Research partnership, community commitment, and the people-to-people for Puerto Rico (H2P24PUR)

Movement: Researchers and citizens in solidarity

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OBJECTIVES/SPECIFIC AIMS: Island communities face greater environmental risks creating challenges in their populations. A community and participatory qualitative research method aiming to understand community perspectives regarding the ecology and environmental risks of the island of Culebra was performed to develop a community-centered Information and Communications Technology (ICT) intervention (an app). The island of Culebra, a municipality from the archipelago of Puerto Rico is located 17 miles from the eastern coast of Puerto Rico’s main island. This ICT—termed mZAP (Zonas, Acción & Protección)—is part of a Translational Biomedical doctoral degree dissertation housed at the University of Rochester’s Clinical Translational Science Institute (CTSI) Informatics Core funded by an NIH Clinical Translational Science Award (CTSA). In September 2017, the island of Culebra faced 2 major category hurricanes 2 weeks apart. Hurricane Irma and Hurricane Maria destroyed homes, schools, health clinics, and local businesses, disrupting an already fragile ecological balance on the island. METHODS/STUDY POPULATION: These 2 storms catastrophically affected the archipelago of Puerto Rico. Culebra’s geographically isolated location, along with the inefficient response from authorities, exacerbated the stressors caused by these natural disasters, increasing the gap of social determinants of health, including the lack of portable water. Leveraging a community engagement partnership established before the hurricanes by the mZAP participatory research, which naturally halted once the hurricanes hit a new humanitarian objective formed to deliver aid. Along with another NIH funded RCMI Translational Research Network, or RTRN institution (University of Puerto Rico, Medical Science Campus) students and faculty, The Puerto Rico Testsite for Exploring Contamination Threats Program (PROTECT) an NIH-funded Grant program, and the National Guard, a “people to people approach” was established to ascertain needs and an opportunity to meet those needs. A people-to-people approach brings humanitarian needs, identified directly by the community to the people who need it most; without intermediaries and bureaucratic delays that typically occur during catastrophes. RESULTS/ANTICIPATED RESULTS: Seventy-five percent of participants, 185 of 247, completed the program. They had an average age of 44.2 ± 11.7 years, weight of 244.5 ± 15.4 pounds, and BMI of 41.3 ± 18.2. Fifty-seven percent were African American and 3% were Hispanic. The majority reported preexisting pain (83%), with an average of 3 ± 2.7 pain sites. Completers and non-completers did not differ by the total number of pain sites (p = 0.2). Having preexisting pain compared to no pain [odds ratio (OR) = 1.3; 95% confidence interval (CI): 0.5–3.4] and to the number of pain sites (OR = 1.0; 95% CI: 0.9–1.1) did not influence program completion after adjusting for the sole confounder, which was age. Likewise, we observed no association between limb/joint pain (OR = 1.1; 95% CI: 0.6–2.1) or back pain (OR = 0.9; 95% CI: 0.5–1.6) with program completion. The association of pain with completion was not modified by age. DISCUSSION/SIGNIFICANCE OF IMPACT: While pain is believed to be a barrier to improving engagement to drinkable water for the island. The success of this approach, People to People for Puerto Rico (H2P24PUR), demonstrated the importance of local businesses engagement—arising from a previous clinical research partnership—and true established commitment with members of the community. DISCUSSION/SIGNIFICANCE OF IMPACT: Research partnerships can (and should, when needed) lead to humanitarian partnerships that extend beyond research objectives. Research may subsequently be adapted based on new realities associated with natural disasters and the altered nature of existing partnerships, allowing for a rapid response to communities need. Further, H2P24PUR was not only able to channel a partnership humanitarian response but also created an opportunity to reflect on how the commitment between members of society and academia (researchers) can create beneficial bilateral relationships, always putting the community needs first. The resulting shared experience elevates community interest and engagement with researchers, and helps researchers see communities as true partners, rather than—simply—research subjects.

