

The Meaning and Predictive Value of Self-rated Mental Health among Persons with a Mental Health Problem

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Abstract

Self-rated health is a valid measure of health that predicts quality of life, morbidity, and mortality. Its predictive value reflects a conceptualization of health that goes beyond a traditional medical model. However, less is known about self-rated mental health (SRMH). Using data from the Medical Expenditure Panel Survey ($N = 2,547$), we examine how rating your mental health as good—despite meeting criteria for a mental health problem—predicts outcomes. We found that 62% of people with a mental health problem rated their mental health positively. Persons who rated their mental health as good (compared to poor) had 30% lower odds of having a mental health problem at follow-up. Even without treatment, persons with a mental health problem did better if they perceived their mental health positively. SRMH might comprise information beyond the experience of symptoms. Understanding the unobserved information individuals incorporate into SRMH will help us improve screening and treatment interventions.

Keywords

measurement in mental health, mental disorders, self-rated mental health

Over research spanning decades, substantial evidence has emerged that self-rated health (SRH) is predictive of disability, morbidity, and mortality (Benyamini et al. 2000; Benyamini and Idler 1999; Idler et al. 2004; Idler and Benyamini 1997; Latham and Peek 2012; Schnittker and Bacak 2014; Stenholm et al. 2014). That is, even after taking into account more objective measures of health, such as the presence of chronic conditions, and health behaviors, such as smoking, how one rates one's own health on a simple metric from excellent to poor is predictive of future well-being.

SRH is widely considered a valid measure of health status, and it is now widely used in survey research as a measure of general health. Research supports the hypothesis that individuals are making spontaneous assessments (Bailis, Segall, and Chipperfield 2003) of their actual or objective health status, taking into account both physical and mental conditions as well as severe and more minor health

problems (Jylhä 2009). However, objective illness alone explains less than half of the variation in SRH (Singh-Manoux et al. 2006). One of the most important contributions of this field of research emerged from the finding that many people with even serious chronic diseases evaluate their own health positively (Chipperfield 1993; Idler et al. 2004; Ruthig, Chipperfield, and Payne 2011; Shadbolt, Barresi, and Craft 2002), a phenomenon referred to as health optimism (Hong, Zarit, and Malmberg 2004; Ruthig et al.

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2011). Research about SRH has, with some exceptions (Grol-Prokopczyk, Freese, and Hauser 2011; Layes, Asada, and Kephart 2012), not treated such seemingly incongruent evaluations as inaccurate or as the product of measurement error. Instead, individuals' ratings of their own health as more positive (health optimism) or more negative (health pessimism) than their objective health status is seen as reflecting a wide range of factors within broader social and cultural contexts, such as health beliefs and behaviors, social comparisons, positive and negative affect, family histories, and sense of vitality (Benyamini et al. 2000; Idler et al. 2004; Jylhä, 2009; Schnittker and Bacak 2014). The observation that SRH does not perfectly correlate with objective indicators of health status helped to stimulate a conceptualization of health that goes beyond a traditional medical model (Bailis et al. 2003; Benyamini 2011; Benyamini et al. 2000; Idler and Benyamini 1997; Jylhä 2009; Kaplan and Baron-Epel 2003; Tessler and Mechanic 1978). Simply put, individuals consider much more than the presence or absence of disease or illness when evaluating their own health.

Given the wide recognition that SRH is a valid and important measure of health, it is surprising that only recently have researchers begun to investigate the meaning and prognostic significance of self-rated mental health (SRMH). The purpose of this paper is to add to this body of literature by examining the characteristics of people who rate their own mental health positively while concomitantly meeting the criteria for having a mental health problem. Parallel to the body of research on SRH, we also examine whether positive assessments of mental health are associated with better mental health outcomes, independent of objective symptoms of mental health problems. The contribution of the paper is twofold. First, we assess whether SRMH is a valid measure of mental health, in line with a medical model of health. That is, like the research about SRH, we investigate whether SRMH reflects a spontaneous assessment (Bailis et al. 2003) of overall mental health status that incorporates symptoms and feelings of well-being or distress and the degree to which they interfere with functioning. Second, we examine whether SRMH may also reflect a broader conceptualization of mental health that goes beyond clinical status and independently predicts later well-being. The two possibilities are not mutually exclusive: self-assessments may at the same time reflect objective mental health and partially capture aspects of wellness that are not measured by clinical status.

BACKGROUND

SRMH and Objective Mental Health

SRMH in survey research is typically assessed with a simple question that asks respondents to rate their overall mental or emotional health from poor to excellent (Ahmad et al. 2014). Objective mental health status involves meeting the clinical criteria for having a mental illness. In the United States, the authority on the clinical criteria that define specific disorders is the *Diagnostic and Statistical Manual of Mental Disorders (DSM)* (American Psychiatric Association 2013), although there continues to be a rabid debate about the validity of its classification schema. In survey research, objective mental health status is typically operationalized through either complex survey instruments that mirror the diagnostic criteria of the *DSM* (e.g., Kessler and Üstün 1994) or symptom scales that employ a cutoff threshold to indicate probable mental disorder (e.g., Kroenke, Spitzer, and Williams 2003).

Across several studies, SRMH is modestly correlated with objective measures of mental health. Using U.S. national data, Fleishman and Zuvekas (2007) found that SRMH was moderately correlated with serious psychological distress (SPD; .49) and depression (.45). Others have found that a large proportion of people who meet the criteria for having a mental disorder evaluate their own mental health as good, despite simultaneously reporting either the symptoms of a mental disorder or a diagnosed condition. Jang and colleagues (2015) found that among African Americans in a community survey who met the criteria for major depression, generalized anxiety disorder, or panic disorder (based on the Composite International Diagnostic Interview–Short Form), almost one half rated their own mental health as good, very good, or excellent. Similarly, Mawani and Gilmour (2010), in a national sample in Canada, found that 55% of persons who met the criteria of having a mental disorder (based on World Mental Health–Composite International Diagnostic Interview) in the past month rated their own mental health as good, very good, or excellent. In the same study, 54% of people who said their doctor had diagnosed them with a mental disorder still evaluated their own mental health positively.

