

Nursing Education Research Conference 2018 (NERC18)

The Future of Nursing Education: Multidisciplinary Community-Engaged Research for Undergraduate Nursing Students

Jessica A. Devido, PhD, CPNP¹

Cathleen J. Appelt, PhD²

Andrew T. Simpson, PhD³

Nicole A. Szalla, BSN, RN¹

(1)School of Nursing, Duquesne University, Pittsburgh, PA, USA

(2)McAnulty College and Graduate School of Liberal Arts, Sociology, Duquesne University, Pittsburgh, PA, USA

(3)McAnulty College and Graduate School of Liberal Arts, History, Duquesne University, Pittsburgh, PA, USA

Background

An aging population, coupled with increased demands for access to care, are taxing the US healthcare system and helping to create shortages of health professionals, including Registered Nurses (RNs) (American Association of Colleges of Nursing [AACN], 2017; Jurascheck, Zhang, Ranganathan, & Lin, 2012). Further exacerbating the problem, the number of nursing faculty anticipated to retire is expected to rapidly increase in the next decade (AACN, 2017).

The Institute of Medicine has found that nursing schools need to double the number of individuals who are doctorally prepared to create an adequate pipeline of RNs (Institute of Medicine [IOM], 2010). In order to meet the growing need for doctorally prepared nursing faculty, nurses must be encouraged and supported to pursue the PhD. Programs aimed at increasing interest, preparation, and experience in nursing research have facilitated increased interest in graduate programs (Burkhart & Hall, 2015) and an increased number of undergraduate nursing students go on to pursue doctoral education (Mentes, Cadogan, Woods, & Phillips, 2015). However, undergraduate nursing students often find the components of research taught in traditional classes difficult and hard to grasp (Niven, Roy, Schaefer, Gasquoine, & Ward, 2013).

Hands-on research experiences can give undergraduate nursing students an opportunity to engage in interdisciplinary learning opportunities (Slattery et al., 2016). For example, an interdisciplinary undergraduate program in health promotion research that included mentors and mentees from both the biological and social sciences demonstrated high levels of student engagement and positive attitudes about interdisciplinary approaches (Misra et al., 2008). To our knowledge, no such multidisciplinary program has been developed with nursing students while also taking a community-engaged approach. Community-engaged research and learning, when combined with nursing education and practice, can provide additional benefits to nursing students. Students are able to encounter important relevant topics they might not have had the opportunity to experience in other clinical settings including: cultural-relevance, social justice issues, and community partnerships (Francis-Baldesari & Williamson, 2008). By exposing undergraduate nursing students to social science and historical methodologies, we hope to encourage undergraduate nursing students to approach communities in new ways with increased sensitivity for historical and cultural barriers that may shape disparate health outcomes.

Purpose

The purpose of this study is to describe the student experience and educational impacts of a year-long multidisciplinary mentored community-engaged research experience on undergraduate nursing students' learning, professional development, cultural sensitivity, and career goals.

Specific Aims:

- 1) To explore students' overall experiences with the community-engaged research process.
- 2) To assess ways in which their involvement in community-engaged research and the community affected the ways in which they think about individual health and the broader social context in which it is shaped.
- 3) To assess how exposure to multidisciplinary, community-engaged research at the bachelor's level may have encouraged the students to pursue graduate study in nursing.
- 4) To explore whether diversifying the research experience to include community engagement and multidisciplinary mentoring increases, among BSN graduates, cultural sensitivity and/or a desire to work in underserved communities.

Design

This is a qualitative, exploratory study design, based on semi-structured interviews conducted with undergraduate nursing students. Student participants were involved in a year-long multidisciplinary mentored research experience based in a local African-American community.

Mentored research experience

The sample includes seven third-year, undergraduate BSN students, former students of the first author, who expressed interest in involvement in maternal-child health research projects. The students participated in a mentored research experience with two community-engaged research projects focused on maternal-child health over the course of one year. The students were trained in social science research methods including semi-structured interviewing and survey data collection. The students were then involved in every stage of the project including: initiating the informed consent process with participants, conducting qualitative interviews, collecting survey data, analyzing data, and dissemination of results through presentation of research findings in poster format at two conferences. Therefore, the students were introduced to a community-engaged multidisciplinary project. In addition to being involved in the research process, they also spent time in the local community and were able to see firsthand how health and health inequities are manifested, providing them with an opportunity to see the social determinants of health at work.

Methods

Data collection will include a brief interviewer-administered questionnaire to assess sociodemographic information. Individual interviews using a semi-structured interview guide will be used to explore student's experiences, attitudes, and future career goals. A trained graduate student will collect and de-identify data for the investigators. The interviews will be digitally recorded. Verbatim transcription of audio recordings will be conducted by members of the research team.

