

## Building Research Capacity Among College Nursing Faculty

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### Abstract

**College nursing faculty are encouraged to engage in research and scholarship**, however they face numerous barriers. The purpose of this project was to increase research capacity among a group of 13 professors in a collaborative nursing degree program at a college in Toronto, Canada. Using a participatory action approach, faculty developed goals and met regularly from October 2018 to March 2020 to share knowledge and expertise. Thematic analysis was used to analyze meeting notes, and there were 3 themes: encountering challenges, leveraging strengths, and building research expertise. This project has helped foster a culture of research within this nursing program.

### Keywords

nursing education, research skills, action research, college faculty, faculty development

### Article History

Received 20 November 2020

Received in revised form 13 January 2021

Accepted 25 January 2021

Available online 10 March 2021

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## BACKGROUND

### Research in Colleges

In Canada, colleges were developed in the 1960s as community colleges with a focus on vocational training. They were designed to offer diploma programs to prepare students for careers in human services, technology and trades. Over the past decades, this scope has expanded. While they still offer diplomas and programs focused on vocational trades, colleges also offer baccalaureate

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degrees in applied areas, and have collaborative relationships with universities to offer undergraduate degrees (Hansel & Cedia, 2014; Holmes, 2017).

Traditionally, nursing schools within colleges have been seen as teaching institutions. Unlike at universities, research and scholarship were not priorities, and the focus was on teaching practical skills (Berry, 2015; Duncan et al., 2014). With the advent of baccalaureate education in nursing, college nursing faculty are encouraged to engage in research and scholarship, however they face several barriers (Berry, 2015; Ha & Press, 2018).

These barriers include a lack of available funding, heavy teaching loads, and minimal support from administration (Ha & Press, 2018; Holmes, 2017). In addition, faculty may lack research skills or experience, and may be unsure of how to begin carrying out a research project (Berry, 2015; McKee et al., 2017). While an increasing number of college faculty have doctoral degrees, most faculty have an undergraduate or master's degree, and may not have experience participating in research. The dichotomy between being encouraged to participate in research and facing numerous barriers is experienced by college nursing faculty across Canada (Berry, 2015).

### **Need to Increase Research Capacity in Nursing Programs**

Prior to 2002, the majority of students preparing to become registered nurses in Canada attended diploma programs in colleges (Government of Canada, 2007). By 2002, a Baccalaureate of Science in Nursing became the requirement for entry-to-practice for registered nurses in Canada, and diploma programs became part of collaborative nursing degree programs with universities (Baker et al., 2012).

With the move to collaborative nursing degree programs, there has been increased pressure for nursing faculty in colleges to engage in research. Colleges, as part of these programs, are now being held to the same accreditation standards as universities, with their emphasis on scholarship and research (Canadian

Association of Schools in Nursing, 2014; Ha & Press, 2018; Roberts & Glod, 2013).

Among others, Begley et al. (2014) and Berry (2015) have identified the need to increase research capacity within college nursing programs. Mentorship, leadership, and peer support play important roles in building research capacity and creating a research culture (Al-Nawafleh et al., 2013; Ha & Press, 2018). To date, there has been little study of how research capacity is fostered among college faculty (Ha & Press, 2018; McKee et al., 2017).

This project defined building research capacity as increasing the ability of faculty to conduct and participate in research (Dorgan, 2018; McKee et al., 2017; Matus et al., 2018). This included all steps of the research process: from conducting a literature review and formulating a research question to developing a research proposal and carrying out a study. The focus was on applied research, which is a focus of both Ontario colleges (Holmes, 2017), and nursing research (Cannon & Robinson, 2018).

The purpose of this project was to increase research capacity among the faculty of a collaborative nursing baccalaureate degree program at a college in Toronto, Canada. The project involved clarifying for faculty a participatory action approach for capacity building, the purpose of the group, and setting goals.

### **METHODS**

In fall 2018, a participatory action research approach was taken to build research capacity. Participatory action research is an empowering qualitative research methodology in which participants are encouraged to actively contribute to the research process (MacDonald, 2012; McEwen & Willis, 2019; Casey et al., 2017). The project involved group members in all stages of the project, from identifying the goals of this project, to carrying out evaluations.

