CONTENTMENT

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Email: editor@stress.org

Editor In Chief: Heidi Hanna, PhD, FAIS

Editor: Heidi Hanna, PhD, FAIS

Creative Director: Krissa Brewer

Contentment is a quarterly newsletter published in March, June, September and December with news and advertising designed with the general public in mind. It appeals to all those interested in the myriad and complex interrelationships between stress and health because technical jargon is avoided and it is easy to understand. Contentment is archived online at stress.org. Information in this publication is carefully compiled to ensure accuracy.

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AIS provides a diverse and inclusive environment that fosters intellectual discovery, creates and transmits innovative knowledge, improves human health, and provides leadership to the world on stress related topics.
GET INSIDE OUR HEAD

It’s Not Our Credentials That Make AIS So Impressive, It’s the Fellows That Go with Them.

The American Institute of Stress is a non-profit organization established in 1978 at the request of Dr. Hans Selye (the Founder of the Stress Concept) to serve as a clearinghouse for information on all stress related subjects. AIS Founding Fellows include:

Join our prominent psychologists, physicians, other health care practitioners and health conscious individuals who are interested in exploring the multitudinous and varied effects of stress on our health and quality of life.

The American Institute of Stress invites YOU to enhance your credentials with FAIS and add your name to our Gallery of Distinguished Fellows.

Over the last 35 years, we’ve expanded our services and broadened our reach, but our dedication to science hasn’t changed a bit.

Our four focus areas include:
1. Combat Stress  
2. Daily Life Stress 
3. Workplace Stress  
4. Expanding Human Potential

We produce three e-magazines focused on different stress related topics...

We are always looking for new contributors to our magazines. If you would like to submit an article, email your idea to editor@stress.org

American Institute of Stress
9112 Camp Bowie West Blvd. #228
Fort Worth, TX 76116

USA Main: (682) 239-6823
Fax: (817) 394-0593
Email: info@stress.org

www.stress.org
As a spokesperson for The American Institute of Stress, I’m often asked to describe the burden of stress on the health, happiness and productivity of individuals and organizations. Over the past few years this question has ironically lead me to feel more and more stressed.

There are two directions I could go with my response. The first is the easy route. Quote the scary statistics that suggest stress is a silent killer, destroying our health (75% – 90% of medical visits are stress related), placing a burden on our economy ($300 - $600 billion is wasted by US businesses each year as a result of stress) and most likely leading to the rapid decline of our collective mental health (1 in 4 adults suffer from a mental health issue with anxiety being the leading cause). But even these dramatic statements fail to tell the whole story. What about our growing tech-addiction, lack-of-sleep epidemic, disengagement at work and home, or dependence on stimulants to keep our energy charged to survive another day?

Yes, stress is a mess. But if we unpack the stress story a bit more we also see that a life without stress is a life without growth. Thanks to wildly popular books and TEDx talks, there are more people discussing the upside of stress and recognizing the potential for post-traumatic-growth than ever before. Speaking engagements and corporate consulting that focuses on the power of resilience is all the rage. But unfortunately, despite success stories of radical resilience, individuals still struggle to figure out how to make stress their friend instead of their frenemy.

The second path to discussing the burden of stress is more difficult, but one I find myself longing to take when I’m allowed more than a sound bite. There is no one-size-fits-all approach. Although the sympathetic nervous system response to threat might be fairly common, the way we experience stress in our lives is much more unique. In each moment the brain perceives both stress triggers and potential tamers, and the stress load only becomes harmful when demand exceeds capacity. A small trigger may unleash paralyzing fear when someone feels overwhelmed by their circumstances while a major crisis can be disruptive short-term and ultimately lead to significant growth and even increases in meaning and purpose when he or she has the capacity and support required to cope and adapt effectively.

This is where assessments come in. Although we constantly talk about how stressed we are, most people struggle to define what stress actually is. And without a clear definition and simple tools to measure what’s really happening, talking about the fact that stress is killing us is just making us more stressed as a result. Fortunately, advances in technology are providing us with greater insights along with the ability to collect large amounts of data to integrate research findings and provide more personalized approaches to training and intervention. We still have a ways to go before individuals will have access to the type of real time information that will help them fully assess, train and monitor their unique stress strategies, but it’s exciting to explore what lies ahead.
As stress management professionals we recognize the importance of accurate and reliable measurement instruments. After all, clarity is a fundamental principal of providing the personal control needed for stress reduction. Over the years, a variety of approaches have been employed and the best known fall into the following categories: life events scales, interview techniques, perceived stress instruments, daily hassles scales, and physiological/biochemical measures.

