

No Difference in Stress Level Based on Physical Activity During the COVID-19 Pandemic Among Parents of School-Aged Children

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ABSTRACT

Stress levels among children and parents have been heightened during the COVID-19 pandemic, especially with related changes in school structure. Regular physical activity (PA) represents a way to decrease stress levels and improve overall mood. Thus, regular PA is even more important during this period of prolonged stress as the pandemic continues to affect communities. **PURPOSE:** The purpose of this study was to examine differences in stress levels among parents of school-aged children during the COVID-19 pandemic based upon physical activity patterns. **METHODS:** Parents ($n = 115$, 91% female, 91% White) of school-aged children in the United States participated in surveys regarding their stress levels and physical activity. Stress levels were determined by the Perceived Stress Scale and dichotomized into Low Stress or Moderate/High Stress. To determine level of physical activity, participants also completed the Recreational and Sedentary portions of the WHO's Global Physical Activity Questionnaire (7 questions). They were then dichotomized into "met" or "did not meet" World Health Organization's recommendations for weekly physical activity (150 minutes moderate PA (MPA), 70 minutes of vigorous PA (VPA), or 600 MET*minutes). Perceived stress levels were analyzed using a chi-square test to determine any differences between the two groups based upon each WHO recommendation for physical activity (MPA, VPA, MET*minutes). **RESULTS:** A total of 47% of parents perceived themselves as having low stress while 53% reported moderate/high stress. A majority of parents did not meet WHO PA recommendations for weekly MPA (63%) nor VPA (64%) but did meet recommendations for weekly MET*min (59%). All chi-square tests were non-significant (MPA: $X^2 = .246$, $df = 1$, $p = .620$; VPA: $X^2 = 3.422$, $df = 1$, $p = .064$; MET*min: $X^2 = 1.361$, $df = 1$, $p = .243$). **CONCLUSION:** The present study demonstrates that there was no significant difference in perceived stress levels based upon physical activity among parents of school-aged children during the COVID-19 pandemic, regardless of intensity of the physical activity. Even with the known positive benefits of PA to decrease stress, PA was not significantly associated with reduced stress levels among parents of school-aged youth. This finding could reflect stress exceeding normal levels due to the novel and unknown nature of the pandemic. It is also possible that PA did have a positive impact on stress levels but was too small to significantly counteract the abnormal increase in perceived stress. However, PA is still important for adults, including parents of school-aged youth, during the COVID-19 pandemic due to the numerous other health benefits it can provide beyond reducing stress levels.