

## Sigma's 30th International Nursing Research Congress

### An Interprofessional Service-Learning Experience With Low-Income Elders: Use of a Near-Peer Teaching Strategy

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**Background/Purpose:** Baccalaureate nursing clinical experiences must prepare graduates to assess and support the health of vulnerable populations within the community setting. As part of this effort, clinical experiences need to align with theoretical coursework throughout the entire curriculum. In one school of nursing, clinical experiences were largely situated in acute inpatient settings until the final semester of school, and fell short in providing substantial community experiences for disadvantaged individuals.

This pilot project aimed to evaluate the integration of second-semester Accelerated Baccalaureate Students (ABS) into a service-learning community experience for low-income elders. A near-peer teaching approach was utilized to enhance student learning. The AACN Baccalaureate Essentials were used to guide the implementation and evaluation of the service-learning experience.

**Methods:** Eleven second-semester and twelve fourth-semester ABS students were paired in learning dyads in a low-income ethnically diverse urban housing development, along with an interprofessional team consisting of community health workers and social workers. Second-semester students were mentored by fourth-semester students, supported by a PharmD faculty member and Advanced Practice Nurse (APN) faculty members. Students visited residents in their apartments, accompanied by a social worker or community health worker. As 65% of the building residents were Spanish-speaking, the social workers and community health workers served as interpreters when necessary. Students performed health screenings, health promotion education, and medication reconciliation and medication counseling. Interprofessional case presentations, led by the second-semester student, promoted teamwork and communication. The fourth-semester student mentored the second-semester student during and after the resident visit, and in preparation for the case presentation.

At the completion of a two-day encounter, students completed a survey to evaluate how the experience affected knowledge, skills, and attitudes about social determinants of health, interprofessional teamwork and communication, advocacy, patient-centered care, and influence of cultural values on healthcare. A retrospective pretest/posttest format was used to evaluate change in knowledge, skills, and attitudes on a five (5) point Likert scale. Descriptive analysis of frequency, mean and standard deviation were analyzed. Paired t-test analyses were performed to evaluate significance. Responses from open-ended survey questions were also analyzed for common themes.

**Analysis of Results:** The highest rated variable related to the role of social determinants of health in the overall health of the residents ( $M=4.38$ ). Paired t-test analyses indicated that there were significant positive increases in the level of knowledge reported (average of nearly a 1-point increase, 0.86) for all five content areas (culture and health care, social determinants of health, advocacy and collaboration, integrating patient values in health care decisions, importance of interprofessional team-based approach,  $p<.05$ ). Open-ended comments centered around themes of advocacy in poverty, patient-centered care, and the value of meeting people where they live. Second-semester students appreciated the mentoring provided by the fourth semester students. Students recommended to expand the project time from two days to a full seven-week rotation. Students valued interactions with residents and expressed that a longer rotation would facilitate relationship building and increase the opportunities to impact the health of the community.

**Summary/Recommendations/Conclusion:** Students reflected an appreciation of the complexity of healthcare issues affecting vulnerable members of the community and identified the importance of providing comprehensive care across the continuum. Based on survey results, future semesters will expand the experience from two days to a full seven-week rotation. With the project expansion, specific population health screenings will be added to the services offered to the building residents. Consenting residents will be screened for dementia, depression, and fall risk to identify at-risk elders so that early intervention can be provided.

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**Title:**

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**Keywords:**

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**References:**

Avallone MA, Cantwell R. (2017). Teaching nursing students to provide effective heart failure patient education using a peer teaching strategy. *Journal of Nursing Education and Practice*. 7(2):84-89. <http://dx.doi.org/10.5430/jnep.v7n2p84>

Bene, KL, Bergus, G. (2014). When learners become teachers: A review of peer teaching in medical student education. *Family Medicine*, 46(10): 783-787. Retrieved from <http://www.stfm.org/FamilyMedicine/Vol46Issue10/Bene783>.

Federal Interagency Forum on Aging-Related Statistics Older Americans 2016: (2016). Key indicators of well-being. *Federal Interagency Forum on Aging-Related Statistics*. Washington, D.C.: U.S. Government Printing Office

Institute of Medicine (IOM): Committee on Educating Health Professionals to Address Social Determinants of Health. (2016). *A Framework for Educating Health Professionals to Address the Social Determinants of Health*. National Academies Press. Washington, D.C. DOI: 10.17226/21923

Irvine S., Williams B, McKenna L. (2017). How are we assessing near-peer teaching in undergraduate health professional education? A systemic review. *Nurse Education Today*. 50: 42-50. <http://dx.doi.org.10.1016/j.nedt.2016.12.004>

Jarrell K, Ozymy J, Gallagher J, Hagler D, Corral C, Hagler A (2014). Constructing the foundations for compassionate care: How service-learning affects nursing students' attitudes towards the poor. *Nurse Education in Practice*.14: 299-303. doi: 10.1016/j.nepr.2013.11.004

Nickitas, DM, Fealy, GM, DeNatale, ML (2016). Psychometric evaluation of the Service-Learning in Nursing Inventory. *Nursing Education Perspectives* 37(4). 201-209. Doi: 10.1097/01.NEP.0000000000000023.

