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Fall Risk Screening and Referrals to Community-Based Programs among Physical Therapy Professionals

Jennifer L. Vincenzo¹, Tiffany Shubert², Jennifer S. Brach³, Jennifer Trippen⁴, Lori Schrodt⁵, Jennifer C. Sidelinek⁶, Patrice Hazan⁷, Colleen Hergott⁸, Kathleen Shirley⁹, and Beth Rhorer¹⁰

¹University of Arkansas Translational Research Institute; ²Academy of Geriatric Physical Therapy; ³University of Pittsburgh; ⁴National Council on Aging; ⁵Western Carolina University; ⁶Genesis Healthcare; ⁷GroupHab Physical Therapy; ⁸Augusta University; ⁹Texas Women's Univeristy; ¹⁰Centreville Physical Therapy

OBJECTIVES/GOALS:

- To describe trends in fall risk screening and referrals to community-based programs among physical therapy professionals.
- To compare fall risk screening practices to clinical practice guidelines among
- To identify gaps in fall risk screening and referrals to community-based programs among physical therapy professionals.

METHODS/STUDY POPULATION: A panel of experts between the American Physical Therapy Association (APTA) - Geriatrics, and the National Council on Aging (NCOA) developed a web-based survey to identify practices among physical therapy professionals (PTs) for fall risk screenings and community-based referrals for older adults. The web-based survey was disseminated to PTs via email, e-blasts, and social media. The survey focused on questions related to knowledge of fall risk screening tools, fall risk management for older adults, and knowledge of and referrals to community-based interventions. **RESULTS/ANTICIPATED RESULTS:** To date, 453 PTs representing 50 states completed the survey. The majority of PTs (50.9%) had over 20 years of experience in various settings. Eighty-three percent regularly screen older adults for fall risk. Approximately 40% conduct community-based screenings. The majority (81.3%) were somewhat to very familiar with the CDC-recommended STEADI (Stopping Elderly Accidents, Deaths, and Injuries) screening toolkit. Despite familiarity, only 32% responded to the question if they used STEADI for screening. Of those, 83.4% used the tool. The majority (73.4%) of PTs were aware that NCOA recommends evidence-based programs to address health needs of aging adults and 59.6% refer. PTs did not refer due to lack of knowledge that programs existed (21.3%) or lack of knowledge of availability (33.3%). **DISCUSSION/SIGNIFICANCE OF IMPACT:** Although PTs are have some familiarity with the STEADI for fall risk screening, the tool is not common in practice. PTs are lacking awareness of local evidence-based community programs to address health needs of aging adults. Educational efforts should target these knowledge gaps and provide additional resources to improve referrals.

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Fostering a learning environment to train and support versatile scientists who integrate science into real world operations of complex, dynamic health and public health systems

Tony Kuo¹, Moira Inkelas, PhD, MPH², Onyebuchi A. Arah, MD, PhD, MPH², and Vladimir G. Manuel, MD, MS³

¹David Geffen School of Medicine at UCLA; ²UCLA Fielding School of Public Health; ³UCLA Health

OBJECTIVES/GOALS: The UCLA Clinical and Translational Science Institute's Population Health Program is creating versatile

scientists who can solve population health problems. This means building learning capability in health care and public health agencies, and fostering a cross-sector, outcomes-based, regional ecosystem for implementation and improvement. **METHODS/STUDY POPULATION:** A synthesis of achievements and lessons learned reveals the Program's trajectory. It maps progress in science leading to sustainable interventions for target populations. PHP goals are predicated on networked team science, rather than disorganized assortment of individual studies and interventions, and emphasize design, modeling and iteration. Evolving metrics include network analysis to document collaborative impact; extent of integrating real-world application into systems science and learning system curriculum; legislative and institutional policies developed and adopted; evidence of system orientation, cross-sector focus, and implementation research in scientists' portfolios; and demonstration of population health impact. Barriers offer the opportunity for iteration and improvement. **RESULTS/ANTICIPATED RESULTS:** The PHP has progressed in its envisioned shared university-public health stewardship of translation and transformation. Milestones included galvanizing activities such as annual regional dissemination, implementation, and improvement (DII) symposia and Public Health Science Summits; pre- and post-doctoral experiential learning of system science and learning system methods based in Los Angeles County Health Agency initiatives; development of a regional CTSA network for implementation science training; strengthened public health policy practice (e.g., establishing a new Office of Youth Diversion and Development); learning healthcare system capability; and prototypes of population learning systems focused on hypertension, food insecurity, tobacco/vaping, and complex care management. **DISCUSSION/SIGNIFICANCE OF IMPACT:** PHP is committed to advancing science for population health. Prototypes were an essential initial phase. New areas include use of methodological advances (e.g., artificial intelligence, rapid assessments) in health and public health systems; an academic home for full-time, population-focused clinicians; and social policy innovations.

