A Behavioral-Analytic Model for Assessing Stress in Police Officers: Phase I. Development of the Law Enforcement Officer Stress Survey (LEOSS)

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ABSTRACT: *Research and clinical reports over the past 25 years have documented the high level of stress inherent in the law enforcement profession. Further, these findings have indicated a wide range of negative physical and mental health sequelae from this stress. The present study employed a behavioral-analytic assessment approach to develop a brief, early warning screening measure of stress among law enforcement officers, the Law Enforcement Officer Stress Survey (LEOSS). This paper describes the initial phases of the LEOSS development following the behavioral-analytic method, which included situational analysis, item development, response enumeration, response evaluation, and construction of the survey. This process resulted in a final 25-item instrument specifically geared toward evaluation of stress in law enforcement officers. The next phase of research on the LEOSS, and suggestions for directions that research in this area might take, are offered.*

KEY WORDS: assessment, law enforcement, police, stress, trauma

Perhaps no topic in the field of police psychology has received as much attention as that of stress and mental health in law enforcement (Anderson, Swenson, & Clay, 1995; Brown & Campbell, 1994; Toch, 2002). Indeed, investigative and anecdotal reports dating back nearly a quarter of a century (Richard & Feil, 1976; Steinberg & McEvoy, 1974) attest to the problem of stress and its deleterious sequelae in police officers as well as their families (Depue, 1981; Kannady, 1993). The focus of much of the early work in this area was on the identification of sources of stress in police officers and their jobs. As Reese (1986) cogently pointed out, law enforcement professionals "must function as counselors, social workers, psychologists, negotiators and investigators, as well as traditional police officers. Their work alternates from dull and boring to moments of sheer panic, when life-and-death decisions have to be made in a matter of seconds" (p. 233). He further contends that the combination of exposure to critical incidents and trauma, along with the continual threat of physical danger, causes overwhelming stress in police officers. Not surprisingly, traumatic events, such as being shot in the line of duty, shooting of a partner, shooting of another person, exposure to abused or deceased children, and severe motor vehicle accidents, all are ranked as extremely stressful by police personnel (Coman & Evans, 1991; Patterson, 1999; Sewell, 1983).

A number of other job-related stressors also have been implicated as etiological factors in law enforcement stress. While less extreme than the aforementioned traumatic events, these are more common and have been highly associated with police stress and resultant dysfunction. Some of these

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include participation in specialized assignments or units (e.g., undercover, detective bureau), which is often highly sought after, but involves long hours, "on call"-status, and considerable time away from home (Farkas, 1986); a varied work schedule (e.g., rotating shifts, irregular days off, court time) that disrupts sleep patterns and family activities (O'Neil, 1986); and public scrutiny and litigation as a result of taking a forceful police action (whether justified or not) (Reiser & Gieger, 1984).

In recent years, increased interest also has been directed to stressors that may be inherent in the law enforcement agency itself. For example, data have been adduced supporting the role of the following organizational stressors in officer-reported stress: poor training and supervision, lack of recognition or reinforcement for good job performance, perceived nepotism in awarding promotions and financial incentives, inadequate pay, and insensitivity to family or personal needs (e.g., Alkus & Padesky, 1983; Hartsbough, 1991; Silbert, 1982; White & Honig, 1995). Interestingly, Patterson (1994) and others have found that these "stressful organizational events were more highly correlated with psychological distress than were stressful field events" (p. 216).

The burgeoning body of evidence supporting the notion of law enforcement as an extremely stressful profession also has been the impetus for the acceleration of research efforts concerning stress effects in this population. Unfortunately, the convergence of findings are consistent and alarming. Illustrative is the widely recognized problem of alcohol and substance abuse, which may occur in as many as 30% of police officers (Bibbens, 1986; On the Front Lines, 1991). Further, it is now apparent that high rates of emotional difficulties, such as anxiety, depression, and poor anger/impulse control, are a response to cumulative law enforcement stress (Reiser & Gieger, 1984; Violanti & Paton, 1999; White & Honig, 1995). In addition, while prevalence rates vary, it is possible that nearly one-third of police officers have stress-based health problems, most commonly gastrointestinal disorders, high blood pressure, and coronary heart disease (Blackmore, 1978; Brown & Campbell, 1994; Terry, 1981).

