

Abstract

Aim:

To explore the collaborative nature of an international research project with other advanced practice nurse researchers and critically analyse the research process.

Background:

Research within the nursing community is recognized internationally as important to ensure that nurses participate in cutting-edge health care and promote evidence-based practices, yet there is little detail found in literature on how a successful collaborative relationship is initiated and conducted in advanced practice research.

Design:

The purpose of this paper is to discuss the process of collaboration on a research study amongst advanced practice nurses from four countries who are members of an international organization.

Implications for Nursing:

The collaborative process in international nursing research can be challenging and rewarding. It is important to remember that there is a linear relationship between complexity of the study and the time to finish it. Keys to success include following proven guidelines.

Conclusion:

This project proved to be a valuable experience in developing collaborative relationships as well as creating partnerships for future research to build on the knowledge gained. The fact that the authors were all linked to universities facilitated uptake and ethics. The use of social media and university resources proved to be indispensable.

Summary Statement

What is already known about this topic?

- The collaborative research scope is expanding in universities beyond the traditional student-exchange programmes to encouraging faculty to develop international collegial relationships through research
- There is little evidence regarding the process of international collaborative nursing in professional organisations, especially concerning time frames for each step, types of communication utilised, leadership roles established, and resources available??

What this paper adds

- It provides a practical utilisation of the Sigma Theta Tau international guidelines for the collaborative process among advanced practice nurses in an international professional organisation

- Keys to success of the project included: flexibility on behalf of each member in terms of meeting times and roles; respect for each other's ideas and contributions to the project; and transparency through all of the steps of the project

- When starting an international collaborative project, it is important to follow a framework for establishing clarity of roles, tasks and timeframes. Focusing on a mutual goal and providing flexibility in the workload proved key.

The implications of this paper

- This project proved to be a valuable experience in developing collaborative relationships as well as creating partnerships for future research to build on the knowledge gained.

- This paper is meant to be used as a practical guide for international nursing research collaborators who may not have the funding for a project but have the desire to collaborate with those researchers who have common interests

- As a result of this collaboration, the researchers have shared the information they gained at an international advanced nurse practitioner conference and continue to collaborate on other projects that are important to issues related to advanced practice nurses globally

Keywords: advanced practice nursing, collaboration, international research, Sigma Theta Tau

CONDUCTING RESEARCH THROUGH CROSS NATIONAL COLLABORATION

Introduction

Research in the nursing community is recognised internationally as important to ensure that nurses participate in cutting-edge health care and promote evidence-based practices (International Research Committee 2003, International Council of Nurses 2012). This paper will examine how nurse practitioners/advanced practice nurses from four countries (the USA, Canada, United Kingdom and Ireland) collaborated in order to conduct a global survey on nurse practitioner job satisfaction in developed and developing countries (Steinke M.K., Rogers M., Lehwaldt D. & Lamarche K. 2017). The substantive results of the project have been submitted for publication in a separate paper and are not alluded to in any detail, as the focus on this paper is the collaborative process involved.

The aim of this paper is to discuss the collaborative nature of the international project and critically analyse the phases within the collaborative process. The study, which formed the basis of the collaboration, was unique in that the idea was germinated, not from an academic institutional viewpoint, but through a common interest generated by colleagues who were members of an international network group, the International Council of Nursing Nurse Practitioner/Advanced Practice Nursing Network (INP/APNN). Recommendations made in this paper are based upon our experiences and are aimed at assisting fellow researchers who wish to embark on similar international collaborations.

Background

Collaborative research frameworks may guide international teams in anticipating and solving individual and organisational issues relating to cross-national collaboration (Suhonen et al. 2008, Rambur 2009). The collaboration in this international research project on nurse practitioner/advanced practice nurse job satisfaction involved four members of the practice Subgroup of the INP/APNN who, because of their background in research and academia, were interested in evaluating job satisfaction of advanced practice nurses in developed and developing countries.

