

## Frequently Asked Questions Relevant to the Stress Solutions Tool (SST)

### 1. What makes the SST any better than other such questionnaires?

First of all, the SST is not a questionnaire. It is a scientifically developed, theory based, clinically proven psychometric instrument. Dr. Norman Anderson, former Associate Director of the National Institutes of Health and currently Professor in the Harvard School of Public Health, has dubbed it "the gold standard of stress assessment".

Constructed according to the guidelines published by the American Psychological Association, the SST has been rigorously evaluated and passed by Buros Mental Measurements Yearbook (Volume 10) published by the O.K. Buros Institute of the University of Nebraska. It was originally listed with Buros as the Stress Audit.

The test-retest reliabilities and standard errors of measurement for all SST scores are quite robust and well within the guidelines for psychometric instruments published by the American Psychological Association and those published by the Federal Government for contract suppliers.

### 2. How good (reliability and validity) are the SST data?

These are really two separate questions. 2a. The first has to do with reliability and the second has to do with validity. There are a number of ways of looking at reliability, but we'll limit ourselves to test-retest reliability. Test-retest reliability is important because it is the determining value in calculating the standard error of measurement (an important estimate of the precision of measurement).

An example of precision of measurement could be measuring the length of a wall:

- a. Simply "eyeball" it and guess
- b. "Step it off"
- c. Measure it with a yard stick
- d. Measure it with tape measure
- e. Measure it with a laser range finding device
- f. Measure it with a micrometer

Option 'a' obviously would be less precise than options 'e' or 'f' in that the error would be greater with option 'a'.

The micrometer option would be the most precise, but would be time consuming and costly.

In this example, the laser range finder would be the superior measurement device because it is quick, easy to use, and highly precise. The SST is the laser range finder of stress measurement. (See Appendix 1 for the Standard Error of Measurement associated with each of the SST scores.

2b. Validity (does the instrument really measure what it purports to measure) speaks to the other important question.

For instance a test purporting to measure verbal reasoning but consisting of arithmetic problems would have much lower validity than a test consisting of verbal analogies. The validity of an instrument may consist of any or all of the following:

a. Face validity (visual inspection)—do the items make sense in terms of the construct being measured? For example, does the SAT appear to measure scholastic aptitude? The SST's face validity, as a measure of stress is excellent: it appears to be exactly what it is.

b. Construct validity (expressed as the correlation between different instruments) - does the instrument correlate with other instruments purporting to or assumed to measure the same thing?

For example, does the SST measure the same thing as the ACT? Correlations of SST scores with appropriate MMPI scales and with the Holmes-Rahe Schedule of Recent Experience are quite robust.

c. Concurrent validity (expressed as the correlation between the instrument and what it purports to measure) - do results on the instrument correlate significantly (0.4 - 0.7) with what it purports to measure at the time of measurement?

For example, does the average student's SAT score correlate with their current GPA?

The SST has solid concurrent validity. That is, Susceptibility to and Sources of Stress correlate highly with concurrent Symptoms of stress accounting for 76% of concurrent Symptoms.

d. Predictive validity (expressed as the correlation between the instrument and a future measurement of what it purports to measure.)—does the instrument predict what it purports to measure?

For example, can SST scores generated today predict tomorrow's GPAs? We don't know if SST scores can predict who will have specific stress related symptoms and how costly they may be in the future.

This is an empirical question yet to be answered. It can be an expensive enterprise and few employers will be anxious to pay the freight.

The validities of the SST are quite robust and well within the guidelines for psychometric instruments published by the American Psychological Association and those published by the Federal Government for contract suppliers.

### **3. What other companies/organizations have used the SST and WSP?**

IBM, BellSouth, Gillette, Costa Mesa Hospital, Ford, North Shore Medical Imaging Center, the US Navy, the US Passport Office, Siemens and Westinghouse have all used our instruments.

#### **3b. To what effect?**

Bell South documented a \$13 million decrease in health benefits utilization in one year following an intensive stress initiative based on our assessment tools. Gillette was able to meet the rollout deadline for the Mach III razor as a result of a consultation based on assessment tool data. Costa Mesa Hospital was able to decrease employee turnover significantly following a data based consultation.

