Compared to Whom? An Investigation of the Relative Health Comparisons of Well People

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ABSTRACT

Objectives: Responses to the self-reported health (SRH) question, "In general how would you rate your health? Excellent, very good, good, fair or poor", have been repeatedly demonstrated to predict mortality. Survival curves plotted for each response category show that the likelihood of death increases in a stepped fashion with each progressively negative response category and the relationship persists for up to 12 years following initial measurement. To whom do people compare themselves when answering the self-reported health question?

Methods: Twenty-one interviews with people who selected the better-health response choices (i.e., good, very good, or excellent) were conducted in a Canadian city. Qualitative content analysis was undertaken and the interviews were approached with no pre-conceived ideas about what the participants would say.

Results: Analysis of the interviews suggested that there are three key features in making a health comparison: the type (i.e., with whom), direction (i.e., upward or downward), and magnitude of the comparison (i.e., with a few people or an ideal person vs. many other people). These key features varied in a systematic way with the chosen response.

Discussion: The findings related to the direction of comparison contradict, somewhat, the theories of social psychologists but these differences may have occurred because the participants were well. Healthy people may use different factors than ill people when making social comparisons as they select a self-reported health question response category. The nature of the comparisons are complex and the responses indicate that they are affected by age, gender, and life experience.

MeSH terms: Social perception; self concept; health surveys; health status; attitude to health; qualitative research

La traduction du résumé se trouve à la fin de l'article.

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The self-reported health (SRH) question, "In general how would you rate your health? Excellent, very good, good, fair or poor", is frequently used in health survey research to measure the health status of a population. Closer examination of this apparently simple and straightforward indicator raises several questions. What does 'health' mean for the respondents? Do all respondents share a common understanding? Do they implicitly use some referent to establish their rating and, if so, what is that referent?

The SRH question has been demonstrated repeatedly to predict mortality.¹⁻¹⁰ Survival curves plotted for each response category show that the likelihood of death increases with each progressively negative response and that the relationship persists for up to 12 years following initial assessment, with the curve becoming progressively steeper with each progressively negative response.³ Self-reports of health also have been shown to predict (dis)ability,^{11,12} illness^{11,13} and hospitalization.⁸ One cannot improve the prediction with the inclusion of 'better' measures of physical health; the association between mortality and SRH persists even after controlling for age, gender, major illnesses, disability, activities of daily living, preventive health practices, laboratory measures of disease, income, education, mental health measures, and social support.^{2,7,10,14-16}

What does the SRH question tap? It is widely accepted that self-evaluations of health are influenced by physical, emotional, social, spiritual, and intellectual factors.^{17,18} SRH responses have been associated with physical health measures or physical functioning,¹⁸⁻²⁵ mental health,^{18,20,23,24,26} health adverse behaviour,²¹ and social factors,^{18,24,27} although no study has included all factors. Few researchers have asked respondents why they select a particular response to the SRH question, although considerable theorizing exists (e.g., refs. 1 and 28), with social comparison most frequently offered as an explanation. Social psychologists use the phrase 'social comparison' to refer to the comparisons people make of themselves with others, and they study the effects these comparisons have on cognitions, behaviour, and affect. Perhaps the most investigated theory, developed by Festinger,²⁹ suggests that the self-evaluation drive leads individuals to choose com-

parative situations that provide the opportunity to minimize differences. Festinger hypothesized that people are motivated to develop accurate assessments of their abilities and beliefs and, in the absence of objective standards, they resort to comparing themselves with others. He also suggested that people tend to strive to improve themselves and so tend to compare themselves with others who are similar but slightly better (i.e., an upward comparison).

Others suggest that individuals are said to identify upward and contrast downward.³⁰⁻³² The theorists suggested that upward comparisons are made only if there is opportunity for self-improvement and the situation is controllable, and are postulated to assist individuals to engage in problem-focussed coping, while downward comparisons allow individuals to engage in emotion-focussed coping.

Baron-Epel et al. asked adults to whom did they compare themselves? (Findings are listed by SRH response category in Table I.)^{33,34} Seventy-five percent of the comparisons, regardless of SRH response, were made with age peers, friends or 'no reference group'. Mallinson³⁵ used qualitative research to examine how elderly people conceptualized health when answering the SRH. They found that the comparisons made could be internal (e.g., relative to a younger self) or external (e.g., relative to peers or the general population). She also noted that health was conceptualized with different inclusions and exclusions. For example, some people separated their chronic health problems from their "sense of being a healthy person."