Planned Analyses

Participant's responses to the brief questionnaire will be entered into a spreadsheet and summarized. A constant comparative method (Strauss & Corbin, 1990) will be used to identify emergent themes relevant to students' overall experiences and their conceptions regarding social determinants of health (Aims One and Two). Qualitative content analysis (Elo & Kynga, 2008) will be used to assess students' responses regarding future educational goals and desired practice settings (Aims Three and Four). This work is in progress. Data collection and analyses are anticipated to be completed by October, 2017.

Implications for Education

Results may help future efforts to foster student engagement in research and increase nursing student interest in pursuing doctoral degrees. Participation in multidisciplinary community-engaged research experiences may have the potential to stimulate interest in graduate nursing program enrollment. Encouraging students to approach communities in new ways with increased sensitivity for historical and cultural barriers that may shape divergent health outcomes is critical. This approach may be an important and effective strategy for improved patient care, reduction of health disparities via culturally sensitive care, and increase numbers of nursing faculty to keep up with demand.

Title:

The Future of Nursing Education: Multidisciplinary Community-Engaged Research for Undergraduate Nursing Students

Keywords:

Community-Engaged Teaching and Research, Multidisciplinary Mentoring and Teaching Practice

References:

American Association of Colleges of Nursing. (2017). Nursing faculty shortage. Retrieved

from: <http://www.aacn.nche.edu/media-relations/fact-sheets/nursing-faculty-shortage>

Burkhart, P., & Hall, L. (2015). Developing the next generation of nurse scientists. *Nurse Educator*, 40(3), 160-162.

Elo, S., & Kyngas, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing*, 62(1), 107–115.

Francis-Baldesari, C., & Williamson, D. (2008). Integration of nursing education, practice, and research through community partnerships: A case study. *Advances in Nursing Science*, 31(4), E1-E10.

Institute of Medicine. (2010). The future of nursing: Leading change, advancing health. National Academies Press, Washington DC. Retrieved from <http://thefutureofnursing.org>

Jurascheck, S., Zhang, X., Ranganathan, V., & Lin, V. (2012). United States registered nurse workforce report card and shortage forecast. *American Journal of Medical Quality*, 27(3), 241-249.

Mentes, J., Cadogn, M., Woods, L., & Phillips, L. (2015). Evaluation of the nurses caring for older adults young scholars program. *Gerontologist*, 55(Suppl 1), S165-S173.

Misra, S., Harvey, R., Stokols, D., Pine, K., Fuqua, J., Shokair, S., & Whiteley, J. (2008).

Evaluating an interdisciplinary undergraduate training program in health promotion research. *American Journal of Preventative Medicine*, 36(4), 358-365.

Niven, E., Roy, D., Schaefer, B., Gasquoine, S., & Ward, F. (2013). Making research real:

Embedding a longitudinal study in a taught research course for undergraduate nursing students. *Nurse Education Today*, 33(1), 64-68.

Slattery, M., Logan, B., Mudge, B., Secore, K., von Reyn, L., & Maue, R. (2016). An

Undergraduate research fellowship program to prepare nursing students for future workforce roles. *Journal of Professional Nursing*, 32(6), 412-420.

Strauss, A. & Corbin, J. (1990). *Basics of qualitative research: Grounded Theory procedures and techniques*. Newbury Park, CA: Sage Publications.

Abstract Summary:

Novel educational initiatives are needed to build a robust and diverse nursing workforce. This qualitative, exploratory study based on semi-structured interviews with undergraduate nursing students will attempt to determine whether community-engagement experiences affect learning related to social determinants of health, increase cultural sensitivity, and encourage pursuit of nursing graduate degrees.

Content Outline:

I. Introduction

A. Background

1. Currently the American health care system is challenged by a shortage of registered nurses and nursing faculty (AACN, 2017; Jurascheck, Zhang, Ranganathan, & Lin, 2012)
2. Exposing undergraduate nursing students to research early in their career may encourage them to pursue graduate education, which may ultimately lead to an increased number of nursing faculty (Burkhart & Hall, 2015; Mentis et al., 2015)
3. Exposing students to interdisciplinary approaches to research may have additional benefits, such as increasing levels of student engagement with their undergraduate curriculum and promoting more positive attitudes toward patient care (Misra et al., 2009)
4. By exposing undergraduate nursing students to social science and historical methodologies we hope to encourage undergraduate nursing students to approach communities in new ways with increased sensitivity for historical and cultural barriers that may shape disparate health outcomes

II. Body

A. Purpose

1. Describe the student experience and educational impacts of a year-long multidisciplinary mentored community-engaged research experience on undergraduate nursing students' learning, professional development, cultural sensitivity, and career goals.

