

PHASE 2B STUDY OF AN AD26.RSV.PREF VACCINE FOR PREVENTION OF RSV-MEDIATED RESPIRATORY TRACT DISEASE IN OLDER ADULTS

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Respiratory syncytial virus (RSV) may cause serious lower respiratory tract disease (LRTD) in older adults, and there is currently no licensed vaccine. CYPRESS (NCT03982199) is a randomized, double-blind, placebo-controlled Phase 2b proof-of-concept trial of an Ad26.RSV.preF-based vaccine for the prevention of RSV-mediated LRTD in older adults. Adults aged ≥ 65 years were randomized 1:1 before the RSV season to receive Ad26.RSV.preF-based vaccine or placebo. Acute respiratory infection symptoms were collected through a patient eDiary and/or clinician assessment until the end of the RSV season. The primary endpoint was the first occurrence of RTPCR-confirmed RSV-mediated LRTD according to any of 3 case definitions: (1) ≥ 3 symptoms of lower respiratory tract infection (LRTI), (2) ≥ 2 symptoms of LRTI, or (3) ≥ 2 symptoms of LRTI or ≥ 1 symptom of LRTI with ≥ 1 systemic symptom. Immunogenicity was assessed in a subset of approximately 200 participants. A total of 2891 participants in each study arm received study treatment. Vaccine efficacy was 80% (94.2% CI, 52.2-92.9%), 75% (50.1-88.5%), and 69.8% (43.7-84.7%) for case definition 1, 2, and 3, respectively (all $P < 0.001$). In the vaccine arm, geometric mean fold increase in antibody titers 14 days after vaccination was 13.5 for RSV neutralizing antibodies and 8.6 for RSV prefusion F-specific binding antibodies, and median frequency of RSV-F-specific $\text{INF}\gamma$ T-cells increased from 34 to 444 SFC/ 10^6 PBMC; no relevant changes were observed in the placebo arm. The Ad26.RSV.preF-based vaccine was highly effective against RSV-mediated LRTD through the first RSV season and elicited robust immune responses in older adults.

PHYSICAL ACTIVITY PROGRAMMING FOR OLDER ADULTS IN ASSISTED LIVING: CONTEXTUAL FACTORS TO CONSIDER

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Sedentary behavior may adversely affect physical and cognitive health of older adults in assisted living (AL). Replacing sedentary behavior with light physical activity (PA) could help them maintain functional abilities and independence. We interviewed AL residents to obtain their guidance regarding the implementation of an intervention to reduce sedentary behavior. Here we report the results of a thematic analysis exploring contextual factors that may influence intervention implementation. We interviewed 20 residents (mean age 83.1; 60% women) and identified 7 themes.

The first was attitudes and beliefs about PA. Most residents believed PA was important, but some lacked motivation or confidence to perform PA. Another theme was attitudes and beliefs about aging, as some residents felt discouraged about aging and uncertainty about how much PA they could safely perform. Abilities of AL residents was seen as an important consideration. It was noted that residents have a wide range of abilities and this could present challenges in planning a PA program appropriate for all residents. Social influences for PA should be considered, as residents may find encouragement from family or other residents. Space for being active is another factor because it is typically limited within AL. We found that some residents wanted more challenging exercise classes than currently provided by their facility. Finally, residents described limited opportunities for PA due to the nature of the AL environment. This thematic analysis brings attention to important factors that could influence the implementation of PA interventions with the AL population.

PREDICTION OF COVID-19 STRESS AMONG COMMUNITY DWELLING OLDER ADULTS: THE ROLE OF ANXIETY AND RESILIENCY

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Worldwide, the COVID-19 pandemic has been an unparalleled source of stress. Older adults with anxiety are vulnerable to higher levels of stress during the pandemic. However not all older adults with anxiety will experience severe stress; resiliency may decrease such negative outcomes. There have been few, if any, longitudinal studies that followed older adults before and during the pandemic. Our data of community dwelling older adults (aged 60-92) is unique in that it allowed for an investigation of psychological variables that increase and decrease negative outcomes during the pandemic. Our longitudinal study examined the influence of pre-pandemic anxiety and resiliency on the severity of COVID related stress. Methods: The pre-pandemic data was obtained in September 2018, and the pandemic data was collected in June 2020. In the baseline survey we obtained measures of anxiety and resiliency. During the pandemic we measured the severity of COVID related stressors. We hypothesized that anxiety would predict higher level of COVID-stress, whereas resiliency would be associated with decreased severity of COVID-stress. Further we predicted that resiliency would attenuate the association between anxiety and COVID-stress. Results: Using OLS regression, we found that anxiety predicted higher COVID-stress, whereas resiliency predicted lower COVID-stress. However, resiliency did not moderate the association between anxiety and COVID-stress. Conclusion: Older adults are subject to many unavoidable negative life events, such as death of family members and chronic health problems. Resiliency may help buffer against such adversities. Development of intervention programs to enhance resiliency may increase psychological resources and foster healthy aging.

PROBLEM-DRINKING ACROSS THE LIFESPAN: CROSS-SECTIONAL VERSUS LONGITUDINAL EFFECTS AMONG MIDLIFE AND OLDER ADULTS

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