

## ASSESSMENT INSTRUMENTS FOR FIRST RESPONDERS AND PUBLIC HEALTH EMERGENCY WORKERS

First responders and public health emergency workers can experience a variety of stressors and potentially traumatic events, which increase the risk for distress and mental health disorders. Effective recognition and management of these stressors can enhance the health, well-being, and occupational functioning of these personnel. Below are instruments that assess a broad range of work-life stressors.

### **Career Satisfaction**

#### ***Professional Quality of Life (PROQOL-V)***

The Professional Quality of Life is a 30-item self-report measure that assesses the positive and negative effects of working with people who have experienced extremely stressful events (Stamm, 2010). Response choice range from 1 = *Never* to 5 = *Very Often*.

### **Family/Friends**

#### ***Conflict Tactics Scale***

The Conflict Tactics Scale is a self-report measure that assesses both the extent to which partners in a dating, cohabitating, or marital relationship engage in psychological and physical attacks on each other, and also their use of reasoning or negotiation to deal with conflicts (Straus, Hamby, Boney-McCoy, & Sugarman, 1996). Originally a 19-item scale, and later broadened to a 78-item version, the scale has been modified to a 23-item measure at the Center for the Study of Traumatic Stress (McCarroll, Ursano, Liu, Thayer, Newby, Norwood, & Fullerton, 2010). Respondents are instructed to indicate the extent to which certain statements apply to them during a specified time period.

### **Friendship Scale (FS)**

The Friendship Scale (FS) is a 6-item self-report measure that assesses perceived social isolation during the past four weeks (Hawthorne, 2006). Respondents are instructed to place an "X" on the line if they agree with the statement during the specified time period.

First responders and public health emergency workers can experience a variety of stressors and potentially traumatic events, which increase the risk for distress and mental health disorders.

### **Work/Life Balance**

Work/Life Balance is a 1-item self-report measure that assesses the impact of balancing home and work responsibilities during, and in the aftermath of, a stressful or traumatic experience (Herberman-Mash, Fullerton, Kowalski-Trakofler, Reissman, Scharf, Shultz, & Ursano,

2013). Respondents are asked "How difficult was it to balance your concerns for your family while performing your job during the [stressful or traumatic experience]?" and provided with six answer choices: *Not at all*, *A little bit*, *Moderately*, *Very*, *Extremely*, and *Not applicable*.

### **Fatigue**

#### ***Fatigue Checklist***

The Fatigue Checklist is a 10-item self-report measure developed to examine fatigue and performance (Pearson & Bryars, 1956). Respondents indicate the degree to which they feel *Better than*, *Same as*, or *Worse than*, at the present moment. Scores on the Fatigue Checklist are correlated with performance and have been shown to change with performance demands and decreased sleep.

### **Identification & Sensitivity**

#### ***Identification with the Dead***

The Identification with the Dead is a 5-item self-report measure that assesses a respondent's identification with deceased victims (Ursano, Fullerton, Vance, & Kao, 1999). The measure contains three subscales: Identification-Self, Identification-Family, and Identification-Friend. Respondents score each item on a 5-point scale ranging from 0 = *Not at all* to 4 = *Extremely* with an additional option for 5 = *Not Applicable*.

### **Sensitivity to Blood, Injury, and Mutilation (SBIM)**

The Sensitivity to Blood, Injury, and Mutilation is a 5-item self-report measure that assesses fear associated with gruesome or dangerous tasks or events where bodily injury or mutilation are possible (Naifeh, Ursano, Benfer, et al., 2015). Derived from the 30-item Mutilation Questionnaire

(MQ), the SBIM was originally developed as a 10-item scale that predicted posttraumatic stress symptoms in special operations soldiers. The scale was further refined into a 5-item measure, and expanded to a 5-point Likert scale.

## **Morale**

### ***Job Morale***

Job Morale is evaluated with a 4-item self-report measure that assesses personal morale, motivation, energy, and drive at the present time (Britt & Dawson, 2005). Respondents rate each item on a 5-point scale ranging from 1 = *Very Low* to 5 = *Very High*.