There are a number of possible explanations for the relatively modest correlations between SRMH and “objective” measures of disorder. For some scholars, SRMH is an indicator of how well individuals recognize their symptoms as being signs of

a mental illness. That is, individuals who meet the criteria for having a mental disorder, yet who also rate their mental health positively, are considered to be “mismatched” or incongruent. In this vein, Jang and colleagues (2015) examined the relationship between SRMH, mental disorders, and use of services. They found that even controlling for having a mental disorder, poor SRMH about doubled the odds of using mental health services. Moreover, they found an interaction between SRMH and disorder: persons with a mental disorder who perceived their mental health as poor were much more likely to use services than their counterparts with a mental disorder who perceived their health as good. They argue that “the mismatch between one’s objective mental health status and subjective assessment poses a critical barrier to service use” (Jang et al. 2015:663). Similarly, Zuvekas and Fleishman (2008) found that SRMH predicts use of mental health services independent of emotional functioning (as measured by the mental health component of the Short Form-12 [SF-12]). In addition, they find that SRMH is less strongly correlated with emotional functioning for Latinos and blacks than for whites, and they suggest that different racial and ethnic groups vary in “the extent . . . [they] acknowledge the existence of emotional problems” (Zuvekas and Fleishman 2008:915). Kim et al. (2011) draw similar conclusions in their analysis of the correlation between SRMH and anxiety and depression among elderly persons from different ethnic groups.

Overall, this line of research is premised on the assumption that rating one’s own mental health positively while also meeting the criteria for having a mental health problem is indicative of a degree of denial or ignorance. Then, incongruence between positive SRMH and the presence of symptoms of a mental disorder is interpreted as reflecting individuals’ lack of recognition of their problem—or somehow an inaccurate representation of their true mental health status. Such research assumes that measures of psychological disorder or distress based on the *DSM* or symptom scales are “objective” reality—gold standards or such for the presence of mental illness. SRMH, they conclude—because it does not correlate strongly with *DSM*-based measures of mental health problems—is not a valid proxy for mental health.

There are at least two alternative explanations for why people may rate their mental health positively, even while experiencing symptoms of a mental health problem or disorder. First, like global measures of SRH, SRMH may incorporate unobserved qualities of objective health, such as

severity, persistence of symptoms, and functional limitations. Indeed, most of the existing research finds that the concordance between SRMH and measures of mental health problems is correlated with the severity and recency of disorder and degree of impairment in functioning (Fleishman and Zuvekas 2007; Jang et al. 2015; Mawani and Gilmour 2010). In addition, self-assessed mental health may take into account somatic symptoms or physical conditions (Ahmad et al. 2014), such that persons with such complaints may make more negative evaluations of mental health.

A second alternative explanation calls into question the assumption that measures of mental illness based on *DSM* criteria or symptom scales are really objective measures of mental illness. The boundaries between what is “normal” and what is disorder are amorphous for both physical and mental disorder. However, defining what constitutes disorder, or distinguishing health from illness, may be particularly difficult for psychiatric conditions. Many of the symptoms of mental health problems, such as sadness or difficulties sleeping, are a “normal part of human nature” (Horwitz and Wakefield 2007:459) or expected reactions to events, such as the loss of a job or the end to a romantic relationship. Perhaps people incorporate life circumstances into their subjective assessments of emotional health; if so, subjective appraisals of mental health may be equally valid measures of status as clinical measures based on cut points on standardized scales.

Predictive Value of SRMH

In contrast to the substantial body of research that examines the predictive value of SRH for later outcomes using longitudinal designs, there is little research examining whether SRMH predicts later outcomes. One notable exception is work done by Hoff and colleagues (1997) using data from the Epidemiologic Catchment Area studies. After controlling for baseline and lifetime depression and other demographic and mental health covariates, the researchers found that persons who rated their mental health as poor were more likely to have a recurrent or first episode of depression within the next year compared to individuals who rated their mental health as fair, good, or excellent.

Analytic Approach

Much of the research that has tried to isolate the effect of SRH on outcomes has followed a sample of individuals and examined the impact of SRH at

baseline on later morbidity, mortality, or disability, controlling for demographic characteristics and measures of objective health and health behaviors at baseline. We use a slightly different approach to explore the meaning of SRMH. We begin with a sample of persons who meet the criteria for having a mental health problem on commonly validated scales of mental health, and we examine differences between those who do and do not rate their own mental health as poor. Then, we examine whether SRMH predicts later outcomes among persons with a mental health problem.

We control for initial symptoms (both mental and physical) in order to assess the independent association between SRMH and later mental health outcomes. However, because individuals with lower SRMH are more likely to seek treatment, and treatment is associated with better outcomes, we wished to remove the impact of treatment on outcomes. Therefore, we also estimate the impact of SRMH on later outcomes for the group of persons with a mental health problem who did not receive treatment. If SRMH simply reflects individuals' recognition of their symptoms and willingness to seek treatment, SRMH should not affect later outcomes in the absence of treatment, controlling for initial symptoms. If SRMH offers additional information beyond the experience of symptoms, we would expect that better SRMH among persons with mental health problems should be associated with better mental health outcomes for the total sample and for those who do not seek treatment.