The authors had worked together within the INP/APNN network for at least six months before embarking on this project. The INP/APNN organisation has objectives to serve as a forum for exchange of knowledge and act as a resource base for the development of Nurse Practitioner/Advanced practice (NP/APN) roles internationally (Cross, S., n.d.). All of the members were nurse practitioners by background, which ensured a common understanding of the topic under evaluation.

Literature review

International research is usually discussed in terms of academic partnerships (San Martin-Rodriguez et al. 2005; Sutton & Obst 2011). Many colleges and universities are broadening the scope of international partnerships to expand beyond student exchange programmes to include developing the international capacity of faculty and staff and advancing research by connecting institutions and scholars with those who have similar strengths and interests (Sutton & Obst (2011). There are benefits to international collaboration in research such as harnessing resources, offering complementary strengths and intellectually diversifying the team (Rambur 2008).

Chiang-Hanisko et al. (2006: 308) defined international nursing research as “cross-national research on nursing phenomena that is conducted in more than one country via a working partnership that shares resources, time and talents. It may include single individuals or involve larger groups of people”. They used their experiences in working with researchers in countries such as Haiti, Thailand, Taiwan, and the United Kingdom to illustrate the importance of identifying good collaborative practices that will help determine success of the project (Chiang-Hanisko et al. 2006). San Martin-Rodriguez et al. (2005) reviewed empirical studies of successful collaborations and found that willingness to collaborate, trust, communicate, and have mutual respect were important determinants for good partnerships in international research. In their review, the organisational and systemic determinants (elements outside of the organisation) were powerful factors that could hinder successful collaborative relationships.

Another factor in collaborative research is time, which increases by complexity i.e. the number of partners, different scientific languages and cultures involved (Rambur 2009). Brew et al. (2013) suggested that international collaboration is complex, involving different parties each with their own frames of reference connecting and working on mutual matters of concern. The Sigma Theta Tau International Honour Society of Nursing international guidelines recognised the importance of addressing issues such as conflict of interest, intellectual property rights and academic freedom among collaborative partners in pursuit of international research (International Research Committee 2003).

Despite the existing research and recommendations, there is some evidence that researchers have difficulty identifying good collaborative practices. A study conducted by Ulrich et al. (2014) indicated that nearly forty per cent of participants in a web-based survey of nurse scientists selected from 50 doctoral graduate programmes in the United States were not able to identify the aspects of good collaborative research practices.

Ethical Implications

Collaborating internationally when using human subjects can be a challenge on several levels, such as: obtaining approval by the respected institutional ethics boards making the information culturally specific, i.e. culturally appropriate and culturally sensitive tools and considering ways to relieve stress and anxiety of the subjects' participation in the project (Callister et al. 2006). Roberts & Allen (2015) describe five key ethical issues in the domain of educational research when considering using online surveys: dual teacher/researcher roles; informed consent; use of incentives; privacy, anonymity and confidentiality; and data quality. Detailed and clear information should be given the participant regarding the reason for the survey, the organisation(s) and people interested in the responses, and the reasons why the survey was conducted. Both the assurance of anonymity and confidentiality should be mentioned in the introduction, as well as a nonjudgemental statement that the participant could stop responding to the questions at any time without fear of recrimination.

Online surveys can be sophisticated to the point of identifying the respondent's Internet Protocol (IP) address, which could potentially undermine privacy, and anonymity and care should be taken to strip that information from the dataset preferably prior to the onset of the survey (Roberts & Allen 2015). The Qualtrics (Qualtrics Customer Satisfaction Survey Platform, n.d.) survey tool allowed the authors a choice of certain options regarding identification of the respondent as well as the ability to check for unique URL addresses for each respondent.

Methodology

The authors, who were faculty members at universities in Canada, the USA, the UK, and Ireland, met regularly online to develop an online survey, establish methods of access and recruitment, review data, and analyse the results. Everyone in the group contributed to the inception of the survey, and one of the members agreed to be principal investigator (PI). The authors' collaboration during the nurse practitioner job satisfaction survey followed the Sigma Theta Tau International (STTI) (2003) guidelines for collaborative research (as discussed in the Framework and Analysis sections below).