There are also indications that posttraumatic stress disorder (PTSD) or symptomatology characterizes a significant proportion of police personnel exposed to trauma. In his popular book, *Copshock: Surviving Posttraumatic Stress Disorder*, Kates (1999) opines that "as many as one in three cops may suffer from PTSD." In more empirically-based reports, there are estimates that as many as 50% to more than 80% of officers involved in a critical incident manifest at least transitory PTSD symptoms (see Reese, Horn, & Dunning, 1991). The high levels of marital difficulties and domestic violence in law enforcement families also have been related, at least in part, to officer stress that generalizes to the family environment (Neidig, Russell, & Seng, 1992; Sheehan, 2000; Van Hasselt & Sheehan, 2000). Finally, it is widely recognized that police officers commit suicide at a higher rate than they are killed in the line of duty; many of these cases have been associated with job-related stress (Sheehan, 2001; Violanti, 1996).

The above findings underscore the importance of stress prevention and treatment efforts with law enforcement professionals. In fact, a number of stress management programs geared toward police officers have emerged over the past several years (Band & Sheehan, 1999; Novaco, 1977; O'Neill, Hanewicz, Fransway, & Cassidy-Riske, 1982; Reese, 1986; Sarason, Johnson, Berberich, & Siegel, 1979; Sheehan, 1999). However, what is currently lacking in this area is an assessment instrument that can be administered to provide early detection of those officers at greatest risk for stress-related problems and disorders. Further, such an evaluation tool must be: (a) sensitive to the unique challenges and stressors encountered by law enforcement professionals, and (b) brief in format to facilitate use by a population that historically has been resistant to interacting with mental health or employee assistance programs (Gund & Elliott, 1995).

The purpose of the present study was twofold: (1) to determine stressors in police work by asking law enforcement professionals themselves to identity major areas of stress in their occupation, and (2) to incorporate these items into a brief screening measure. It was anticipated that development of a short, easily-administered stress survey would be a useful evaluation tool for early identification of stress and related difficulties in police personnel. This paper describes the first phase in the construction of this instrument: The Law Enforcement Officer Stress Survey (LEOSS).

Development of the Law Enforcement Officer Stress Survey

To develop our measure of stress in law enforcement, we followed the behavioral-analytic model of test construction. This model is consistent with the behavioral analysis approach, which focuses on a functional analysis of the relationship between an individual's behavior and his or her environment (Kanfer & Saslow, 1965). The emphasis is on developing assessment strategies based on behavior-environment interactions identified in a criterion analysis, rather

than on hypothetical personality characteristics (Goldfried & D'Zurilla, 1969). The behavioral-analytic model also offers a more socially valid alternative given its inclusion of the targeted consumer group as primary contributors to the test construction process (Bellack & Romano, 1980; Freedman et al., 1978; Van Hasselt et al., 1985). As delineated by Goldfried and D'Zurilla (1969), this approach consists of five steps: (1) situational analysis, (2) item development, (3) response enumeration, (4) response evaluation, and (5) construction of the instrument. Next, we describe the procedures involved in each aspect of this phase of the project.

Situational Analysis

This step involved identification of situations that police officers might typically find stressful. To accomplish this, we obtained an item pool of situations by asking law enforcement professionals (n = 166) from the Stress Management In Law Enforcement (SMILE) course at the Federal Bureau of Investigation (FBI) National Academy (where the work was initiated) to list items that they felt were stressful in their work. SMILE is a National Academy course (taught during the study period by the second author, D.C.S.) that examines stress in law enforcement and makes officers aware of the stressors they are likely to encounter on the job and in their personal lives. Stress management techniques (exercise, nutrition, communication, spirituality, and positive expectancy) are emphasized. The purpose of the course is to reduce drinking, prescription drug abuse, domestic violence, divorce, suicide, and other maladaptive responses to stress. Incoming members of the National Academy request the SMILE course in large numbers. The National Academy is composed of mid-level police officers who attend an 11-week training program in law enforcement leadership and management. The course is conducted at the FBI Academy, in Quantico, Virginia.