**Life events scales and interview techniques**

Early approaches to measuring stressors fall into the category of life events scales, which include a multitude of self-report questionnaires and inventories. The first and best known life events scale is the Social Readjustment Rating Scale (SRRS) developed in 1967 by Holmes and Rahe. This scale looks at the stress caused by major life events (ones generally experienced as difficult to deal with) and is based on previous research which found that some events required lifestyle changes that were associated with the onset of illness. Each event carries an assigned value ranging from 100 points for the death of a spouse to 11 points for minor violations of the law.

Adding each event’s point value and totalling scores yields a stress score. The sum of ratings for events an individual experiences in the last year is known as their life change unit (LCU). These scores can then be correlated with future events, such as incidence of illness, to determine the relationship between this measure of stress and the occurrence of physical illness.

To measure your personal score with the SRRS, you tick off the events that have occurred to you in a given time period, usually 12 months or 24 months, and add up the readjustment values.
According to Holmes and Rahe, the higher the number you end up with, the more chance you have of developing an illness.

There are a number of potential problems associated with this method of measuring stressful life events. These include the following:

- Major life events are relatively rare and many people will have low scores.
- Some of the items on the scale are quite vague or ambiguous.
- There are large individual differences in our ability to cope with stressful events.

Currently, there isn’t a life event instrument that is appropriate for all populations. However, an instrument often used in large general population surveys is the PERI life events scale.

Life events scales have been criticized for their reliability and validity. Reliability usually relates to whether or not individuals will have the same scores or similar scores if asked to complete the questionnaire after a time interval. However, because people’s stress levels naturally vary, the reliability of a stress instrument does not have the same meaning as that of an instrument to measure intelligence or verbal ability. In the context of a stress scale/instrument, reliability is the degree to which the measurement is free from measurement error.

The validity of a stress measurement instrument is of utmost importance; does it measure what it intends to measure? The validity of a measure is critical because without sufficient validity test scores have no meaning. There are different types of validity, the most important being content validity. This relates to the match between test questions and the content or subject area they are intended to assess.

Over the years there have been improvements to life events scales. Some have been developed that are relevant to particular subgroups e.g. children and adolescents. Others have tried to overcome the methodological limitations of the checklist approach by using semi-structured interviews during which people describe events which are then rated by trained individuals. The best known examples of these are The Life Events and Difficulties Schedule (LEDS), and the Standardized Event Rating System (SEPRATE).

Interview techniques are designed to elicit reports of specific events that put people at risk for disease rather than taking the “cumulative” measurement approach of the checklist type measures.

Although interviews are designed to provide a much richer description of stressful events in an individual’s life, and have better validity and better test-retest reliability, they are very time consuming. They also require trained interviewers and sometimes trained raters.

**Perceived stress instruments**

Although an important focus of psychological stress theory relates to an individual’s appraisal of events as threatening or challenging, there has been little development of perceived
stress measures. The instrument most commonly used is the Perceived Stress Scale (PSS). The PSS is a measure of the degree to which situations in one’s life are considered by the individual as being stressful. The scale attempts to measure which situations in people’s lives are appraised as “unpredictable, uncontrollable, and overloading”.

There are three versions of the scale, one with 14-items, one with 10-items, and one with 4-items. The 10 item version is the one most generally recommended. The brief 4-item version can be used for telephone interviews.

**Daily Hassles Scales**

Research into stress has demonstrated that it’s not always the major life events, but sometimes what Richard Lazarus referred to as ‘daily hassles’ that can accumulate and cause stress related problems. The part played by hassles in the stress of everyday life is aptly portrayed by the following excerpt from a poem called ‘The Shoelace’ by Charles Bukowski:

“It’s not the large things that send a man to the madhouse ..... no, it’s the continuing series of small tragedies that send a man to the madhouse ... not the death of his love but a shoelace that snaps with no time left ....”

Lazarus criticized the life events approach. In his view, the focus on major life changes, which are comparatively rare, ignores the fact that a great deal of stress stems from recurrent day-to-day problems. Kanner et al (1981) designed a Hassles Scale consisting of 117 items, including concerns about losing things, traffic jams, arguments, disappointments, physical appearance, and weight. According to Kanner, daily hassles are “irritating, frustrating, distressing demands that to some degree characterise everyday transactions with the environment”.

