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THE SOCIO-ECONOMIC INEQUALITY OF DYSMOBILITY SYNDROME AMONG COMMUNITY RESIDING ELDERLY IN IRAN: BUSHEHR ELDERLY HEALTH PROGRAMME

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Objectives: The objective of our study was to measure socio-economic inequality of dysmobility syndrome in the elderly residing in Bushehr, Iran.

Materials and Methods: Out of 2772 elderly aged ≥60 that participated in the second stage of BEH, a population-based prospective cohort study which is being conducted in Bushehr, Iran, 2188 participants were included in this analysis. Dysmobility syndrome was defined as having 3 or more of the following 6 items based on Binkley et al. criteria: low appendicular lean mass ratio, low grip strength, slow gait speed, high fat mass ratio, osteoporosis, and falls in the previous year. Body composition and grip strength were measured using DXA (Discovery WI, Hologic,

USA) and digital dynamometer, respectively. Speed was measured using a digital chronometer for a distance of 4.75 meters. Existence of each of twenty household assets was asked from the participants to construct an asset index using principal component analysis method. The association of dysmobility syndrome and quintiles of the asset index was investigated using Pearson's Chi-squared test. Multivariable logistic regression analysis was used to evaluate the association of DS and quintiles of asset index adjusted for age and sex. Concentration index was calculated as the indicator of inequality of DS among the participants and was decomposed to its contributing factors using convenient regression method. Data analyses were performed using Stata Statistical Software (Release 13. College Station, TX: StataCorp LP.)

Results: The prevalence of DS was 81.2% (914) and 57.8% (613) among women and men, respectively (χ^2= 142.4, P<0.001). An inverse association was observed between the quintiles of asset index and the prevalence of DS (χ^2= 64.3, p<0.001). The adjusted odds ratio of DS for the quintile 1 and 2 of the asset index were 1.54 (95%CI=1.11-2.15) and 1.42 (95%CI=1.04-1.95), respectively, compared with quintile 5. The concentration index was -0.066 (95%CI= -0.081, -0.050). The largest contribution to the measured inequality belonged to age (32%), sex (24%), household socio-economic status (21%), and education level (18%).

Conclusion: These findings suggest existence of socio-economic inequality of dysmobility syndrome among elderly people residing in Bushehr, Iran.