Author’s response to reviews

Title: PREVALENCE AND RISK FACTORS FOR FRAILTY AMONG HOME CARE CLIENTS

Authors:

Irma Nykänen (Irma.Nykanen@uef.fi)
Minna Miettinen (minna.miettinen@kotikone.fi)
Miia Tiihonen (miia.tiihonen@uef.fi)
Sirpa Hartikainen (sirpa.hartikainen@uef.fi)

Version: 4 Date: 06 Nov 2017

Author’s response to reviews:

Dear Editor

We appreciate the comments of the manuscript BGTC-D-17-00231R3 “PREVALENCE AND RISK FACTORS FOR FRAILTY AMONG HOME CARE CLIENTS” The manuscript has been modified according to the comments and a point-by-point response is provided below. We have modified the text that were overlapped by other publications. The revised manuscript including the tables have submitted.

On behalf of the author team

Yours sincerely,

Irma Nykänen, Adjunct Professor

Institute of Public Health and Clinical Nutrition
School of Medicine
University of Eastern Finland
Email: Irma.Nykanen@uef.fi

Abstract

Methods: The study sample included home care clients aged 75 or over living in three cities in Eastern and Central Finland. Modified line 56: The study participants were 75-year-old or older home care clients living in three cities in Eastern and Central Finland.
Background

Home care consists of health counselling, support, personal assistance and nursing treatments (e.g. administration of drugs and wound care) [1]. Modified line 77: Home care includes home help, support and nursing with treatments and administering of medication. [1].

The older people would like to live in their own home instead of living in residential care [10]. Modified line 90: Older people prefer living in their own home instead of institutional care [10].

As far as we know, there are no previous studies on the prevalence and risk factors of frailty among home care clients. Modified line 96: Most studies have focused on institutionalised or home-dwelling older people.

Design and participants

This cross-sectional population-based study analysed baseline data from the Nutrition, Oral Health and Medication (NutOrMed) study, which included home care clients aged 75 or over living in three cities in Eastern and Central Finland [15]. Modified line 102: This study is part of the larger Nutrition, Oral Health and Medication (NutOrMed) study. The participants were 75-year-old or older home care clients living in three cities in Eastern and Central Finland Home care clients [15].

Measurements

Home care clients were interviewed at home by home care nurses, nutritionists and pharmacists. Modified line 114: Nurses, nutritionists and pharmacists conducted interviews in the subjects’ homes.

The 10-item Barthel Index was used to assess activities of daily living (ADL) [16] and instrumental activities of daily living (IADL) were assessed with the 8-item Lawton and Brody scale [17]. The scoring for ADL is 0–100 and for IADL, 0–8, with higher scores indicating better functioning. Cognitive status was assessed with the Mini-Mental State Examination (MMSE) on a scale of 0–30, with higher scores indicating better functioning [18]. Depressive symptoms were screened using the 15-item Geriatric Depression Scale (GDS-15) [19]. Self-rated health was determined using a 5-step scale (very poor, poor, moderate, good and very good). In the analyses, the variables were dichotomised to poor and good self-rated health, with the two first steps representing poor and the latter three, good. Self-rated ability to walk 400 metres was determined using a 4-step scale (unable to walk, unable to walk independently, able to walk with help, able to walk without difficulties). Modified line 121: Functional ability was assessed with Barthel’s activities of daily living (ADL) index (scale 0–100) [16] and Lawton’s instrumental activities of daily living (IADL) (scale 0–8) [17] and cognitive status was measured with the Mini-Mental State Examination (MMSE) on a scale of 0–30 [18], with higher scores indicating better functioning. The 15-item Geriatric Depression Scale (GDS-15) [19] was used to assess depressive symptoms. Self-rated health was determined using a 5-step scale (very good, good,
moderate, poor, very poor), with the two last steps resenting poor health, and self-rated ability to walk 400 metres using a 4-step scale (able to walk without difficulties, able to walk with help, unable to walk independently, unable to walk), with the two first steps representing independently [20].

Nutritional screening was performed by a nutritionist using the Mini Nutritional Assessment (MNA) [20]. The MNA is a validated and standardised screening tool for detecting the nutritional status of older people [20]. Modified line 130: A validated and standardised Mini Nutritional Assessment (MNA) test was used to measure nutritional status, with scores of 24.0–30.0 indicating normal nutritional status and scores < 23.5, malnutrition or its risk [21].

The geriatricians identify diagnoses based on primary care medical records and investigators determined comorbidity based on FCI. Data on the following 13 medical conditions were available: rheumatoid arthritis and other inflammatory connective tissue diseases, osteoporosis, diabetes, chronic asthma or chronic obstructive pulmonary disease (COPD), coronary artery disease, heart failure, myocardial infarction, stroke, depressive disorder, visual impairment, hearing impairment, Parkinson’s disease or multiple sclerosis and obesity (body mass index (BMI) > 30). Each medical condition was given one point, and a higher FCI sum score represents greater comorbidity. Modified line 138: The geriatricians identified diagnoses (rheumatoid arthritis and other inflammatory connective tissue diseases, osteoporosis, diabetes, chronic asthma or chronic obstructive pulmonary disease (COPD), coronary artery disease, heart failure, myocardial infarction, stroke, depressive disorder, visual impairment, hearing impairment, Parkinson’s disease or multiple sclerosis and obesity) based on primary care medical records and the investigator determined FCI index, where a higher FCI sum score indicates greater comorbidity.

A cut-off value was identified for each domain to indicate whether a more elaborate assessment was needed for that domain; ≥ 1 for ADL and IADL; ≤ 6 for the MMSE; ≥ 2 for the GDS-15. This sentence has been deleted; a cut-of value was described in the next section.

Discussion

The strengths of the present study were its population-based sample and multidisciplinary approach. The modified line 228: The strengths of this study were the population-based sample of home care clients and the multi-scientific approach.

We have used several validated screening tests and we have modified the text to avoid overlap.

We have modified the text on ethical approval and consent to participate and we have provided more justifications for the contributions of all authors.

We have described the role of the funding.
We have used a professional language editing service to correct this manuscript.

The tables are attached to this manuscript.