B. Design

1. Qualitative, exploratory study, based on semi-structured interviews with undergraduate nursing students

C. Mentored Research Experience

1. Seven third-year, undergraduate BSN students, former students of the first author
2. Mentored research experience with two community-engaged research projects focused on maternal-child health over the course of one year
3. Students trained in social science research methods

a) **Semi-structured interviewing**

b) **Survey data collection**

4. Students involved in every stage of the project:

a) **Initiating informed consent process with participants**

b) **Conducting qualitative interviews**

c) **Collecting survey data**

d) **Analyzing data**

e) **Dissemination of results through presentation of research findings**

D. Methods

1. Brief interviewer-administered sociodemographic questionnaire
2. Individual interviews using a semi-structured interview guide
3. Trained graduate student will collect and de-identify data
4. Interviews will be digitally recorded

E. **Planned Analysis**

1. Brief questionnaire responses summarized
2. Constant comparative method will be used to identify emergent themes related to students' experiences and conceptions related to social determinants of health
3. Qualitative content analysis will be used to assess students' responses regarding future educational goals and desired practice settings
4. This work is in progress, data collection and completion of final analyses is anticipated by October, 2017

III. Conclusion

A. **Implications for education**

1. Multidisciplinary community-engaged research experiences may have potential to stimulate interest in graduate nursing program enrollment
2. Encourage students to approach communities in new ways with increased sensitivity for historical and cultural barriers
3. May be an important and effective strategy for improved patient care, reduction of health disparities via culturally sensitive care, and increase numbers of nursing faculty

First Primary Presenting Author

Primary Presenting Author

Jessica A. Devido, PhD, CPNP
Duquesne University
School of Nursing
Assistant Professor
Pittsburgh PA
USA

Professional Experience: Jessica A. Devido, PhD, CPNP has been a nurse for thirteen years, a board certified pediatric nurse practitioner for eight years and an Assistant Professor of Nursing at Duquesne University for two and a half. Her research interests include health promotion and disease prevention for at-risk women of childbearing age and their offspring utilizing a community-engaged approach. Dr. Devido's specific interests include understanding health disparities for mothers and infants in African-American communities, and she is currently engaged in two research projects to address this issue.

Author Summary: Jessica A. Devido, PhD, CPNP is a board certified pediatric nurse practitioner and an Assistant Professor of Nursing at Duquesne University. Her research interests include health promotion and disease prevention for at-risk women of childbearing age and their offspring utilizing a community-engaged approach. Dr. Devido's specific interests include understanding health disparities for mothers and infants in African-American communities, and she is currently engaged in two research projects to address this issue.

Second Author

Cathleen J. Appelt, PhD
Duquesne University
McAnulty College and Graduate School of Liberal Arts, Sociology
Assistant Professor
Pittsburgh PA
USA

Professional Experience: Cathleen J. Appelt, PhD, has been an Assistant Professor of Sociology at Duquesne University for two and half years. Her areas of specialization include sociology of health and social research methods. Substantively, her work is focused on exploring ways to ameliorate the deleterious effects of social inequality on health. She is currently working on two multidisciplinary, community-engaged research projects focused on exploring innovative solutions to the maternal-child health crisis in Pittsburgh's African-American community.

Author Summary: Cathleen J. Appelt, PhD, is an Assistant Professor of Sociology at Duquesne University. Her areas of specialization include sociology of health and social research methods. Substantively, her work is focused on exploring ways to ameliorate the deleterious effects of social inequality on health. She is currently working on two multidisciplinary, community-engaged research

projects focused on exploring innovative solutions to the maternal-child health crisis in Pittsburgh's African-American community.

Third Author

Andrew T. Simpson, PhD
Duquesne University
McAnulty College and Graduate School of Liberal Arts, History
Assistant Professor
Pittsburgh PA
USA

Professional Experience: Andrew T. Simpson PhD, has been an Assistant Professor of History at Duquesne University for two and a half years. He is currently examining the development of health care institutions in Pittsburgh, Pennsylvania and Houston, Texas. Other projects include the history of telemedicine, focused on NASA, and the history of emergency medical services. Simpson has worked with the Program for Deliberative Democracy to help foster public dialogue around issues of resource allocation in a public health emergency.

Author Summary: Andrew T. Simpson PhD, is an Assistant Professor of History at Duquesne University. He is currently examining the development of health care institutions in Pittsburgh, Pennsylvania and Houston, Texas. Other projects include the history of telemedicine, focused on NASA, and the history of emergency medical services. Simpson has worked with the Program for Deliberative Democracy to help foster public dialogue around issues of resource allocation in a public health emergency.

Fourth Author

Nicole A. Szalla, BSN, RN
Duquesne University
School of Nursing
Adjunct Clinical Professor of Nursing
Pittsburgh PA
USA

Professional Experience: Nicole A. Szalla, BSN, RN, has been an Adjunct Clinical Faculty Professor of Nursing at Duquesne University for a year. She is currently finishing her Master of Science in Nursing Education degree at Duquesne University. Her research interests include community health disparities in women of childbearing age and the challenges of breastfeeding in underprivileged communities.

Author Summary: Nicole A. Szalla, BSN, RN, is an Adjunct Clinical Faculty Professor of Nursing at Duquesne University. She is currently finishing her Master of Science in Nursing Education degree at Duquesne University. Her research interests include community health disparities in women of childbearing age and the challenges of breastfeeding in underprivileged communities.