Each participant in the situational analysis phase was asked to "List five situations you find stressful" on the basis of their experiences in law enforcement. From their 759 total responses (some participants listed fewer than five situations), 89 unique situations were catalogued. These situations included shootings, responding to alarms, confrontations with armed perpetrators, dealing with supervisors, dealing with subordinates, and family problems.

Item Development

In this stage, the 89 situations were reworded into scenarios. Some examples of items are: "While responding to a burglary in progress, the dispatcher advises you of the possible presence of an armed and dangerous suspect"; "You respond to a motor vehicle accident involving serious injuries and possible fatalities"; and "Your Internal Affairs division subjects you to a civil rights investigation based on an unfounded citizen complaint."

Response Enumeration

The 89 scenarios then became the basis of items for two rating scales. Each item was placed on a 7-point ordinal scale, ranging from 1 (not at all) to 7 (very much). One rating scale evaluated the *likelihood* that a police officer respondent would encounter each situation depicted in the scenario. The second scale evaluated how *difficult/problematic* each situation would personally be for a police officer. Further, to protect against the effects of response sets, the 89 items from each scale were randomly divided in half (i.e., 44 and 45 item sets, respectively) after which each half was anonymously administered to separate groups of 13 randomly selected respondents each. Hence, 13 respondents rated the *likelihood* of each situation in the first set of scenarios (44 items), another 13 rated the difficulty or *seriousness* of those situations; another 13 rated the likelihood of each situation in the second set (45 items); and finally, another 13 rated their difficulty. These 52 randomly assigned respondents, regarded as "experts," consisted of separate SMILE participants who were not involved in the situational analysis step of the investigation.

Response Evaluation

The next step was to identify the best subset of scenarios for use as items in the LEOSS. To accomplish this goal, frequency distributions of the ratings of each scenario were constructed separately for "likelihood" ratings and "degree of problem" ratings. In the pursuit of our purpose of ultimately producing an assessment instrument that is as brief as possible while still being rigorous, a scenario was retained if it received a median rating of at least 4 ("neutral") for likelihood *and* a median rating of at least 5 ("somewhat") for degree of problem.

Construction of the Instrument

Tables 1 and 2 show the median ratings for each of the 89 scenarios as well as the decision to retain each. Ten of the first 44 scenarios were retained and 15 were retained from the set of 45 scenarios. These 25 situations comprise the current LEOSS item set and are listed in Table 3.

Table 1. Median Ratings for Likelihood and Degree of Problem with Item Retention Decisions for Set of 44 Scenarios

Scenario	Likelihood of Experiencing	Degree of Problem	Retain Item (Y/N)
1	7	4	N
2	6	5	Y
3	7	5	Y
4	5	4	N
5	4	6	Y
6	6	5	Y
7	3	7	N
8	5	5	Y
9	6	4	N
10	7	5	Y
11	6	2	N
12	3	3	N
13	3	3	N
14	5	4	N
15	1	3	N
16	4	3	N
17	2	2	N
18	4	2	N
19	3	3	N
20	4	3	N
21	3	2	N
22	2	4	N
23	2	3	N
24	4	3	N
25	4	4	N
26	2	3	N
27	4	3	N
28	3	4	N
29	3	4	N
30	6	5	Y
31	5	4	N
32	5	5	Y
33	5	3	N
34	3	1	N
35	5	2	N
36	5	2	N
37	4	3	N
38	5	3	N
39	5	3	N
40	6	5	Y
41	6	3	N
42	7	3	N
43	1	3	N
44	4	5	Y

