Brief Report*

Nurse Faculty Experiences with Research at a Polytechnic: 
A Qualitative Study

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Abstract
There is increasing pressure to engage in research within the polytechnic and college sector, which is a role not historical to the setting (Roberts & Glod, 2013). There is little literature that applies to polytechnic and college faculty as it pertains to engaging in research. The purpose of this qualitative study was to understand the lived experiences of nurse faculty at a polytechnic, and the barriers and facilitating factors they experienced as they engaged in a large research project. Seven faculty members participated in total. Five of the seven faculty members participated in two different focus groups, and the remaining two faculty members participated in individual interviews. Faculty were recruited from those who had recently participated in a large, collaborative research project at the institution. The participants experienced being a learner, being part of a community of practice, experiencing frustration, and needing more support in their ability to complete the research project. These findings are supported by the literature related to university faculty engaging in research. Recommendations for facilitating faculty’s engagement in research include providing access to a variety of library databases, professional development opportunities, and institutional supports.

Keywords: Nursing, faculty, institutional support, library, polytechnic

Article History
Received 30 August 2017
Received in revised form 5 November 2017
Accepted 23 January 2018
Available online 12 March 2018

There is increased pressure on faculty at polytechnics and colleges – particularly on faculty that teach in degree-granting programs, such as nursing – to engage in research and scholarly activities. An interesting observation made by Roberts and Glod (2013) was that nurse faculty roles have changed over time, with faculty educators at polytechnics and colleges being encouraged to evolve into teacher-scholars. They reported that the research role is increasingly becoming more common for nursing faculty at polytechnics and colleges, and the dilemmas arising from this role change include the following: not every faculty member agrees with the role change or expectation, part-time faculty require job security or the same rights as tenured faculty, and there are different role expectations between clinical practice and academia (Roberts & Glod, 2013).

The research environments at polytechnics and colleges are unique as compared to universities, where research is a historical expectation of the faculty role. The lived experiences of nursing faculty engaged in research at colleges and polytechnics are not well understood. Thus, information is lacking on how institutional leaders can facilitate research productivity and the research success of polytechnic and college faculty. The current trend is for colleges and polytechnics to become more research intensive, resulting in an expectation that nurse faculty will engage in research and disseminate their findings. However, expecting faculty members to be active in all areas of scholarship including professional practice, research, and teaching may be an unrealistic expectation with respect to workloads (Fontenot, Hawkins, & Weiss, 2012). Traditionally, the institutional infrastructure has not been in place to support college and polytechnic faculty to engage in research and

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*Brief Reports are papers that report on empirical research, but are shorter and more limited in scope, such as results from a pilot study, or those with a small sample size.
scholarly activities. Morest (2015) stated that structural barriers such as rules, procedures, hiring contracts, funding, and collective agreements may hinder faculty members’ engagement and success with research.

In a descriptive study exploring the motivation for research, Hardre (2012) found that college faculty members were intrinsically motivated to engage in research, but experienced external resource constraints. She found that faculty perceived that organizational expectations and demands on their time and energy exceeded what they could accomplish. Although research may be encouraged in polytechnics and colleges, the infrastructure may not be in place to support these activities.

Several barriers and facilitating factors for nursing faculty members engaging in scholarly work were identified in the literature. In an exploratory qualitative study of novice, doctoral-trained nurse faculty in Jordan, Al-Nawafleh, Zeilani, and Evans (2013) investigated factors that are important to developing a productive research program. The participants reported mentorship, leadership, and peer support were important to their success, but those supports were not always available. Despite having research knowledge and experience from their doctoral programs, these novice researchers still faced barriers to conducting research. Additionally, McDermid, Peters, Daly, and Jackson (2016) interviewed novice nurse academics and found three themes on how they developed resilience in their role as nurse educators: developing supportive collegial relationships through mentorship, having a positive outlook in the face of challenges in their role, and transformative growth through learning and professional development opportunities. Several other barriers to engaging in research have also been identified: time to do research, lack of research skills, difficulty managing work-life balance, lack of mentoring, conflict in the workplace, duties other than research, and lack of resources (Al-Nawafleh et al., 2013; Oyama et al., 2015).

