepts of ES and, therefore, more supportive of this construct. Next, although three community sites were sampled, they were all supported by, and connected to, a single department of Family Medicine and hence might be expected to share similar educational and scholarly values and goals which could affect the generalizability of this study. Finally, due to the nature of the semi-structured interview process, we were unable to canvass the majority of our community-based Family Medicine preceptors, and may have missed opinions that would have supported or detracted from this data set.

Conclusions

This study of fifteen community-based Family Medicine preceptors and their understanding and interest in ES has helped to consolidate previous findings and uncover new concepts relating to three key areas: perceptions of ES, barriers and enablers, and where opportunity lies to develop growth of ES at community-based sites. We have discovered a growing interest in ES amongst our community-based Family Medicine preceptors. These preceptors view ES broadly as a research centered concept. They recognize its importance to themselves and their community at large. We identified a potential platform of change that may enable growth of ES in the community. The identification of systems and processes that have allowed other community-based Family Medicine preceptors to be successful in pursuing ES will be beneficial.

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