METHOD

Data and Sample

Data came from the household component of the Medical Expenditure Panel Survey (MEPS), a nationally representative survey of the U.S. civilian, non-institutionalized population that was designed to collect detailed information about medical care utilization and expenditures (Agency for Healthcare Research and Quality 2016). MEPS employed a panel design whereby a new panel was selected every year and followed through a series of five computer-assisted personal interviews (called rounds) over a two-year period. We used the three most recent panels for which two years of data were available at the time of analysis (the ones that began in 2009, 2010, and 2011) in order to have sufficient sample sizes.

A knowledgeable household member was chosen as the informant to report on the healthcare

experiences of other household members. In addition, in rounds 2 and 4, all adults in the household were asked to complete a mail-back self-administered questionnaire (SAQ) that included more detailed questions about physical and emotional health. Data collected in round 2 defined year 1 (baseline), while data collected in round 4 defined year 2 (follow-up).

Measures

SRMH was assessed at each of the five interviews. Respondents were asked, "In general, would you say that your mental health is excellent, very good, good, fair, or poor?" SRMH from rounds 2 (year 1) and 4 (year 2) were used in this analysis to coincide with the timing of the administration of the mental health screeners in the SAQ. A binary variable was created indicating good (good, very good, excellent) compared to poor (fair or poor) SRMH.

Probable mental health disorder was defined as screening positive for either depression or SPD using the two-item patient health questionnaire (PHQ-2) and the Kessler-6 (K6) scales, respectively. These instruments were self-administered as part of the SAQ in rounds 2 (year 1) and 4 (year 2).

The PHQ-2 is a two-item depression screener that asks respondents how often they have been bothered by "feeling down, depressed, or hopeless" or have had "little interest or pleasure in doing things" during the past two weeks. Responses include "not at all," "several days," "more than half the days," and "nearly every day," and are scored from 0 to 3. The total PHQ-2 score ranges from 0 to 6. A score of 3 or more has been validated against clinical criteria for major depression across different populations in clinic and community settings with sensitivity ranging from .61 to 1.0 and specificity from .71 to .92 (Arroll et al. 2010; Kroenke et al 2003; Li et al. 2007).

The K6 is a six-item scale of SPD that asks about symptoms such as feeling sad, nervous, and hopeless in the past 30 days. Responses range from "none of the time" (0) to "all the time" (4). The K6 score ranges from 0 to 26, and a score of 13 or greater is a positive indicator of SPD in the general population (Kessler et al. 2002, 2003). Findings across different populations demonstrate that K6 scores of 13 or higher detect significant psychological distress and correlate highly with other measures of dysthymia, major depression, or anxiety disorders (Cairney et al. 2007; Furukawa et al. 2008; Kessler et al. 2002, 2003). In these studies, the sensitivity and specificity of the K6 scale with

13 as the cutoff score ranged from .36 to .90 and from .74 to .97, respectively.

Mental health functioning in each year was measured with the Mental Component Summary (MCS) of the SF-12 that was also administered as part of the SAQ in rounds 2 and 4. The MCS assesses symptoms that are related to diagnostic criteria for mental health problems and assesses the degree to which functioning is impaired because of symptoms experienced (Gill et al. 2007; Vilagut et al. 2013; Ware, Kosinski, and Keller 1996). In the general population, the mean MCS score is 50, with a standard deviation of 10. Higher scores represent better mental health functioning.

Mental health care utilization included measures of ambulatory mental health visits and use of psychotropic medications during year 1 and year 2. *Ambulatory mental health care* was defined as an emergency room, outpatient, or office-based visit during which the reason for visit was defined as “psychotherapy/mental health counseling” or the type of provider was listed as psychiatrist, social worker, or psychologist. Psychotropic medications were identified using the therapeutic class of the prescribed medication and the corresponding clinical classification codes. Respondents were counted as having a psychotropic medication if they (1) had a medication with a Multum therapeutic class of “psychotherapeutic agents” and (2) had a modified clinical classification code corresponding to one of the following conditions: adjustment disorder; anxiety and mood disorders; attention-deficit, conduct, and disruptive behavior disorder; personality disorders; schizophrenia and other psychotic disorders; substance abuse disorders; suicide and intentional self-inflicted injury; and eating disorder. Persons who did not receive any of these services were categorized as not having received mental health treatment.

Physical health measures included self-rated health, physical functioning, and the presence of chronic physical conditions assessed in year 1. Self-rated health came from information gathered in round 2; respondents were asked, “In general, would you say that your health is excellent, very good, good, fair, or poor?” A binary variable was created indicating “good” (good, very good, excellent) compared to “poor” (fair or poor) self-rated health. Physical functioning was measured with the Physical Component Summary (PCS) scale of the SF-12 and assessed in the SAQ in round 2. The PCS measures the degree to which physical symptoms impair functioning (Fleishman, Selim, and Kazis 2010; Ware et al. 1996). As with the MCS,

higher PCS scores indicate better physical health, and the scale has been standardized to a general population mean of 50 and standard deviation of 10 (Ware et al. 1996). The measure of number of chronic conditions was created from a series of questions in which the respondent was asked whether or not she or he has ever been diagnosed with cancer, diabetes, heart disease (includes heart attack and angina), high cholesterol, stroke, asthma, or arthritis. It was a count variable with values from zero to seven.

Sociodemographic characteristics were measured in year 1 and based on data collected during the first round. These variables included gender, age, race-ethnicity, education, marital status, employment, insurance status, and income.