## **Performance**

### ***Brief Resilience Scale (BRS)***

The Brief Resilience Scale (BRS) is a 6-item self-report measure that assesses the ability to bounce back or recover from stress in one's lifetime (Smith, Dalenm, Wiggins, Tooley, Christopher, & Bernard, 2008). Respondents rate each item on a 5-point scale ranging from 1 = *Strongly Disagree* to 5 = *Strongly Agree*.

### ***Dispositional Resilience Scale (DRS)***

The Dispositional Resilience Scale (DRS) is a 15-item self-report measure that assesses three major components of hardiness: commitment, control, and challenge (Bartone, Ursano, Wright, & Ingraham, 1989). Originally a 45-version questionnaire, the DRS was shortened to a 15-item version in subsequent studies. Respondents rate each item on a four-point Likert scale from 0 = *Not at all True* to 3 = *Completely True*.

*Note:* Use of this measure requires a license agreement.

### ***Presenteeism***

Presenteeism is a 5-item self-report measure that assesses health-related reduced work performance (Stewart, Ricci, Chee, Hahn, & Morganstein, 2003). Respondents indicate the amount of time during the specified time frame they lost concentration, repeated a job, worked more slowly than usual, felt fatigued at work, and did nothing at work on days when they were at work not feeling well. Responses were rated on a 5-point Likert scale ranging from 1 = *None of the Time* to 5 = *All of the Time*.

### ***World Health Organization Disability Assessment Schedule (WHODAS-12)***

The World Health Organization Disability Assessment Schedule is a 12-item self-report measure that assesses the extent of disability. Questions are rated on a scale from 1 = *None* to 5 = *Extreme/Cannot do* (Weeks, Garber, & Zamorski, 2016).

## **Sleep**

### ***Daily Diary Study-Four Sleep Items***

The Daily Diary Study's four sleep items is a self-report measure that assesses quality and quantity of sleep, and whether sleep medication was used on the prior night. Three of the items (sleep quality, number of hours of actual sleep, and medication use) were adapted from the Pittsburgh Sleep Quality Index (PSQI) and the last was developed for use in the Daily Diary Study at the Center for the Study of Traumatic Stress (Buysse, Reynolds, Monk, Berman, & Kupfer, 1989). The items are designed for use on a daily basis and response choices vary with each item.

## **Unit Cohesion**

### ***Unit Cohesion & Leadership***

Unit Cohesion & Leadership is a 6-item self-report measure that assesses unit cohesion, specifically horizontal cohesion, unit leadership, and unit functioning at the present time. Respondents are asked to think of their unit at present and respond to items on a 5-point scale ranging from 1 = *Strongly Disagree* to 5 = *Strongly Agree*. Unit cohesion is assessed with three items developed by Podsakoff and Mackenzie (1994) and modified for military relevance by Castro and Adler (1998). Unit leadership is assessed using the three-item General Leadership Quality Scale developed by Vaitkus (1994).

## **Well-Being**

### ***General Health Questionnaire (GHQ-12)***

The General Health Questionnaire is a 12-item self-report measure designed to determine whether an individual is at risk of developing a psychiatric disorder (Goldberg, 1972). The GHQ-12 is a shortened version of the original 60-item instrument. The questionnaire focuses on breaks in normal functioning rather than on life-long traits to assess well-being; therefore, it only covers disorders associated with distress (Goldberg & Williams, 1988). Items are rated on a 4-point scale (0 = *Not at all* to 3 = *A lot more than usual*).

A wide range of psychiatric disorders and clinical symptoms can be assessed in first responders and public health emergency workers. The Army Study to Assess Risk and Resilience in Servicemembers (Army STARRS) developed a broad variety of assessment instruments which have been used around the world for survey research. For additional information please visit the Army STARRS and STARRS-LS website at [www.starrs-ls.org](http://www.starrs-ls.org).