The respondents to the Hassles Scale indicate which hassles appeared in the past month and rate each as having been “somewhat”, “moderately”, or “extremely” severe. While developing the Hassles Scales, the researchers took the view that having desirable experiences makes hassles more bearable and reduces their adverse impact on health. This resulted in them also developing another instrument called the Uplifts Scale which lists 135 events that bring peace, satisfaction, or joy. They administered both instruments to the same adults. The measurement of hassles continues and refinement of measures is ongoing.

Research into daily hassles and stress related illness is based upon the collection of retrospective data, whereby participants are usually asked to rate hassles that have occurred over the last month. This relies upon people’s memories being accurate and consistent, which is often not the case. This means that often the data collected from respondents is lacking in validity and reliability.

**The snapshot problem**

The research on perceived stress instruments and daily hassles scales generally concludes that these instruments/scales
either have shortcomings or have not been sufficiently tested to confirm how accurate they are. One of the main problems with these types of stress measurement approaches is that they amount to taking a snapshot of the stress level at a particular time. Fortunately, the developing field of measuring heart rate variability as an indicator of stress levels (discussed later in this article) offers a way to overcome this problem.

Physiological/biochemical measures

One approach to measuring stress involves using various physiological and biochemical measures including blood pressure, heart rate, galvanic skin response, respiration rate, and increased secretion of stress hormones such as cortisol and epinephrine. These change with activation of the sympathetic division of the autonomic nervous system. Stress and emotion produce changes in these physiological indexes. The hormones epinephrine and nor-epinephrine are produced in the adrenal medulla in association with the experience of stress. Measurement of these two hormones in either blood or urine samples can provide an index of stress. Having these measurements taken may be a stressful experience that can interfere with the assessment. However, the advantages of such physiological measures of stress are that they are direct, highly reliable, and easily quantified.

Measuring heart rate variability – a very useful physiological approach

Clinical research has demonstrated that heart rate variability (HRV) is one of the most reliable indicators of stress. When HRV levels are high, a person experiences low levels of stress and greater resiliency. When HRV levels are low, this is an indication of greater stress and lower resiliency.

HRV is the variation in the time interval between one heartbeat and the next. HRV can be assessed by measures of variance in beat-to-beat intervals over time (called time domain analysis) and by methods involving time series analysis that dissect continuous beat-to-beat intervals into high and low frequency components.

As a general rule, high HRV is an indicator of health, whereas too little variability is a predictor of disease. Indeed, research has demonstrated that low baseline measures of HRV are predictive of all-cause mortality. In relation to cardiovascular health, low HRV is an independent predictor of future events, including cardiac-related sudden death from myocardial infarction, and fatal arrhythmias.
HRV is driven by a very dynamic, two directional interplay between the heart and the respiratory system. This is mediated by the two branches of the autonomic nervous system (ANS). A flexible and well coordinated ANS helps us respond appropriately to stress, and positive emotions have been found to cultivate this. For example, in the state of appreciation, parasympathetic and sympathetic systems both show moderate output, and oscillate in relative regularity to produce what is known as a coherent HRV pattern. This is a smooth, sine wave-like curve and an overall shift to toward parasympathetic dominance. Essentially, normal HRV is due to the balance of SNS and PNS influences. During stress, the HRV curve becomes more erratic and shallow, thus reflecting a less coordinated functioning between the two branches of the ANS and a shift toward sympathetic dominance. Several studies have indicated that coherence leads to even greater improvements in health than does relaxation alone.

Often, individuals do not recognize their own physiological signs of stress and their memories of previous stressful events can be influenced by their current mood state. Fortunately, HRV can be monitored using a heart rate monitor and software that can translate input from the monitor into HRV levels. A range of relatively inexpensive HRV trackers are currently available. Monitoring can be done on a personal computer or using a smartphone with an HRV app.

By monitoring their HRV on a regular basis, an individual can see what activities lower their HRV levels. This gives them options. For example, if their HRV goes down significantly during their drive to work, they can try a number of actions to increase it and relieve their stress. These might include the following:

a. Commuting during off-peak times

b. Listening to local traffic reports to try to avoid grid-locked areas

c. Treating their car as a personal concert hall and listen to music they find relaxing and enjoyable

d. Losing the ‘race mentality’ i.e. drive calmly without frequent lane changes, speed surges or rapid breaking

e. Continually reminding themselves that becoming upset over commuting situations that are beyond their control can be damaging to their health

f. Making use of opportunities to take slow diaphragmatic breaths

By being able to observe stress levels on an ongoing basis, an individual can decide to change what they are doing, how they are reacting, or how they are thinking, in order to reduce stress. Regardless of the stress reduction method an individual employs, they can monitor their HRV and the real time biofeedback provided enables them to exercise control over their stress level.