Much of the theory development in this area has attempted to explain how ill people make comparisons. The study reported here focussed on people who were well, and sought to describe the referents that healthy respondents employ when they make comparisons.

METHODS

Interviews were conducted to answer the research question, "What are the explanations offered by interviewees for their choice of response to the self-reported health question?" Ethical approval for the project was obtained from the Behavioural Research Ethics Board at the University of

TABLE I

Percent Reporting Each Type of Reference Group When Asked About Their General Subjective Health†

Type of Reference Group	Excellent	Good	Sub-optimal*	Total
People my age	31.7	32.3	43.7	35.4
No reference group	26.7	18.8	18.7	21.1
Most of my friends/acquaintances	17.8	17.7	12.5	16.6
Sick people in general	10.9	4.3	2.1	5.5
A specific acquaintance	0	5.4	4.2	3.7
People with sickness similar to mine	1.0	1.1	4.2	1.8
People I work with	2.0	1.1	1.0	1.3
People who live in my district	0	1.1	3.1	1.3
People in my socio-economic class	1.0	2.1	0	1.3
A sick person I know	1.0	1.6	0	1.1

† taken from ref. 34.

* An aggregation of those reporting "so so," "not so good," and "bad."

British Columbia. Qualitative content analysis was undertaken and the interviews were approached with no pre-conceived ideas about what the participants would say.³⁶

The first three interviews were with people with occupations in alternative or mainstream medicine who had put considerable thought into what constitutes good health. The remainder of the interviewees were recruited through posters placed in public places or were referred by other interviewees. The poster asked potential interviewees to answer the SRH question and to contact the author if they were interested in participating and if they had at least 'good' health. The 21 people were selected, using purposive sampling, by age, gender and socio-economic status (SES); they are described in Table II. All interviews were recorded, transcribed and analyzed with the qualitative analysis software NUD*IST Vivo (known as N Vivo), which allows portions of text to be linked with analytic themes. These themes can be organized and combined, and the interview extracts examined within the researcher-identified themes.

The interviewee codes used in the quotations within this paper provide information about the sex, age, SRH response category, childhood statuses, and adult SES of the participants. For example, 'F25G b/m' is a female, 25-year-old, who reported 'good' health, had a lower class (blue-collar) childhood and achieved middle class status in her adulthood (see Table II).

To begin the interview, the participants were asked why they chose their particular response; an initial spontaneous, unprompted comparison was sought. Because a qualitative content analysis was employed, the first few interviews were

exploratory in nature with the only consistently-asked question being the SRH question. As more people were interviewed, the participants were asked additional questions about factors identified in other interviews. If the respondents did not initially articulate to whom they were comparing themselves, they were directly asked. It was occasionally apparent that a comparison was being made when other questions were answered.

The analysis was interested in differences by gender, age and social class. The current occupation of the participants and the occupation(s) of their parents were classified as blue/pink collar, middle class, and upper class.

A limitation of the participant recruitment for the study was that, despite great effort, it was not possible to identify a potential interviewee who received social assistance and selected 'excellent' or 'very good' SRH.

RESULTS

During analysis, it became clear that the comparisons could be classified by type (i.e., with whom), direction (i.e., upward or downward), and magnitude of comparison (i.e., with a few people or an ideal person vs. many other people) (see Table II).

The type of relative comparison

When rating their health status, the participants compared themselves to an ideal person, to their former selves, or to others. The types of 'others' ranged from the vague "better than average (F65V b/u)", to more specific examples, such as those who lived in poverty, the unwell, those socially labelled as well, or "the entire world (M73E m/u)." The comparisons, classified

TABLE II

Study Participants' Demographic Characteristics, Self-reported Health, and Comparison Referents

Gender	Age	Childhood Socio-economic Status	Current Socio-economic Status	SRH Response*	Age & Sex†	Everyone†	Family Members†	Friends†	An Ideal Person†	Former Self†	Fit/Athletic People†	Unhealthy/Disabled People†	Direction of Comparison‡	Magnitude of Comparison§
F	25	blue/pink	mid	G						p	o		up	narrow
F	30	mid	upper	E		p		p				p	down	wide
F	31	blue/pink	mid	G						p			up	narrow
F	32	blue/pink	blue/pink	G				p	i	p			up	narrow
F	34	unknown	blue/pink	V		p	o					o	down	moderate
F	47	upper	mid	V		p				i	o	p	down	moderate
F	48	blue/pink	upper	E						i			down	moderate
F	58	upper	upper	E	p					p		i	down	moderate
F	65	blue/pink	upper	V	p							i	down	moderate
M	26	upper	mid	V					o				up	narrow
M	28	upper	mid	V						o			up	narrow
M	31	upper	upper	V	o						p		up	narrow
M	38	blue/pink	blue/pink	E		p				o			down	wide
M	39	mid	blue/pink	V				p		p	o		up	moderate
M	44	blue/pink	upper	V							p		up	narrow
M	45	blue/pink	mid	G				p					?	moderate
M	48	upper	upper	E			o			p			down	narrow
M	49	unknown	mid	V						p			up	narrow
M	56	blue/blue	upper	V				o					?	moderate
M	58	upper	upper	G						p	p		up	narrow
M	73	mid	upper	E		p							down	wide

