



2015 Duke AHEAD Grant Proposal
Email to kristin.dickerson@duke.edu by August 21, 2015
(Limit 5 pages, does not include budget table or references)

Title: Assessing student attitudes of interprofessional learning experiences: a mixed methods approach

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Focused question: What are learners' attitudes about interprofessional education (IPE) and how are they influenced by interprofessional curricula, interactions, and opportunities during their time as students at Duke University Schools of Medicine and Nursing?

Background: Interprofessional education is a focused interest of Duke AHEAD, the Institute of Medicine (IOM), the American Academy of Medical Colleges (AAMC), the American Council of Academic Physical Therapy (ACAPT), the Physician Assistant Education Association (PAEA), and the American Association of Colleges of Nursing. Furthermore, the standards set forth by the respective accrediting bodies for Doctor of Medicine (MD), Doctor of Physical Therapy (DPT), Physician Assistant (PA), and Bachelors of Science in Nursing (BSN) education all require IPE experiences as part of the professional training of these future healthcare providers. Additionally, the accrediting bodies for these professional programs require ongoing assessment and evaluation of student learning.

IPE has been shown to improve patient outcomes.¹⁻² IPE has also been shown to increase learner knowledge, including improved awareness of attitudes, roles and the responsibilities of health care professionals outside the learners' own educational program.^{1,3-4} Teaching strategies for IPE include lecture-based didactic sessions, electronic or online activities, case studies, and low and high fidelity simulation.⁴⁻⁸ There is no single method of instruction for IPE that has been demonstrated to be more effective. Questions remain about whether IPE should occur as a single event, be organized into an existing curriculum, occur through longitudinal coursework, or through working together in clinical teams.^{1,3} The logistics of scheduling IPE is extremely challenging and are often the main obstacles in the planning and success of IPE. Whether IPE is an isolated event or a longitudinal course, professional programs have different durations, different academic calendars, and learners with varying levels of clinical experience.⁹ These issues can affect learner perceptions of the value of IPE.

Despite the growing number of interprofessional experiences offered across our professional programs, there is no longitudinal strategy that examines the level of influence these experiences have on learners' attitudes toward IPE. To date, the evaluation of interprofessional activities in

our programs primarily focuses on gaining feedback about the individual experience, rather than provide information about learners' attitudes across the curricula and their thoughts on how those experiences affect their learning and development as a healthcare professional. This project seeks to address this gap.

Specific aims: In 2011, the *Core Competencies for Interprofessional Collaborative Practice* report (the IPEC report) defined four interprofessional core competency domains. These domains are: values/ethics, roles/responsibilities, interprofessional communication and teams/teamwork. A longitudinal study of learner attitudes as they relate to the IPEC core competency domains will provide valuable information to the individual academic programs and interested stakeholder groups within the Duke University Health System. We will plan to disseminate our results to each of the programs in the study, as well as report through scholarly publication and presentations. Our study also aims to serve as a catalyst for educational research initiatives that can provide evidence for the outcomes of IPE across our four programs, and the affect IPE has on our health professions learners and the interprofessional care they deliver.

Methods: The PIs will use this opportunity to establish baseline curricular offerings of IPE and to inform the refinement of future IPE learning activities with the above aims guiding the process.

- **Design:** This longitudinal project is designed to encompass a mixed methods approach. For the quantitative design, we will ask a single cohort of learners from the MD, DPT, ABSN and PA programs to complete the Interprofessional Attitudes Scale on either a semi-annual or annual basis. More details provided below.

For the qualitative design, we plan to execute a total of 15 focus groups with a single cohort of learners from the MD, DPT, ABSN and PA programs – see timeline below. The focus groups will be audio recorded. Data gathered from each focus group/recording will be analyzed in a qualitative manner. Analyses of outcomes from both approaches will establish baseline curricular offerings of IPE and serve to inform the refinement of future IPE learning activities.

- **Setting:** All parts of the study will be conducted within the School of Medicine (SOM) and within the School of Nursing (SON).
- **Participants:** For the quantitative design, we will ask a single cohort of learners from the MD, DPT, ABSN and PA programs to complete the Interprofessional Attitudes Scale on either a semi-annual or annual basis. More details provided below.
- For the qualitative design, 15 separate focus groups will be convened – see timeline below. Within these focus groups, MD, DPT, ABSN and PA learners will respond to semi-structured interview prompts. Learners will receive no benefit from voluntarily coming to focus groups sessions, except that they will be provided free food at these sessions. Volunteer learners in focus groups will participate and provide structured feedback without compensation. No other incentives or disincentives will be applied. Learners will not be penalized in any way for not coming to this voluntary focus group.

- **Outcomes and measures:**

For a single cohort learners, in each of the four programs (MD, DPT, PA, ABSN), both quantitative and qualitative data will be collected at matriculation and semi-annually (ABSN) or annually (MD, DPT, PA) until graduation.

Quantitative measures:

- Learner demographic data
- Learner self-report of IPE experiences
- Program report of formal IPE offerings within respective curricula
- Survey using Interprofessional Attitudes Scale (IPAS), a validated tool that includes five subscales (teamwork, roles and responsibilities, patient-centeredness, interprofessional-biases, and diversity and ethics) that are aligned with the IPEC competencies

Qualitative measures:

- Focus groups including learners from each of the four programs. Topics addressed in the focus groups will be organized by the IPEC competencies and allow further investigation about the learners' experiences than may be possible from the quantitative methods/tools.