Within this nursing program, students complete two years of study at the college prior to transferring to the university where they complete their baccalaureate nursing degree. The college faculty teach in all four years of the program.

All full-time faculty in the collaborative nursing degree program at the college were emailed a letter of invitation to participate in the project by the project lead. Of the 20 faculty members who were contacted, 14 responded to find out more about the project. A meeting was held in October 2018 to describe the aim of the project. Following this meeting, 13 faculty members indicated that they wished to participate.

Participants met 12 times between October 2018 and March 2020 on a monthly or bi-monthly basis. The project lead recorded meeting notes and distributed them to group members directly after the meeting.

As a first step, group members engaged in a literature review on two topics: participatory action research, and how other health care disciplines built research capacity within hospitals and institutions of higher education. Results were shared by circulating article summaries and discussing the findings. This led to determining consensus on how the group would build capacity. Faculty members would work in small groups focused on different research projects. In meetings, they would review the purpose of the group and discuss research steps together.

This helped to focus at a time when group members were determining next steps. The project lead maintained a flexible approach and collaborated with the group; to determine how it would evolve by asking members about their research interests and looking for common themes. In addition, the project lead ensured there was group consensus when decision making was required.

A Research Ethics Board (REB) review was not necessary because this was a program evaluation activity, the goal of which was to improve the ability of faculty to plan and carry out research (Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, and Social Sciences and Humanities Research Council, 2018).

## ANALYSIS

In keeping with the tradition of a participatory action approach, the group did not set specific goals to demonstrate the development of research capacity,

such as defining a number of research projects initiated. As Casey et al. (2018) point out, a participatory action approach is focused on the process of creating, planning and implementing change in an ongoing, iterative process as opposed to the linear process of traditional scientific research. While the project lead recorded new research initiatives by group members, the group did not pre-determine the number or types of projects that members would initiate.

Thematic analysis was used to examine the notes from the 12 meetings (Jackson & Gillis, 2003). Four team members analyzed the meeting notes individually, reading line by line to identify recurrent themes. They then met and reread the notes line by line to discuss patterns, share individual analyses of the data, and identify mutually agreed-upon themes. Themes were reviewed and rearranged to enhance flow and rigor of theme development (Creswell, 2008; Thomas, 2006).

## RESULTS

Three themes were identified from the thematic analysis of the notes from the 12 meetings: 1) encountering challenges; 2) leveraging strengths, and 3) building research expertise.

### Encountering Challenges

In the meetings, participants discussed challenges related to institutional barriers and intragroup uncertainty as to the group's actual purpose. From the first meeting, members identified institutional barriers, such as workload and online access to scholarly resources. All of the group members identified multiple responsibilities that included teaching and administrative work. Faculty in the college are unionized, and workload is assigned by management in consultation with faculty. Most participants had 0.5 to 2 hours dedicated for research, and several members had no time allocated. This lack of support from management for dedicated time to work on research projects was identified as a barrier.

Another institutional barrier was the lack of access to online scholarly resources. While there is a library at the college, it has limited access to nursing, medical, health

and educational journals. Although the program is in collaboration with a university, it does not have access to the university's library resources. Currently, management is examining how to increase access to scholarly resources for faculty.

These shared challenges led to increased commitment, cohesiveness, and collaboration amongst the group members. Group membership remained stable, and similar interests were identified. This led to the development of sub-groups and the initiation of research projects. The actions of the project lead also fostered an environment in which the meetings allowed for a "safe place to share ideas and experiences."

### **Leveraging Strengths**

Another theme identified was leveraging strengths, which included utilizing internal expertise, and peer mentorship and support. Internal expertise was identified as existing research skills among faculty, as well as an easily accessible health studies librarian. Faculty with in-depth expertise were able to share their knowledge by presenting on various topics, including how to develop a research question, how to use the reference manager software Mendeley, and how to write for publication. The health studies librarian was able to provide support to faculty by offering training sessions on how to use library databases to find articles, and on how to develop search strategies. In addition, the librarian was able to obtain papers that were not available from the college's library.