Some modern, portable HRV systems allow the user to upload chosen monitored time periods e.g. during commuting, while working, etc. This enables them to gain an understanding of how their thoughts or the environment they were in can affect their stress levels.
Back in 2015, Professor Frederic Shaffer, of the Center for Applied Psychophysiology at Truman State University, Missouri, commented that portable HRV trackers were still in an early stage of development and that there wasn’t any consumers’ laboratory checking their accuracy against clinical-grade equipment. Assuming this is still the case, if you are considering purchasing a portable HRV tracker, you should probably do your best to check that it has been independently tested for accuracy.

In her book titled ‘Stressaholic’ Dr. Heidi Hanna notes that there are several HRV training devices available and that her current favourites include the Inner Balance program by HeartMath (www.heartmath.com), the free iPhone app GPS for the Soul, and My Calm Beat by Brain Solutions (www.mybrain-solutions.com/mycalmbeat). She also mentions that there are several new applications coming to market that will make consistent and reliable HRV data available upon demand, which will significantly boost the efficacy of stress management strategies that can be trained and monitored in real time.

Many interventions have been shown to improve HRV. These include:

- Positive emotions such as joy, appreciation, and calm
- Foods, including green, leafy vegetables, omega-3 polyunsaturated fatty acids in fish and fish oil
- A Mediterranean diet
- Smoking cessation, which results in immediate improvement in HRV
- Exercise
- Slow breathing or chanting a prayer or a mantra
- Centering prayer and prayers of gratitude
- Mindfulness meditation
- Listening to classical music or meditation music

In order for us to provide stress management training that works it’s important that we continue to develop easy-to-use, reliable and personalized approaches to assessing, training and monitoring stress at both individual and organizational levels.

“When you can measure something in numbers, then you know something about it.”

- Lord Kelvin (1824-1907) - mathematician, physicist, and engineer

About the Author

Dr. Alan Ruth BS, PhD, MBA, FRSB, FAIS is a stress specialist, Fellow and Director of International Development for the American Institute of Stress. He is a Fellow of the Royal Society of Biology and formerly he was Managing Director (Ireland) for an American multinational pharmaceutical company.
Introduction

Every night in America, spouses come home and tell their partners about “the stresses” of the day. Children are “stressed out” with homework; mothers are “stressed out” by balancing their lives at work and home. Service members dedicate their lives to their country only to suffer from PTSD when they return home. Mental health workers are often overwhelmed with stress issues in their communities after natural disasters. These are just a few examples. Stress is becoming a buzzword for our time, and a condition many people experience as an “emergency within.”

Internal medicine physicians indicate that this “emergency within” is a growing epidemic. Many of them spend half of their day talking to patients about stress, yet they lack comparison data for a scientific diagnosis. All of these examples indicate a growing need for new methods of diagnosis, measurement, and treatment. The days are gone when stress therapy consisted only of “expert opinion” and a counseling model of “one patient and one therapist at a time.”
Thirty years ago, we set out to provide a stress measurement instrument. It was necessary to find “hard” data. The criteria, or elements, of stress needed to be defined as well. We became aware of the need for more specific stress criteria while teaching one of the first classes on “stress management” to graduate students in psychology and counseling in the 1980s. After all, how could we “manage” what we couldn’t define?

At that time in 1980s, some stress therapists used subjective quizzes, mood rings, and bio dots to guide them. Valid measurements were few and far between in those days. It was difficult to measure reliability and validity; a variety of norm groups were needed as well. We first developed a written test called the Stress Schedule (Hallberg, E. and Hallberg, K., 1984), and then a digitized version called Stresscom (www.stresscom.net, 1996). We studied the efficacy of Stresscom over the years by working with groups such as British Petroleum, the Japanese Psychological Association, the U.S. Olympic Executive Committee, the employees of the city of Pasadena, California, as well as many teachers, students, and patients suffering from PTSD. To date, over 6,000 people in 30 occupations have taken Stresscom.

We are honored that The American Institute of Stress recognized our work with Stresscom with the Distinguished Innovation Award in 2009.