* E = excellent, V = very good, G = good, F = fair, P = poor

† o = offered without prompting; p = response when prompted; i = inferred from other interview data

‡ down = compared to those less well; up = compared to those healthier than self

§ narrow = compared to few people or an ideal person; wide = compared to many people

into three groups (those offered without prompting; those articulated after a probing question; and those inferred from the analysis of the transcripts) are provided in Table II.

Only half of the participants offered an initial comparison and further probing produced comparisons for everyone, usually without hesitation. None of the people who reported excellent health used an ideal person as the referent. Almost two thirds of the participants compared themselves to others when choosing an SRH response category. No obvious patterns were noted in response choices by current or childhood SES.

Both people who compared themselves to an ideal person were under 45 years of age, and offered few explanations of their reported health status except to offer poor behaviour as a determinant (e.g., tobacco use or not being as fit as an athlete).

Many of those who compared themselves to their former selves were limited by a progressive chronic condition. The men who made this type of comparison also tended to limit their conceptualization of health to functional capacity. Two men reported that they could not compare themselves with others.

I was comparing myself to myself in the past. My reference is completely internal. It's not based on what was happening with other people (M48E u/u).

I have no outside comparison with how other people are. People can look great and not be healthy (M28V u/m).

Those who compared themselves to others of their age and sex explicitly mentioned that they had no complaints of illness or disability limitations. An absence of any chronic illness or disability was frequently mentioned by those who compared themselves 'to everyone' and, indeed, none was limited by any chronic illness. They were also more likely to mention both mental and physical health in their descriptions of their health.

The direction of the comparison

About one half of the participants compared their health upward by comparing themselves to their former selves or to an ideal person. These comparisons were usually unrealistic or improbable, such as a former athlete wishing for the physical condition he maintained when in competition, or a desire to be like the people pic-

tured in media representations of good health. Most of the participants who selected 'very good' SRH reported no physical or mental limitations but they made upward, often unrealistic, comparisons. As one would expect, those in excellent health compared downward, while those with 'good' SRH compared upward, albeit more realistically than those in 'very good' health.

Excellent would probably be somebody who exercises very consistently, eats well very consistently, very well manages their stress, has all personal matters well under control, comfortable, they're easy going with all that kind of stuff (F25G b/m).

The men were more likely to compare upward than the women. Those participants who were in the middle class were also more likely to compare upward than those of lower SES.

The magnitude of the relative comparisons

The magnitude or scope of the relative comparisons varied widely in number from a single person (their former self), to immediate friends, co-workers, the larger

community or to the 'entire world.' The participants who compared upward mostly applied a narrow comparison (their former self or an ideal person). Those who compared downward were more likely to compare themselves to a wider range of people such as "the world" or the entire society, and to mention the advantages that they had because of their position in the world.

All those who reported 'excellent' SRH used a moderate or wide comparison, whereas those who reported 'good' health applied a narrow comparison. Men were more likely than women to use a narrow comparison group as were those with upper SES as children. Any patterns in the current SES differences were less apparent, but it appeared that those in the middle class were likely to apply a narrow comparison group.

DISCUSSION

The comparisons made by the study participants, when choosing an SRH response, appear to be more sophisticated than a brief review of the published literature would suggest. For example, the findings here are at odds with those of Kaplan et al.,³⁴ who found that approximately one fifth of their respondents had no reference group. In this study, the respondents who initially failed to describe a comparison, after probing, were found to compare themselves to their former selves or to media images. These findings also conflict with Festinger's²⁹ suggestion of a unidirectional upward comparison and support other theories of downward comparisons;^{30,32} they partially support the idea of upward identification. The direction of comparison differs by SRH response category with participants who have excellent health being more likely to compare downwards, but the nature of those comparisons are complex and the responses indicate that they are affected by age, gender, and life experience.