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Symptom endorsement in bipolar patients of African Versus European ancestry

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OBJECTIVES/SPECIFIC AIMS: Learning Objectives of this session: Identify possible reasons for misdiagnosis of bipolar patients of African ancestry by reviewing differences in symptom presentation between African American (AA) and European American (EA) bipolar individuals. Introduction: Bipolar disorder is a chronic mental illness with a lifetime prevalence of 1% and is associated with substantial personal and economic morbidity/mortality. Misdiagnosis is common in bipolar disorder, which can impact treatment and outcome. Misdiagnosis disproportionally affects racial/ethnic minorities; in particular, AA are often misdiagnosed with schizophrenia. There is interest in better understanding the contribution of differential illness presentation and/or racial bias to misdiagnosis. METHODS/STUDY POPULATION: Patients and Methods Utilizing the Genetic Association Information Network (GAIN) public database, this study compared clinical phenomenology between bipolar patients of African Versus European ancestry (AA = 415 vs. EA = 1001). The semi-structured Diagnostic Interview for Genetic Studies (DIGS) was utilized to evaluate individual symptom endorsement contributing to diagnostic confirmation. A $2^x$ test was used to compare group differences in DIGS harvested mania and psychosis sections, and overview of psychiatric medications. RESULTS/ANTICIPATED RESULTS: Results: The symptom of auditory hallucination was significantly more endorsed in AA bipolar patients than EA bipolar patients (57.9% vs. 36.1% EA, p < 0.0001). Conversely, the symptom of elevated or euphoric mood was significantly less endorsed in AA bipolar patients than in EA patients (94.6% AA vs. 97.5% EA, p = 0.027). AA, in comparison to EA bipolar patients, had a significantly higher prevalence of lifetime exposure to haloperidol (36.9% AA vs. 29.4% EA, p = 0.017) and fluphenazine (12.3% AA vs. 6.7% EA, p = 0.004). In contrast, AA, in comparison to EA bipolar patients, had a significantly lower prevalence rate of lifetime exposure to lithium (52.5% AA vs. 74.2% EA, p < 0.0001), and lamotrigine (13.7% AA vs. 35.6% EA, p < 0.0001). DISCUSSION/SIGNIFICANCE OF IMPACT: Conclusion: The higher rate of psychotic symptom endorsement and lower rate of core manic symptom endorsement represent differential illness presentation that may contribute to misdiagnosis in African-American bipolar patients. The higher rate of high potency typical antipsychotic treatment and lower rate of classic mood stabilizing treatment may also contribute poorer bipolar treatment outcome. While structured diagnostic interviews are the gold standard in diagnostic confirmation, this study is limited by lack of knowledge of clinician/expert interviewer interpretation of symptom endorsement which may contribute to symptom misattribution and misdiagnosis. Incorporation of additional African American participants in research is a critical future direction to further delineate symptom presentation and diagnosis to serve as validation for these results.

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The influence of health insurance stability on racial/ethnic differences in diabetes control and management

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OBJECTIVES/SPECIFIC AIMS: The aim of this study is to examine if stable health insurance coverage is associated with improved type 2 diabetes (DM) control and with reduced racial/ethnic health disparities. METHODS/STUDY POPULATION: We utilized EMR data (2005–2013) from 2 large, urban academic health centers with a racially/ethically diverse patient population to longitudinally examine insurance coverage, and diabetes outcomes (A1C, LDL cholesterol, BP) and...
The role of community in an evolving community-university pilot award program

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OBJECTIVES/SPECIFIC AIMS: To fulfill the Indiana Clinical and Translational Sciences Institute’s (Indiana CTSI) Community Health Partnerships (CHeP) mission of improving the health of Indiana residents through community-university partnerships, CHeP engaged with community partners to develop and implement a pilot award program for community-based participatory research, the Trailblazer Award (TA). The objective is to describe the engagement processes throughout the pilot program timeline and as the pilot program evolved over the 6-year period since the program started. METHODS/STUDY POPULATION: Though a process of engagement with community stakeholders, we assessed the process for each year of the TA, noting what changes occurred and how they occurred. Engagement for the TA process occurred during the following phases: RFA development, review, active project support, dissemination of project results, and project/ partnership follow-up. RESULTS/ANTICIPATED RESULTS: During the RFA development phase, we decided to focus the award on health equity for 5 years; and we implemented structural changes to encourage new partnerships in underrepresented and rural areas. During the review phase, we incorporated both community and university reviewers and co-moderators. To increase capacity among our reviewer pool, we offered webinars and repeated opportunities to serve as reviewers. During the project support phase, we added the following: community-based CITI training; opportunities for networking with peer awardee teams; and community and academic co-led sessions on addressing recruitment barriers, grant writing, and dissemination to a community audiences. Through our active engagement of the CHeP Advisory Board, one Board member (from Indiana State Department of Health) leveraged matching funds for the TA, effectively doubling the number of projects supported each year. DISCUSSION/SIGNIFICANCE OF IMPACT: Whereas previous work has reported on engagement during the review process of pilot award applications, we discuss ways to extend engagement to include other aspects of a pilot program both before and after the review process. In our process, several key partners offered insightful changes that have resulted in a more engaged program.