## References

- Bartone, P. T., Ursano, R. J., Wright, K. M., & Ingraham, L. H. (1989). The Impact of a Military Air Disaster on the Health of Assistance Workers: A Prospective Study. *The Journal of Nervous and Mental Disease*, 177, 317–328.
- Benedek, D. M., Fullerton, C., & Ursano, R. J. (2007). First responders: mental health consequences of natural and human-made disasters for public health and public safety workers. *Annual Review of Public Health*, 28, 55–68. <http://doi.org/10.1146/annurev.publhealth.28.021406.144037>.
- Britt, T. W., & Dawson, C. R. (2005). Predicting Work–Family Conflict from Workload, Job Attitudes, Group Attributes, and Health: A longitudinal study, *Military Psychology*, 17(3), 203–227.
- Buysse, D. J., Reynolds, C. F., 3rd, Monk, T. H., Berman, S. R., & Kupfer, D. J. (1989). The Pittsburgh Sleep Quality Index: a new instrument for psychiatric practice and research. *Psychiatry Research*, 28(2), 193–213. doi: 0165-1781(89)90047-4 [pii].
- Castro, C. A., & Adler, A. B. (2000). The Impact of Operation Tempo: Issues in Measurement. Frederick, MD: U.S. Army Medical Research & Material Command.
- Goldberg, D. P. (1972). The detection of psychiatric illness by questionnaire. London: Oxford University Press.
- Goldberg, D. P., & Williams, P. (1988). A user's guide to the General Health Questionnaire. Windsor UK: NFER-Nelson.
- Hawthorne, G. (2006). Measuring social isolation in older adults: Development and initial validation of the Friendship Scale. *Social Indicators Research*, 77:521–548.
- Herberman Mash, H. B., Fullerton, C. S., Kowalski-Trakofler K., Reissman D. B., Scharf T., Shultz, J. M., & Ursano R. J. (2013). Florida Department of Health Workers' Response to 2004 Hurricanes: A qualitative analysis. *Disaster Medicine and Public Health Preparedness*, 7(2), 153–159.
- Kessler, R. C., Santiago, P. N., Colpe, L. J., Dempsey, C. L., First, M. B., Heeringa, S. G., et al. (2013). Clinical reappraisal of the Composite International Diagnostic Interview Screening Scales (CIDI-SC) in the Army Study to Assess Risk and Resilience in Servicemembers (Army STARRS). *International Journal of Methods in Psychiatric Research*, 22(4), 303–321.
- McCarroll, J. E., Ursano R. J., Liu, X., Thayer, L. E., Newby, J. H., Norwood, A. E., Fullerton, C. S. (2010). Deployment and the Probability of Spousal Aggression by U.S. Army Soldiers. *Military Medicine*, 175:352–356.
- Naifeh, J. A., Ursano, R. J., Benfer, N., et al. (2017). PTSD symptom severity and sensitivity to blood, injury, and mutilation in U.S. Army special operations soldiers. *Psychiatry Res*, 250, 78–83.
- Pearson, R. G., & Byars, G. E. (1956). The development and validation of a checklist for measuring subjective fatigue (Report No. 56-115). Randolph AFB, TX: Air University School of Aviation Medicine, USAF.
- Podsakoff, M. P., & Mackenzie, B. S. (1994) An Examination of the Psychometric Properties and Nomological Validity of Some Revised and Reduced Substitutes for Leadership Scales. *Journal of Applied Psychology*, 79(5): 702–713.
- Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The brief resilience scale: assessing the ability to bounce back. *International Journal of Behavioral Medicine*, 15(3), 194–200.
- Stamm, B. (2010). The professional quality of life elements theory and life measurements. Retrieved from. <http://www.proqol.org> [Revision].
- Straus, M. A., Hamby, S. L., Boney-McCoy, S., & Sugarman, D. B. (1996). The revised conflict tactics scales (CTS2). *Journal of Family Issues*, 17(3): 283–316.
- Stewart, W. F., Ricci, J. A., Chee, E., Hahn S. R., & Morganstein D. (2003). Cost of lost productive work time among US workers with depression. *JAMA*, 289(23): 3135–3144.
- Ursano, R. J., Fullerton, C. S., Vance, K., & Kao, T. C. (1999). Posttraumatic stress disorder and identification in disaster workers. *American Journal of Psychiatry*, 156, 353–359.
- Vaitkus, A. M. (1994) Unit Manning System: Human Dimension Field Evaluation of the COHORT Company Replacement Model. (WRAIR/TR-94-0017). Washington, DC: Walter Reed Army Institute of Research.
- Weeks, M., Garber, G. B., & Zamorski, A. M., (2016). Disability and Mental Disorders in Canadian Armed Forces. *The Canadian Journal of Psychiatry*, 4(Supplement 1), 56S–63S.