Published in final edited form as:

J Clin Epidemiol. 2016 February ; 70: 279–280. doi:10.1016/j.jclinepi.2015.08.022.

Comparative health and self-rated health are equivalently associated with health indicators among older adults

Sunny Chen,

Geriatric Research, Education, and Clinical Center, Puget Sound VA Medical Center, GRECC S-182, 1660 South Columbian Way, Seattle, WA 98108, USA

Heather Whitson,

Department of Medicine (Geriatrics) & Ophthalmology and the Aging Center, Duke University Medical Center, DUMC Box 3003, Durham, NC 27710, USA

Geriatric Research, Education, and Clinical Center, Durham VA Medical Center, 508 Fulton Street, 3rd floor GRECC, Durham, NC 27705, USA

Ana Quiñones, and

School of Public Health, and Portland, VA Medical Center, Oregon Health & Science University, 3181 SW Sam Jackson Park Road, Mail code: CB669, Portland, OR 97239, USA

Stephen Thielke*

Geriatric Research, Education, and Clinical Center, Puget Sound VA Medical Center, GRECC S-182, 1660 South Columbian Way, Seattle, WA 98108, USA

Department of Psychiatry and Behavioral Sciences, University of Washington, 1959 Pacific Street, Box 356560, Seattle, WA 98195, USA

To the Editor

Self-rated health has become an important variable in epidemiologic studies. In addition to being used in many analyses, it has been the subject of 17 articles in this journal in the last decade. Most assessments use a question about self-rated “health in general” (SRH). A different approach is to inquire about “health compared to other people your age” (CH). The determinants of SRH and CH are not well understood. Most research has focused on their association with mortality [1,2]. Several studies have concluded that CH is mediated through SRH [3,4] but have not explored or compared both SRH and CH in relation to other health indicators in large populations. In light of prior research, we hypothesized that SRH would be more strongly associated with a variety of health indicators than CH was.

We conducted a secondary analysis of the associations of SRH and CH with 55 variables reported by 251,352 participants of the Medicare Health Outcome Survey. Surveys were mailed to Medicare Managed Care recipients in 2009. Fifty-five variables were categorized into seven domains: physical functioning, daily functioning, emotional health, physical

*Corresponding author. Tel.: (206)-764-2815; fax: (206)-764-2569. sthielke@u.washington.edu (S. Thielke).

Conflict of interest: None.

symptoms, diseases, smoking, and obesity. SRH was assessed by the question “In general, would you say your health is:” with answers in five categories. The CH measure asked, “In general, compared to other people your age, would you say that your health is:” with the same five answer categories. We calculated the Spearman correlation coefficient between either SRH or CH and each of the 55 items, the seven domains, and the total score of all the items.

In our analyses, SRH was strongly correlated with CH, with a Spearman correlation coefficient of 0.80. None of the domains or individual items showed a difference in the correlation coefficients for SRH and CH that was greater than 0.03. The correlation coefficients for SRH and CH with each of the domains were as follows: physical functioning (0.70; 0.71), daily functioning (0.60; 0.63), physical symptoms (0.59; 0.60), emotional health (0.57; 0.59), diseases (0.40; 0.39), obesity (0.15; 0.18), and smoking (0.11; 0.13). SRH and CH thus were mainly associated with functional indicators and symptoms.

We conclude that older adults do not seem to recalibrate their health status much differently in light of age-based social comparisons. “Health in general” and “health compared to other people your age” appear to be functionally synonymous. This result is consistent with research suggesting that both are dependable and similar measures of aggregate health status [3], but it differs from it insofar as CH did not seem to be derived from SRH. It also diverges from research that proposes a strong role for implicit social comparisons in health assessment [5–7]. It is possible that the very reporting of symptoms, diseases, or impairments is conditioned by social factors. The answers that people provide to questions about, “Do you have this condition or difficulty?”, might be interpreted to mean, “Do you have an unexpected degree of this condition or difficulty?”, where the expected degree is determined by one’s peer group.

Acknowledgments

Funding: S.T. has been supported by NIMH K23 MH093591. H.W. has been supported by the American Federation for Aging Research and National Institute on Aging (K23-AG-032867) and the Duke Pepper Center (P30-AG-028716). A.Q. is supported by the American Diabetes Association (ADA 7-13-CD-08) and the Programs to Increase Diversity among Individuals Engaged in Health Related-Research (NIH/NHLBI R25HL105430).

References

1. Deeg DJ, Kriegsman DM. Concepts of self-rated health: specifying the gender difference in mortality risk. *Gerontologist*. 2003; 43:376–86. discussion 72–5. [PubMed: 12810902]
2. Vuorisalmi M, Lintonen T, Jylha M. Global self-rated health data from a longitudinal study predicted mortality better than comparative self-rated health in old age. *J Clin Epidemiol*. 2005; 58:680–7. [PubMed: 15939219]
3. Mora PA, Orsak G, DiBonaventura MD, Leventhal EA. Why do comparative assessments predict health? The role of self-assessed health in the formation of comparative health judgments. *Health Psychol*. 2013; 32:1175–8. [PubMed: 23527516]
4. Sargent-Cox KA, Anstey KJ, Luszcz MA. The choice of self-rated health measures matter when predicting mortality: evidence from 10 years follow-up of the Australian longitudinal study of ageing. *BMC Geriatr*. 2010; 10:18. [PubMed: 20403203]
5. Fayers PM, Langston AL, Robertson C, Prism trial group. Implicit self-comparisons against others could bias quality of life assessments. *J Clin Epidemiol*. 2007; 60:1034–9. [PubMed: 17884598]

6. Pham-Kanter G. Social comparisons and health: can having richer friends and neighbors make you sick? *Soc Sci Med.* 2009; 69:335–44. [PubMed: 19515477]
7. Wolff LS, Subramanian SV, Acevedo-Garcia D, Weber D, Kawachi I. Compared to whom? Subjective social status, self-rated health, and referent group sensitivity in a diverse US sample. *Soc Sci Med.* 2010; 70:2019–28. [PubMed: 20381225]

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript