**Sex differences in characteristics associated with potentially inappropriate medication use and associations with functional capacity in older participants of the Berlin Aging Study II (BASE-II)**

**Supplementary Methods**

Morbidity index:

As part of the medical examination diagnoses were obtained through participant reports, with selected diagnosis (diabetes mellitus) being verified by additional blood-laboratory tests. Diagnoses were used to compute a morbidity index largely based on the categories of the Charlson index, which is a weighted sum of moderate to severe, mostly chronic physical illnesses, including cardiovascular (e.g., congestive heart failure), cancer (e.g., lymphoma), and metabolic diseases (e.g., diabetes mellitus) [1, 2].

Functional assessments:

We used assessments reflecting functional capacity, cognition and mental health. The Barthel Index (ADL, Activities of Daily Living Scale) and the Lawton/Brody Index (IADL, Instrumental Activities of Daily Living Scale) were applied to assess the self-evaluated independence in everyday activities [3, 4]. Physical function was captured by the Tinetti mobility test, the Timed “Up & Go” test (TUG), a walking speed test (4m), and by measuring handgrip strength three times in both hands with a Smedley dynamometer (Scandidact, Denmark). The maximum handgrip strength was used for calculations. Falling was assessed with the question “Did you fell in the last 12 months?”. Frailty was evaluated according to the Fried Frailty criteria with slight modifications according to the variables available in BASE-II as described before [5, 6]. We recorded participants nutritional status with the Mini-Nutritional Assessment (MNA) [7].

To capture cognitive functioning, we used the Mini-Mental State Examination (MMSE) [8], the Digit-Symbol Substitution test (DSST), which is a sensitive measure to detect cognitive dysfunction, demanding response speed, sustained attention, visual and shifting skills [9], and the clock drawing test [10]. The Center for Epidemiological Studies Depression Scale (CES-D Scale) was applied to assess depression symptoms in the study participants [11].

We summarized the assessment characteristics of the study population by calculating median and IQR or, in case of normal distribution, mean and standard deviation (Supplementary Table 3). Based on these descriptive results, we excluded the Barthel Index (ADL), the Lawton/Brody Index (IADL) and the Tinetti mobility test from subsequent analyses, because the maximum achievable score was identical with the median and the IQR. We did not expect the Barthel Index (ADL), the Lawton/Brody Index (IADL) and the Tinetti mobility test to discriminate sufficiently against the participants abilities. Results from the TUG test, the walking speed test, handgrip strength, MNA, MMSE, and the DSST were included as continuous variables. Falls in the past 12 months (fallen or not fallen), Frailty (frail/prefrail or not frail), results of the clock drawing test (perfect clock or no perfect clock) and depression (depressive symptoms or no depressive symptoms) were included as dichotomous variables.

**References**

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