behavior. Based on the findings from 16 facilities with 158 residents who have completed the study, both quantitative and qualitative data indicate the positive effects on residents, including improved sleep and mood, as well as reduced agitation. The challenges in implementing intervention research in nursing facilities during the COVID-19 pandemic and the principles of telehealth and virtual support for facilities that were used to address those challenges will also be discussed.

## Session 2390 (Paper)

# **Disasters and Aging**

#### CHALLENGES AND STRATEGIES TO MAINTAIN FIDELITY TO THE MIRROR-TCM INTERVENTION DURING THE COVID-19 PANDEMIC

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Randomized clinical trials (RCTs) have demonstrated that the multicomponent Transitional Care Model (TCM), an advanced practice registered nurse-led, team-based, care management strategy improves outcomes for older adults transitioning from hospital to home. However, healthcare systems' adoption of the model has been limited. A multisystem, replication RCT (MIRROR-TCM) enrolling older adults hospitalized with heart failure, chronic obstructive pulmonary disease or pneumonia began in February 2020 just as the outbreak of COVID-19 in the U.S. dramatically changed the healthcare and research landscape. The goal of this qualitative descriptive study is to explore the impact of COVID-19 on fidelity to the TCM intervention during this clinical trial. Using directed content analysis, recorded monthly meetings with health system leaders and staff were coded to identify challenges and strategies to maintaining fidelity to the intervention in the context of the pandemic. Analyses showed that COVID-19 impacted all 10 TCM components. The components with the most challenges were delivering services from hospital-to-home due to guarantining, restrictive facility policies, lack of personal protective equipment and limited telehealth availability; coordinating care due reduced availability of services, and screening at risk individuals because of fewer eligible patients. Strategies for addressing challenges included: exploring alternatives (e.g., increasing reliance on telehealth, expanding study eligibility), building and engaging networks (e.g., direct outreach to skilled nursing facility staff) and anticipating needs (e.g., preparing for shorter hospital stays). Findings highlight the importance of monitoring the contextual challenges to implementing an evidence-based intervention and actively engaging partners in identifying strategies to achieve fidelity.

# CHANGES IN MODIFIABLE HEALTH BEHAVIORS DURING THE PANDEMIC AND EFFECTS ON MENTAL HEALTH: EVIDENCE FROM ENGLAND

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COVID-19 mitigation efforts (including lockdowns and advice to stay at home as much as possible) are likely to have resulted in changes in health behaviours such as the amount of sleep, physical exercise, alcohol use, and eating. To date, little is known about how and to what extent these changes in health behaviours since the beginning of the pandemic are related to mental health. Using pre-pandemic data from Wave 9 (2018/19) and from two Covid-19 sub-studies (with data collection in June/July and November/December 2020) of the English Longitudinal Study of Ageing, we investigate how changes in health behaviour during the initial months of the pandemic are associated with subsequent mental health among older people. In our regression analyses, we considered depression and anxiety and controlled for pre-pandemic measures of mental health. Between March and June/July 2020, about a third of older people reported less physical activity; one in five less sleep; and one in ten eating less food and drinking more. Compared to respondents who did not change their behaviours, those who reported sleeping and eating both more and less, and who mentioned less physical activity were more likely to report depression and anxiety, even taking into account pre-pandemic mental health. An increase in drinking was also marginally associated with higher depression. Policymakers should encourage older people who have engaged in unhealthier behaviours to modify them to reduce the negative long-term effects on their mental health.

## IMPACT OF COVID-19 MORTALITY ON U.S. LIFE EXPECTANCY BY SOCIOECONOMIC RANK OF COUNTY OF RESIDENCE

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Mortality disparities due to COVID-19 pandemic in the US accentuated the gap in the targeted public health and education response among disadvantaged communities. We use county data from John Hopkins University of Medicine in conjunction with county socioeconomic decile rankings, and weekly national data from the Centers for Disease Control to uncover the impact of county-level socioeconomic deprivation on the spatio-temporal dynamic of COVID-19 mortality. We estimate that over the course of 2020, the pandemic reduced the life expectancy at birth by 1.33 years (95% CI 1.0-1.56), and by 0.84 years (95% CI 0.59-1.0) by age 85 across all county SES decile groups, relative to the previous year's projection. The highest losses occurred in counties at the ends of the deprivation spectrum, and least affecting those in its middle. Decomposition of the impact of the COVID-19 mortality by seasonal time periods of 2020 reveals that coastal urban and high-SES counties endured a heavy death toll in the initial stages of the pandemic, though managed to cut it by more than a half by the end of 2020. The least affluent, inland, and rural counties have experienced a dramatic and lasting increase in deaths toward the second half of the year. We find that preexisting socioeconomic disparities before COVID-19 remained in force during the pandemic, leaving populations at all ages residing in underserved communities at a greater risk. This both calls into question and further instructs the ongoing public health interventions enabling more effective and equitable infectious disease mitigation strategies.