Dr. Paul Rosch, past Director of the American Institute of Stress, said the following about the award:

“Many researchers and others have conducted stress quizzes, some of which are self-serving and a very few, if any, are validated, so their value is questionable… One notable exception is the 10-15 minute questionnaire devised by Dr. Edmond Hallberg, longtime fellow in the American Institute of Stress. It was developed over 20 years ago, recently revised, then administered to over 6,000 individuals in some 30 occupations to establish time standards for comparison purposes. Stresscom is specifically valuable in assessing job stress. More importantly, this program provides useful interventions aimed at teaching the user an option of stress management in each of the six categories included. Periodic testing also allows one to track the degree of improvement or progress.”

**Accurate Stress Measurement in the Future**

Here are five important elements that could improve the accuracy of stress measurement in the future.

**Client Centered Diagnosis and Treatment**

Stress is a personal matter. Too often, physicians and counselors take a commanding role (or as we say now, “ownership”) in the diagnosis and treatment of stress-related syndromes, which denies the patient the personal responsibility that is necessary to manage stress in the future. Also, pharmaceuticals may only be a temporary or stop-gap treatment. When stress symptoms are “managed” by pharmaceuticals, there may be patient dependency issues. Effective stress management is dependent on self-efficacy and decision-making, with proven techniques like deep breathing and visualization, for example. These techniques are most effective when the patient takes personal responsibility.

In most stress management programs the patient needs to take command. The
question is: command of what? Vague suppositions, though professional, are often unrelated to metrics and thus leave the patient unclear about solutions. Stress measurement programs must be prepared to offer patients and clients easily understood metrics that are useful and “hands-on.” In the future, patients will probably be in control through APP-related or “pocket medicine” measurement and management. This will be similar to blood pressure measurement, and weight control, with the patient continuously monitoring his own stress under a physician’s care.

**Electronic Measurement**

In our web-based world, stress measurement must become instantaneous and electronic for two reasons. First, the “old paper and pencil” methods are an anachronism today. Secondly, the need to measure stress levels immediately is felt as a self-evident truth by consumers. For example, after large-scale natural disasters, it’s important to determine stress levels for individual patients immediately in order to offer early treatment. After the Japanese tsunami in 2013, we suggested to the Japanese Psychological Association that we could use Stresscom to immediately evaluate thousands of affected people, and then supplement the scores with a national television report. Those people with high stress scores could be identified and provided with the existing, limited treatments and monitored in the future. Those with low stress scores could be educated about the characteristics and symptoms of stress to self-monitor their progress after the disaster. In such circumstances, the traditional counseling model of “one therapist and one patient” would have been impossible to administer.

**Diagnoses More Than Mere Generalities**

It’s important for the future of stress measurement that we move beyond generalities, and give the patient what I call “tailored clarity” so that he/she can take personal responsibility for managing their stress. For example, we have defined six important areas of measurement in Stresscom. These are: control, competition, time, change, symptomatology and task orientation.

Each of these important criteria is backed by research, and more easily understood than generalizations regarding stress. Each area of measurement also suggests management techniques that are not obvious with existing generalities.

Our research shows that Stresscom measures stress in these six areas that might lead to patient improvement. These criteria allow us to identify and recommend various treatment options. In doing so, the patient has a picture of “overall” stress that is personalized to them. For example, when we did our research with the US Executive Olympic Committee, we found that these executives were stressed at a level of one standard deviation above the mean of our norm group. However, these overall scores did not tell us enough to provide them with effective stress management techniques. Their time management scores, as a subset of their overall scores, were also one standard deviation above the mean. These scores allowed us to provide targeted time management to the Committee as the opening day of the Olympics approached.
Monitoring Stress

Our research also shows that stress should ideally be measured continuously over time, in a similar manner to blood pressure measurement. We therefore designed Stresscom to be taken every three months by some patients (the interval is to obfuscate the practice effect). Furthermore, we designed the monitored results to appear on a simple, thermometer allowing readings of percentages and scores compared to norm groups. A possible example of Stresscom monitoring in the future could be with post-traumatic stress cases. Post-traumatic stress is a condition suffered by many Service Members. We have suggested that Stresscom be given as a baseline before deployment and electronically taken while deployed, where stress management techniques could be given by Combat Stress Control Teams. Upon return Stresscom could indicate areas of PTSD and prevent disability. This gives service personnel individual responsibility to “own” their stress, to monitor and manage it. Conceivably, this system could reduce overall diagnoses upon return from deployments.