Table 2. Median Ratings for Likelihood and Degree of Problem with Item Retention Decisions for Set of 45 Scenarios

Scenario	Likelihood of Experiencing	Degree of Problem	Retain Item (Y/N)
1	3	7	N
2	4	5	Y
7	5	5	Y
4	6	3	N
5	5	5	Y
6	5	4	N
7	5	3	N
8	5	5	Y
9	4	6	Y
10	4	3	N
11	7	3	N
12	6	4	N
13	3	5	N
14	6	4	N
15	5	4	N
16	7	4	N
17	5	5	Y
18	6	3	N
19	6	3	N
20	5	5	Y
21	6	3	N
22	5	4	N
23	5	3	N
24	5	4	N
25	5	3	N
26	6	3	N
27	5	4	N
28	5	5	Y
29	5	3	N
30	4	3	N
31	4	4	N
32	3	4	N
33	5	5	Y
34	4	5	Y
35	6	4	N
36	6	5	Y
37	5	5	Y
38	4	4	N
39	5	5	Y
40	6	4	N
41	5	5	Y
42	6	4	N
43	4	6	Y
44	3	6	N
45	3	6	N

Table 3. Twenty-five Scenarios Currently Comprising the LEOSS Survey Items

Item	Scenario
1.	You are called to a burglary in progress. The assailant may be armed.
2.	You are called to respond to a silent alarm from a bank.
3.	You respond to a shooting in progress between two gangs.
4.	You are executing an arrest and search warrant for a violent criminal and are unsure of his/her location.
5.	You are executing an arrest warrant when the suspect barricades himself/herself. There may be other people with him/her.
6.	You respond to a major motor vehicle accident with multiple injuries and possible fatalities.
7.	You are engaged in the promotional process.
8.	You have been brought up on civil rights violations which are untrue.
9.	You have plans with your family but work demands interfere and you are unable to go.
10.	You are on a high pursuit chase in icy conditions.
11.	You are investigating an officer's death in which suicide is suspected.
12.	You are responsible to notify the parents of a child killed by a hit and run driver.
13.	You are called to contain a public rally that is becoming agitated.
14.	You have been recruited to investigate a fellow officer.
15.	You have been injured during an assault and your back-up is late responding.
16.	You find that your subordinates did not complete the assignment you gave, for which you are responsible.
17.	You must rely on employees that you feel are not trustworthy or incompetent.
18.	You are trying to solve a high profile case while the public pressures for immediate results but continues to be uncooperative.
19.	You have spent hours putting data into your computer, only to have it go down and your data is lost.
20.	You are making progress on a case when you are pulled off it for political reasons.
21.	You find that work is taking up more time and energy, leaving you with little left for family and recreation.
22.	You are unable to complete a project because your supervisor keeps changing the direction or priorities.
23.	You are on your way to a high emergency call when the radio has interference and you are unable to get all of the information you need.
24.	Changing shifts has interfered with your sleep patterns, causing you to experience increased fatigue.
25.	You frequently argue with your spouse but are unable to resolve anything because of scheduling conflicts.

Discussion

The purpose of the present study was to develop an instrument to assess stress in police officers. Several steps were employed to identify situations specifically relevant to the experiences of law enforcement professionals. These situations were initially selected by experienced law enforcement professionals participating in a stress management course. Another group of participating officers evaluated the scenarios that were generated, and their rankings were used to select an item pool. From these additional ratings, a final set of 25 items was selected. By adhering to the behavioral-analytic model of test construction (Goldfried & D'Zurilla, 1969), our instrument, the LEOSS, incorporates stressful situations directly identified by the relevant consumer group: law enforcement personnel. Such inclusion significantly increases the "social validity" of any assessment tool (Romano & Bellack, 1980).