The three key features of the comparisons made are type, direction, and magnitude of the comparison. People who select 'excellent' health have a broader comparison group than those who select 'very good' health, who often have unrealistic expectations based on their former health status (especially during their youth) or media representations. Men are more likely

to compare upwards than women, perhaps because they are also more likely to apply narrow comparison groups.

The young are more likely to compare themselves to an ideal person. Consider the young person with no chronic conditions, activity limitations, nor injurious health habits who selects less than 'excellent' SRH because the social comparison, is a media-generated, unrealistic ideal. With this type of external comparison, there are unlikely to be many associations found between SRH and other personal-information variables measured in health surveys, which may explain why some researchers have found few correlations in young people. By contrast, the older women were more likely to compare themselves downwards and to someone less healthy. Elderly people can easily identify people who are less healthy than themselves.

Idler and Kasl,³⁷ who studied 2,800 older Americans, suggested that the success of the SRH question in predicting future death might arise because people are: a) extremely knowledgeable about their health and their perceptions have beneficial or detrimental effects on their future health, or b) the choice of a health status response is a self-fulfilling prophecy. These hypotheses could be couched slightly differently to ask whether it is the direction of comparison that affects the SRH response or whether one's actual health status affects the direction of the comparison. The latter obviously plays a significant role in those who are ill or disabled, and it is likely that actual health status affects their direction of comparison. But, the continuing predictive utility of the SRH response for life expectancy for at least 12 years following a single report³ suggests that something other than social comparison is important in the determination of one's response.

Is it possible that the SRH is a strong predictor of death because it taps a tendency to compare upward or downward, particularly in well people who have no personal experience of physical or mental health problems? How much of a role can life experience play in the selection of a SRH response category in people who have not had the personal experience of illness or disability? Many of the participants in this study who selected 'excellent' health had considerable contact with ill or disabled people, whereas many of those who

selected 'very good' reported that they had no experience with illness or disability. Those participants who were, or had been, athletes compared upward; a life approach that is valuable in an athlete who must always strive to improve athletic performance, but is not necessarily beneficial as one deteriorates with age.

As in all projects conducted with small numbers of participants, the findings from this research do not provide definitive answers about why people choose particular responses when answering the self-reported health question. Nonetheless, the results and unanswered questions should encourage further research about this intriguing health question.

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RÉSUMÉ

Objectif : Il a été prouvé à maintes reprises que les réponses déclarées par les intéressés à la question « En général, comment évalueriez-vous votre santé? (excellente, très bonne, bonne, passable ou mauvaise) » peuvent prédire la mortalité. Les courbes de survie tracées pour chaque catégorie de réponse démontrent que la probabilité de décès augmente avec chaque catégorie, et que ce rapport peut persister jusqu'à 12 ans après la mesure initiale. À qui les gens se comparent-ils lorsqu'ils répondent à cette question?

Méthode : Vingt-et-une entrevues avec des personnes ayant déclaré avoir une santé relativement bonne (c.-à-d. bonne, très bonne ou excellente) ont été menées dans une ville canadienne. Nous avons procédé à une analyse qualitative du contenu et abordé les entrevues sans avoir d'idées préconçues de ce que diraient les participants.

Résultats : L'analyse des entrevues donne à penser qu'il faut tenir compte de trois grandes caractéristiques lorsqu'on compare la santé des gens : le genre de comparaison (à qui se compare-t-on?), le sens de la comparaison (vers le haut ou vers le bas?) et l'étendue de la comparaison (par rapport à un petit nombre de personnes ou à une personne idéale, ou par rapport à beaucoup d'autres personnes?). Ces grandes caractéristiques changent systématiquement selon la réponse choisie.

Discussion : Les résultats liés au sens de la comparaison contredisent passablement les théories des psychologues sociaux, mais ces différences ont pu se produire parce que les participants allaient bien. Dans leurs réponses, les personnes en bonne santé peuvent en effet faire appel à des facteurs différents de ceux des personnes malades. La nature des comparaisons sociales est complexe, et les réponses indiquent qu'elles sont influencées par l'âge, le sexe et l'expérience de la vie.

ERRATUM

In the article, "Iron deficiency and anemia prevalence and associated etiologic risk factors in First Nations and Inuit communities in northern Ontario and Nunavut", published in the July/August 2005 issue of the *Canadian Journal of Public Health* (Vol. 96, No. 4, pp. 304-7), there is a misnumbering of the references in the text.

At the end of the fourth sentence of the first paragraph of the article, the reference numbers should read "2,3" rather than "9,10". All references in the text from ref.9 on should be renumbered to be two numbers lower.