Gender was measured as male or female. Ethnicity and race were combined, with Latino ethnicity assigned first, into four mutually exclusive categories: Latino, African American, Asian/multiple/other races, and white. Marital status was categorized as married, widowed/divorced/separated, or never married. Highest level of education was categorized as college degree, any college, high school graduate, or no high school degree. Insurance status was defined as follows: if the respondent had private insurance at any time in the calendar year, she or he was considered privately insured; if the respondent did not have private insurance during the year and had public insurance at any point in the year, she or he was publicly insured; respondents labeled uninsured were uninsured the entire calendar year. The respondent was considered employed if she or he was currently employed, had a job to return to, or was employed at some point during the first round. Poverty categories represented family income as a percentage of the federal poverty level (FPL), adjusted for family size: poor was less than 100% FPL; near poor was 100% to less than 125% FPL; low income was 125% to less than 200% FPL, middle income was 200% to less than 400% FPL; and high income was greater than or equal to 400% FPL.

Analytic Sample

Figure 1 shows the inclusion criteria for selection of the analytic sample. We excluded persons under the age of 18 and those who were determined to be ineligible. Ineligibility most likely resulted from a change in status during the panel, such as entering an institution (e.g., nursing home or prison) or leaving the country for military service. We included only household respondents because they were the

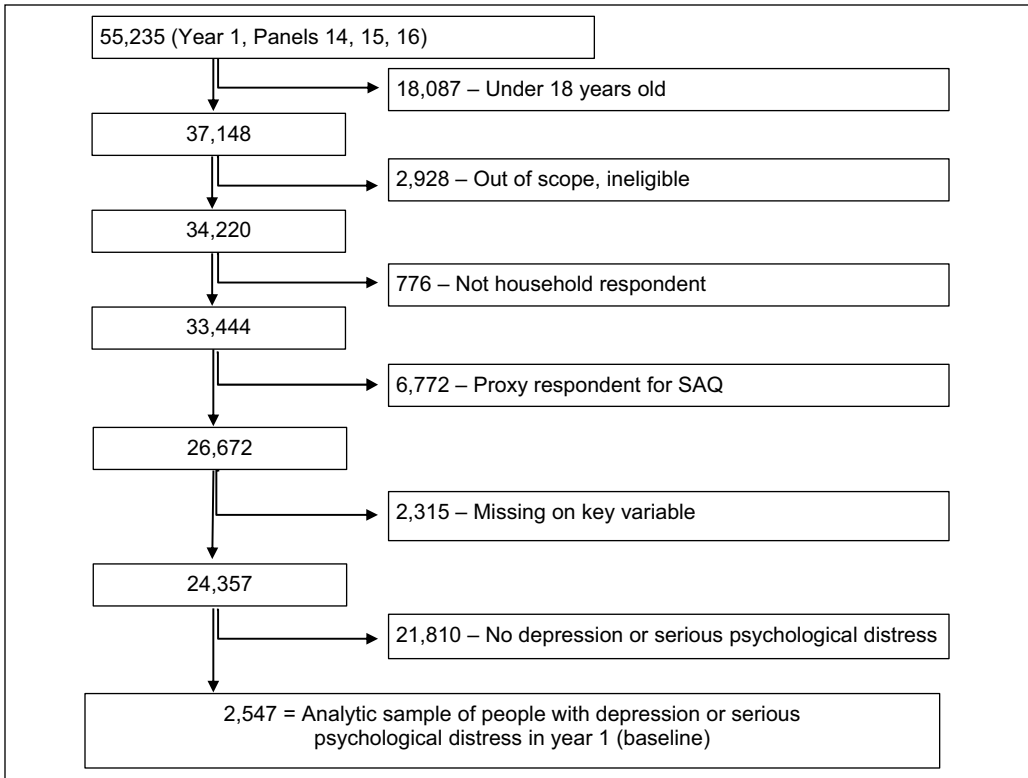


Figure 1. Sample Selection (Unweighted Observations).

only persons who completed the self-rating of mental health. We also excluded persons with missing values on any of the variables and proxy respondents for the SAQ because the measures of depression and SPD were based on the SAQ. After this series of exclusions, we were left with 24,357 respondents. Of these persons, 2,547 meet the criteria for screening positive for depression or SPD in year 1 and therefore were included in the analytic sample.

Analysis Strategy

Student's *t* tests were used to compare characteristics of persons who rated their mental health as good to those who rated their mental health as poor. Logistic regression was used to examine the independent effects of each variable on SRMH in year 1. A series of logistic regressions was computed to assess the impact of SRMH at baseline on mental health status at the second wave. The regressions were computed for the total sample of persons with a mental health problem and for two subsamples to examine the sensitivity of the results. MEPS

provided weights to adjust for nonresponse and to poststratify to the population; weights were used for all estimates. In addition, standard errors were adjusted for the complex survey design.

RESULTS

Characteristics of the sample by SRMH are presented on Table 1. Most people (62%) with a mental health disorder rated their own mental health as good. There are important differences in the characteristics of respondents by SRMH. People who said their mental health was good, even though they screened positive for a mental health condition, were more likely to be Latino or African American and less likely to be white. Married respondents were more likely to report their SRMH as good, while divorced or separated respondents were less likely to do so. There are also socioeconomic differences. Persons who rated their mental health positively had higher levels of education, were more likely to be employed, were less likely to live in poverty, and were more likely to be privately insured than their counterparts whose SRMH was poor.

Table 1. Characteristics of Persons with a Mental Health Disorder by Self-rated Mental Health Status (SRMH) at Baseline.