Several limitations of this investigation warrant mention. First, our study describes only the initial phase in construction of the LEOSS. The next step in test development for this measure will be to experiment with different scoring strategies, then obtain descriptive statistics in order to develop norms. Scoring strategies could include simply identifying the scenarios with ratings over empirically predetermined cut-offs. Other scoring strategies might involve identification of clusters of scenarios that go together and, hence, represent latent factors that could be identified and used in place of individual items for purposes of scoring. This would advance us toward our goal of parsimony in the instrument. Subset scores could then be utilized in some way. As a potential use for this instrument one could, for example, refer to high ratings on both likelihood and difficulty for a particular scenario for a particular police officer. Training personnel could then assist the respondent in learning effective

strategies for dealing with such situations.

Once a scoring system has been devised, the determination of psychometric properties of the LEOSS must be made. Foremost of these are measures of reliability to answer the question: "Regardless of their meaning, how much can we trust the consistency of scores produced by the LEOSS?" Both test-retest reliability and internal consistency reliability will be evaluated. Future studies with the LEOSS will be launched to evaluate the validity of the instrument to ascertain if it measures what we think it measures.

Another limitation concerns the participants in this study: law enforcement personnel attending the FBI National Academy. These officers are usually police veterans (most are sergeants or higher in rank) who are generally very motivated to attend this selective school. Indeed, selection to the National Academy is competitive and held in high regard in law enforcement circles. Thus, attendees may be viewed as a more "elite" group within this population. However, participants are selected from local, state, and federal agencies from across the country and from 26 foreign countries, as well. Therefore, they represent a broad geographic sampling of law enforcement professionals. Relatedly, they are quite varied with regard to a host of other variables, including: age, ethnicity, education level, specializations (e.g., detective bureau, traffic homicide, SWAT), length of service, and size of department. Consequently, "from either personal experience or observation, [they] should have a reasonably strong understanding of the specific problems which confront a contemporary police officer" (Sewell, 1983, p. 111). We agree with Sewell (1983) that the "broad experiential level" of the National Academy sample would be expected to offset effects of selectivity.

Despite the convergence of findings underscoring the significant role of stress in law enforcement, surprisingly few attempts have been made to assess this problem. In an early effort, Spielberger and his colleagues (Pate, Spielberger, & Grier, 1982; Spielberger, Grier, & Greenfield, 1982; Spielberger, Grier, & Pate, 1980) developed the Police Stress Survey (PSS). This 60-item measure examined intensity and frequency of occurrence of specific stressors in law enforcement. Items were included based on an extensive review of the literature in this area, followed by ratings of officers on dimensions of item clarity, amount of stress, and frequency of each situation. Sewell (1983) designed the Critical Life Events Scale (CLES) to "assess the stressful events faced by a law enforcement officer . . . [and to] allow for better prediction and control of crisis points in an officer's life" (p. 110). The CLES included 144 events (e.g., "Violent death of a partner in the line of duty," "Suspension," "Internal affairs investigation") generated by a large group of law enforcement professionals, and "based in some measure on the researcher's experience as a law enforcement officer" (p. 111).

While the PSS and CLES represent important first steps toward enhanced evaluation and identification of stress in police officers, they share shortcomings. First, they are both rather lengthy (60 and 144 items, respectively), which potentially makes administration difficult, given limited time (and often interest) available for administration to police personnel. Second, both instruments are now nearly two decades old. In light of the significant changes and challenges in police work that have emerged over this period (e.g., emphasis on community policing, increased litigation directed towards officers and their departments, heightened media interest/presence, closer scrutiny and criticism from the public, and the requirement to respond to terroristic acts), updated evaluation strategies are needed.

More recently, Toch (2002), in a comprehensive investigation of stress in policing, constructed and administered a 46-item questionnaire to officers in two police departments in upstate New York. This measure was developed by "consensus" of officer subgroups who met in a workshop setting and generated stress-based questions. These were further reviewed and refined to yield the final survey form. The instrument taps a number of relevant areas, such as work satisfaction, sources of work stress, family stress, and perceptions of conflict and discrimination. While this survey clearly has considerable value in the context of a research program, its length and format (e.g., use of several open-ended questions) require more time for administration and appear to limit its utility as a heuristic clinical screening tool.

