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COGNITION AND FUNCTIONALITY: HOW DO THEY RELATE TO TIME LIVED AFTER 100 YEARS OF AGE?

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Introduction: The number of centenarians has greatly increased in Portugal in the last decades. Therefore, the analysis of survival time after becoming a centenarian and related factors constitute an important issue for the quality of care provision. The objective of this study is to identify health related factors associated with the time lived after being 100 years of age. **Methods:** Data come from the population-based study PT100 (Oporto Centenarian Study) and considers information gathered through face-to-face interviews with centenarians and their proxies during 2013. Study eligibility criteria included being 100 and more years old and living in the Oporto Metropolitan Area. Survival analyses were performed in order to identify factors associated with survival after the 100. Functional status (e.g., walking, being bedridden) and specific health conditions (e.g. presence/absence of cognitive impairment) were considered as potential factors. **Results:** The sample comprises 140 centenarians with approximately 14.5 months as median survival time after their 100th anniversary. Centenarians who were bedridden presented a higher probability to live after 100 years when compared with functionally independent centenarians. Presence of cognitive impairment was not associated with the time lived after 100 years old. **Conclusions:** Given the increasing number of centenarians in Portugal, different studies based on this population need to be considered. The present study, focused on the life after 100 years old, provides new information about this topic contributing to the formulation of new scientific questions for this population.

FACTORS AFFECTING THE PHYSICAL ACTIVITY AMONG MIDDLE AGED ADULTS: FOCUS ON THE EXPECTATIONS REGARDING AGING

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Purpose: Physical activity is important as a health promoting behavior in aging society. Individuals' belief about aging is known to be related to health promoting behaviors, which is needed for middle aged adults preparing for their old age. The purposes of this study were to measure level of expectations regarding aging (ERA) and identify relationship between ERA and physical activity of middle aged adults. **Methods:** Data was collected from middle aged adults who resided in community of two cities in Korea using questionnaires. A self-reported questionnaire consisted of International Physical Activity Questionnaire (IPAQ), individual characteristics, behavior-specific cognitive factors including Expectations Regarding Aging-12 (ERA-12). Hierarchical multiple regression was conducted to examine whether ERA would predict physical activity when controlling other factors. **Results:** The mean age of the participants was 51.1±6.9 years. The mean score of ERA (possible range=0 to 100) was 40.04±14.31. Findings demonstrated that more than half of the participants (62.6%) were not engaged in health promoting physical activity. Gender, employment status and exercise confidence were associated with level of physical activity in middle aged adults (F=7.14, p<.001, R²=36). After controlling individual factors and behavior-specific cognitive factors, ERA was independently related to physical activity in middle aged adults (F=7.19, p<.001, R²=38). **Conclusion:** Our results demonstrated that individuals' belief about aging influenced physical activity of Korean middle aged adults. Thus, focusing on ERA could help increase physical activity in middle aged adults.

WHICH INFLAMMATORY MECHANISMS ARE ASSOCIATED WITH INCIDENT MOBILITY DISABILITY? THE FRAMINGHAM OFFSPRING AND OMNI STUDIES

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BACKGROUND Inflammation is associated with mobility disability, but the precise mechanisms need further clarification. We examined ten biomarkers representing inflammation and oxidative stress to determine the pathways involved with incident mobility disability. **METHODS** Framingham Offspring and Omni Study participants who attended two exams (1998-2001 and 2005-2008), were > 60 years of age, and without mobility disability at baseline were examined. Biomarkers included C reactive protein, interleukin-6 (IL-6), tumor necrosis factor- α receptor 2 (TNF- α R2), 8-epi-FGF α isoprostanes, lipoprotein-associated phospholipase A2 mass and activity, osteoprotegerin (OPG), intercellular adhesion molecule-1, monocyte chemoattractant protein-1, and P-selectin. Mobility disability was defined as unable to walk up stairs and/or walk a half mile. Multivariate logistic regression assessed the relationships between each individual biomarker and incident mobility disability. Individual biomarkers significant individually at $\alpha=0.10$ were included in a logistic regression model using backward elimination at $\alpha=0.05$. Covariates were age, sex, BMI, smoking, cardiovascular disease, diabetes, cancer, total cholesterol/treatment, hormone replacement therapy, and cohort (Offspring or Omni). Odds ratios (OR) per one standard deviation increase in log-transformed biomarker were calculated. **RESULTS** Of 1,321 participants (706 (53%) female, mean age 67.4±5.4 years, mean follow-up of 6.7± 0.7 years), 192 (15%) developed mobility disability. IL-6 (OR 1.18 [95% CI 1.00,1.39], TNF- α R2 (OR 1.31 [95% CI 1.11,1.55], and OPG (OR 1.22 [95% CI 1.02,1.47]) were associated individually with the outcome. In the stepwise model, TNF- α R2 remained associated with incident mobility disability (OR 1.29 [95% CI 1.09,1.53]). **CONCLUSION** Findings suggest the inflammatory mechanism(s) associated with TNF- α may contribute to incident mobility disability.

ANTICHOLINERGIC USE AND RECURRENT FALLS: HEALTH ABC STUDY

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Design: Longitudinal. **Data source:** Health ABC Study years 1-7 (1997-2004). **Participants:** 2,948 participants at year 1 (black 40.8%, female 51.6%, age 70-79 years) with data collected via interview. **Main outcome measures:** Recurrent falls (2+) in 12-month periods starting at year 2 through year 7. **Main independent variables:** Anticholinergic use at years 1, 2, 3, 5, and 6 as defined by a list from the 2012 AGS Beers criteria. **Results:** At year 1, 16.0% reported anticholinergic use; 49.3% took them for 2+ years, and 25.5% took > 2 summated standardized daily dose (SDD; 1 = minimum recommended daily dose for one anticholinergic). Yearly, at least 7.5% of participants reported having 2+ falls. **Multivariable GEE models, controlling for demographic, health status/behaviors and access to care factors, found no statistically significant increase in risk of recurrent falls in anticholinergic users (adjusted odds ratio [AOR] 1.34; 95% confidence interval [CI] 0.93-1.93). We found no increase in risk among those taking higher SDDs (>2 SDD, AOR 1.54, 95% CI 0.84-2.82 and 1-2 SDD, AOR 1.40, 95%CI 0.80-2.45), or those with long or short duration of use (AOR 1.36, 95% CI**