Framework and Analysis

The Sigma Theta Tau International (2003) guidelines for development and implementation of international collaborative research projects and the authors' utilisation of them are as follows.

Phase I. Establishing the collaborative partnership

This phase included communication mechanisms available, and identification of resources. Gardner's (2005) description of the collaborative process as a synthesis of different perspectives

to understand complex problems describes the authors' "partnership". She outlined ten key questions that collaborators should reflect upon and develop when putting collaboration into practice. These include active listening, positive regard for differences, and the belief in multiple realities.

Everyone in the team had access to a computer and utilised social media, in terms of email, skype, google docs, adobe connect, and texting. Three of the four colleagues had met at a network conference in 2014, and discussed the project, and all members of the team met face-to-face at the next network conference in 2016.

Early in the research process, the team agreed upon structured times to communicate. Conference calls were held at approximately the same time frame, utilising UK time as the standard, and then using flexibility to compromise on dates. Initially, our group met every two – three months, then every month after the data was collected and when the paper was written. Minutes were written up and sent after each meeting to all members. Understanding that the nature of our study did not involve high stake expectations, funding pressures, and complex partnerships, we accomplished our goals in a spirit of camaraderie and professionalism.

The project demonstrated that commitment was a driving factor and steps were taken to develop a team-player culture, valuing roles of all members as outlined in the STTI (International Research Committee 2003) international guidelines. The positive and supportive atmosphere within the group with strong leadership and support from the PI helped to complete the project, although the 'part-time' status of members likely impacted on the duration of the project.

Larger research projects, such as this global NP job satisfaction survey, can be conducted without funding, although this requires some level of creativity and the willingness of institutions to share their resources with the project team. Once the number of the responses reached 1000 in the survey, the authors became creative in utilising their own and their university's resources when available. The secure university-approved survey tool was free. The SPSS (2015) analysis tool was available through each of the universities. The social media platforms were utilised free.

Phase II. Establishing the research team.

Steps 1 & 2 of the STTI guidelines included defining the responsibilities of each member of the research team adhering to the group's goals and respecting the expertise of each member's contribution to the team. Each member took charge at different times, depending on the need. For instance, our colleague from Dublin directed an assistant to count and categorise some of the findings, she also distributed the survey at the German Congress, as there were very limited contacts through the group. Another member had a unique way of assigning tasks, and establishing timetables for the group. The roles of principal investigator and co-investigators came easily, as one colleague had more time than the others to develop the survey. Every step of the process was transparent, and each author had access to the survey tool and data.

There were also others who contributed to the process, such as members of the ICN and the INP/APNN research assistants, and statisticians who reviewed the data. The clarity of roles

within the team was more important than geographical distance, a phenomenon also described by Ulrich et al. (2014). The team evaluated the outcomes of the collaboration and research project as the final goal. The findings of the survey were shared with other colleagues at an INP/APNN conference in Hong Kong.

In this study's circumstance, the institutions did not put undue pressure on the authors to expedite the project. However, each university required a review by its ethics board. The authors worked at the most complex level of Rambur's (2009) collaboratives involving human subjects and culturally or politically sensitive topics, albeit with minimal risk to the participants. The research involved interaction with human subjects in the form of a survey with respondent information kept anonymous. English was the only language for the survey and intra-collaborative communications.

Rambur's (2009:92) suggestions for a successful collaboration included a "clear understanding of goals and the meaning and costs in time and personnel of research integrity and compliance". San Martin-Rodriguez et al. (2005: 144) suggested that in order to successfully collaborate, "individuals must be able to acquire a vision and to explicitly develop common goals" From their SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis of the evidence of international scholarly collaboration, Uhrenfeldt et al. (2014) identified two major categories of factors affecting collaboration: facilitators and barriers. They had five recommendations for collaborative scholarly activity/research, which encompassed detailed planning, funding, rotating the leadership role, using multiple means of communication, and evaluating the process. With the exception of funding, the team followed those recommendations.

