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Van der Elst, Michael CJ; Schoenmakers, Birgitte; Schols, JMGA; De Witte, Nico; De Lepeleire, Jan; Consortium, D-SCOPE

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Letter

Towards a flexible use of frailty measurements in older people

Michael C.J. Van der Elst^{a,b}, Birgitte Schoenmakers^a, Jos M.G.A. Schols^{b,c}, Nico De Witte^{d,e,f}, Jan De Lepeleire^a and D-SCOPE Consortium

^a Department of Public Health and Primary Care, University of Leuven, Kapucijnenvoer 33 bus 7001 B-3000 Leuven, Belgium

^b Care and Public Health Research Institute, Department of Health Services Research, Maastricht University, P.O. Box 616, 6200 MD Maastricht, The Netherlands

^c Care and Public Health Research Institute, Department of Family Medicine, Maastricht University, P.O. Box 616, 6200 MD Maastricht, The Netherlands

^d Department of Gerontology, Frailty in Ageing (FRIA) Research Group, Vrije Universiteit Brussel, Belgium-

^e Research Center 360° Care and Well-being & Center for Applied Datascience (CADS), University College Ghent, Belgium,

^f Faculty of Psychology and Educational Sciences, Vrije Universiteit Brussel, Belgium, Pleinlaan 2, B-1050 Brussels, Belgium

Corresponding author

Michaël C.J. Van der Elst, PhD

Department of Public Health and Primary Care, University of Leuven, Kapucijnenvoer 33 bus 7001 B-3000 Leuven, Belgium

Tel: 0032 472 50 36 76

E-mail: michael.vanderelst@kuleuven.be

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Text

Dear Editor,

Frailty in older people has many definitions/operationalizations, such as the Fried Phenotype and the accumulation deficit model proposed by Rockwood/Mitnitski, which are the most common operational definitions of frailty [1, 2]. In general, one distinct two approaches. The first, often designated as physical frailty, emphasizes frailty as a biological/medical concept such as the Fried Phenotype [1]. The second approach considers frailty in a multidimensional way and adds cognitive, social, psychological, and environmental factors (e.g., TFI, GFI, CFAI) [3, 4]. Frailty is a relevant concept since it is a risk factor for adverse outcomes such as disability, and hospitalization. Studies in frail old people showed that the choice of a frailty operationalization can have a large impact on the estimates of frailty prevalence, the characteristics of the selected sample, and the study outcomes (e.g., hospitalization, disability) [5, 6]. According to Rockwood, it is likely that some definitions of frailty will be more successful than others over time, suggesting that some definitions/approaches will outcompete the others [7]. However, we doubt whether this argument will materialize. The choice of a specific conceptualization of frailty should depend on the context/setting and the aim/focus of the study, therefore we think that different frailty definitions/operationalizations can be successful next to each other.

Each researcher/clinician should consider some questions before the start of a study: what is the setting and target group of the study? What is the aim of the measurement? Which intervention or procedure will be evaluated and which life domain(s) is(are) the scope of the intervention? Additionally, related to the application of the frailty instrument, it is important to know who will administer the instrument, and how much time is available? Based on these questions, a final choice can be made for a particular instrument.

In a clinical setting (e.g., hospital), in which the target group involves (acutely) hospitalized older people with a primary medical problem, the choice of a frailty instrument focusing on physical frailty (like Fried's scale) may be appropriate/preferable. This approach of frailty may also require the execution of performance-based tests, for which the required tools (e.g., a hydraulic dynamometer) and professionals are generally available in a clinical setting [1]. On the other hand, in the case of measuring frailty in the home setting, to monitor the status of community-dwelling older people, it is more complicated to perform tool-supported testing since the researcher/clinician must bring all the equipment [8].

Also, the aim of the measurement is important. Previous studies have shown that frail older adults are at a higher risk of experiencing complications after surgery [9]. If the aim of the frailty measurement is to explore whether the patient is fit enough to undergo surgery or not, a frailty measurement focusing on physical frailty is highly recommended. The use of a multidimensional frailty instrument, including also the psychological, social, and environmental domains, in this case, could possibly bias the image of the patient's physical functioning [5]. Contrary, after surgery, when the best place for the patient's recovery should be determined, a multidimensional approach can be more insightful since the social network and living arrangements may determine the success of returning home [10].

Another example is, that if the aim of a community-based intervention is to facilitate aging well in place, a multidimensional approach might be more insightful instead of focusing solely on physical frailty. Moreover, a self-administered multidimensional instrument might be more feasible as it contributes to putting the older person himself in the centre of the scope [3, 4]. Looman et al. stated in a systematic review about the effectiveness of integrated care that older adults are still considered too often as one target group and that integrated care may be more beneficial for certain subpopulations of frail older people [11]. Although the use of performance-based tests can be a challenge in a community setting, it does not mean that it excludes frailty tools using performance-based tests (e.g., Fried Phenotype) if the aim concerns a more physical aspect; for instance, when the aim of a study concerns accidental falls or disability in a community setting, a physical/biomedical approach than applying a multidimensional approach of frailty.

In conclusion, in our opinion, the operationalization of frailty should be flexible depending on the target group, setting, and aims of a study. Therefore, we think that different definitions can be successful next to each other. We highly recommend more comparative studies to assess the impact of frailty measurements on sample and study/intervention outcomes.

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Orcid

Michaël C.J. Van der Elst: 0000-0001-9381-7287

Birgitte Schoenmakers: 0000-0003-1909-9613

Jos M.G.A. Schols: 0000-0002-4062-2061

Nico De Witte: 0000-0001-8957-6425

Jan De Lepeleire: 0000-0001-6152-2134

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