The group used the college's REB as an essential resource. Group members were able to consult with the REB at the beginning of the project to determine whether approval was required for this participatory action research, and as noted in the methods section, it was determined that ethics approval was not required for this project. As group members initiated research projects, they used the REB's resources and support to submit ethics applications.

Other important resources within the college were also identified and used. The college provides a secure central depository site where faculty can share resources,

such as articles, presentations, and written work. This helped group members find and update work quickly while collaborating on shared documents.

The college also provides internal funding for research projects through a Centre for Organizational Learning and Teaching, and an Applied Research and Innovation Centre. Several members were successful in securing research funding from both sources.

### **Building Research Expertise**

As a result of capitalizing on internal expertise and the college's resources, members of the group were able to achieve successful measurable outcomes. Within the supportive group environment, smaller intragroup research was generated. These smaller groups consisted of three or four members who took on research projects focused on teaching and learning. A total of four projects were initiated by group members, all of which secured internal funding in spring 2019. The projects began in fall 2019. The four projects have completed data collection and are in the stage of analysis. Creating the space to share knowledge and carry out research projects has allowed members to develop both a deeper understanding of the research process and their individual research skills.

## **DISCUSSION**

Initiatives to increase research capacity need to address the development of expertise, the use of networks, and need for strong leadership (McKee et al., 2017). This participatory action project aimed at building capacity among college nursing faculty was primarily focused on developing expertise. Group members were able to build expertise by conducting literature reviews, developing proposals, and applying for internal funding at the college. This led to members being actively involved in research projects, which has increased research capacity within the group.

Ha and Press (2018) assert that there is a lack of information on how academic leaders can facilitate research productivity. This project highlighted some areas for consideration: the availability of internal research funding, and the space to provide dedicated time to

participate in research projects. Academic leaders, then, can provide the time and resources needed to improve research capacity.

Lack of allocated time to participate in research is a difficult barrier for college faculty to overcome. In Ontario, full-time faculty members are unionized, and work is regulated by a collective agreement. Within this collective agreement, there is no allocation of workload for research purposes. While research and scholarship are recognized as part of the workload for faculty working in universities, it is not explicitly recognized within colleges in Ontario (Holmes, 2017). In order to receive time to participate in research, faculty must have internal or external funding to support their time away from teaching activities. This in itself may be seen as an additional barrier, as faculty have no allocated time for writing research proposals and grant applications.

This project addressed the challenges and complexities college nursing faculty confront when developing research capacity within a college system: limited resources, minimal research support, demanding workloads, and varying levels of research experience. These findings reflect the literature and the need for change (Del Fabbro et al., 2015). The use of this group provided nursing faculty with a supportive environment to discuss, reflect on, and share research experiences.

During the initial phase, faculty learned about the research process by networking with peers with various levels of research knowledge, supporting each other on research projects, and reflecting on their own research goals. The group's networking and peer mentorship approach provided a structure that supported building research capacity. Networking and peer mentorship can facilitate faculty to learn from each other, establish research partnerships, and enhance research capacity and expertise (McBride et al., 2017).

Collaboration on the research projects provided group members with opportunities to meet both research and scholarship needs; participation was seen as beneficial and an effective use of time to develop research

knowledge. One important step taken was that the group leader networked with management to advance the need to build a strong research infrastructure with the goal to expand and create a sustainable community of practice. This resulted in a small increase in acknowledged research time for faculty. While the faculty still have limited access to nursing, medical, health and educational journals, the manager of the program has begun advocating for increased library resources, both at the college level, and with the program's university partner.

A limitation of this project is that it was conducted with a convenience sample of full-time faculty from a collaborative nursing degree program. Part-time and contract nursing faculty, and non-nursing college faculty who may have experienced and encountered similar challenges, were not included.

Extending invitations to internal and external nursing partners, as the group transforms into a community of practice focused on research, would be beneficial. Further research is needed to determine the impact of infrastructure and resources on strengthening research capacity.

## CONCLUSION

This project has helped to foster a culture of research within a nursing program. The group is now transitioning to a community of practice for nursing faculty focused on research. The goals of this community of practice are to share educational resources related to research, convey research opportunities, and share research findings. This ongoing development of a culture of research will help maintain the nursing program's accreditation status, and will contribute to the advancement of nursing knowledge.

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