Variable	Poor SRMH (n = 961; 38%)			Good SRMH (n = 1,586; 62%)		Total (N = 2,547)	
	n	% or M	p	n	% or M	n	% or M
Age, M	961	46.60		1,586	45.75	2,547	46.09
Male, %	961	38.77		1,586	40.50	922	39.81
<i>Race-ethnicity</i>							
Latino, %	193	11.85	**	396	15.96	589	14.33
African American, %	206	12.06	*	373	14.61	579	13.59
Asian/other/multiple, %	45	4.50		125	6.17	170	5.50
White, %	517	71.60	***	692	63.26	1,209	66.58
<i>Marital status</i>							
Married, %	336	36.07	***	660	46.16	996	42.15
Widowed/divorced/separated, %	369	38.46	***	454	27.46	823	31.84
Never married, %	256	25.47		472	26.38	728	26.02
<i>Education</i>							
No high school degree, %	313	26.65	*	449	21.09	762	23.30
High school degree, %	322	33.70		580	34.39	902	34.12
Any college, %	220	25.35		339	26.60	559	26.10
College degree, %	106	14.30		218	17.92	324	16.48
<i>Health insurance</i>							
Privately insured, %	328	45.15	***	693	53.41	1,021	50.12
Publicly insured, %	435	37.50	***	523	28.58	958	32.13
Uninsured, %	198	17.35		370	18.01	568	17.75
<i>Poverty status</i>							
Poor/near poor, %	497	42.61	***	606	30.86	1,103	35.53
Low income, %	162	15.45	*	344	19.42	506	17.85
Middle income, %	217	26.92		395	26.91	612	26.92
High income, %	85	14.98	***	241	22.81	326	19.70
Employed, %	961	37.54	***	1,586	50.44	2,547	45.31
<i>Physical health</i>							
Self-rated health poor/fair, %	961	67.50	***	1,586	28.40	1,155	44.13
Physical functioning, M	961	38.95	***	1,586	43.41	2,587	41.64
No. chronic health conditions, M	961	1.83	***	1,586	1.38	2,587	1.56
<i>Mental health</i>							
Mental health functioning, M	961	29.15	***	1,586	36.24	2,587	33.42
Depressive symptoms score, M	961	4.26	***	1,586	3.70	2,587	3.92
Serious psychological distress, M	961	14.59	***	1,586	11.26	2,587	12.59
Any mental health visit, %	961	33.45	***	1,586	9.95	338	19.30
Any psychotropic medication, %	961	49.05	***	1,586	21.92	711	32.71

*p ≤ .05, **p ≤ .01, ***p ≤ .001.

SRMH is also associated with health status at baseline. In terms of physical health, respondents who rated their mental health as good had better SRH, had higher physical functioning, and reported fewer chronic conditions. Similarly, they reported better emotional functioning and had lower mean

scores on the depression and SPD scales. In addition, persons who rated their mental health positively were also less likely to use mental health care than those who rated their mental health negatively.

We further explored the association between SRMH and mental health symptoms among

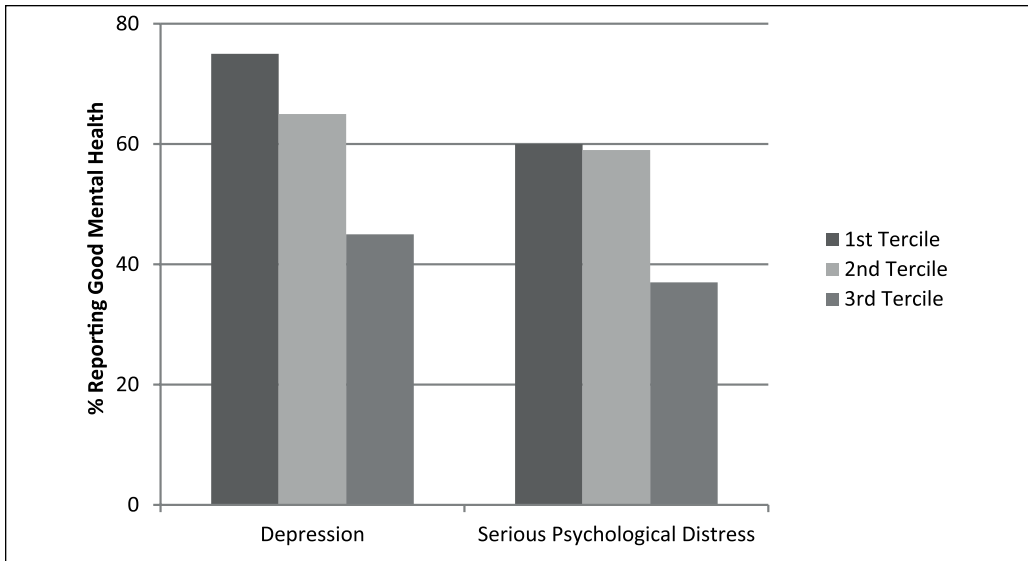


Figure 2. Percentage of Respondents Reporting Good Self-assessed Mental Health by Severity of Depression and Serious Psychological Distress.

Note: Analyses are restricted to people who meet the criteria for having depression or serious psychological distress. For depression, tertile scores correspond to Patient Health Questionnaire scores of 3 (1st tertile), 4 (2nd tertile), and >4 (3rd tertile). For serious psychological distress, tertile scores correspond to Kessler-6 scores of 13 to 14 (1st tertile), 15 to 17 (2nd tertile), and >17 (3rd tertile).

persons who met the criteria for having a mental health problem. As shown in Figure 2, the relationship between SRMH and level of symptoms is generally linear: lower scores on the PHQ and K6 are associated with being more likely to report good mental health. However, many people even with extremely elevated symptoms (top tertile in scores) assess their own mental health as good (45% for depression and 37% for SPD).