Data analysis:

- Quantitative data from IPAS will be analyzed in aggregate, by each professional program. Descriptive statistics will be calculated and reported.
- Qualitative data from focus groups will be coded and themes identified¹⁰.

- IRB Status:

- This study has been submitted to the Duke IRB and determined to be exempt from full review.

Challenges: Given that the faculty involved in this proposed study have portions of their responsibilities allocated to assessment and evaluation in their given professional programs, we are well-prepared to execute the IPAS and focus groups to our learners. No additional faculty development will be needed to facilitate the success of this project.

The primary challenge presented in this design arises from the variable durations of the four academic programs included in the study. We have carefully examined the programs and determined the timeline below to optimize longitudinal data from the professional cohorts.

We recognize that another challenge may be in recruiting learners to participate in focus groups. Our goal for each focus group will be to recruit five to seven learners. The research protocol will allow for different volunteers to participate in the focus groups across time points, to avoid follow-up problems as the study progresses over four years.

Sustainability: We recognize that this project extends over four years, however we believe it is vital to study the effects of our curricula over the duration of time our professional learners are engaged in the Duke Medicine community. Funding from Duke AHEAD will enable our project to collect data from all four academic programs, until each of the student cohorts graduates. Additional funding may be sought from other professional organizations and agencies, such as HRSA, who have a mission to support education of health professionals.

Opportunities for subsequent scholarship: The proposed research represents the first of its kind -- a longitudinal interprofessional investigation to study attitudes using a mixed-methods approach. Therefore, there will be ample opportunities for scholarship within the professional education journals of medicine, nursing, physical therapy and physician assistants, as well as those that are focused on IPE in the health professions. Additionally we anticipate presentation of our work at each of our professional meetings.

Broader Impacts: Most importantly, we recognize that this study will inform our community of health professions educators, as we gather baseline information about how our learners view their experiences in IPE at Duke. Using this information, the individual programs, Duke AHEAD, and a collective group of educators focused on IPE can be better informed about how to build IPE opportunities that maximize the learners' experience. Additionally this study will inform the health professions literature about how a multidisciplinary approach to studying IPE attitudes can be accomplished in a major academic medical center.

Timeline:

- August 2015 - Recruitment of focus group participants
- August 2015 – Time 0 – Initial focus groups will be held with MD, DPT, ABSN and PA learners; IPAS survey disseminated and responses collected
- April 2016 - Time 1, +8 months – Focus groups will be held with ABSN learners; IPAS survey disseminated and responses collected
- August 2016 - Time 2, +12 months – Focus groups will be held with MD, DPT and PA learners; IPAS survey disseminated and responses collected
- December 2016 - Time 3, +16 months (ABSN graduation) – Focus groups will be held with ABSN learners; IPAS survey disseminated and responses collected
- August 2017 - Time 4, +24 months (PA graduation) – Focus groups will be held with MD, DPT and PA learners; IPAS survey disseminated and responses collected
- August 2018 - Time 5, +36 months (DPT graduation) – Focus groups will be held with MD and DPT learners; IPAS survey disseminated and responses collected
- August 2019 - Time 6, +48 months (MD graduation) – Focus groups will be held with MD learners; IPAS survey disseminated and responses collected
- August 2015 thru August 2019 - Qualitative analysis of data gleaned from focus groups; quantitative analysis of IPAS data

Resource needs and budget:

Budget Justifications

- Consultant Costs (\$1,000.00) - This mixed methods research relies on qualitative assessment via focus groups of student learners. Qualitative coding methodology as outlined by Charmaz¹⁰ will be used. However, since the faculty on this proposal will be completing the coding the use of an external consultant to review findings provides an additional layer of qualitative research credibility by ensuring the findings of Duke faculty are not unduly influenced by our own biases by working at Duke.
- Travel (\$2,000.00) - This project aims to discover the attitudes of learners in Interprofessional education. As such, the research team feels strongly that it will be

important to present our findings as an Interprofessional team. We plan to use travel money to supplement our individual department travel allotments to allow for attending each other's professional conferences to disseminate our work.

- Other Expenses
 - Transcription Fees (\$2,000.00) - 15, 1 hour focus groups will be held over a 4 year period. These will be audio recorded and transcribed for coding and analysis. An assumed rate of \$1.50 / minute for transcription services would require minimally \$1,350.00. We have budgeted \$2,000.00 to cover additional fees associated with the service as well as to ensure extra money in case focus groups last longer than 1 hour.
 - Focus Group Supplies (\$750.00) - These may include incidental costs associated with space reservations, audio recorders, and miscellaneous supplies required to host 5-7 learners at the 15 focus groups.

		Estimated Cost
PI Effort		\$0.00
Consultant Costs		\$1000.00
Equipment		\$0.00
Computer	Hardware <i>(\$1500/laptop)</i>	\$0.00
	Software	\$0.00
Supplies		\$0.00
Travel	<i>(1,000/trip)</i>	\$2,000.00
Other Expenses	Transcription fees	\$2,000.00
	Focus Group Supplies	\$ 750.00
Total Costs for Proposed Project		\$ 5,750.00

References

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