2014 Duke AHEAD Grant Proposal
Email to kristin.dickerson@duke.edu by October 2, 2014
(Limit 5 pages)

Duke AHEAD
Academy for Health Professions Education and Academic Development

Title: Peer-to-Peer Interprofessional Mentoring- Impacting Attitudes of Nurse-Physician Collaboration

Principal Investigator: Pamela Edwards (Associate Chief Nursing Officer for Education)

Collaborator(s): Stephen DeMeo (Pediatrics), Marilyn Oermann (SON), Julia Aucoin (Nursing Administration), Jean Rea (Duke Nursing Residency Director), Alisa Nagler (GME).

Focused question: Does a structured interdisciplinary peer-to-peer mentoring program change attitudes towards nurse-physician collaboration?

Background: Background: Historically the relationship between physicians and nurses has been hierarchical with many elements of gender and age incorporated (Zomorodi and Foley, 2009). Interprofessional collaboration competencies supports that people ascribe to and are socialized to a role, which can make it difficult to take on new roles or behaviors associated with those roles (IPEC, 2011). Thus physicians and nurses socialized into a hierarchical rather than collaborative relationship may find it difficult to function in the collaborative work relationship recommended by the Institute of Medicine (Institute of Medicine, 2003). A meta-analysis of 51 surveys of interprofessional collaboration, involving more than 18,000 physicians and nurses demonstrated that nurses score higher on IPC while physicians perceive more existing collaboration and nurses see the IPC in a more positive light (Sollami, Caricati, and Sarli, 2014).

In May 2014, the Morehead Work Culture Index was administered to all DUH staff. Two items reference physician/staff collaboration. "Physicians and staff work well together" scored 4.02 on a 5 point scale, slightly above the 2014 score of 4.00. "Communication between physicians, nurses, and other medical personnel is good at my entity scored 3.86 on a 5 point scale, with a range of 2.95 to 4.56. DUH newly licensed nurses have demonstrated improvement from 2.81 (initial) to 3.57 (at 12 months) in a 4 point item on MD Communication. None of these aggregate scores meet the expectations of organizational leadership.

A meta-analysis of 51 surveys of interprofessional collaboration, involving more than 18,000 physicians and nurses demonstrated that interprofessional educational interventions work to improve IPC (Sollami, Caricati, and Sarli, 2014). The significance of this study is to learn about real life behaviors required for successful collaboration in the healthcare work environments and apply this information to practicing and pre-licensure nursing education and graduate medical education.

Specific aims: Click here to enter text.1) Pilot a novel peer-to-peer nurse/physician mentoring program for future use across the health system.

2) Assess for changes in attitudes towards nurse-physician collaboration in a group of nurse residents and resident physicians.

3) Program leaders and program graduates will apply knowledge gained through this program to improve both their clinical and academic education and work settings.

Methods: **Brief description of educational intervention or focus of study (and control, if applicable)**

Participants: The proposed study will recruit 15 nurse resident/resident physician dyads (30 participants total). Dyads will be individuals who work in the same clinical area. Dyads will be selected from a cross section of units

across DUHS that performed both on the high and low percentiles (Tier I, Tier III) for physician/nurse communication on the most recent Work Culture Survey administered at DUHS.

Program: Participants will be involved in a 6-month program that is a combination of large group meetings, facilitated meetings between individual dyads and regular online collaboration among the larger group.

1) Participants will attend an initial large group orientation/gathering. The agenda will include an overview of the project (timeline and format), expectations for participants, introduction of the dyads. In addition, a leader in nurse - physician collaboration will be invited to present. Meals will be provided. Invitation to the invited speaker's presentation will be opened to all members of Duke AHEAD.

2) Additional large group meetings- the group will meet as a whole 2 additional times during the 6-month program. These meetings will be led by members of the study team and include discussions on key concepts. Topics will include: speaking up for the patient, nurse/physician myths, and communication challenges and solutions (based on the literature and realistic examples at Duke and externally). These sessions will also allow for sharing of lessons learned from the dyads. The study leaders will foster interactions and relationship forming between nurses and physicians. Meals will be provided.

3) Facilitated meetings of individual dyads- In addition to the online interactions (described below), individual dyads will be encouraged to meet face-to-face at least 12 times during the program. A coffee card will be provided to the groups to facilitate meeting on campus at one of the campus coffee shops. Emails from the program coordinators to groups will help to prompt discussions about work, nursing/physician relationships or any other general stressors, concerns or accomplishments.

4) Online program/curriculum- each participant will be provided with an iPad mini that will come preloaded with evidence based articles for review and access to the secure program blog/discussion board. The study leaders will prompt participants with articles for review on a bi-weekly to monthly basis. Article reflection will be captured through a secure online website through which participants can share their reactions to and opinions of the topics presented. The study team will moderate discussions.

Outcomes and measures: We will administer the Jefferson Scale of Attitudes Toward Physician-Nurse Collaboration (JSAPNC) to study participants at the beginning of the program and 6 months after the program start. Hojat et al developed the JSAPNC to assess both physician and nurse attitudes toward physician-nurse professional collaboration. The instrument contains 15 items related to four domains: Shared Education and Collaborative, Relationships, Caring as Opposed to Curing, Nurse's Autonomy, and Physician's Authority. Participants indicate level of agreement with items using a 4-point Likert scale, as well as identifying age, gender, profession (i.e., nurse or physician), and area of specialty. The instrument has been subsequently validated in multiple studies and recently revised. In addition to assessing the effectiveness of this interdisciplinary mentoring program, as evidence by comparing scores before and after the program, we are also interested in whether there is any evidence of differences in attitudes of nurse-physician collaboration by participant age (generation), gender, profession or specialty. Previous studies using the JSAPNC have suggested that some baseline differences may exist in younger professionals and those professionals working in high stress, high functioning team based inpatient units such as intensive care units. We have received gratis permission from the copyright holders to use this instrument.

