STIMULATING A MATURE BODY'S DEFENSE SYSTEM BY MAINTAINING PHYSICAL ACTIVITY: A LITERATURE REVIEW

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This review provides summary of research findings on the effects of exercise for changes in the immune system most associated with aging. Immunosenescence is identified as an immune dysregulation with aging that leaves an older adult susceptible to infections and a host of immune-related disorders. Extrinsic modulators of immunosenescence include pathogens, mental stress, nutrition, and exercise. Moderate short acute exercise over time enhances the immune system. Heavy exertion or prolonged exercise bouts may contribute to immunosenescence. In one study, a J-curve result was identified for upper respiratory tract infection. A moderate exercise workload was associated with a 40-50% decrease in upper respiratory tract infections while a 2-6-fold increase was identified among individuals consistently completing heavy exertion. Transient increases of the inflammatory markers of C-reactive protein and Interleukin-6 are noted after excessive exercise. The older adult should consider small increments of change in an exercise load to limit exercise-induced inflammation. These same inflammatory markers are chronically expressed in obese individuals in a resting state. Strategies to manage weight within recommended range to avoid obesity will limit activation of proinflammatory immune cells. In conjunction with physical activity, the lifestyle behaviors that most support immune system health include adequate sleep, nutrition, hydration, and avoidance of excessive alcohol intake. When planning a safe moderate exercise workload, additionally consider hygienic practices to lower transmission of pathogens. Transmission decreases with hand washing, limited hand-to-face contact, distance from large crowds or those with cough, avoiding spaces with poor ventilation and update vaccinations.

TEXTING OLDER SISTERS TO STEP (TOSS) USING FITBITS TO PROMOTE PHYSICAL ACTIVITY: A FEASIBILITY STUDY

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Black women are disproportionately diagnosed with obesity (BMI ≥ 30 kg/m2). Obesity is a preventable but complex, public health problem that is multifaceted, chronic, and approximately 58% of Black women 60 years and older are classified as obese, compared to 38% of their White counterparts. This 12 week, pre/post, 2-group study aimed to determine if a peer-informed physical activity (PA) intervention with peer support would be feasible among community- dwelling, obese, older Black women to promote regular PA. Forty-eight potential participants were screened, 24 categorized as obese were enrolled and completed the study. The mean age was 64 (SD 3.0) years. Steps were measured by a Fitbit-Inspire with data successfully collected on 98% of days with the treatment group averaging a daily increase of 700-steps more than the control. Evaluation of intervention's acceptability revealed that 100% enjoyed the study and using the Fitbit device. Text message readability was 100% and 95% said the study was motivational. Additionally, 8.3% said daily prompts were too frequent, 12% indicated that future studies should include additional social support, and 88% did not comment on the Fitbit community option for support, suggesting that this feature was not practical. Findings demonstrated that this intervention meets the criteria of being scalable, low cost, feasible, and acceptable for the older Black women. Using self-monitoring techniques in combination with at least one other behavioral strategy, such as our TOSS messages (cues for motivation) as the delivery channel for health promotion messages are a promising approach to increase PA behaviors.

THE ASSOCIATION BETWEEN VISION ACUITY, SLEEP DURATION, AND PHYSICAL ACTIVITY AMONG US ADULTS AGED 50 YEARS AND OLDER

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Studies suggested that people with low vision are more likely to have worse sleep quality and less frequent participation in physical activities compare with people with better vision. Studies also showed that physical activities is a very important factor for one's sleep. However, there is relatively little research on the association between vision acuity, sleep, and physical activity. This study examines the relationships between vision acuity and sleep duration among middle-aged and older adults in the US, and the role of leisure-time physical activity in this relationship. Using nationally representative data from the National Health and Nutrition Examination Survey 2007-2008, a cross-sectional analysis on adults age 50 years and older was conducted (n=2.247). Visual acuity was assessed by participant's vision of better-seeing eye (i.e., none, mild, moderate, and server visual impairment), and we measured sleep duration (i.e., short, average, and long duration) and leisure-time Physical Activity (i.e., inactive/insufficiently active and sufficiently active). Descriptive analysis showed that 31.06% of older adults experienced moderate or severe visual impairment, and 46.81% respondents experienced abnormal sleep duration. Multinomial logistic regression analyses showed that compared to people without visual impairment, people with moderate or severe visual impairment were more likely to have longer sleep duration than normal sleep duration (OR, 1.62, $p<0.05$). Leisure-time physical activity was not found to significantly mediate the relationship between visual acuity and sleep duration. Other variables were controlled in the models. Findings suggest that US adults age 50+ with low vision are at greater risk of experiencing abnormal sleep duration.

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A POLICY MAPPING ANALYSIS OF THE U.S. CONGRESSIONAL APPROACH TO MEDICAL AID-IN-DYING

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