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Background: Individuals on hemodialysis have systemic complications due to chronic kidney disease and dialysis treatment. Then, impairments in physical function are frequent in this population, which contributes to a higher risk of falls.

Objectives: This study aimed to investigate the ability of physical function tests to discriminate individuals on hemodialysis with and without risk of falls.

Methods: A 12-month prospective study was conducted with individuals on regular hemodialysis. Physical function was assessed by handgrip strength, gait speed over 15 feet, the 5-repetition sit-to-stand test, and the Timed Up and Go test. Following the initial assessment, the falls were monitored monthly for 12 months. A fall was defined as an unexpected event in which the individual came to rest on the ground, floor, or lower level. The Receiver Operating Characteristic curve was used to identify a cutoff point of physical function tests able to discriminate individuals with and without risk of falls, also Area Under Curve was calculated. A p-value of < 0.05 was considered statistically significant.

Results: This study included 112 patients (58.7 ± 12.9 years, 56.3% male). The incidence of falls was 31.3%. Receiver Operating Characteristic curve showed that 5-repetition sit-to-stand test and Timed Up and Go test were significant predictors of risk of falls and the Area Under Curve and cutoff point were 0.629 (0.512 - 0.746, $p = 0.040$) and 0.644 (0.528 - 0.760, $p = 0.017$) and 12.6 seconds (sensitivity of 71.0%, specificity of 52.2%) and 8.1 seconds (sensitivity of 64.7%, specificity of 54.9), respectively.

Conclusion: Physical function tests were able to discriminate individuals on hemodialysis with and without risk of falls.

Implications: Cutoff points identified for physical function tests can be used to screen individuals on hemodialysis with and without risk of falls and to guide fall prevention programs.

Keywords: Renal Dialysis, Accidental falls, Risk

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IMPACTS OF NICOTINE DEPENDENCE ON SLEEP AND PHYSICAL ACTIVITY IN ELDERLY SMOKERS: PRELIMINARY RESULTS

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Background: Studies indicate that smokers tend to have lower levels of physical activity, associated with higher nicotine dependence. Additionally, smoking can compromise sleep quality due to dependence symptoms, favoring the appearance of sleep disorders.

Examining the relationship between nicotine dependence, sleep quality, and physical activity levels in elderly smokers can help develop interventions to minimize the impacts of smoking on the functionality and quality of life of this population.

Objectives: To investigate the relationship between nicotine dependence, physical activity levels, sleep quality, and daytime sleepiness in elderly smokers.

Methods: This is a cross-sectional study conducted with elderly smokers of conventional cigarettes who had been smoking for at least one year, of both sexes aged 60 years or older, capable of understanding the assessment instruments. Anthropometric measurements and information on smoking habits were collected, and participants were evaluated for nicotine dependence using the Fagerström Test, physical activity levels using the short version of the IPAQ, sleep quality using the Pittsburgh Sleep Quality Index (PSQI), and daytime sleepiness using the Epworth Sleepiness Scale (ESE). Statistical analysis was performed using Jamovi 2.6.26 software, utilizing Spearman's correlation to analyze the relationships between variables, with a significance level of $p < 0.05$.

Results: Nine individuals (55.6% female 66.0 ± 4.8 years), participated in the study. Regarding nicotine dependence, 66.7% of participants were classified as mildly dependent, and 33.3% as moderately dependent. In terms of physical activity levels, 55.6% were classified as very active. Sleep quality was considered poor for 66.7% of participants according to the PSQI, and 44.4% presented mild to moderate daytime sleepiness according to the ESE. Spearman's analysis indicated a positive correlation between nicotine dependence and daytime sleepiness ($Rho = 0.759$, $p = 0.018$), suggesting that higher levels of nicotine dependence are related to greater daytime sleepiness and possibly a higher risk of sleep disorders. No significant correlation was found between nicotine dependence, physical activity levels, and sleep quality, which may be related to the small sample size, limiting the detection of associations between these variables.

Conclusion: Elderly smokers with higher nicotine dependence showed higher levels of daytime sleepiness, highlighting the impacts of smoking on sleep quality. Although no correlation was identified with physical activity levels, previous studies indicate that more dependent smokers tend to exercise less, which may potentiate the deleterious effects of smoking on health.

Implications: These findings reinforce the importance of integrated strategies for smoking cessation in the elderly population, also considering interventions that improve sleep quality and encourage physical activity. Reducing morbidity risk and promoting healthier and more functional aging.

Keywords: Tobacco Use Disorder, Exercise, Sleep quality

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ANALYSIS OF THE SEVERITY OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD) AND ITS ASSOCIATION WITH PROGNOSIS THROUGH THE BODEXS90

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