Mentorship or communities of practice may benefit faculty members who are interested in improving their research skills. Holmes and Kozlowski (2014) stated participation in a learning community has benefits for novice faculty members increasing their research productivity. In their phenomenological study of the lived experiences of faculty in a research learning community, Holmes and Kozlowski (2014) identified five themes: accountability, belonging, interconnections, mentoring, and expectations. They suggested implementing a learning community to improve research productivity in educational institutions.

The purpose of this paper is to describe a qualitative study exploring the lived experiences of nursing faculty at a polytechnic after engaging in a multi-institutional, multi-disciplinary, collaborative research project. This approach was taken to describe the perceptions, experiences, and feelings of nurse faculty as their polytechnic institution works to increase the scholarship activities within the faculty of nursing. This qualitative study will endeavour to add depth of understanding to the few empirical research articles found in the literature focused on the barriers and facilitators nurse faculty face when engaging in research activities at polytechnics and colleges.

**Method**

**Background**

Prior to the research presented here, nurse faculty researchers at a polytechnic were asked to participate in an interdisciplinary research project with a university team from 2014-2017, investigating miners’ engagement in safety behaviours. The project resulted in multiple teams conducting scoping reviews on sub-topics supporting a broader research topic. As the interdisciplinary research project was nearing completion, an email was sent only to the polytechnic nurse faculty engaged in the project to recruit for the present study.

**Participants**

As noted in Table 1, 7 of the 39 nurses that were recruited took part. Each had a Master’s degree in nursing, but not a Ph.D., and since many nursing Masters’ programs are not research focused, they had little experience conducting research and writing for publication. These novice faculty researchers were mentored by an investigative team consisting of a principal investigator (Ph.D.-prepared nurse faculty member and director of nursing scholarship), project manager (Ph.D.-prepared nurse faculty member), and the nursing liaison librarian.

**Materials and Procedure**

The 7 participants were interviewed by a researcher who was not employed by the educational institution and did not participate in the interdisciplinary research project. Two of the participants were interviewed individually, and five of the participants were interviewed in a focus group. The interviews were conducted

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<tr>
<th>Demographic</th>
<th>Participants</th>
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<tr>
<td>Number of years in nursing practice</td>
<td>~13.5 years</td>
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<tr>
<td>Number of years teaching</td>
<td>~11 years</td>
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<tr>
<td>Highest degree obtained</td>
<td>Master’s</td>
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*Note. Due to a small sample size, more specific demographics were not collected*
outside work hours, either in person or over the phone. Interviews were recorded and later transcribed by an administrative assistant. Each participant’s experience was considered separately, and then all of the individual descriptions were combined into an overall description of the phenomenon under study. Prior to conducting the study, ethics approval was obtained. Informed consent was received from all participants. Participants were notified of the difficulty of maintaining anonymity due to the nature of group interviews.

Semi-structured interviews were used to collect the data for this study. The same questions were used in the individual interviews and the focus group interviews. The interviews lasted between 30 and 45 minutes. After obtaining informed consent, the participants were asked to respond to the interview questions listed in Table 2.

The researchers sought to understand the experiences of nurse faculty engaged in a large, interdisciplinary research project. To achieve this understanding, the researchers used Moustakas’ (1994) modified Van Kaam method of analysis which included two stages. Stage one included bracketing, phenomenological reduction, imaginative variation and synthesis of meanings/essences, and stage two included developing narrative descriptions of the phenomenon representing the perceptions of the individual participants, and the experiences of the participant group.

Trustworthiness
Bias was avoided in the following ways: (1) The interviewer was from another institution and had no contact with the participants except during the interview; (2) The transcripts were completed by an administrative assistant; (3) The researchers coded and themed the data independently of each other; (4) The results were discussed and agreed upon; and (5) Two of the coded transcripts were reviewed and analyzed by a nurse researcher with no relationship to the participants to help reduce researcher bias. Another means of ensuring trustworthiness was that the findings included verbatim examples from the participant interviews.