Phase III. Implementing the project.

This phase included an agreement on the design, writing reports for each author's institutional review boards, establishing analysis processes, and determining a timetable for the project. Since the intent of the survey was to capture information from NP/APNs in developed and developing countries, via an online survey, the authors were required to seek approval from each university's review board, which had similar but unique requirements. Due to these requirements, the time frame for institutional approval was lengthy. For researchers who want to have guidance from another international organisation, the World Health Organisation has a publication detailing standards and guidelines for researchers (WHO 2011: 22).

Despite planning for unforeseen circumstances, there were issues that occurred during the course of the project that slowed it down and caused some frustration. For instance, each university's ethic committee had different requirements on their applications. For instance, a sentence informing the participant that the information gathered would be initially stored on a United States' online survey (Qualtrics) and the responses could be subject to the Patriot Act was added. The authors also were advised to encourage the participant to discuss any stress they may have experienced while taking the survey with their local nurses' association.

The authors agreed on the type of survey to use, the type of statistical analyses and the use of SPSS software. A university statistician was asked to review and guide the data results. The

goals of the authors were to present the findings to the International Council of Nurse's conference in September 2016, and to ultimately publish the findings.

The authors received valuable input from the practice subgroup and core steering group (CSG) of the INP/APNN. For example, the original survey had 44 items. After the survey was reviewed by the CSG, redundancy was removed and the terms were clarified for international use.

Phase IV. Evaluating the outcomes of the project.

Steps 1, 2 and 3 included evaluating the scientific findings, inviting feedback from all team members, determining the number of publications and authors, and discussing 'spin-off' projects.

The group collectively spent over 170 hours in preparation, collection, analysis, and translation of the survey data. Communication, study design, methodology, and access to and location of participants were all achieved through a commitment to the project, trust in each other's work, and persistence in finishing the project. Because of each colleague's contributions, including the ICN INP/APNN's input and advice, the results of the project have been enriching, inspiring and insightful. The authors presented the finding of the global survey at the INP/APNN conference in Hong Kong in September and hope to publish their findings.

From the time of the inception of the idea for the project, to the presentation at the ninth ICN INP/APNN in September of 2016, the project took approximately three years. The process of obtaining input from the INP/APNN subgroup practice committee members, and ethical approval from all four universities and from the ICN took approximately eleven months.

Data analysis took approximately three months.

The first part of Step 2 of this phase outlined the evaluation of the dissemination of the project findings, where collaborators were advised to "revisit the contract for authorship based on contribution to the project and the writing" (International Research Committee 2003). The PI developed a rough draft of the findings and the others contributed with literature research, writing and editing. The authors agreed on the order of the names for publication of the article depending upon amount of contributions made to the article. An online documents account was set up by one of our colleagues, for the purpose of editing. An order to edit was decided upon, so there was only one person editing at a time. Working with a rough time frame of two weeks, each person took a turn to edit and notified the next person when to start editing. Writing the paper and editing took approximately seven months.

The second and third parts of step 2 of Phase IV advised the collaborators to determine the number of publications and which journals to submit additional abstracts for further presentations and posters, authorship and identify presenters (International Research Committee 2003). Rewards of the collaboration can be far-reaching. For instance, Chiang-Hanisko et al. (2006:318) discovered that "when international nursing research is published, there are rewards for the authors, sponsors, research assistants, organisations, and ultimately, nursing". Increasingly, institutions are looking at ways to collaborate with each other (Sutton and Obst 2011) in terms of curriculum building, developing the international capacity of faculty and staff, and tackling pressing global issues. For example, Garner et al. (2009) discussed a pilot project

they implemented collaboratively with two United Kingdom schools of nursing and their US school of nursing for the education of future international nurse leaders encouraging advocacy, activism, and professional accountability.