Preventative Stress Measurement

Fifth, diagnosis and treatment of stress related illnesses has been the focus of most professional work with stress. But how are we able to prevent excessive stress by helping patients before malady and, in turn, save millions of dollars in costs? We have previously mentioned the possibility of using Stresscom prior to, during and after deployment, and during natural disasters as well. As two additional examples, we have successfully used Stresscom with British Petroleum managers and employees of the city of Pasadena, California for stress prevention purposes. With Pasadena city employees, we were able to conduct stress management sessions that led to a 68% reduction in workers compensation cases reported the next year.

Stresscom Criteria

What have we found to be the basic foundational measurements of stress? Here are the six areas of stress measurement that Stresscom evaluates:

A. Control/Responsibility

If one does not have (or assert) an amount of control over a situation which is adequate for the amount of responsibility one has, or perceives, then stress will develop. For example, if an employer tells any employee that it’s their responsibility to produce a first-class sales brochure, but doesn’t give control over the budget or content of that brochure, the employee will feel out-of-control and probably experience extensive stress.

B. Competition

The need to compete is common in our society. We learn it in the classroom, and carry it into the boardroom. Competition is natural, yet no one can win all the time. That’s why a person who strives to win at any cost may develop exstress (Hallberg, Levitt and Hallberg, 1984). Exstress is the stress overload produced by extensive responsibilities and life situations, and the loss of control over them.

C. Task Orientation

If one has a strong goal or task orientation, and needs to complete tasks with
precision and/or perfection, then one can suffer from high HPA (hypothalamus, pituitary, and adrenal axis) activity and stress overload. Type A personalities are often characterized here.

D. Change

We live in a time when change is part of our daily lives. However, when life changes are occurring faster than we can adjust to them, exstress is generated. Some changes may force us to see ourselves in different ways without control. We need to be flexible enough to change with the flow of events. For example, in retirement, a person not only loses a job, he or she also may lose his personal identity gained from his previous employment.

E. Symptoms

Many highly stressed people experience frequent sleeplessness, irritability, and depression. These symptoms are warning signals of increasing levels of stress. Others have medical conditions that, in and of themselves, create greater stress. For example, fears related to having a second heart attack are a constant source of stress for some patients.

F. Time

When a person has too many actual or perceived tasks for a limited amount of time, that person usually experiences heightened stress and a “hurry sickness” may develop over time.

Technical Aspects of Stresscom

To further the discussion, we have included the norm calculations and technical background of Stresscom for interested readers.

Norm Calculations

More than 6,000 persons in 30 occupations are represented in our norm group.

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Test Reliability

Internal consistency was evaluated and alpha coefficients were calculated for subscales of ten items each. Subjects were 64 graduate students. (Hallberg, E., 1985).

Test-retest reliability studies were administered to 50 graduate students in counseling at California State University, Los Angeles using (Form LP-2). Students were age 23 to 60, slightly over 50% female. Test-retest reliability over 21 days was .86 (Hallberg, E., 1984).

Test Validity

Concurrent validity was measured by the degree of association with the Holmes and Rahe Social Adjustment Scale (Holmes and Rahe, 1967), and the State Trait Anxiety Inventory (Spielberger, 1973). Sixty-two graduate students took the Social Adjustment Scale along with the Stress Schedule on the same day. The validity correlation was .43. Forty-six graduate students took the State Trait Anxiety Inventory and the Stress Schedule Form LP on one day. The validity correlation was .72. Previous concurrent validity research with the STAI suggests a strong relationship (Hallberg, E., 1984).

In another unpublished study some 23 veterans with previously diagnosed PTSD were tested with Stresscom. These veterans, from Westwood Hospital in California, were given the MMPI and Stresscom. The results indicated that these veterans diagnosed with high stress, had mean Stresscom scores at the 85 percentile, when compared with the Stresscom norm group.

Interpretation of the Results of Stresscom

Stresscom offers a comprehensive report of test results, including five comparisons with a national norm group, along with attention to the three most prevalent emotions of stress. It contains checklists related to each area of stress and techniques for managing stress. An individual’s total score is placed on the thermometer, compared in percentiles to a national norm group.

Occupational comparisons are made and specific scores outlined on a personal bar chart.

The Stresscom Thermometer displays the test taker’s scores and level of stress based on test norms. Stresscom is utilized with a single administration or may be taken up to four times per year to continuously monitor stress as well as measure the efficacy of stress management.
Examples of Stresscom in Action (1984-2016)

* Stresscom has been studied extensively with dentists throughout the country. Some 1,800 dentists, spouses of dentists, and dental assistants have been studied in over 20 stress associations. Results indicate dentists have several unique stressors. They are trained to be practitioners with their work; they are torn between their dentistry and their need to manage the “office” while performing their trade. This bifurcation causes dissonance with the dentist. Dentists are not trained as managers, yet are required to spend an exceedingly large amount of time on management; they work in a small confined place, which constricts their movement and blood circulation; and their stress increase with that of their patients’ stress. Our recommendation was they be given a class in office management as a part of their degree training.