### **4. How is this different than stress management programs or treatment arrangements?**

The SST and WSP do not provide classic stress management or treatment for our clients using the SST. Our work is focused on identifying, measuring, and mitigating the pervasive and system-wide business effects of negative stress in organizations. The SST is based on a scientific and medically tested model and the report results that each individual receives pinpoints their specific issues rather than addressing general areas of stress that are a problem for most of the population.

### **5. Does the SST address Post Traumatic Stress Disorder?**

No. The SST is a measure of both severe stress (death of a loved one) and daily stressors such as work overload and crowded living conditions. In addition, it measures stress responses such as worry, insomnia and feeling blue or depressed. The SST looks at the overall burden of demands and pressures, stress responses, as well as susceptibility to stress based on health habits, social resources, outlook on life. The SST is not a specific measure of Post Traumatic Stress Disorder. (Such measures do exist and can be found by contacting the National Crime Victims Center in Charleston, S.C.)

#### **A few words about PTSD:**

Not all people who experience overwhelming tragic events or who face extreme danger and injury develop PTSD. Most people experience extreme emotions in the days or weeks following the event, but these reactions usually are moderated by six months, especially if they have engaged in rituals of healing. A person is more likely to develop PTSD if they have not had occasion to talk about the events, have little community support, and the event is shameful in some way so that the person cannot discuss it. This has usually not been the case for 9/11 victims and families.

Indeed, anniversary dates evoke many of the original feelings of loss or fear, usually in the weeks preceding the anniversary. The SST does not specifically address these issues.

However, it is the case that during extreme times, people tend to neglect self-care such as good nutrition, seeing their doctors and dentists, or get behind financially. The SST can track these stressors and stress responses that may go up in the months following an extreme event. In addition to immediate effects of insomnia, crying, anxiety episodes, and avoidance of new stress situations, we have found that six to twelve months out people begin to feel the long term health effects of intense stress.

As for suicide, we do not have information on that. In general, suicide is a low probability event that is more likely if people use drugs or alcohol to deal with feelings or are in ill health themselves.

## **6. How is this different than our Employee (Satisfaction) Surveys?**

Many executives believe that employee satisfaction surveys provide sufficient data, and that internal programs provide adequate employee support. But employee surveys rely on individual, anecdotal reporting and identify only the symptoms of self-diagnosed stress. Surveys may tell managers how prevalent an issue is in the organization, but only a psychometric instrument such as The Workforce Stress Profile™ can gauge the severity of stress and its sources, thus guiding executive decisions based on rational and statistically reliable analysis and the criticality of stress in the organization thus guiding the executives decisions about what is most important to address.

## **7. How is this different than our Employee Assistance Program (EAP)?**

Employee Assistance Programs (EAP) are designed to provide substance abuse counseling, mental health screening and general training programs focused on treating the symptoms of stress—but not the root causes (the upstream drivers). Although they provide valuable support, EAPs are not designed or equipped to assess or respond to issues related to work processes, management style, productivity demands, personal issues and other critical sources of stress within an organization.

The WSP tackles these challenging organizational issues, finding and eliminating the sources of negative stress. The result? Greater employee productivity, reduced turnover, lower costs and improved bottom-line performance.

## **8. Is this data normed on managers?**

We do not have norms on executives per se; we have the data but haven't used it for norming because we see no point in having subgroup norms

Our original normative data is right on the money as group size approaches 30 (which is just the point where the distribution of sample means approaches normality). With large groups (2-300 or larger) the means and standard deviations are identical. Hence, we believe that our normative sample is a good representation of the US adult population

To compare a member of a subgroup with their own subgroup has some value, but not as much as comparing that person to the general population. For instance, one could compare a person from a high stress subgroup with their subgroup. Say that particular individual is very stressed when compared to the general population, but happens to be one of the lower scoring individuals in their own high stress subgroup. In the case of a general population comparison, they come out as highly stressed, but in the case of their subgroup comparison they come out to be low stress.

The body of stress research, when taken in aggregate, reflects stress in the general population. That's why we've gone with the general population, rather than sub groupings. We want to compare apples with apples and oranges with oranges.