When establishing international research relationships, it is important to use ethical guidelines between the researchers. Wright & Breda (2015) emphasised the importance of establishing strict ethical guidelines between institutions of developed and developing countries so that each are on equal ground regarding decision making on the project from beginning to end. While this project was not between institutions of developing and developed countries, the survey was sent to respondents in those types of countries and discussions were made to include culturally specific questions on the survey. The partnership involved cooperation and understanding of all parties to work fairly toward common goals. Other ethical considerations that were made regarding the survey itself, such as clarity of purpose of the survey, as well as assurance of anonymity of the respondents' answers.

Lessons Learned

Developing good collaborative relationships for the purpose of research is a labyrinthine process. It requires persistence, focus, trust, flexibility and leadership through a PI in reaching the desired objective. Keys to success also included respect for each other's ideas and contributions to the project, and transparency through all of the steps of the project.

The reliance on the internet was challenging at times, especially when group members were travelling. All of the group members were involved in a number of international projects. Time zone differences were taken into account for internet meetings, as the members of the group could be in various geographical locations with different time zones during meetings. There was limited face-to-face time. Ultimately an internet-based resource was utilised which originated from one university as it was free to use and easily accessible in areas with poor internet connectivity. It could be accessed by personal computer, laptop or mobile phone. There was also a backup plan if this video-conferencing failed, of using either email correspondence or another free internet software application.

The main challenge with regards to timeframe related to time/workload constraints of individual members. Almost at all points during the project the input that individual group members could give varied. For example, two of the group members found themselves at the very end states of their PhD during the project, which impacted on the time that they could give to the survey. Ulrich et al. (2014) indicated from their research of nurse scientists' views on collaborative research, that successful collaborations were challenged by poorly defined roles and responsibilities among other issues. It was therefore most important to have a PI who held the group together and kept the project moving through the stages.

Conclusion

This experience closely mirrored those of the Sigma Theta Tau (International Research Committee 2003) international guidelines for collaborative research regarding the analysis of the phases within the collaborative cross-national research project. This project proved to be a

valuable experience in developing collaborative relationships as well as creating partnerships for future research to build on the knowledge gained. This research study enabled the authors to learn more about nurse practitioner/advanced practice nurses' job satisfaction and also about how to transnationally collaborate, as well as interest in sharing the findings and pursuing these findings with future research. Interestingly, these points differ from Rambur's (2009) findings or the responders' definition of success of the collaboration. Those included publication in respected international journals, research dollars, and to a lesser degree patents and foundation for more teaching collaborations.

The authors reached several conclusions with this project: the idea of studying the job satisfaction of nurse practitioners/advanced practice nurses was important both nationally and internationally; that each of the research team had a stake in the outcome both personally and professionally; there were more common issues than differences in the research project findings; and that funding could have expedited the process. It was important to continue to stay focused, despite some frustrations. Each person remained committed to see the project to the end, to present at the INP/APNN conference and to publish our findings.

The ICN board and the NP/APNN core steering group played a significant part in helping shape the survey, particularly in the areas of appropriate language used that would be universally understood. This process, independent of the study results provided important insights into professional development and international collaborations.

The global survey on nurse practitioner job satisfaction in developed and developing countries study was not started due to a higher education institutional requirement, our institutions were only peripherally involved. However, some of the practical information listed such as time management and economic resource usage could be applied to other types of international projects. This is a lesson learned in terms of engaging in a project for personal professional development versus academic institutional notoriety. There was less pressure for deadlines, and more flexibility to work around other projects.

However, because there was less pressure for an academic deadline, it became important to communicate frequently and focus on the goal of sharing the information with others at the INP/APNN conference. The authors remained committed to the project for two reasons: the authors' collegiality within the INP/APNN was strong and the study was important to all as an international focus on advanced practice job satisfaction in developed and developing countries, which added to the body of knowledge. This type of successful partnership has proven to be a seed for further research and a forum for brainstorming ideas.

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