The value of storytelling in community stakeholder feedback for clinical and translational research

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OBJECTIVES/SPECIFIC AIMS: Community stakeholder engagement along the translational spectrum of biomedical research has been identified as a potentially crucial factor for encouraging participation among underrepresented groups, improving research relevance, and adoption of evidence into practice. Although we have developed various methods to improve communication between researchers and community stakeholders, we have not focused much attention on the manner by which community stakeholders choose to communicate with researchers in scientific feedback settings. In our PCORI funded study using Community Engagement Studios to elicit feedback on research from community stakeholders, we noted that feedback from participants was frequently provided in the form of stories. This presentation aims to describe these narratives, examine their function in the feedback process and consider how a focus on these narratives enhances our understanding of community engagement for clinical and translational research. METHODS/STUDY POPULATION: The present study comes from a larger randomized, controlled methodological study. We randomized 20 investigators seeking input on their research to either a Community Engagement Studio (a panel of community members or patients) or a Translational Studio (a panel of researchers). Any faculty member or research trainee at Vanderbilt University or Meharry Medical College was eligible to participate. Each Studio panel was convened to provide project-specific input. The 153 stakeholders who participated in CE Studios were patients, caregivers, or patient advocates identified by health status, health condition, or demographic variables based on the project-based needs of the 20 researchers randomized in this project. Stakeholders include individuals with diabetes, heart failure, Parkinson’s disease, sickle cell disease, and ICU survivors. All stakeholders had experience as a partner or consultant on a research project or through serving on a research advisory board or committee. All Studios were recorded and transcribed, and experienced qualitative researchers analyzed the data. For this paper, we focus on the narrative feedback in the form of stories elicited in the CE Studios. Using qualitative methods, we coded the transcripts from the 20 CE Studios to identify stories and their functions in the feedback. Stories were defined as narratives with (a) at least one actor (b) action that unfolds over time, and (c) a realization, destination, or conflict resolution (i.e., a point of change). For example, “On Sunday I found my pills were empty and on Friday I found the pillbox still completely full” would be a story, however, “my mother doesn’t take her meds correctly” would not. We coded the stories for how they facilitated communication in the Studio using an open-coding style, that is we did not apply a specific theoretical framework of interaction or communication. It was possible for any given story to have more than one code applied to it; that is they were not classified in a mutually exclusive way. RESULTS/ANTICIPATED RESULTS: We found 5 major functions of stories in the Studios. Basic sender-receiver functions were noted, including responding to queries and seeking mutual understanding. The other functions served to move or add to the conversation, including adding expansion and depth, characterizing abstract concepts, and providing context, with the latter being the most frequent function of stories. Stories provided context in a wide variety of dimensions, ranging from the context of the body to spatial and institutional contexts. These stories served to help others understand the speakers’ lived experiences. DISCUSSION/SIGNIFICANCE OF IMPACT: We often engage community members in research for their expertise with regards to their lived experiences as patients or community members, and for their experiences of healthcare and social determinants of health in particular community contexts. Yet we may expect them to share their expertise in a manner that is consistent with a scientific, explanatory framing and language. However, we know there is a difference in the way that professional researchers discuss research versus how community members discuss research. In our PCORI study, we found that our Community Studio participants relied on storytelling as an important means to communicate their lived experiences. Their stories were often key to communicating the complex contexts of their experiences. We focus on examining these narrative practices and their functions in how community members engaged with and provided advice to researchers. This understanding may help us in: (1) Characterizing the contexts, processes, and meanings associated with community stakeholder experiences that are otherwise difficult to access. (2) Identifying community priorities relevant to research that are embedded in community narratives to better align research priorities with community needs and to improve patient outcomes. (3) Collecting insights for improving the design of community engagement activities in research. (4) Harnessing more fully the potential of community engagement in research.

Tool to assess opportunities to augment health literacy and culturally responsive components of research design to enhance diverse engagement

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OBJECTIVES/SPECIFIC AIMS: The goals of this project are to: (1) Help research teams better understand, anticipate, and adapt research to address the needs of