* Stresscom was used in a study of 42 dermatological patients’ relationship with stress. It was found that patients had significantly higher elevations in stress (p<.001) than our norm groups. Subset areas of stress indicated measurements of control and time management as the highest elevations. Eczema patients scored one standard deviation higher on Stresscom than the norm group.
* Deputy Sheriffs’ stress was studied using the Stresscom system, and it was found that stress levels increase with tenure, and peaked at five to nine years of service. Also, it was found that young deputies working jail assignments had higher stress than those who were on patrol-car duty.

* In a study at National Jewish Hospital in Denver, Colorado, 76 patients who had cardiac infarctions were tested with Stresscom and the Myers-Briggs. Of the 76 patients in the study, 17 were reported to have high stress (greater than one standard deviation above the mean). Of the 17 patients with high stress, 13 were introverts, and only 4 were extroverts. Within the introvert category, 8 of the 13 high stress individuals were represented in category ISFJ, and 5 in category INFP of the Meyers-Briggs. These results indicate nearly one half of high stressed introverts were represented in two of 16 categories of the Myers-Briggs. These two categories each generally represents only 13% of the population.

* A study was conducted at Westwood Veterans Hospital to determine the effects of post-traumatic stress on veterans housed in the facility. Some 23 veterans participated in the study that included Stresscom measurement, and a follow-up seminar for the veterans was given. Mean scores indicated these veterans were at the 95 percentile of the norm group of 5,500. Subset scores indicated high stress across the six categories. Control was the highest score reported. Time Management was surprisingly high; this proved interestingly as these veterans did not have jobs outside the hospital and only worked a few hours in the facility. These veterans are not under undue pressure to complete tasks in time frames that are unrealistic. Other time concerns seem to be operating here.

### Future Stress Measurement

Hopefully in the future we will develop stress measurements that are client-centered and web-based with defined criteria that will enable us to monitor our clients over time and that will help us to design solutions that are preventative in nature. Our work with Stresscom (www.stresscom.net) has given us some insight, but much still needs to be done.

For more information about special pricing on the Stresscom assessment, please email Heidi@stress.org.

### About the Author

Edmond C. Hallberg, EdD, FAIS received his doctorate from Stanford University. He is an Emeritus Professor at California State University Los Angeles. He developed one of the first computer assessments of stress and conducted one of the first courses in stress training for graduate students in counseling and psychology. Dr. Hallberg was also Coordinator of Wellness at the university. He developed the Stress Schedule, www.stresscom.net, and co-authored Getting into Overtime, a book on stress management. He has been a national stress trainer, and appeared on television throughout the country. Dr. Hallberg may be reached at drehallberg33@aol.com.
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Assessing the Stress in Your Organization:
The story of how one company did this and won an American Psychological Association Best Practice Award

By Jim Porter, FAIS

Sherry Leggett, Director of Wellness for Certified Angus Beef (CAB), is a passionate proponent of health and well-being. She attended the 2014 WELCOA conference specifically to figure out how to lower the stress in her organization and when she heard me talk about The Stress Profiler assessment she knew that she had to find a way to bring that instrument back to her organization. Little did she know that this idea would eventually lead to her company winning a prestigious best practice award from the American Psychological Association.

Over the phone the other day she walked me through the whole story. She told me how she had come to The American Journal of Health Promotion Conference, which included the WELCOA Summit (AJHP/WELCOA), with a specific objective in mind. She said, “It’s easy to get all wrapped up in all the wonderful activities at a conference like this, but I like to come armed with specific goals in mind and then find the tools and resources to meet those goals.” When she stopped by our booth right after my presentation, I didn’t realize she was on a mission. She asked a lot of tough questions about how The Stress Profiler worked and what data it could provide.

When she got back to Ohio she arranged a telephone meeting with me where I explained exactly how The Profiler worked to a couple of her wellness

Every participant has their own home page.
colleagues. Once they were on board with her plan, the next stop was upper level management. She mentioned that she had the ear of a particular HR person in the C-suite who would often speak on her behalf to the others at that same level. When she said that, I remembered a speech Dr. David Hunnicutt gave at a previous AJHP/WELCOA conference, where he mentioned this “foot in the door” concept. “Sometimes,” he said, “if there is just one fan of wellness in top level management you can leverage that connection to get some initiatives launched that might not have been launched otherwise.”

