Letters to the Editor

Subjective health is likely to confound the association between will-to-live and survival

SIR—We enjoyed reading the inspiring study on will-to-live and survival in older home-dwelling people [1]. The association between will-to-live and survival in these patients looks striking. However, and although the association remained statistically significant after multivariate adjustments, will-to-live may be a risk marker rather than a risk factor. It is indeed plausible that ‘objective health’ determines subjective health [2], which in turn determines will-to-live. It is also very likely that objective health largely determines survival. The association between will-to-live and survival could thus be explained by the underlying objective health.

Objective health cannot be directly measured and accounted for in multivariate analysis. The fact that diagnoses, the Charlson comorbidity score and subjective health were dependent on each other supports the hypothesis that they all relate to objective health. We understand that only one of them can be included in the multivariable model to avoid multicollinearity, but the Charlson score may not have been the best choice. The variation of subjective health according to will-to-live observed in the study was larger and more statistically significant than the variation of the Charlson score (Table I) [1]. Subjective health is, therefore, likely to be a more powerful confounding factor than the Charlson score. Moreover, previous studies have shown that subjective health predicts mortality [2].

We, therefore, hypothesize that and are keen to know whether the association between will-to-live and survival decreases and perhaps even vanishes if the multivariable model is adjusted for subjective health rather than for the Charlson score.

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References


Subjective health, will-to-live and survival

SIR—We read with great interest Prof. Steichen’s et al. comments [1] on our study regarding will to live (WTL) and survival [2]. The author hypothesised that our concept WTL might be a more powerful confounding factor than the Charlson comorbidity index, and he suggested a multivariate model adjusted for subjective health instead of the Charlson index.

Therefore, we reanalysed our data with Cox regression analysis adjusted for age, gender, education, subjective health, smoking and Mini-Mental State Examination score. We omitted depression, which may be a dependent variable with subjective health. In this analysis, the predictive value of WTL diminished but was essentially the same as in our previous analyses. Using group 1 (WTL < 5 years) as a reference group, those wishing to live 5–10 years had a HR of 0.70 (95% CI 0.57–1.03; P = 0.073) for mortality, whereas those wishing to live >10 years had a HR of 0.53 (95% CI 0.29–0.97; P = 0.040).

It is already well known from many studies that subjective health predicts survival [3]. There may be some similarities and overlapping in the concepts of subjective health and WTL. However, there are also distinctive features. Subjective health reflects a person’s evaluation of his/her current health status, whereas WTL also includes cognitive estimation of life expectancy and motivation to live. In our study, 58% of the participants willing to live <5 years had a good or very good subjective health. Despite their good subjective health, as many as 69% of the respondents in this group were deceased during the follow-up.

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