Results
Four themes emerged from the interviews. The participants reported the following experiences: being a learner, being part of a community of practice, experiencing frustration, and needing more support in their ability to complete the research project.

Being a Learner
The participants were novice researchers employed at a non-research-intensive polytechnic. Engaging in research has not been an expectation, and teaching is the primary focus. The participants described working towards self-efficacy in their research skills and abilities. Reflecting on their past research experiences (or lack thereof), they described a lack of confidence with comments such as “well you’ve done a thesis, you know how to do this, so can you do it.” (Interview Participant 1), and:

I am so new to this process and […] lacking of experience, but I just really felt almost like I was on an assembly line, like I was being told what to do and I was trying to figure it out and do it, but I wasn’t confident […] (Focus Group Participant 2)

Participants also reported acquiring new knowledge through mentorship, and the experience of engaging in research:

Having my office near the PI [principle investigator] was very helpful because you could just […] email a question anytime and it would get answered, [or] you would just bump into them at the photocopier and just say, hey. And even that commiserating was helpful. (Interview Participant 1)

Participants also described what they learned from engaging in this research project, such as: how to navigate the library’s website, search the literature, use two different reference management software programs, use screen sharing applications, and gaining a greater familiarity with the research process.

It was a good learning experience in the sense that just recognizing some of the terminology […] But on the other hand, I realize really how unprepared I was for it and I think really should I really have even been doing this without better preparation...in the interim, I have actually taken a research class, not for this but for some other education I am doing and that really opened my eyes to, boy - I don't know that I should have even been responsible for any of those decisions I made. (Focus Group Participant 2)

Table 2
Semi-structured Interview Questions

<table>
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<th>Questions</th>
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<tr>
<td>How did you prepare yourself for engaging in research?</td>
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<td>What factors helped or hindered your experience?</td>
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<td>What dimensions or incidents of your experience with research stand out for you?</td>
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<td>What changes to your practice do you attribute to your engagement in research?</td>
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<td>What are your beliefs about engaging in research as part of your practice?</td>
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<td>What influence did institutional policies have on your experience?</td>
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<td>What influence did your colleagues have on your experience?</td>
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<td>What were the challenges to engaging in research?</td>
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<td>What supports did you have that helped you engage in research?</td>
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<td>What role does library services play in your ongoing research efforts?</td>
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As the participants gained skills and completed the project, they reflected on their learning and their skills acquisition. 

[...]if I want to do this another time, now I feel like [...]if I do see something that I could make a change with then I feel like I know how to go about it. But I still would certainly need a lot of help. (Focus Group Participant 3)

**Being Part of a Community of Practice**

The participants described how being part of a community of practice influenced their decision to participate in the research. They described being interested, engaging in opportunities, having a sense of obligation, making a difference, and feeling negligent when they did not follow through. The participants’ interest in the research project and their commitment was affected by how the investigative team presented the project to the faculty, the nature of the project itself, and the faculty member’s interest in the research question. As one participant noted, “I was interested when they came around and did all the presentations and were asking for people to help […] you know, trying to get everybody more involved in research, and there was opportunity for everybody.” (Interview Participant 2).

Most of the participants also experienced a feeling of responsibility. They reported feeling a sense of obligation to complete the study. The participants reported they volunteered to be a part of the research project because they valued the importance of research, and they felt obligated to keep current as part of their licensing requirement. Registered Nurses (RN) are accountable to maintain a level of proficiency in certain competencies, as dictated by a regulatory body to practice as an RN (Saskatchewan Registered Nurses Association, 2013). One of the competencies listed by the regulatory body is related to research.

Participants also reported feeling the need to meet the expectations placed on them by the nursing program and the core investigative team.