“It’s all about relationships,” Sherry explained to me. I do a short meeting opener for upper level management and that monthly meeting has allowed me to develop relationships, particularly with this one HR person. She knows me, they know me, they know her and trust her and as a result they trust me too. When I asked them to take The Profiler, they did it. People in the C-suite found it very interesting and they said that it gave them a lot of good advice about how to handle stress. (In other words, they quickly realized that The Online Stress Profiler is much more than just a stress assessment: It helps people set up an action

Aggregate reports show how well your employees are managing stress overall PLUS it shows how well they are doing in ten specific areas like social support, change and financial stress. At CAB they used this data to address the specific areas where people needed help the most.
plan for lowering stress, based on their own individual scores.) And that really started the ball rolling.

Once the management was on board Sherry reported: “Here again, getting buy-in at every level was more about the relationships I’ve built with people over time. Some things you kind of fight with but this initiative was not like that. It was more like flow.”

“Back in the day when we first started to do blood pressure screenings, or ANY kind of health risk assessment, it was like pulling teeth. But getting people to take The Profiler was easy. They had been asking me for help with stress and, because of the research I had done at AJHP/WELCOA, I knew the Stress Profiler would help us get to where we wanted to go as an organization. The relationships I had established with my fellow workers allowed them to trust that that taking this assessment and following its action plan would work to help us get there. Creating an initiative like this showed everyone that we as a company actually cared about our employees. It was giving our employees exactly that they wanted.”

“Oh the workers had taken the profiler, we used that aggregate data to help lower stress throughout the whole organization.” As it turns out, just about everyone was scoring high in the same three areas. We found out the three highest overall scores were for financial stress, sense of control and time pressure. So we were able to use this information to construct targeted programs that could help ALL the employees in those three specific areas.

Aggregate reports show how well your employees are managing stress overall PLUS it shows how well they are doing in ten specific areas like social support, change and financial stress. At CAB they used this data to address the specific areas where people needed help the most.
We brought in specialists on financial wellness and time management to talk to our folks. I encouraged people to talk to our onsite counselor about their other high scores (among ten different areas from Social Support to Stress Outlets) and turn the advice given by The Profiler into specific action steps. I would ask them to set goals based on this advice: “What action step can you take today, this week or this month?”

The assessment section of The Profiler takes about ten minutes to complete. You find out how you are doing in ten different areas of your life including time pressure, change, worry, sense of control and handling anger.

“I wanted them to take the test again 3 months later to prove we had been able to lower people’s stress. To boost the participation, I offered a drawing for a massage. It’s amazing how just ONE single drawing for a prize can be an incentive to a WHOLE group of people. From our aggregate report, after putting the StressProfiler into practice, (i.e., people completing their own action plan that the Profiler created for them based on their individual scores) in three months time the overall levels of stress were lowered by nearly 10%. We now had the DATA to show that we had accomplished lowering stress in the organization and our CEO really liked that.”

“At the end of the day,” Sherry recalled, “people don’t care about the ROI of their wellness program. They just want to

The minute you finish answering the questions, this results page pops up, showing you how you did in the ten different areas. Your next step is to create an action plan that will help you lower your stress in the areas where you got the three highest scores.
know that you care. I go to people individually and help them get on their computers and just SEE the assessment. I talk about the benefits of taking this Profiler to everyone I meet. Eventually they get the message."

“Hey we test people for every other health risk under the sun, but we don’t test them for stress. Well now we do. And they really appreciated the fact that we HEARD their request and we gave them what they asked for: help with lowering their stress. And when we won the Healthy Workplace Award from American Psychological Association that was just the icing on the cake.”

For more information on how to use the Stress Profiler report personally or within your organization, please email Heidi@stress.org.

About the Author
James E. Porter is the founder and president of StressStop.com which, along with its parent company Audio Vision, has been producing stress management training materials for over 20 years. His stress management films have won many awards including first and second place awards from The International Medical Film Festival, The American Journal of Nursing Media Festival and The BioMedical Film Festival. His films are shown on a daily basis over closed-circuit TV and Video on demand systems in thousands of hospitals nationwide including The Mayo Clinic, The Cleveland Clinic, Mass General Hospital and The Columbia-Cornell Medical Center.

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