

participants. Time and funding are 2 of the most important resources, and the majority of members agree that there is no substitute for “skin in the game.” Attempts at last minute, opportunistic engagement were provided as examples of what had not worked. One ongoing tension is the balance between process and product. Individual members are beholden to organizations to different degrees, and the need to produce something in the form of publications or grant money can limit the amount of time members can commit to the collaborative. At the same time, these products are unlikely to materialize if members are not invested in the process of growing and sustaining the collective. **DISCUSSION/SIGNIFICANCE OF IMPACT:** Out of the 7 community organizations who currently participate in ADAPT, only 1 is explicitly focused on health in the traditional sense. The others are primary service organizations, but because they understand the impact of the social determinants of health on the local community—including housing, employment, education, nutrition, among other factors—the research collaborative is able to leverage the knowledge and expertise of the academic researchers and the community partners to focus on health topics most salient to the local Chinatown community.

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Collaborative translational workforce development: Standardizing clinical research nursing education in good clinical practice

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OBJECTIVES/SPECIFIC AIMS: The proposed pilot study seek to enhance the network of CTSA at Rockefeller University, NYU, ISMMS, and other community members to support translational workforce development of clinical research nurses and establish a standardized nurse-specific training curriculum in GCP for use within the CTSA network, in other research centers, and in nursing school curricula. This will be coupled with a rigorous evaluation study to test the impact of the training and a comprehensive dissemination plan to make the training available to all nurses and nursing students via modern e-learning method. **Aim 1.** To create an integrated network of local CTSA and community partners to develop, validate, and refine a pilot e-learning GCP educational and training program and content and outcomes dissemination plan. It is vital to integrate the efforts of CTSA leaders, community partners, and nursing educators to develop a pilot e-learning nurse workforce training curriculum and the associated evaluation measures and assessment plan. Delphi methods will be employed, coupled with rigorous assessment of face validity, content validity, and item reliability. The resulting educational training program will then be used for an e-learning educational intervention study in CTSA, other sites, and nursing schools. **Aim 2.** To test the effect of the pilot GCP education and evaluation program for practicing clinical research nurses (CRNs) within the collaborating CTSA and community partners, we will perform a randomized controlled trial using a Solomon 4 group design. For the student nurse population, we will develop a randomized control trial using a Solomon 4 group design blocked on course section. As this is a pilot study, descriptive statistics and confidence intervals around parameter estimates will be constructed. In addition, inferential statistics will be calculated on primary outcome of interest (change scores in knowledge of GCP) and measures of heterogeneity of data, patterns of missing data, and reliability of evaluative tools will be analyzed. **Aim 3.** To implement a dissemination plan to reach both nurses practicing the CRN specialty within CTSA and other community settings. We will disseminate the program to other CTSA through the CTSA network communication resources. To broaden the reach to a population of nurses and student nurses with limited prior education or training in nurse-specific GCP competencies, but who provide care to research participants in nontraditional research settings, we will craft a novel set of dissemination methods, including the CITI Program electronic platform that can be accessed by nurses and nursing students across settings. In addition, dissemination will be at nursing education meetings and in nursing journals. **METHODS/STUDY POPULATION:** There are several components to this pilot program. The component that includes a research strategy is the testing of the effectiveness of the training and educational interventions on GCP knowledge and efficacy. Study cohort: Recruitment of study subjects will be in coordination with 3 CTSA collaborators and community partners for 2 samples: (1) nurses who provide care to clinical research participants across a variety of settings (health care systems, research hospitals, and care provider networks) and who are already trained according to current standard in GCP, (2) nursing students from the collaborative network of the 3 CTSA, NYU School of Nursing has agreed to pilot test the introductory student module. The methodological approach will be a random assignment control trial Solomon 4 group design for practicing CRNs within the collaborating CTSA and community partners. For student nurse population, the methodological approach will be a randomized-control

trial Solomon 4 group design blocked on course section. Survey measures of CRN GCP knowledge and efficacy will be obtained pre and post educational intervention. **RESULTS/ANTICIPATED RESULTS:** Aim 1. Expected outcomes are pilot e-learning nurse workforce training modules curriculum, and evaluation measures and plan appropriate for CTSA, community sites, and nursing schools. Specifically, 14 modules (averaging 30 minutes each) for practicing CRNs, and one 45 minute module for nursing students. The significance of these findings will provide a framework for the e-learning educational intervention study. CITI Program is enthusiastic about the module development and refinement and will provide direction for consistency in formatting with current CITI Program modules, set-up of learner groups for comparison, and evaluative measures such as completion data and scoring. **Aim 2.** Expected outcomes are an effective pilot educational intervention for practicing nurses and students and valid and reliable evaluation tools and plan that can be generalized to the larger CRN and nursing community. **Aim 3.** Expected outcomes are an enhanced CTSA dissemination plan that includes non-CTSA resources and reaches non-CTSA employed nurses and nursing students. **DISCUSSION/SIGNIFICANCE OF IMPACT:** The expected outcomes of this pilot study are: (1) an enduring GCP education that can be continually updated and training structure for CRNs, and nurses and nursing students throughout the United States; (2) a reproducible effective standardized basic nurse-specific GCP curriculum for dissemination; (3) assessment tools to evaluate programmatic success, nurse and nursing student knowledge and efficacy on nurse-specific GCP; (4) and a CTSA dissemination plan that to reach non-CTSA nurses and nursing students. Our ultimate goal is the development of a translational workforce educated and competent in GCP at CTSA sites, at non-CTSA sites, and in nursing schools so as to improve the quality of clinical research.

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Competency-based training program for Research Professionals

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OBJECTIVES/SPECIFIC AIMS: To increase knowledge and application of clinical research coordinator competencies among Research Professionals at the University of Minnesota. **METHODS/STUDY POPULATION:** The UMN's CTSA developed and piloted a Foundations for Research Professionals training program comprised of: a baseline assessment, 7 online modules, 4 in-person training sessions, video and reading assignments and a post assessment, which totaled 30–35 hours of training and covered the following topics: preparing for a study, study management, participant recruitment and engagement, assessing capacity to consent and the informed consent process. This course also provides valuable resources and connections to online references and materials. The competencies for this program were based on work of the Joint Task Force for Clinical Trial Competency. **RESULTS/ANTICIPATED RESULTS:** 30 clinical research professionals completed the pilot program and averaged an increase of 6.5% from baseline assessment to post assessment. Participants were asked to rate their confidence on a variety of role-based competencies at the time of preassessments and postassessments. Trends show an increase in confidence for all competency areas after completion of the training program. **DISCUSSION/SIGNIFICANCE OF IMPACT:** Developing a workforce of competent research professionals is integral to improve the efficiency, quality, and ethics of research. The Foundations for Research Professionals training program increased knowledge of clinical research coordinator competencies. We will assess impact on application of the competencies 6 months after completion of the program. Our next steps include offering the training program as a 2-week session on an ongoing basis for new coordinators at the University of Minnesota.

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Best practices for social and behavioral research: Developing a competency-based elearning course in good clinical practice

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OBJECTIVES/SPECIFIC AIMS: Existing GCP training is geared primarily towards researchers conducting drug, device, or biologic clinical trials, and largely ignores the unique needs of researchers conducting social and behavioral clinical trials. The purpose of this project was to develop a comprehensive,