

## **The Feasibility and Acceptability of Perturbation-Based Balance to Older Adults in Rural Communities**

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30-day reoperation and readmission rates. RESULTS/ANTICIPATED RESULTS: From 2015 to 2021, 327 DCM patients received surgery (227 Elective Cohort, 100 Call Cohort). Elective cohort was mainly female (48.0 vs 30.0%,  $p=0.002$ ) and white (72.7 vs 51.0%,  $p=0.0001$ ). Call cohort was mainly uninsured/covered by Medicare/Medicaid (78.0 vs 67.0%,  $p=0.04$ ), had higher SDI (68.0 vs 56.2,  $p=0.0003$ ), ADI (7.9 vs 7.2,  $p=0.009$ ), and cervical cord compression on MRI (78.0 vs 42.3% Grade III,  $p$  DISCUSSION/SIGNIFICANCE: Compared to DCM patients undergoing elective surgery, those admitted through the ED were more likely to be male, non-White, and socioeconomically disadvantaged, as measured by SDI and ADI. Postoperative outcomes were less favorable for these patients, including longer hospital stay, discharge disposition, and less Nurick grading improvement.

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### The effect of housing status (homelessness vs. housed) on naloxone administration among patients with opioid overdose assessed by emergency medical services: A prehospital cross-sectional review

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OBJECTIVES/GOALS: People experiencing homelessness vs. housed peers have higher rates of substance use disorders as well as increased emergency medical services (EMS) use. However, it is unknown if EMS administers naloxone at different rates to people experiencing homelessness. We address if patient housing status impacts naloxone administration by EMS providers. METHODS/STUDY POPULATION: We conducted a retrospective, cross-sectional analysis of electronic patient care reports (ePCRs) for all 911-incidents attended by the Los Angeles Fire Department (LAFD) during the study period, January to December 2018. Individuals who were medically assessed by the LAFD and who were administered naloxone by LAFD EMS were included. Exclusion criteria was incomplete ePCRs. The primary outcome was prevalence of EMS naloxone administration by housing status in the city of Los Angeles. We used descriptive statistics and a logistic regression model to examine differences in care. RESULTS/ANTICIPATED RESULTS: Naloxone was administered in 2,438 of the 345,190 incidents that occurred during the study period. 608 (25%) incidents involved people experiencing homelessness. Top indications for naloxone administration were similar in both groups: overdose, altered consciousness and cardiac arrest. Of those who received naloxone, people experiencing homelessness were more likely to be male (82% v 67%) and younger (41 v 46 years). People experiencing homelessness were more likely to receive naloxone (OR 2.6, 95% CI 2.4-2.9). People experiencing homelessness received naloxone at a rate of 44 times that of housed peers. A logistic regression model adjusting for gender, age, respiratory depression and transport status showed people experiencing homelessness remained more likely to receive naloxone (OR 2.3, 95% CI 2.0-2.5). DISCUSSION/SIGNIFICANCE: Emergency medical services are more likely to administer naloxone to people experiencing homelessness than housed peers. There is a need to identify bias and factors that impact prehospital care and patient outcomes of people experiencing homelessness.

New care pathways for people confronting homelessness and opioid use disorders are needed.

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### The Feasibility and Acceptability of a Remote Glucose Monitoring Program for Pregnant Marshallese Women with Pre-Gestational and Gestational Diabetes\*

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OBJECTIVES/GOALS: The objective of the study is to test the feasibility and acceptability of a remote glucose monitoring program for pregnant Marshallese women with pre-gestational (PGDM) or gestational diabetes (GDM) without excluding women with limited English proficiency. The study will explore changes in patient-physician communication and self-efficacy. METHODS/STUDY POPULATION: Twenty Marshallese pregnant women with PGDM or GDM will be identified for recruitment. The patient will meet with a bilingual staff member to explain the study and provide consent. At enrollment, patients will complete an enrollment survey and be provided with the iGlucose monitor and receive training its use. Their provider(s) will receive access to their patient's online portal for monitoring. At 14 days postpartum patients will receive a post-intervention survey and invitation to participate in interview, and their provider(s) will receive a satisfaction survey for the remote monitoring program. RESULTS/ANTICIPATED RESULTS: We hypothesize that the use of a remote glucose monitoring intervention is feasible and acceptable for Marshallese women with PGDM or GDM. Further, we hypothesize that the remote glucose monitoring program will increase satisfaction with physician-patient communication and will increase self-efficacy with glucose management. We anticipate that providers will find the program feasible and acceptable for use with the Marshallese population. DISCUSSION/SIGNIFICANCE: RPM technology can transform the way PGDM and GDM are managed. RPM may have greater benefits when there is a lack of language concordance by providing more time for patient-provider communication, thereby improving patient satisfaction and decreasing the risk of negative outcomes for Marshallese women.