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Frequency and patterns of polysubstance use among adults: Findings from a Focus Group that guide development of rodent models for translational research

Deepthi S Varma, PhD¹, Yiyang Liu², Catherine Striley², Barry Setlow², Lori Knackstedt², and Linda B. Cottler, PhD, MPH, FACE¹

¹University of Florida Clinical and Translational Science Institute; ²University of Florida

OBJECTIVES/GOALS: To explore the patterns, sequence, quantity, frequency and duration of poly substance use among adults for back translation of information to rodent models. **METHODS/STUDY POPULATION:** From May –December 2019, we conducted 13 focus group discussions with adults 19 to 63 years of age who reported concurrent use of cocaine with alcohol and/or marijuana in the past 30 days. All participants were recruited from the community through community outreach activities. Written informed consent was obtained and all focus group discussions were audio recorded, transcribed and analyzed using the qualitative data analysis software Atlas Ti™. **RESULTS/ANTICIPATED RESULTS:** A total of 34 cocaine users, (68% male, and 59% minority) participated. The majority reported cocaine as the drug of preference, while marijuana and alcohol were used to extend or control the 'highs', or 'to take the edge off' after cocaine use. All participants reported when they used alcohol with cocaine, they could keep drinking a large amount of

alcohol without feeling its effect. Participants also reported using marijuana throughout the day while driving, at work, or in class. Frequent patterns noted for the study included using two drugs at the same time or right before or after each other with alcohol used throughout the day. Participants also gave feedback on our Poly Substance Use (PSU) assessment that captures exact patterns so that the most common can be translated for the rodent models. DISCUSSION/SIGNIFICANCE OF IMPACT: Our focus group discussions provided detailed information on patterns, sequence, quantity, and types of poly substance use that could be useful for developing a poly substance use assessment in the collection of data for rodent models to understand effects of poly substance use.

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Frequent emergency department use among homeless individuals seen in emergent care: High risks of opioid-related diagnoses and adverse health services utilization outcomes

Ayae Yamamoto¹, Lillian Gelberg, MD, MSPH², Yusuke Tsugawa, MD, PhD², Gerald Kominski, PhD², and Jack Needleman, PhD²

