With an average time lag of 17 years between intervention development and translation into practice, the traditional intervention research pipeline is inadequate. Beyond intervention research, numerous industries increasingly recognize the importance of user-centered design and the need to consider scale and sustainability early and repeatedly. HEARS, a community-delivered, affordable, accessible hearing care intervention for older adults with hearing loss, provides an example of how social design and social entrepreneurship can be integrated into the ongoing study of a behavioral intervention in an attempt to accelerate the pipeline. Beginning with intervention development, the Baltimore HEARS study incorporates a social designer within the research team to co-create training manuals, curriculum materials, and program aids. Continuing the design process, the social designer observes materials in use to inform further iterations to enhance implementation and remains an active study team member. In parallel with the Baltimore HEARS study, the principal investigators established a nonprofit social enterprise to deliver the intervention in a real-world context and test its sustainability and scalability. Our experiences thus far with integrated social design and a start-up social enterprise, alongside a multi-site community-based randomized controlled trial, inform the intervention research pipeline and provide insights into the challenges and opportunities for investigators seeking to accelerate the pipeline with the ultimate goal of lasting impact.

CHANGES IN PHYSICAL ACTIVITY ASSOCIATED WITH A NOVEL HEALTH AND WELLNESS PROGRAM FOR AT-RISK OLDER INDIVIDUALS

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Declines in moderate-to-vigorous physical activity (MVPA) is associated with increasing age, even though older adults have similar recommendations as those aged 18–64. Adults should engage in at least 150 minutes of moderate or 75 minutes of vigorous (or a combination MVPA) physical activity every week to have health-related benefits and help avoid costly preventable medical care. We examined the associated pre/post changes in MVPA (objective accelerometer-based measurement n=38) among adults engaging in a novel evidence-based program targeting community-dwelling middle-aged and older adults. The intervention was a 20-session (approximately 2 sessions/week) group-based class in in-class exercise and education included. Two timepoints were examined: baseline and immediate post intervention (the week following the last session of the intervention). Mean age of the accelerometer subgroup was 72 (range: 60–88) with 65% having two-or-more chronic conditions (comorbidities) with mean baseline minutes of MVPA at 140 minutes and immediate post minutes of MVPA at 165. When restricting the sample to those not meeting the recommended dose at baseline (<150 minutes of weekly MVPA), there was a mean of 51 minutes at baseline and 90 minutes at immediate post (chi2 test: moderate effect size 0.4727, p=0.0210) indicating higher MVPA was found for intervention participants with <150 weekly MVPA at baseline. Novel interventions are needed to combat physical activity declines in older age, especially among those at-risk individuals failing to meet the recommended weekly minutes of MVPA. Interventions such as community-based health/wellness programs are one of many critical aids in this effort.

CHANGES OF GRIP STRENGTH AND COGNITIVE FUNCTION AND ITS ASSOCIATION AMONG CHINESE MIDDLE-AGED AND OLDER ADULTS

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Grip strength has been proven as a means of monitoring progression of cognitive decline. There lack studies providing evidence about the association among Chinese population. Thus, this study aimed to examine the association between grip strength and cognitive function among middle-aged and older adults in the aging process. Data collected by the China Health and Retirement Longitudinal Study (CHARLS) between 2011 and 2015 was analyzed. After following up in 2013 and 2015, a number of 6954 participants was included in this study. The study found statistically significant changes of the grip strength (range from 32.7 to 30.2 kg, F=121.78, p<0.001), the abilities of Words Recall (range from 3.32 to 3.24, F=5.75, p=0.003) and Draw a Figure (range from 74.26% to 68.75%, γ2=43.618, p<0.001). The decline of the grip strength was significantly associated with the ability of Draw a Figure (Coef.=0.942, p<0.001) and Telephone Interview of Cognitive Status (TICS) (Coef.=0.218, p<0.001). The association between grip strength and cognitive function was also observed among males and females separately. The findings indicate that the change of grip strength could be a potential predictor of two types of cognitive functions, which are memory (tested by Words Recall) and Visual-Spatial ability (tested by Draw a Figure). In addition, the changes of grip strength by the type of gender showed significant association with the ability of orientation and calculation (tested by TICS).

DIAGNOSIS WITH TYPE 2 DIABETES AND CHANGES IN PHYSICAL ACTIVITY AMONG MIDDLE-AGED AND OLDER ADULTS IN THE U.S.


