

Influence of Chronological Age on Physical Activity Recommendations: An Experimental Case Study Approach

Student: Arun Eswaran, MSc Candidate

Supervisor: Brad Meisner, PhD

Introduction: Previous experimental research uses case-study vignettes to assess differences in clinical decision making based on patient chronological age when age-related health differences are held constant. However, research using this method is inconclusive. Some studies report differences in clinical decisions between older and middle-aged patients, while other studies report no differences between these two age groups. The objective of this study was to extend this area research to clinical physical activity (PA) decision making and: a) assess if PA recommendations differ based on chronological age, and b) explore some potential moderating effects of this relationship.

Methods: This study used a randomized cross-sectional online survey design. Participants were York University undergraduate students recruited through the KURE participant pool. Each participant was randomized into one of three clinical case study vignette conditions. The vignettes described a hypothetical patient with prediabetes who was referred to a qualified exercise professional (i.e., the participant) for a PA intervention. The only differentiating factor across the three vignette conditions was that the hypothetical patient was described as either a 20-year-old, a 42-year-old, or a 74-year-old. Participants were subsequently asked to form a PA recommendation for the hypothetical patient in terms of PA support, frequency, duration, and intensity. Data on participant demographics, personal PA, and future career goals were also collected. IBM SPSS version 26 was used to perform ANOVA statistical tests.

Results: The total sample size included 268 participants with an average age of 20.03 years (SD = 2.81). Data analyses revealed no differences across vignette conditions for PA support or PA frequency. However, significant main effects for PA duration [$F(2,265) = 11.87, p < .001$] and PA intensity [$F(2,265) = 20.07, p < .001$] were observed. Both variables demonstrated statistically significant decreases in PA recommendations for the 74-year-old condition compared to the 20-year-old and 42-year-old conditions.

Discussion: This study provides evidence that differences exist in PA recommendations based on chronological age. These differences may reflect ageist stereotypes and ageism within PA recommendation practices, specifically for PA duration and intensity. It is important to note that the PA recommendations provided in the 74-year-old vignette condition did not meet the minimum clinical PA practice guidelines for this age group.