We will also compare results of the DUHS work culture survey, focused on nursing/physician communication, by unit, both before and after the intervention.

Qualitative data will be captured electronically through a program specific, web based discussion board that will be used throughout the program (discussed above as the "online program"). In addition, small focus groups will be formed throughout the project time period to collect additional qualitative data related to communication, collaboration and attitudes. These will be organized through a standardized, semi-structured interview script and

conducted by select members of the study team. After a sufficient number of comments are received to achieve thematic saturation, study personnel will meet for content analysis. Lastly, records of discussion board comments will be coded with common themes and subthemes identified.

Data management and analysis: Responses to the JSAPNC will be securely captured, de-identified, and stored using the RedCap system administered by the Duke Office of Clinical Research (DOCR). Qualitative data from the discussion board and focus groups will also be de-identified and stored on a Duke server.

IRB status: Not yet submitted for review

Challenges: We will need to think carefully about meeting times as protected time away from clinical duties is difficult to schedule on both the physician and nurse residency sides. The goal will not be to add unnecessary work to already busy participants, but instead, enhance their clinical education with this experience. Dyads will be encouraged to discuss real-time challenges that they are facing in their clinical work. The nursing residency is incorporating this into their already scheduled education hours, preventing additional non-clinical hours.

Sustainability: The contact time for all graduate nurses will be provided in-kind by the Duke Nurse Residency program. All study team direct and indirect time for program preparation and direct contact time is also planned as in-kind contributions. Given the priority that this problem has been given within DUHS nursing, we expect that if successful (as evidenced by increased scores on the JSAPNC and Work Culture Survey), leaders and participants of this program can be utilized across the health system for ongoing education and development between nursing and medicine.

Opportunities for subsequent scholarship: Issues related to 1) Interprofessional collaboration/peer mentoring, and 2) communication between nurses/physicians as related to patient safety are relevant topics that would find many audiences across multiple specialty journals and national conferences. We plan to submit results of this project to national meetings such as the 2015 InterProfessional Health Care Summit (Savannah, GA), the annual AAMC meeting, and journals such as the *Journal of Interprofessional Care*, *Academic Medicine*, *Journal of Nursing Administration*, *Journal of Nursing Professional Development*, or *Journal of Graduate Medical Education*.

Broader Impacts: Improved attitudes towards nurse physician collaboration could have significant impacts on the health system as well as lead to changes in curriculum and teaching strategies in both the schools of Medicine and Nursing. Given the results of the most recent Work Culture survey, the lessons learned from the pilot could be expanded throughout the health system, SOM and SON in order to improve these objective indicators of communication and collaboration.

Timeline:

Timeline	Activity	Participants Involved
January 2015	Volunteer Nurse and Resident participants recruited/identified	Project leadership
	Pre-Assessment using validated instrument	Participant Dyads (Nurse & Resident)
February 2015	Large Group Meeting #1	Project Leadership Participant Dyads (Nurse & Resident) Keynote speaker Duke AHEAD members
	2 Dyad meetings	Participant Dyads (Nurse & Resident)
	On-line topic #1 presented and discussed	Project Leadership Participant Dyads (Nurse & Resident)
March 2015	Focus Group #1	Project Leadership Participant Dyads (Nurse & Resident)
	2 Dyad meetings	Participant Dyads (Nurse & Resident)
	On-line topic #2 presented and discussed	Project Leadership Participant Dyads (Nurse & Resident)
April 2015	Large Group Meeting #2	Project Leadership Participant Dyads (Nurse & Resident)

	2 Dyad meetings	Participant Dyads (Nurse & Resident)
	On-line topic #3 presented and discussed	Project Leadership Participant Dyads (Nurse & Resident)
May 2015	2 Dyad meetings	Project Leadership Participant Dyads (Nurse & Resident)
	On-line topic #4 presented and discussed	Project Leadership Participant Dyads (Nurse & Resident)
June 2015	Focus Group #2	Project Leadership Participant Dyads (Nurse & Resident)
	2 Dyad meetings	Project Leadership Participant Dyads (Nurse & Resident)
	On-line topic #5 presented and discussed	Project Leadership Participant Dyads (Nurse & Resident)
July 2015	2 Dyad meetings	Participant Dyads (Nurse & Resident)
	Large Group Meeting #3 (Project Wrap-Up)	Project Leadership Participant Dyads (Nurse & Resident) Invited guests
	On-line topic #6 presented and discussed	Project Leadership Participant Dyads (Nurse & Resident)
	Post-Assessment using validated instrument	Participant Dyads (Nurse & Resident)
August 2015 – December 2015	Data collection and analysis and presentation of findings (Pre-post surveys, work culture survey, focus group, blog qualitative data)	Project Leadership
January 2016	Post-Assessment using validated instrument #2	Participant Dyads (Nurse & Resident)
	Data analysis and presentation of findings	Project Leadership

References:

Institute of Medicine (2003). Health professions education: a bridge to quality. Washington, DC: National Academies Press.

Interprofessional Education Collaborative Expert Panel. (2011). Core competencies for interprofessional collaborative practice: Report of an expert panel. Washington, D.C.: Interprofessional Education Collaborative.

Sollami, A., Caricati, L. and Sarli, L. (2014). Nurse-physician collaboration: a meta-analytical investigation of survey scores. Journal of Interprofessional Care, 10, 1-7.

Zomorodi, M. and Foley, B. (2009). The nature of advocacy and paternalism, clarifying the thin line. Journal of Advanced Nursing, 65 (8), 1746-1752