Multivariate results examining the associations between sociodemographic and health status characteristics with SRMH are presented in Table 2. Compared to white respondents, Latino respondents who met the criteria for having a mental health problem had significantly greater odds of rating their mental health positively (odds ratio = 1.62). Respondents with at least some college were more likely to rate their mental health positively compared to those with no high school degree.

Persons who rated their overall health as fair/poor were less likely to rate their mental health positively than their counterparts who rated their overall health as good, very good, or excellent. Better mental health functioning and fewer symptoms of SPD were also associated with better SRMH. Finally, use of mental health care was associated with less positive ratings of mental health at baseline.

We next examined whether SRMH at baseline was associated with mental health one year later. As shown on Table 3, controlling for initial levels of symptoms, mental health care utilization, and demographics, persons who rate their mental health positively at time 1 have about 30% lower odds of meeting the criteria for depression or SPD at follow-up than persons who rate their mental health more positively.¹ The same pattern holds for persons who did not receive treatment for a mental health problem. In sensitivity analyses (not shown), we stratified the sample by severity and considered only people whose MCS, PHQ, and K6 scores were in the bottom half of all people who had a mental health condition at baseline, in other words, people experiencing extremely elevated symptoms of mental health problems. For these subsamples, good SRMH at baseline continues to be significantly associated with better mental health at follow-up.²

DISCUSSION

Understanding what SRH means has occupied researchers for decades. Much of the empirical research has controlled for objective measures of health status to try to discern the independent impact of SRH on health outcomes. We followed a similar

Table 2. Multivariable Logistic Regression of Good Self-rated Mental Health on Demographic Characteristics and Health Status among People with a Mental Health Problem at Baseline ($N = 2,547$).

Variable	OR	95% CI
Age	1.00	[.99, 1.01]
Male	.95	[.75, 1.21]
<i>Race-ethnicity (ref. white)</i>		
Hispanic	1.62**	[1.19, 2.21]
African American	1.21	[.89, 1.63]
Asian/other/multiple	1.30	[.70, 2.41]
<i>Marital status (ref. never married)</i>		
Married	1.28	[.93, 1.76]
Widowed/divorced/separated	.88	[.61, 1.27]
<i>Education (ref. no high school degree)</i>		
High school degree	1.34	[.94, 1.93]
Any college	1.42*	[1.01, 1.99]
College degree	1.93**	[1.22, 3.07]
<i>Health insurance (ref. uninsured)</i>		
Privately insured	1.15	[.85, 1.55]
Publicly insured	1.36	[.99, 1.88]
<i>Poverty status (ref. poor/near poor)</i>		
Low income	1.57**	[1.12, 2.20]
Middle income	1.04	[.72, 1.50]
High income	1.17	[.73, 1.88]
Employed (ref. not employed)	.99	[.76, 1.29]
<i>Physical health</i>		
Poor or fair self-rated health	.18***	[.13, .25]
Physical functioning	.99	[.97, 1.00]
No. of chronic health conditions	.94	[.85, 1.03]
<i>Mental health</i>		
Mental health functioning	1.05***	[1.03, 1.06]
Depressive symptoms	.96	[.82, 1.13]
Serious psychological distress	.94***	[.92, .97]
Any mental health visit	.31***	[.22, .43]
Any psychotropic medication	.59**	[.44, .80]

Note: OR = odds ratio; CI = confidence interval; ref. = reference.

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

approach here, where the presence of symptoms on common screening tools are conceptualized as the "objective" measures of mental health. Of course, defining an objective criterion for mental illness is by definition tenuous given no biomedical or physiological markers exist for such conditions. Diagnosing mental illness is by its nature interpreting the subjective feelings of individuals within their social and cultural contexts. Moreover, diagnosis alone cannot be considered a gold standard for an objective measure of mental illness since we know that most people with a mental health problem are not diagnosed. Given these caveats, in practice the *DSM* is the most widely

used criteria for defining mental illness, and screening tools that mimic *DSM* criteria are commonly used in community research and clinical practice to define who has a mental illness. We asked whether SRMH represents a valid measure of mental health, judged against screening tools. As well, we asked whether SRMH has an independent impact on outcomes, suggesting it captures aspects of mental health or illness not typically considered in the use of such tools.

It is no surprise that the severity of symptoms of mental health problems and the degree to which they interfere with functioning are negatively associated with SRMH. Thus, SRMH appears to be a valid

Table 3. Multivariable Logistic Regression of Depression or Serious Psychological Distress at Time 2 among Persons with a Mental Health Problem at Time 1.