As mentioned above, additional investigative work on the LEOSS needs to be carried out. Until this is completed, we believe that practitioners may find some utility in the examination of responses to individual items to ascertain areas of stress warranting further attention. However, we anticipate that once test construction and determination of psychometric properties (i.e., reliability and validity) is completed, the LEOSS will serve as a useful measure for the screening of stress in law enforcement officers. An efficient, easily administered instrument, such as the LEOSS, should yield a more immediate identification and recognition of stress in this population than what has been possible to date. Moreover, heightened awareness of stress and its effects will

hopefully culminate in expanded efforts directed toward stress reduction and intervention for officers and their families.

References

Alkus, S., & Padesky, C. (1983). Special problems of police officers: Stress-related issues and interventions. *Clinical Psychology, 11*, 55-64.

Anderson, W., Swenson, D., & Clay, D. (1995). *Stress management for law enforcement officers*. Englewood Cliffs, NJ: Prentice Hall.

Band, S.R., & Sheehan, D.C. (1999). Managing undercover stress: The supervisor's role. *FBI Law Enforcement Bulletin, 68*, 1-6.

Bibbens, V.E. (1986). Quality of family life and marital life of police personnel. In J.T. Reese & H.A. Goldstein (Eds.), *Psychological services for law enforcement*. Washington, D.C.: U.S. Government Printing Office.

Blackmore, J. (1978). Are police allowed to have problems of their own? *Police Magazine, 3*, 47-55.

Brown, J.M., & Campbell, E.A. (1994). *Stress and policing: Sources and strategies*. New York: Wiley.

Coman, G.J., & Evans, B.J. (1991). Stressors facing Australian police in the 1990s. *Police Studies, 14*, 153-165.

Depue, R.L. (1981). High-risk lifestyle: The police family. *FBI Law Enforcement Bulletin, 50,* 7-13.

Farkas, G. (1986). Stress in undercover policing. In J.T. Reese & H.A. Goldstein (Eds.), *Psychological services for law enforcement*. Washington, D.C.: U.S. Government Printing Office.

Freedman, B.J., Rosenthal, L., Donohue, C.P., Schlundt, D.G., & McFall, R.M. (1978). A social-behavioral analysis of skill deficits in delinquent and nondelinquent adolescent boys. *Journal of Consulting and Clinical Psychology, 46*, 1448-1462.

Goldfried, M. R., & D'Zurilla, T.A. (1969). A behavioral-analytic model for assessing competence. In C.D. Spielberger (Ed.), *Current topics in clinical and community psychology*, Vol. 1. New York: Academic Press.

Gund, N., & Elliot, B. (1995). Employee assistance programs in police organizations. In M.I. Kurke & E. M. Scrivner (Eds.), *Police psychology into the 21st century*. Hillsdale, N.J.: Lawerence Erlbaum.

Hartsough, D. (1991). Stress, spouses and law enforcement: A step beyond. In J.T. Reese, J. Horn, & C. Dunning (Eds.), *Critical incidents in policing*. Washington, D.C.: U.S. Government Printing Office.

Kanfer, F.H., & Saslow, G. (1965). Behavioral analysis: An alternative to diagnostic classification. *Archives of General Psychiatry, 12*, 529-538.

Kannedy, G. (1993). Developing stress-resistant police families. *The Police Chief, 60,* 92-95.

Kates, A.R. (1999). *Copshock: Surviving posttraumatic stress disorder*. Tucson, AZ: Holbrook Street Press.

Neidig, P.H., Russell, H.E., & Seng, A.F. (1992). Interspousal aggression in law enforcement: A preliminary investigation. *Police Studies: The International Review of Police Development, 15*, 30-38.