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### The Feasibility and Acceptability of Perturbation-Based Balance to Older Adults in Rural Communities\*

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OBJECTIVES/GOALS: Older adults in rural communities are at an elevated risk of falling. Perturbation-Based Balance Training (PBT) is a highly effective fall prevention paradigm but its feasibility in the community is unknown. The purpose of this study was to determine the feasibility and acceptability of PBT to older adults and local clinicians in rural communities. METHODS/STUDY POPULATION: 19 older adults (60+ years) were recruited from communities in rural Montana to take part in a PBT program. The PBT program was implemented using a bespoke portable PBT treadmill developed by our research team and validated against commercial PBT treadmills. To increase ecological validity, the program was implemented by local clinicians. The PBT

program lasted 6 weeks, with 1 session per week, participants received up to 35 trip perturbations per session. The feasibility and acceptability of PBT to participants and clinicians was assessed within the Theoretical Framework of Acceptability, prospectively and retrospectively via interviews and surveys, and concurrently via field notes. **RESULTS/ANTICIPATED RESULTS:** Data analysis is ongoing and will be complete by the time of presentation. Preliminary results suggest the portable PBT program was generally acceptable to older adults and local clinicians. Perceived effectiveness was generally positive and increased balance awareness and low burden are emerging as common themes. Local clinicians indicated the burden of implementing PBT was low, PBT fit within their views on fall prevention, and had a high level of perceived effectiveness. There appear to be a few limitations to feasibility, which are primarily related to the weight and transportation of the treadmill. We are currently working to refine the treadmill and lower its weight and are developing a grant with local clinicians and extension agents that would facilitate transportation to a broader network of communities. **DISCUSSION/SIGNIFICANCE:** Our preliminary findings suggest PBT is feasible in rural communities and accepted by older adults. Increased balance and fall awareness and low burden are emerging as important factors in the feasibility and acceptability of PBT. This study provides a foundation for future studies to translate other PBT modalities from the lab to the community.

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### **The History of PACER (Partners for the Advancement of Community Engaged Research) as a Special Interest Group of ACTS**

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**OBJECTIVES/GOALS:** To outline the successes of Partners for the Advancement of Community Engaged Research (PACER), a Special Interest Group (SIG) of ACTS, created to bring together academic and community researchers to promote best practices, contribute to science and form collaborative networks to improve public health through community research and dissemination. **METHODS/STUDY POPULATION:** Developed from the CTSA Key Function Committee, PACER began monthly meetings in early 2015. Zoom replaced teleconference technology for the initial email list of about 100 people from 50 institutions which has grown to 225 members from 88 affiliates. Meeting attendance is 40 to 50. PACER meetings start with operational updates and member announcements (15 minutes), proceed to presentations (20-25 minutes), followed by Q & A and discussion (20 minutes). A subset of members functions as an Operations Workgroup, meeting monthly to discuss emerging issues and guide the group's activities. Email traffic is intentionally limited to one or two messages a month, including meeting announcements. **RESULTS/ANTICIPATED RESULTS:** PACER meetings have included 65 presentations. Featured speakers have described local community engaged research, explored methodology, and talked about diversifying the workforce, ethics, programs and partnerships. PACER members have collaborated on three manuscripts published in the Journal of Clinical and Translational Science; one with 50 members and 20 institutions contributing. Additionally, PACER members obtained two federal grants,

including a network to recruit underrepresented scientists and diverse participants for the All of Us precision medicine effort. These projects totaled \$23.5M in funding and involved 9 CTSA hubs. Measuring the value of ongoing dialogue and promulgation of successful practices through presentations has proven challenging. **DISCUSSION/SIGNIFICANCE:** ACTS support helps PACER SIG members share research interests, develop papers and proposals, and archive meeting materials on the SIG webpage. Beginning with Translational Science 2018, the in-person PACER meeting is a much-anticipated opportunity to meet colleagues and foster new collaborations, and is a critical addition to the PACER calendar.

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### **The impact of the COVID-19 pandemic on stress, substance use, and teen dating violence among young adult women in Baltimore City**

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**OBJECTIVES/GOALS:** Social distancing practices during COVID-19 may impact experience of stress, substance use and violence exposure. This study aims to describe the effect of the COVID-19 stay-at-home orders on stress, substance use, and teen dating violence (TDV) among young women living in Baltimore City. **METHODS/STUDY POPULATION:** Study participants were recruited from an observational study examining TDV before the COVID-19 pandemic, through snowball sampling, pediatric and adolescent primary care clinics, the pediatric emergency department, and a registry for patients interested in participating in COVID-19 research. Participants were between the ages of 16 and 22, identified as female, and lived in Baltimore, Maryland. They were asked to complete a baseline survey. March 16, 2020 (Maryland governor's stay-at-home order) through June 2022 defined the COVID-19 pandemic period. The survey assessed stress experiences, including isolation, finances, job loss, transportation, school stress, substance use, experiences of violence and adherence to COVID-19 safety measures. We conducted descriptive and bivariate analyses. **RESULTS/ANTICIPATED RESULTS:** Participants (n=105) had a mean age of 19.4 years (SD 1.73). Preliminary analyses demonstrate that stress associated with isolation, finances, transportation, and school increased during the pandemic compared to pre-pandemic. In addition, the majority of participants who used marijuana, e-cigarettes, and alcohol used about the same amount or more of each substance during the pandemic. For the next steps, we will examine experiences of TDV for young women during the pandemic and examine whether experiences of TDV differ for young women who reported a greater adherence to COVID-19 safety measures compared to participants who adhered less. **DISCUSSION/SIGNIFICANCE:** Assessing the impact of COVID-19 safety measures on stress, substance use, and TDV is critical to informing and designing future public health interventions. In addition, the information obtained from this study may be used to address the unique challenges faced by disenfranchised populations while curbing the spread of infectious diseases.