It’s always been something that I do - trying to stay up on the research, especially teaching undergrads [...] you don’t want them having old information before they’re even working, so it’s always something I’ve been doing. (Interview Participant 1)

The participants described wanting to make a difference. They felt a sense of satisfaction in being able to contribute to the health and safety of workers (which was the topic of the larger research project). “I think it’s, I mean it is a huge project and it’s going to have some major implications if people actually do the pieces and get it done” (Interview Participant 1). The participants valued the implication of this project and recognized that being a part of this project was important for themselves as nurses. “Yes, if it’s a satisfying experience...or if you’re making a difference somehow, so there is going to be some sort of change and I guess there could be with this project” (Focus Group Participant 2). The following comment highlighted how important making a difference was to nurse faculty:

[...] whatever we can do to make less accidents and deaths in the workplace, boy if we can do something to help that, I would be so proud to be part of this. (Focus Group Participant 3)

Conversely, some participants disengaged from the research project as their level of interest in their subtopic decreased over time. “People were sort of dropping off [...] which is sort of typical with anything.” (Interview Participant 1).

**Experiencing Frustration**

Participants expressed frustrations with various aspects of engaging in research. These frustrations are listed in Figure 1.

We had a few frustrations in figuring out the process because it is very difficult to figure out what the process is going to be for each of the teams when you really haven’t had one [...] go through and [a chance to] identify where the issues are and what information you might need. So, we did struggle a little bit with that throughout the whole timeframe. (Interview Participant 2)

- Team Related Frustrations
  - team members losing interest and quitting the project
  - not getting timely or helpful feedback or guidance from the core investigative team
  - team members not following through on their assigned work

- Lack of Experience Frustrations
  - being novice researchers experiencing the research process for the first time
  - feeling overwhelmed by the scope of the project

- Lack of Resources
  - time required to complete tasks
  - lack of access to library databases
  - too few people volunteering on a team
  - team members struggling with workload

Figure 1. Participant frustrations with various aspects of engaging in research. Being able to share their experiences with other nurse faculty engaging in research was important for them, and allowed them to communicate their frustrations.
They wanted us to do our database search through the [university] library but not all my team members had access to that. We had one member from the university and she didn’t have access to the [polytechnic] database...and some of the databases that we wanted to search were not available at [this site]. So, it worked out in the long run, but the initial plan was we are going to use this [university] one and we are going to set up a login for the team and then everybody can keep all of their information in this one place and it will be easy to access it all and everybody can see it. Didn’t happen. (Interview Participant 2)

The sense of camaraderie and collegiality that the participants experienced working within their teams depended on the following variables: interest in their subtopic, time to do the work, their overall workload and the support they received from their fellow team members and from the core investigative team. Some faculty researchers noted the importance of having humour throughout the research process: “If the team isn’t a lot of fun, you won’t persevere. You have to have fun.” (Focus Group Participant 1). Others felt that the sharing of experiences with other research teams is also important for team-building to occur: “Well I actually had two team members who were very helpful. They were getting their stuff done on time, they were willing to do a little extra work when asked to do it; and I think if it wasn’t for them, I probably would have pulled the plug. They were the ones that kept me going, because I knew at least I wasn’t the only one that had to do all the extra workload.” (Interview Participant 2)

**Needing More Support**

Communication within the team, with the core investigative team, and with other faculty research teams was important so that teams could get timely information, guidance, and coaching. Within the research team, issues that arose included being prepared, attending team meetings, committing to the work and following through with the assigned work.

But one by one [the other team members] all sort of fell away... it was just too much with what they were already doing. And the people on these research projects... at least they were willing to talk about what they were struggling with and I found that it was the same things that I was struggling with, so that was good to hear and then you could talk things through and have it all straightened out. Yeah, nobody was nasty [...] everybody was very supportive. It was good. (Focus Group Participant 3)

The support that I needed was not always [...] received was not always done in a timely manner, and that’s just to do with everybody else’s workload and what they’re juggling as well, and perhaps I wasn’t giving them enough time. (Interview Participant 2)

Faculty researchers also understood that team members have different levels of experience and strengths and may contribute to the work of the team at different stages. “We’re all at different levels and so you have to kind of work your way around and try and bring everybody up to the level that you need them to be in.” (Interview Participant 2)

The participants identified barriers to engaging in research, including having the time needed to do the work, their overall workload, access to all the databases needed for the literature search, and institutional policies.

