

## Sample Abstract: Health Promotion

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### **PHYSICAL ACTIVITY AND DEPRESSIVE SYMPTOMS DURING THE COVID-19 STAY AT HOME ORDER IN NORTH CAROLINA**

**BACKGROUND:** Studies show that rates of depression have increased during the Corona Virus Disease of 2019 (COVID-19) pandemic, and that this may be due, in part, to increased levels of chronic stress and social isolation. Physical activity (PA) has been shown to help prevent the development of depression, and public health messaging during the COVID-19 pandemic has consistently highlighted the importance of staying physically active. How COVID-19 restrictions have impacted PA participation is currently unknown. This study aimed to explore PA participation, and the relationship between PA and depressive symptoms, in North Carolina (NC) residents during the April, 2020 NC stay at home order.

**METHODS:** Participants (n=193, mean age: 35.6y +/- 14.0) were recruited from 29 counties in NC during the COVID-19 stay at home order. Participants were asked to complete an online survey about depressive symptoms (Beck Depression Inventory), access to PA activities, PA activity over the last month (5 point likert scale ranging from “much lower” to “much higher” than usual), and weekly PA participation (International Physical Activity Questionnaire). Total min/week of PA was calculated from the IPAQ, and PA activity likert scale results were dichotomized as (1) lower than usual or (2) the same/higher than usual.

**RESULTS:** Forty-four percent of participants reported that their PA levels were lower than usual during the NC stay at home order. Individuals who reported that their PA levels were lower than usual reported significantly lower durations of weekly PA than those who reported that their PA levels were the same or higher (320.3 min/week vs. 538.7min/week;  $t = -4.01$ ;  $p < 0.001$ ). Regression analysis revealed that, after controlling for age, sex, BMI, education, race, marital status, and income, lower total PA duration per week significantly predicted higher depressive symptoms ( $\beta = -0.19$ ,  $p < 0.008$ ).

**CONCLUSIONS:** A substantial proportion of individuals reported lower than usual PA during the NC stay at home order, which was associated with significantly reduced weekly PA durations. Consequently, lower weekly PA was associated with higher depressive symptoms. These findings should be considered preliminary, considering the small sample size and use of self-report measures, but they suggest that future study of the unique barriers and facilitators of PA participation during the COVID-19 pandemic is warranted, particularly with regards to mental health outcomes.