Variable	Total (N = 2,547)		No Mental Health Treatment (n = 1,760)	
	OR	95% CI	OR	95% CI
Self-reported good mental health at baseline	.72**	[.57, .90]	.65**	[.48, .88]
Age	1.00	[.99, 1.01]	1.00	[.99, 1.01]
Male	.91	[.71, 1.17]	1.01	[.76, 1.34]
<i>Ethnicity and race (ref. white)</i>				
Hispanic	.85	[.63, 1.15]	.79	[.55, 1.14]
African American	1.27	[.96, 1.67]	1.19	[.85, 1.66]
Asian/other/multiple	1.01	[.64, 1.60]	.89	[.53, 1.49]
<i>Marital status (ref. never married)</i>				
Married	.74	[.57, .97]	.62**	[.44, .88]
Widowed/divorced/separated	.78	[.57, 1.07]	.77	[.53, 1.12]
<i>Education (ref. no high school degree)</i>				
High school degree	.61***	[.47, .80]	.60**	[.44, .81]
Any college	.68*	[.48, .95]	.67*	[.46, .97]
College degree	.53***	[.36, .78]	.49**	[.30, .80]
<i>Health insurance (ref. uninsured)</i>				
Privately insured	1.18	[.85, 1.65]	1.46*	[1.00, 2.13]
Publicly insured	.98	[.72, 1.32]	1.12	[.79, 1.58]
<i>Poverty category (ref. poor/near poor)</i>				
Low income	1.01	[.76, 1.34]	.98	[.70, 1.38]
Middle income	.94	[.69, 1.28]	1.01	[.70, 1.44]
High income	.96	[.64, 1.42]	1.03	[.63, 1.68]
Employed	.73**	[.57, .93]	.70*	[.52, .93]
<i>Physical health</i>				
Self-rated health (poor/fair)	1.09	[.84, 1.42]	1.19	[.85, 1.66]
Physical functioning	.98***	[.96, .99]	.98**	[.97, .99]
No. of chronic health conditions	1.12*	[1.00, 1.24]	1.11	[.98, 1.27]
<i>Mental health</i>				
Mental health functioning	.97***	[.96, .99]	.98	[.97, 1.00]
Depressive symptoms score	1.17***	[1.07, 1.28]	1.13*	[1.03, 1.25]
Serious psychological distress score	1.08***	[1.05, 1.11]	1.10***	[1.07, 1.13]
Any mental health visit	1.54*	[1.08, 2.18]	—	—
Any psychotropic medication	1.29	[.94, 1.79]	—	—

Note: OR = odds ratio; CI = confidence interval; ref. = reference.

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

measure of mental illness, if we conceive of the former as meeting symptom criteria consistent with the *DSM*. However, observed differences in symptoms or functioning do not fully explain differences in SRMH. Indeed, the majority of persons who meet the criteria for having a probable mental health problem believe that their own mental health is good, very good, or excellent. Nearly two in three people who

screened positive for depression or SPD rated their mental health positively. Even at the extreme ends of the distribution, many people who experience quite elevated symptoms of distress or depression continue to rate their own mental health positively, that is, they may be considered mental health optimists.

People take into account not only symptoms of emotional problems but also physical symptoms

when evaluating their mental health. SRMH is also linked to physical health. Individuals with poor SRH or lower physical functioning are much more likely to rate their own mental health poorly, even when controlling for differences in severity of mental health symptoms. Symptoms of distress and impaired mental health functioning, however, are much more strongly linked to SRMH than are physical complaints. And not surprisingly, use of mental health services is associated with negative SRMH. It is likely that the relationship goes both ways: individuals who feel that their mental health is poor will be more likely to seek services, and having received services may lead people to define their problems more in terms of mental health.

Mental health is highly stigmatized (Link et al. 2015; Pescosolido et al. 2010). Stigma can affect how individuals rate their mental health more significantly than it would when rating general health for a number of reasons. First, rating one's mental health as poor might mean acknowledging that one may have mental illness and therefore is expected to seek treatment, further assuming the label of being mentally ill. Second, it might reduce a person's self-esteem to acknowledge that she or he has symptoms of an illness that others are afraid of, contrary to most physical health conditions. Third, people may be reluctant to rate their own mental health as poor because of fear of being treated differently or perceived as incompetent, unpredictable, or dangerous compared to those who rate their general health as poor.

To the extent that a condition is viewed as stigmatizing, there is reluctance in acknowledging its symptoms. It is not unreasonable, then, to hypothesize that individuals may be reluctant to say that their mental health is poor, even when experiencing elevated symptoms of depression or distress. From this lens, the discordance between self-evaluated mental health and clinical measures may be due to people's lack of willingness to admit to or acknowledge symptoms—and it is such an interpretation that has dominated much of the prior research on SRMH. The concern expressed in the literature is that individuals will be then less likely to seek treatment, which will be deleterious to their mental health over time. Consistent with this, we do find that persons who rate their mental health as good are less likely to seek treatment than those who rate their mental health as poor. However, if positive SRMH reflected only an unwillingness to admit to problems, we would expect that it would have either no effect or a negative effect on subsequent mental health. However, we observe the opposite

pattern. Persons who rate their own mental health positively do much better, even in the absence of treatment. This is not to imply that stigma does not exist or that it does not account for some of the mental health optimism observed here. The results do suggest, however, that optimism is more than an unwillingness to admit to mental health problems given that mental health optimists do better. The data do not contain a measure of stigma, but future research should investigate whether persons who hold highly stigmatized beliefs about mental illness are more likely to rate their own mental health positively, even in the presence of significant symptoms.

The results suggest that people consider unobserved characteristics of their symptoms, life circumstances, and such—just as they do when rating their own physical health—and that these unobserved factors matter. While it was beyond the available data to assess here, it is possible that those who perceive their own mental health as good, despite experiencing elevated symptoms, are distinguishing between “normal” distress (or as Horwitz and Wakefield [2007] might say, “normal sadness”) and dysfunction. That is, if the high levels of depressive symptoms or SPD were due to a situational problem, such as a loss of a job or end of a relationship, it is possible that individuals are able to sustain positive views of their own mental health because they realize that their reaction is within the range of normal responses to troubling life events and that the symptoms are transitory and will remit.