I think the challenge is the actual number of hours that you have to put in with regard to the other project that I’ve been involved with, I wish I would have tracked all of my hours, [because] everything takes five times longer than you would have anticipated it could take. There is hurdles, that takes incredible perseverance and sometimes the discouragement of having to refine the question again and go back to the literature [and...] re-word the question[...] I was just overwhelmed by the time. (Focus Group Participant 1)

Institutional expectations were focused on teaching and not research. “I think, at a university, [research] is much more supported financially and workload wise compared to here. Which maybe we’ll get there, but I think we are just in that transition right now, so we’ll see what happens.” (Interview Participant 1). Concrete institutional support such as release time and recognition of faculty members’ engagement in research were not embedded in the policy or collective agreement facilitating faculty members’ engagement in research.

[The institution is] saying they’re supportive of us doing a Ph.D. or us doing research...but I find the support is sometimes more of a “way to go, awesome,” as opposed to “we’ll take this class [away].” ... It’s not financial or work release or anything, it’s just “yay” and we’ll publish you, you’ll get a little byline in our monthly newsletter, or we’ll say something at a faculty meeting. (Interview Participant 1)

You know, what I really find is this whole, at the start of it, you’ve got to apply for the funding, the call will come out – there’s funds available. Then you’ve got to write up a whole deal and try to get the funding and then, you know, you’re probably turned down, so that’s frustrating right there. Then you have to do all the other approvals and ethics approvals and there is all that up-front stuff before you ever even get started and that to me is a little bit frustrating. (Focus Group Participant 1)
The participants described the help they received from the research team and the librarian liaison in terms of teaching, coaching, and guidance. “[The librarians] are always very supportive and you know they’re there, you know who they are. Any question that you have, they are always very quick to respond and help you with what you need” (Focus Group Participant 1).

One participant spoke of the infrastructure related to research:

Developing the Institute for Nursing Scholarship and having policies that actually aid in getting grants and funding obviously it’s impacted it because otherwise we wouldn’t have this big research project going on and I wouldn’t have been involved in that research. (Interview Participant 2)

**Discussion**

The participants described being a learner, being part of a community of practice, and needing more support related to their participation in research. As a learner, building self-efficacy was important and was reflected in level of confidence, experience, interest, and professional development with the research process. Finch, Cornwell, Ward, and McPhail (2013) also found that clinical speech language pathologists had a greater interest in engaging in research when they had previous research experience and confidence with all aspects of the research process. Loke, Laurenson, and Lee (2014) found clinical nurses wanted more professional development with research skills in order to feel more confident when engaging in research. The professional development participants gained from their experience with this project increased their sense of confidence and self-efficacy. This finding is supported by several research studies. Heinrich, Hurst, Leigh, Oberleitner, and Poirrier (2009) found that underlying fears faculty members had was identifying themselves as “scholar-imposters,” and they recognized that it takes time to build the teacher-scholar identity. Reader, Fornari, Simon, and Townsend (2015) found that the scholar's self-reporting skills rating improved after workshops, writing retreats, and seminars. Professional development appears to be helpful in promoting nurse researchers’ feelings of competence and confidence in their research endeavours.

**Recommendations**

Nurse faculty assume many responsibilities. Among them are teaching, research and scholarly activities, professional and institutional service, as well as academic advising of students (Candela, Gutierrez, & Keating, 2013). As polytechnics and colleges move toward becoming more research intensive, institutional changes must take place to encourage and facilitate faculty success with scholarly activities. This section will discuss various individual and group supports as well as recommended institutional changes that may result in increased research and scholarly productivity among faculty members.

Travis and Anthony (2011) described how a non-academic school of nursing began its process of becoming a research-intensive university. The authors stated that the school increased funding for skills development and created an infrastructure to facilitate research success and rewards, which resulted in mentorship and an increased number of grant submissions, proposal submissions, publications, and presentations, as well as increased funding.

