Reviewer's report

Title: Predictors of dizziness in older persons: a 10-year prospective cohort study in the community

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Reviewer: Marcel G.M. Olde Rikkert

Reviewer's report:

1. The authors may be complimented by addressing the very important complaint of dizziness in older persons. Moreover, they do so by using high quality longitudinal data. Both because of the impact of dizziness for older persons and the health care consumption used for it, analysing the time course of dizziness is highly relevant in our aging societies, and thus this study deserves a good readership.

Suggestions for revision (minor but essential).

2. However, the article may be still be improved by adding some relevant data. The assessment of the key complaint of dizziness in the methods could be clarified. In the 2nd paragraph on the study sample it is stated that 'participants answer questions on dizziness', but at the 'ascertainment of dizziness' paragraph it only seems to be one yes/no question. It is important to clarify how dizziness was assessed and also address the risk for recall bias in this aged sample.

The time course of dizziness (figure 1) can be clarified with respect to the number of new cases, relapse cases, cured cases, and remissions. In other words the dynamics of change in the dizziness symptoms reported would be highly valuable for this paper.

In the discussion (5th-7th paragraph of this section) the predictors of dizziness are taken to be causally related, by suggesting that treating these factors may alleviate symptoms and symptom related impairments. In the analysis however the predictors still are only statistically related. This may be clarified by some words on causality.

Moreover, the authors state that the paper strengthens the evidence for dizziness as a geriatric syndrome. It is not exactly clear how the authors make this case. In literature, geriatric syndromes are defined as a condition in which for the majority of patients multiple possible causes are found (Kao et al JAGS 2001;49:72-5). The alarming word here is 'possible'. Many diseases and non-geriatric syndromes have multiple 'possible causes'. A real distinction can only be made when geriatric syndromes are proven to have multiple causal factors (Olde Rikkert et al Neth J Med, 2003;61:83-7). Therefore, to really make the case of dizziness for being a long lasting geriatric syndrome, the study should address the likelihood of causality. The risk factors should in fact act as contributing etiological or causal factors according to the model of Rothman (Am J Public
Health. 2005;95 Suppl 1:S144-50). Does the time course in the risk factors support such a causal relationship for dizziness? The longitudinal data collection might be unique in addressing this question, while in the current version of the paper these relationships over time remain uncertain.

Overall the longitudinal data might also have more impact if dizziness would be graded over time in severity, and the clinical relevance would also be improved when data on quality of life with and without dizziness over time could be added.

By representing the dizziness symptom only as a dichotomized dependent variable the clinical phenomenology is highly simplified.

So, overall I congratulate the authors with their relevant data analyses, but would like to challenge them for moving our understanding an even bigger a step forward.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

'I declare that I have no competing interests'