¹David Geffen School of Medicine at UCLA; ²UCLA Fielding School of Public Health

OBJECTIVES/GOALS: Using multi-state discharge data, to identify predictors of frequent emergency department (ED) use among the homeless patients seen in emergent care, and to compare frequent versus less frequent homeless ED users for their risk of serious health services utilization outcomes. METHODS/STUDY POPULATION: Based on the State Emergency Department Database and the State Inpatient Database, homeless individuals (n = 88,541) who made at least one ED visit in four states (Florida, Maryland, Massachusetts, and New York) in 2014. In this retrospective cross-sectional analysis, patient-level demographic and clinical factors were assessed as predictors for increased ED use. Risks of opioid overdose, opioid-related hospital admission/ED visit, in-hospital mortality, mechanical ventilation, and number of hospitalizations were compared between individuals with 4 or more vs. 2-3 vs. 1 ED visit(s), adjusting for potential confounders including hospital fixed effects (allowing for within hospital comparisons). RESULTS/ANTICIPATED RESULTS: Higher rates of ED use were associated with Medicare coverage <65; primary diagnosis of alcohol abuse, asthma, or abdominal pain; and co-morbidity of alcohol abuse, psychoses, or chronic pulmonary disease. Individuals with ≥4 visits had significantly higher adjusted risk of opioid overdose (3.7% vs. 1.2% vs. 1.0%), opioid-related hospitalizations/ED visits (17.9% vs. 8.5% vs. 6.6%), mechanical ventilation (9.8% vs. 7.0% vs. 4.7%), and greater # of hospitalizations (3.2 vs. 1.3 vs. 0.8) compared to individuals with 2-3 or 1 ED visit. Individuals with ≥4 and 2-3 ED visits had similar but increased risks of in-hospital mortality compared to individuals with 1 ED visit (2.8% vs. 2.8% vs. 2.3%). DISCUSSION/SIGNIFICANCE OF IMPACT: Homeless patients who were high ED users were more likely to be hospitalized and have other adverse outcomes. These findings encourage targeted interventions (i.e. housing) for the high-utilizer homeless population to reduce the burden of serious outcomes and costs for the patient and society.

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Health and HIV: Weight status associations with multiple co-morbidities

Kierra Renee Butler¹, Faye R. Harrell, MSN, CRNP, Jeffrey Robinson, PhD, Bridgett Rahim-Williams, PhD, MA, MPH, and Wendy A.

Henderson, PhD, MSN, CRNP

¹National Institutes of Health

OBJECTIVES/GOALS: Highly Active Antiretroviral Therapy (HAART) is beneficial for managing HIV infection, however the long-term use of HAART may be problematic for healthy weight maintenance. The aim of the study was to investigate the association of race, weight status, and co-morbidities among individuals with HIV. METHODS/STUDY POPULATION: Self-reported data from 283 participants who completed the Symptom Checklist, the Co-Morbidity Questionnaire, and the Sociodemographic Questionnaire were included in the data analyses. Data were analyzed using Latent Class Analysis on JMP 13. Approximately 50% of participants self-identified as Black, 69% as male, and 35% as having AIDS. Participants' age ranged from 25 to 66 years (mean age = 43.70 years, SD = 8.14). Participants were grouped by race (self-reported Black or non-Black), and then each group was clustered based on the top three most prevalent symptoms. The clusters identified were least symptomatic, weight gain, and weight loss. RESULTS/ANTICIPATED RESULTS: The non-Black weight gain cluster reported a higher incidence of AIDS (70.6% vs 38.2%), nausea (70.6% vs 17.6%), diarrhea (70.6% vs 26.5%), and shortness of breath (58.8% vs 20.6%) compared to the Black weight gain cluster. The Black weight loss cluster reported a higher incidence of cardiovascular symptoms including chest palpitations (42.2% vs 2.7%), chest pain (44.4% vs 8.1%), and shortness of breath (73.3% vs 35.1%) and a higher incidence of all GI symptoms with the most prominent being diarrhea (71.1% vs 48.6%) compared to the non-Black weight loss cluster. DISCUSSION/SIGNIFICANCE OF IMPACT: Future studies supporting these results will assist practitioners to target treatments that may prevent adverse health outcomes for individuals with HIV on HAART. Further studies will also assist with setting standards that allow practitioners to provide personalized care for individuals with HIV on HAART.

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Heart Transplant Candidates Listed at Low First-Offer Organ Acceptance Rate Centers are More Likely to Die Waiting

Ashley Y Choi¹, Michael S. Mulvihill², Hui-Jie Lee³, Congwen Zhao³, Maragatha Kuchibhatla³, Jacob N. Schroder², Chetan B. Patel², Christopher B. Granger², and Matthew G. Hartwig²

¹Duke University; ²Duke University Medical Center; ³Department of Biostatistics, Duke University

OBJECTIVES/GOALS: We sought to examine: 1) variability in center acceptance patterns for heart allografts offered to the highest-priority candidates, 2) impact of this acceptance behavior on candidate survival, and 3) post-transplantation outcomes in candidates who accepted first rank offer vs. previously declined offer. METHODS/STUDY POPULATION: In this retrospective cohort