Relieving nurse faculty workload is an important consideration when encouraging an increase in research productivity. Begley, McCarron, Huntley-Moore, Condell, and Higgins (2014) reported an effort of a nursing school to increase research capacity by giving sabbatical leaves, student stipends, reduced teaching loads, and protected time for doctoral studies. They found an increase in doctoral studies, peer-reviewed publications, conference presentations, and external research funding. Begley et al. (2014) determined strong research leadership, support, and encouragement enabled the school to move from a teaching-focused to a research-focused culture. Chaudhry and Prelock (2012) recommended that institutional leaders provide research grants, research support, and faculty training in order to promote research and scholarship activities. Morest (2015) recommended supports such as rewarding scholarship achievements, hiring faculty who value research and who are doctorate trained, providing mentorship, and overcoming a culture of research isolation in order to increase research productivity at community colleges.

Criteria necessary for experiencing successful research collaboration when part of a community of practice include: effective communication, timeliness, expectations around authorship, clearly defined roles, different experience levels, work styles, and levels of commitment (Ulrich et al., 2015; Zanchetta et al., 2016). Smeltzer et al. (2014) found that additional supports necessary for research productivity were: supports with the teaching workload, having a supportive institutional structure and research climate and supporting self, institutional, and disciplinary sustainability (such as work-life balance and strategies for success). This indicates that the leadership roles within research teams, such as the principle investigators and project managers, play a key role in the success of research projects. Leadership skills development may be helpful for the investigators leading the research project for successful mentorship to occur.
Regarding the role that librarians and library services can play in order to facilitate faculty success with research, library services may want to consider the type of services they offer to faculty and how they want to collaborate with faculty (Lorenzetti & Rutherford, 2012). Library services can provide support for nurse faculty members engaging in research and scholarly activities in a number of ways. Hollister and Schroeder (2015) stated library support can improve research productivity by providing traditional supports as well as additional supports relating to grants, data and intellectual property management, and bibliometric analysis. The value of the librarian’s involvement in nursing research was echoed by the participants and supported by Bohman, Ericsson, and Borglin (2013), who found that nurses lacked the literature searching skills needed to begin the work. Vaughan et al. (2013) found that librarian support to researchers is valuable in the following areas: developing ideas, funding, proposal writing, conducting research through literature searching and citation management, and disseminating results. A variety of factors contribute to institutional research success, with the underlying principle being a culture of inquiry and scholarship, in which the leadership creates a research infrastructure that supports faculty endeavours in a tangible way.

Limitations

Only 7 out of a potential 39 faculty members volunteered to participate in this study. Although this is a small sample size, it is appropriate for a small-scale qualitative study. A limitation, however, is that it is unclear whether this sample differed systematically from those who were recruited but who chose not to take part. A second limitation is that it is difficult with this methodology to be free of biases and preconceptions that may influence one’s interpretation of the data (Reiners, 2012). Pereira (2012) found that generic qualitative criteria for discerning the validity of qualitative – in that case, phenomenological – research were inadequate, and suggested the focus should be on integrative validity. Therefore, this study would be strengthened by following up with additional research related to being a learner, being part of a community of practice, and needing supports.

Conclusions

As nurse faculty at polytechnics and colleges increase their research and scholarship activities, administrators looking to encourage and support faculty in this endeavour need information to guide their strategic planning. Although there is a plethora of articles on barriers and facilitators facing scholarship activities at universities, few focus on the polytechnic and college environments. The findings from this qualitative study found that faculty at polytechnics and colleges face similar barriers and facilitators as their university colleagues. Additionally, what may contribute to research success includes providing professional development, mentorship, and support. Administrators may want to build an infrastructure that includes access to a variety of databases, offer professional development and leadership opportunities for faculty researchers, appeal to a sense of obligation as practitioners, and address the institutional barriers to engaging in research. Future research on how polytechnics and colleges develop programs to achieve research goals is needed to inform strategic planning.

Acknowledgements

The authors wish to thank to Dr. H. Kathleen White-Williams, R.N., Ph.D. (Nursing) for conducting the interviews with our participants. Dr. H. Kathleen White-Williams is a faculty member at the Chang School of Continuing Education in Nursing at Ryerson University in Toronto, ON, Canada

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