It is also possible that SRMH captures mental health rather than mental illness (Levinson and Kaplan 2014). While the dominant paradigm in mental health research is a focus on mental illnesses, or symptoms of psychological distress, it is widely accepted that mental health is not simply the absence of disorder or symptoms. Mental health encompasses the ability to cope and adapt to life, fulfill desired roles, sustain meaningful relationships, and maintain a sense of purpose and belonging in life (U.S. Department of Health and Human Services 1999). It is possible to meet the criteria for having a mental illness while still maintaining aspects of mental health. Keyes (2002), for example, conceptualized mental health with characteristics such as life satisfaction, autonomy, mastery, and social well-being. In a community study of persons who met the criteria for depression (based on a diagnostic measure) Keyes found that about 60% of respondents are moderately mentally healthy based on these characteristics and a further 6% have

“flourishing” mental health. Moreover, those described as flourishing are more likely to rate their own emotional health as very good or excellent, controlling for the presence of depression or demographic characteristics. It may be that respondents in our study who describe their mental health as positive, while meeting the criteria for depression or SPD, are mentally healthy on dimensions such as social well-being and autonomy that are not captured with available measures in the data. That SRMH may reflect mental health in addition to symptoms of illness is consistent with the arguments in the field of SRH that global health reflects more than the absence of disease.

Finally, similar to other work on SRH, we found differences among cultural groups in SRMH. In bivariate analysis, among people with a mental health problem, African American and Latino respondents are more likely to rate their mental health positively compared to their white counterparts. In contrast, research on racial and ethnic differences in SRH suggests that at similar levels of objective health, Latinos, Asians, and African Americans are more likely than whites to rate their health as fair or poor—a pattern that is referred to as health pessimism in the literature (Ferraro 1993; Spencer et al. 2009; Su, Wen, and Markides 2013). In our analysis, differences in severity of illness accounts for the African American–white difference in SRMH. In contrast, even after taking into account severity, Latinos with a mental health problem rate their mental health more positively than whites. The finding that Latinos may be more optimistic about their mental health than whites is quite intriguing and may reflect cultural differences in the meaning and expression of emotional health and distress. However, while mental health optimism may partially explain differences in use of mental health services, we also know that there remain persistent system-level barriers to quality mental health services for persons from minority racial and ethnic groups (Substance Abuse and Mental Health Service Administration 2015). It is beyond the scope of this paper to examine the relationship between SRMH and services use by race-ethnicity, but the issue warrants further research.

CONCLUSION

SRMH is an understudied dimension of health and well-being. In contrast to others who see SRMH as an invalid measure of mental illness, we suggest it is a very powerful construct. There continues to be much debate about what constitutes mental illness,

the validity of *DSM* categorizations, the boundaries between mental and physical disorder, and the like. These debates are worthwhile and come down to fundamental questions about the line between expected psychological pain that comes with life’s challenges, disappointments, and losses, and unremitting psychological pain that makes it difficult to function. Here we suggest that SRMH may offer a window into this debate.

On a more practical level, SRMH offers potential utility in clinical practice. Just as SRH has been suggested as a screener for global health in general practice (Jylhä 2009; Lyness et al. 2004; Shadbolt et al. 2002), we might consider the potential of SRMH as a screener for mental health. Simply asking people how they rate their own mental health is a simple intervention to identify individuals who may most benefit from treatment.

Unlike the case with SRH (Idler, Hudson, and Leventhal 1999; Krause and Jay 1994), there has not been research investigating what individuals consider when assessing their mental health on a single item. However, qualitative studies investigating how individuals make sense of and describe their own experience with mental illnesses indicate that they take into account larger social contexts, past experiences, identity, stressful life events, relationships, and coping styles, suggesting a more holistic conceptualization of mental health than captured by screening or diagnostic tools (Cornford, Hill, and Reilly 2007; Kangis 2001; McMullen and Luborsky 2006). Further research should parallel that done with SRH to assess the relative weight of such factors when persons assess mental health with a single item.

Understanding characteristics of persons who rate their mental health poorly despite not having symptoms of mental illness (the opposite pattern of incongruence examined here) may also shed light on how subjective assessments of mental health are made. Here, about 5% of persons who did not meet the criteria for depression or SPD at baseline rated their own mental health poorly. There is a possibility that members of this group are health pessimists. However, the data lack measures of many other types of mental illness, such as substance use disorders, phobias, and conduct disorders, so it is impossible to detect whether (1) they are health pessimists or (2) we just lack measures of the specific mental illnesses that this group experiences. Further research using data with more expansive measures of mental illness would help us to better understand the possibility of health pessimism with respect to mental health.

Finally, recognizing that how one rates one's own mental health holds value, even when experiencing symptoms of serious disorders, like depression, echoes the ethos of the recovery movement, a dominant paradigm in mental health practice and policy (Anthony 1993; Substance Abuse and Mental Health Services Administration 2012). This movement promotes a view of mental health that goes beyond the absence of symptoms and takes a more holistic view of individuals' recovery from mental illness. Achieving a sense of meaning or purpose in life, being involved in the community, and having supportive relationships are all parts of the recovery process that do not depend on the remission of symptoms. It is possible that having achieved recovery in these other areas is why so many people, even with significant symptoms, rate their own mental health quite positively. If we take seriously a recovery model of mental health, such positive ratings in the face of symptoms seem neither the product of denial nor incongruent with reality but instead offer valuable insight into a holistic conceptualization of mental health.

NOTES

1. We examined outcomes separately for depression and serious psychological distress. Among persons meeting the criteria for depression ($n = 2,314$) at baseline, poor self-rated mental health (SRMH) at baseline predicts depression at follow-up (odds ratio [OR] = .72; $p = .01$). Among persons with serious psychological distress at baseline ($n = 1,342$), poor SRMH is associated with greater risk of serious psychological distress at follow-up, but the relationship is not statistically significant (OR = .81, $p = .17$).
2. We examined collinearity between variables on the right side of the equation. The highest correlations were between physical functioning and self-rated physical health (–.51), physical functioning and number of chronic conditions (–.46), and mental health functioning and serious psychological distress (–.43). Rerunning the analysis with collinear variables omitted did not change the results; indeed, the effect of SRMH on the outcome was stronger. These analyses are available upon request.

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