**Perceived Stress Scale**

**1. Background and references**

The Perceived Stress Scale is a 10-item self report questionnaire that measures persons’ evaluation of the stressfulness of the situations in the past month of their lives. The citation for the 10-item scale is Cohen, S., & Williamson, G. (1988). Perceived stress in a probability sample of the United States. In S. Spacapan & S. Oskamp (Eds.), The social psychology of health: Claremont Symposium on applied social psychology. Newbury Park, CA: Sage. The PSS was designed for use with community samples with at least a junior high school education.  The items are easy to understand and the response alternatives are simple to grasp.  Moreover, the questions are quite general in nature and hence relatively free of content specific to any sub-population group.  There are also 14- and 4-item versions of the scale, which were not used in the COHRA study.

There are many different aspects of stress, including (a) actual environmental experiences, (b) subjective evaluations of the stressfulness of a situation, and (c) the affective, behavioral, or biological responses to environmental experiences or their subjective evaluations. The Perceived Stress Scale measures subjective evaluations of the stressfulness of a situation. These are referred to as appraisals or perceptions of stress. “[This] psychological perspective on stress places emphasis on the organism’s perception and evaluation of the potential harm posed by stimuli (stressors or events). The perception of threat arises when the demands imposed upon an individual are perceived to exceed his or her felt ability to cope with those demands. This imbalance gives rise to labeling oneself as being stressed and to a concomitant negative emotional response. It is important to emphasize that psychological stress is defined not solely in terms of the stimulus condition or the response variables, but rather in terms of the transaction between the person and the environment. Psychological stress involves interpretation of the meaning of an event and the interpretation of the adequacy of coping resources. In short, the psychological perspective on stress assumes that stress arises totally out of persons’ perceptions (whether accurate or inaccurate) of their relationship to their environment” (Cohen, Kessler, and Gordon, 1997).

The Perceived Stress Scale is the only empirically established index of general stress appraisal. “The PSS measures the degree to which situations in one’s life are appraised as stressful” (Cohen, et al., 1983; p. 385). The original 14-item scale was designed “to tap the degree to which respondents found their lives unpredictable, uncontrollable, and overloading” (p. 387).

**2. Summary statistic**

PSS-10 scores are obtained by reversing the scores on the four positive items, e.g., 0=4, 1=3, 2=2, etc. and then summing across all 10 items.  Items 4,5, 7, and  8 are the positively stated items. Scores can range from 0 to 40, with higher scores indicating greater stress.

The PSS is not a diagnostic instrument, so there are no cut-offs. There are only comparisons between people in a given sample. There are some normative data on the PSS based on a 1983 Harris Poll of a representative U.S. sample. These data may be helpful in providing comparisons, but they are over 20 years old. See: Cohen, S., & Williamson, G. (1988). Perceived stress in a probability sample of the United States. In S. Spacapan & S. Oskamp (Eds.), The social psychology of health: Claremont Symposium on applied social psychology. Newbury Park, CA: Sage.

For more information about PSS scoring (cut-offs and diagnoses), refer to the article:

Cohen, S. (1986). Contrasting the hassle scale and the perceived stress scale. American Psychologist, 41, 716-719 (comment).

**3. Reliability and validity**

Internal reliability. From Cohen and Williamson, 1988, p. 55, Coefficient alpha of .78.

Test-retest reliability. I didn’t find anything. The items on the scale are anchored to appraisals in the past month, so one would not necessarily expect high test-retest reliability for measurements that did not overlap in time.

Construct validity: From Cohen and Williamson, 1988, p. 55: “… PSS scores were moderately related to responses on other measures of appraised stress, as well as to measures of potential sources of stress as assessed by event frequency.”

Predictive validity. Go to http://www.macses.ucsf.edu/research/psychosocial/notebook/pssref.html to see a list of studies that examine the relationship between the Perceived Stress Scale (PSS) and biological or verified disease outcomes.

Discriminant validity. In a study examining the relationship of the common cold to negative life events, negative affect, and perceived stress, having more negative life events was associated with more severe clinical illness (i.e., more severe symptoms) whereas greater negative affect and perceived stress were associated with a higher probability of becoming infected (Cohen, et al., 1993). This demonstrates that perceived stress is not the same as negative life events themselves, even though it may have been the negative life events that contributed to the perceived stress.

**4. Selected abstracts**

[Cohen, Sheldon](http://gateway.ut.ovid.com/gw2/ovidweb.cgi?S=IDNJHKELGBLHCN00D&Search+Link=%22Cohen%2c+Sheldon%22.au.). Perceived stress in a probability sample of the United States. In Spacapan, Shirlynn (Ed); Oskamp, Stuart (Ed). (1988). The social psychology of health. (pp. 31-67). 251 pp. Thousand Oaks, CA, US: Sage Publications, Inc.   
Abstract(from the chapter) the purpose of this chapter is to present psychometric and descriptive data on a scale designed to measure stress perceptions, and to establish that such a scale can predict the range of health-related outcomes presumed to be associated with appraised stress /// we discuss the advantages of a scale measuring generalized perceptions of stress, describe the Perceived Stress Scale (PSS), and address the controversy surrounding the use of a scale assessing stress perceptions /// we report new and exciting PSS data from a large (2,387 respondents) probability sample of the United States collected by Louis Harris and Associates, Inc. in 1983 /// data are presented on the psychometric qualities of the scale, and on the relation of the PSS to other stress, health, and satisfaction measures.