Patterson MA, Fair M., Cashman SB, Evans CE, Garr D. (2015). Achieving the Triple Aim: A curriculum framework for health professions education. *American Journal of Preventative Medicine* 49(2); 294-296.<http://dx.doi.org/10.1016/j.amepre.2015.03.027>

Schmidt NA, Brown JM. (2016). Service-learning in undergraduate nursing education: Strategies to facilitate meaningful reflection. *Journal of Professional Nursing*. 32(2):100-106. Doi: 10.1016/j.profnurs.2015.06.006

Shapiro JS, McCoy RG, Takahashi, PY, Thorsteinsdottir B, Peterson SM, Naessens JM, Rahman PA...Borkenhagen LS (2017). Medication use leading to hospital readmission in frail elders. *The Journal for Nurse Practitioners* 13(10), 706-715.

Townsend, L., Gray J., Forber, J. (2016). New ways of seeing: Nursing students' experience of a pilot service learning program in Australia. *Nurse Education in Practice*, 16, 60-65. <http://dx.doi.org/10.1016/j.nepr.2015.08.004>

Weeks K, Coben D., Lum G, Pontin D. (2017) Developing nursing competence: future proofing nurses for the changing practice requirements of the 21<sup>st</sup> century healthcare. *Nurse Education in Practice* 27: A1-A4. <http://dx.doi.org/10/1016/j.nepr.2017.08.020>

### **Abstract Summary:**

This session describes a unique interprofessional service-learning experience for Accelerated Baccalaureate Student (ABS) nurses. Using a near-peer teaching strategy, fourth-semester students mentored second-semester students. They joined an interprofessional team to provide health promotion and management for elderly residents with complex health needs in a low-income diverse urban housing development.

### **Content Outline:**

#### I. Introduction

1. Nursing in the 21<sup>st</sup> century: Meeting the needs of the future healthcare professional
  1. Diverse aging population
  2. Increased focus on population health, health promotion, and disease management in the community
  3. Emphasis on interprofessional teamwork
2. Health professional education
  1. Population health, social determinants of health
  2. Integration of theory and clinical experiences
  3. Service-learning as a pedagogy
3. Early integration of population health into the curriculum
  1. Current curriculum and need for change
  2. Curricular revisions identified and planned
4. Peer Teaching and Learning
  1. Value and advantages
  2. Implementing peer teaching and learning during service-learning experience

#### II. Project Description/planning

1. Near Peer Teaching: Pairing Second-semester accelerated nursing students with fourth-semester students in a learning dyad.
2. Location: Urban Low-income subsidized housing development
3. Residents: 65% non-English speaking, elderly, multiple chronic diseases, and disabled
4. Timeframe: 14-week semester. Dyads were scheduled each week for a two day experience.
5. Team members: Comprised of nursing students, social work, community health workers, advance practice faculty, PharmD faculty
6. Identification of target residents:
  1. Residents needing priority assessments and evaluations were identified by the Social Service Director of the Residence on the first day of each two-day rotation.
  2. Priority residents were those who were recently discharged from the hospital or those experiencing health maintenance issues.
7. Intervention: The interprofessional team provided health promotion, disease management, medication reconciliation and counseling to consenting residents.

8. Interprofessional case reviews and handoff reports were given to the Director. The current student dyad gave handoff report to the following week dyad.

### III. Evaluation

1. Data collection and analysis:
  1. Retrospective pre-post test survey evaluated change in knowledge, skills, and attitudes about social determinants of health, interprofessional teamwork and communication, advocacy, patient-centered care, and influence of cultural values on healthcare as a result of the intervention.
  2. Variables measured on a five (5) point Likert scale
  3. Descriptive analysis of frequency, mean and standard deviation were analyzed. Paired t-test analyses were performed to evaluate significance.
  4. Responses to open-ended survey questions were also analyzed for common themes.
2. Results:
  1. Statistically significant improvement in knowledge demonstrated for most variables.
  2. Open-ended comments centered around themes of advocacy in poverty, patient-centered care, and the value of meeting people where they live.
3. Lessons learned: Programmatic improvements for future semesters
  1. Expand the clinical experience from two days to seven weeks.
  2. Provide additional specific screenings for dementia, depression, and fall risk.
  3. Strengthen the interprofessional teamwork and improving resident outcomes by improving the work process and improving team communications.
4. Moving forward/summary

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**Author Summary:** Dr. Margaret Avallone is a Clinical Assistant Professor at Rutgers University-Camden School of Nursing. Her program of scholarship and research centers on patient safety and communication strategies and transitioning Baccalaureate nursing students to professional practice. Dr. Avallone holds more than 30 years of critical care nursing experience as a clinical bedside nurse and clinical specialist and has authored publications relating to patient safety, transition to professional practice, and educational strategies such as peer teaching.

Second Secondary Presenting Author

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**Author Summary:** Dr. Cantwell has more than 30 years of teaching experience. Currently she teaches at Rutgers University School of Nursing- Camden where she is the Director of the Accelerated Program. She holds a DNP with a focus on Education and Administration, from Duquesne University. Dr. Cantwell's

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**Author Summary:** Dr Staci Pacetti holds a unique position as the lone pharmacist on faculty at the Rutgers School of Nursing–Camden. With a degree in Biology as well as a Doctorate of Pharmacy, Dr. Pacetti is an Infectious Diseases specialty pharmacist. She teaches all levels of nursing scholarship programs – undergraduate, RN to BSN, and graduate. She is currently involved in interprofessional projects across the disciplines of nursing, pharmacy, and social work.