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)

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Dear Editor

We appreciate the comments of the manuscript BGTC-D-17-00231R2 “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 marked (at gray) those parts of the text that were overlapped by other publications. The Modifications in the revised manuscript have been highlighted in yellow colour.

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:

Background: Frailty is the most problematic expression of population ageing. Frailty has been shown to increase the risk of mortality and institutionalisation.
Modified line 51: Frailty is the common problem among older people and it has been shown increase the risk of mortality and institutionalisation.

Background:

The focus of care for older people has shifted away from residential care towards home care. In Finland, 11.8% of people aged 75 years or older are municipal home care clients [1]. It is part of public municipal home care services provided by the social and healthcare sectors [1]. Home care services have also been provided in collaboration with the private sector and non-profit organizations [1].

Modified line 73: Care focus has moved to home care instead of residential care and about 12% of Finnish population aged 75 years or over are home care clients [1]). In Finland, home care services have been provided by municipal social and healthcare in collaboration with the private sector and non-profit organization [1].

Most research has clearly been performed on the physical and disease-related aspects of frailty [2, 3] while the other two areas are much less explored. Some characteristics of frailty apply for normal ageing, such as decreased physiologic and functional reserve. It might therefore be very difficult to distinguish frailty from advanced stages of the ageing process. This also depends on the definitions and measurements that are used to identify frailty.

Modified line 85: Most studies have been focused on the physical weakness and disease-related view of frailty [2,3], which does not take into account the previously mentioned psychological or social factors. Separating frailty from normal aging might be difficult, especially if the method emphasizes physical functions.

Measurements

It involves a general assessment of health (questions regarding lifestyle, mobility and drug use), a dietary assessment (questions regarding type and number of meals), anthropometric measurements and a subjective self-assessment by the patient. The maximum sum score of the MNA is 30.0; scores of 24.0–30.0 indicate normal nutritional status, scores of 17.0–23.5 a risk of malnutrition and scores < 17.0, malnutrition.

Modified line 137: The test is an 18-item questionnaire comprising anthropometric measurements (BMI, midarm and calf circumference and weight loss) combined with a questionnaire regarding dietary intake (the number of meals, consumed, food and fluid intake and feeding autonomy), a global assessment (lifestyle, medication, mobility, presence of acute stress and presence of dementia or depression), and a self-assessment (self-perception of health and nutrition). The maximum sum score of the MNA is 30.0; scores of 24.0–30.0 indicate normal nutritional status, scores of 17.0–23.5 a risk of malnutrition and scores <17.0 malnutrition [20].
Use of prescription and over-the-counter drugs was recorded by a pharmacist on the basis of the home interviews; this information was complemented with medication lists, packages and prescriptions.

Modified line 144: A pharmacist recorded drugs use on the basis of the home interviews: this information was complemented with medication lists, packages and prescriptions.

The aCGA can detect problems that may otherwise go undetected aCGA can possibly delay the disorders in activities such as bathing, dressing and other basic activities of daily living, cognitive status and depression symptoms [13]. Home care clients may appear healthy, but have limitations that would never be addressed without specific screening tools. The aCGA combines the items of the CGA that are most predictive of the total rating score of each scale [13]. The items selected for the aCGA were those with the highest item-to-total correlations [13]. One of the primary criteria for assessing an item is the discrimination index also known as the corrected item-to-total correlation. Items with high item-to-total correlations have more variance relating to what all items have in common and add more to the instrument's reliability than do items with low correlations [13].

Modified line 159: The aCGA can detect problems that may otherwise go undetected such as the disorders in bathing, dressing, and shopping, reduced cognition or depression symptoms [13]. These problems are common among home care clients, even though poorly detected. The questions of CGA with the highest question-to-total correlation are included for the aCGA [13].

Discussion

According to the epidemiological study [33], the optimal BMI for individuals over 70 is 24-29. Winter et al. [34] found the 32 study meta-analysis a greater mortality risk for those with a BMI of <23.0, which was not observed for the BMI in the WHO overweight range. However, the overweight and obese older adults may be frail, with lower muscle quality, strength, endurance, and balance than their underweight or normal weight counterparts [35, 36].

Modified line 234: According to the epidemiological study [33], the recommended BMI over 70 years is 24-29. Winter et al. [34] found 32 study meta-analysis a greater mortality risk for those with a BMI of <23.0, which is partly in the WHO overweight range (BMI: 25.0–29.9). On the other hand, the overweight and obese older persons can also be frail [35, 36].

Other overlaps are individual sentences. We have used several screening tests; (ADL, IADL, MMSE, FCI and MNA) and definitions of them and scores are in common use.

Finally, we have amended "Availability of data and material statement".