[Cohen, Sheldon](http://gateway.ut.ovid.com/gw2/ovidweb.cgi?S=IDNJHKELGBLHCN00D&Search+Link=%22Cohen%2c+Sheldon%22.au.); [Kamarck, Tom](http://gateway.ut.ovid.com/gw2/ovidweb.cgi?S=IDNJHKELGBLHCN00D&Search+Link=%22Kamarck%2c+Tom%22.au.); [Mermelstein, Robin](http://gateway.ut.ovid.com/gw2/ovidweb.cgi?S=IDNJHKELGBLHCN00D&Search+Link=%22Mermelstein%2c+Robin%22.au.). A global measure of perceived stress.   
Journal of Health and Social Behavior. Vol 24(4) Dec 1983, 385-396.   
Presents data on the Perceived Stress Scale (PSS), a 14-item measure of the degree to which situations in one's life are appraised as stressful. Concurrent and predictive validities and internal and test-retest reliabilities of the new scale were determined using scores from 446 undergraduates and from 64 Ss (mean age 38.4 yrs) participating in a smoking-cessation program offered by the university. Results show that the PSS had adequate reliability and was a better predictor of the outcome in question (depressive and physical symptomatology, utilization of health services, social anxiety, and smoking-reduction maintenance) than were life-event scores. When compared to a depressive symptomatology scale, the PSS was found to measure a different and independent predictive construct. Additional data indicated adequate reliability and validity of a 4-item version of the PSS for telephone interviews. It is suggested that the PSS, which is appended, be used to examine the role of nonspecific appraised stress in the etiology of disease and behavioral disorders and as an outcome measure of experienced levels of stress.

[Cohen, Sheldon](http://gateway.ut.ovid.com/gw2/ovidweb.cgi?S=IDNJHKELGBLHCN00D&Search+Link=%22Cohen%2c+Sheldon%22.au.). Contrasting the Hassles Scale and the Perceived Stress Scale: Who's really measuring appraised stress? American Psychologist. Vol 41(6) Jun 1986, 716-718.   
Responds to the criticism of the perceived stress scale (PSS) developed by the present author and colleagues (see record 1984-24885-001) by R. S. Lazarus et al (see record 1986-10765-001) in their defense of the hassles scale they developed. It is contended that the PSS predicts psychologic and physical symptoms and health behaviors after controlling for any redundancy with psychological symptom measures.

[Cohen, Sheldon](http://gateway.ut.ovid.com/gw2/ovidweb.cgi?S=IDNJHKELGBLHCN00D&Search+Link=%22Cohen%2c+Sheldon%22.au.); [Tyrrell, David A](http://gateway.ut.ovid.com/gw2/ovidweb.cgi?S=IDNJHKELGBLHCN00D&Search+Link=%22Tyrrell%2c+David+A%22.au.); [Smith, Andrew P](http://gateway.ut.ovid.com/gw2/ovidweb.cgi?S=IDNJHKELGBLHCN00D&Search+Link=%22Smith%2c+Andrew+P%22.au.). Psychological stress and susceptibility to the common cold. New England Journal of Medicine. Vol 325(9) Aug 1991, 606-612.

Examined the association between psychological stress and susceptibility to the common cold. 394 healthy Ss (aged 18-54 yrs) were assessed for degree of stress and then experimentally exposed to 1 of 5 cold viruses, while 26 control Ss were exposed to a placebo. Psychological stress was associated with increased risk of acute infectious respiratory illness in a dose-response manner; this risk was attributable to increased rates of infection. The stress index was associated with host resistance and not with differential exposure to virus. The relation between stress and colds was independent of a variety of health practices, but there was a limited association between stress and clinical illness.

[Cohen, Sheldon](http://gateway.ut.ovid.com/gw2/ovidweb.cgi?S=IDNJHKELGBLHCN00D&Search+Link=%22Cohen%2c+Sheldon%22.au.); [Tyrrell, David A](http://gateway.ut.ovid.com/gw2/ovidweb.cgi?S=IDNJHKELGBLHCN00D&Search+Link=%22Tyrrell%2c+David+A%22.au.); [Smith, Andrew P](http://gateway.ut.ovid.com/gw2/ovidweb.cgi?S=IDNJHKELGBLHCN00D&Search+Link=%22Smith%2c+Andrew+P%22.au.). Negative life events, perceived stress, negative affect, and susceptibility to the common cold. Journal of Personality and Social Psychology. Vol 64(1) Jan 1993, 131-140.

After completing questionnaires assessing stressful life events, perceived stress, and negative affect, 394 healthy Ss were intentionally exposed to a common cold virus, quarantined, and monitored for the development of biologically verified clinical illness. Consistent with the hypothesis that psychological stress increases susceptibility to infectious agents, higher scores on each of the 3 stress scales were associated with greater risk of developing a cold. However, the relation between stressful life events and illness was mediated by a different biologic process than were relations between perceived stress and illness and negative affect and illness. That these scales have independent relations with illness and that these relations are mediated by different processes challenges the assumption that perceptions of stress and negative affect are necessary for stressful life events to influence disease risk.