Physical activity (PA) is an effective strategy for diabetes management and is central to the diabetes regimen. However, many older adults with type 2 diabetes (DM2) do not engage
in regular PA. This is the first study to examine diagnosis-related transitions in PA among a population-based sample of middle-aged and older-adults in the U.S. We examined associations between PA changes and DM2 diagnosis among 2,394 participants aged 51+ in the Health and Retirement Study diagnosed with DM2 between 2006–14. PA was measured with metabolic equivalents of task (MET) estimated values accounting for vigor and frequency of self-reported PA. Piecewise mixed models were centered at diagnosis to examine changes in MET values and rate of decline in METs over time. We then tested whether these changes differed by age at diagnosis, race/ethnicity, gender, or education. PA declined as participants aged. DM2 diagnosis was followed by a significant increase in METs (0.50 MET, SE: 0.20, p<0.05), suggesting diagnosis-related increases in PA. Following diagnosis, the rate of PA decline steepened slightly but the change in slope was not significant. PA declines after diagnosis were significantly moderated by age and by race/ethnicity, with more pronounced declines among participants diagnosed at a relatively older age and by non-Hispanic white participants compared to African American, Hispanic/Latino, and other participants. Future research in this area should examine the underlying reasons for changes in PA behaviors in response to diagnosis events to inform clinical and community intervention strategies to improve disease-related outcomes of older adults over time.

EARLY EVIDENCE FROM SOUTH CAROLINA’S MEDICARE-MEDICAID DUAL-ELIGIBLE FINANCIAL ALIGNMENT INCENTIVE PROGRAM

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This study aims to assess characteristics of dual eligibles who participated in South Carolina’s 2015 voluntary Medicare-Medicaid financial alignment demonstration project, and to evaluate whether their participation led to better health outcomes. All inpatient and emergency department (ED) visits, and all Medicaid outpatient visits from 2011 to 2016 were obtained from South Carolina’s Revenue and Fiscal Affairs Office. We employed logistic regression to assess the characteristics of participants and quitters in the demonstration project. To evaluate the impact of participation on health outcomes, we used an event study analysis and difference-in-differences. We included all all-payer ED and inpatient records, as well as all Medicaid outpatient records of patients who were dually eligible from 2011 to 216. We found that patients with higher Charlson comorbidity indices were less likely to join, and more likely to quit. Those who joined did not appear to enjoy better health outcomes, including avoidable ED admissions and avoidable inpatient admissions. In conclusions, South Carolina’s demonstration project may require further refinement to encourage enrollment and achieve its stated purpose of reducing avoidable ED and inpatient admissions.

EVALUATION OF HOWARD COUNTY’S JOURNEY TO BETTER HEALTH PROGRAM

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Journey to Better Health (J2BH), funded by Howard County Health Department, is an innovative health education and social support program that builds partnerships with Faith Based Organizations (FBOs) to empower congregants better manage/prevent chronic diseases and reduce hospitalizations. J2BH offers evidence-based chronic-disease prevention and self-management classes such as National Diabetes Prevention Program (NDPP), Hype Down and Chronic Disease Self-Management Program (CDSMP). Enrollees are paired with volunteer community companions for social support. J2BH evaluation assessed program effectiveness and identified strategies for program improvement. Changes in enrollees’ health and behavioral outcomes were quantitatively assessed by exploring trends and associations using pre- and post-program data. Interviews with enrollees, community companions and program staff identified program barriers and facilitators. J2BH signed covenants with 9 FBOs in the first 18 months and screened 426 congregants for eligibility. Of those screened, 62% were pre-diabetic, 68% pre-hypertensive/hypertensive and 75% overweight/obese. 10% of eligible congregants enrolled in NDPP, 9% in Hype Down and 4% in CDSMP. Participants improved health outcomes at program completion. 82% of Hype Down enrollees had a reduction in blood pressure levels. 76% of NDPP enrollees reduced/maintained weight, for an average reduction of 3.6%. For CDSMP, Body Mass Index and blood pressure levels showed improvement. All three groups reported improved self-efficacy. Promising practices included leveraging Howard County General Hospital resources, categorizing FBO partnership levels and customizing outreach and services based on need. Recommendations for process improvement included improved advertising, additional ways to motivate program participation, expanding staff size, and refresher/online training for community companions.

EVALUATION OF THE BEHAVIORAL HEALTH INITIATIVE FOR OLDER ADULTS AND PEOPLE WITH DISABILITIES IN OREGON

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The State of Oregon is addressing service gaps through the Behavioral Health Initiative for Older Adults and People with Disabilities, which involves twenty-four Behavioral Health Specialists (BHS) working throughout the state. This poster presents findings from an ongoing evaluation of this Initiative using three data sources focusing on the primary functions of BHS: coordination and collaboration with community stakeholders, complex case consultation (CCC), and workforce development. First, stakeholders completed surveys in 2017 (N=234) and 2018 (N=387), assessing the state of services and impact of the Initiative. Second, BHS began documenting consumer issues and outcomes for each CCC in September 2017. Pilot data from consultations (N=175) revealed myriad issues experienced by older adults and people with disabilities, the most common included: ADL/functional limitations (40%), complex and/or co-occurring medical conditions (36%), and unresolved medical needs (22%). Third, to evaluate trainings organized by BHS throughout the state, we used a two-part survey: an initial post-training survey to measure effectiveness and a 2-month follow-up survey to measure how participants...