Novaco, R.W. (1997). A stress inoculation approach to anger management in the training of law enforcement officers. *American Journal of Community Psychology, 5*, 327-346.

O'Neill, M.W., Hanewicz, W.B., Fransway, L.M., & Cassidy-Riske, C. (1982). Stress inoculation training and job performance. *Journal of Police Science and Administration, 10*, 388-397.

On the Front Lines: Police stress and family well-being. (1991, May). *Hearing before the Select Committee on Children, Youth, and Families, House of Representatives*. Washington, D.C.: U.S. Government Printing Office.

Pate, J.M., Spielberger, C.D., & Grier, K.S. (1982, Spring). Sources of stress in police work. *Florida Fraternal Order of Police Journal*, pp. 8-9.

Patterson, G.T. (1999). Coping effectiveness and occupational stress in police officers. In J.M. Violanti & D. Paton (Eds.), *Police trauma: Psychological aftermath of civilian combat.* Springfield, IL: Charles C. Thomas.

Reese, J.T. (1986). Policing the violent society: The American experience. *Stress Medicine, 2*, 233-240.

Reese, J.T., Horn, J., & Dunning, C. (1991). (Eds.). *Critical incidents in policing*. Washington, D.C.: U.S. Government Printing Office.

Reiser, M., & Geiger, S. (1984). The police officer as a victim. *Professional psychology: Research and Practice, 15*, 315-323.

Richard, W.C., & Feil, R.D. (1976). Health factors in police job stress. In W.H. Kroes & J. J. Hurrell (Eds.), *Job stress and the police officer*. Washington, D.C.: HEW Publication, U.S. Government Printing Office.

Romano, J.M., & Bellack, A.S. (1980). Social validation of a component model of assertive behavior. *Journal of Consulting and Clinical Psychology, 48*, 478-490.

Sarason, I.G., Johnson, J.H., Berberich, J.P., & Siegel, J.M. (1979). Helping officers to cope with stress: A cognitive-behavioral approach. *American Journal of Community Psychology, 7*, 593-603.

Sewell, J.D. (1983). The development of a Critical Life Events Scale for law enforcement. *Journal of Police Science and Administration, 11*, 109-116.

Sheehan, D.C. (1999). Stress management in the Federal Bureau of Investigation: Principles for program development. *International Journal of Emergency Mental Health, 1*, 39-42.

Sheehan, D.C. (2000). (Ed.). *Domestic violence by police officers*. Washington, DC: U.S. Government Printing Office.

Sheehan, D.C. (2001). (Ed.). *Suicide and law enforcement*. Washington, DC: U.S. Government Printing Office.

Silbert, M. (1982). Job stress and burnout of new police officers. *The Police Chief, 49*, 46-48.

Spielberger, C.D., Grier, K.S., & Greenfield, G. (1982, Spring). Major dimensions of stress in law enforcement. *Florida Fraternal Order of Police Journal*, pp. 10-12.

Spielberger, C.D., Grier, K.S., & Pate, J.M. (1980, Winter). The Police Stress Survey. *Florida Fraternal Order of Police Journal*, pp. 66-67.

Spielberger, C.D., Westberry, L.G., Grier, K.S., & Greenfield, G. (1981). *The Police Stress Survey: Sources of stress in law enforcement* (Human Resources Institute Monograph Series Three, No. 6). Tampa, FL: University of South Florida, College of Social and Behavioral Sciences.

Steinberg, J.L., & McEvoy, D.W. (1974). *The police and the behavioral sciences*. Springfield, IL: Charles C. Thomas.

Terry, W. (1981). Police stress: The empirical evidence. *Journal of Police Science and Administration, 9*, 61-75.

Toch, H. (2002). *Stress in policing*. Washington, D.C.: American Psychological Association.

Van Hasselt, V.B., Kazdin, A.E., Hersen, M., Simon, J., & Mastantuono, A.K. (1985). A behavioral-analytic model for assessing social skills in blind adolescents. *Behaviour Research and Therapy, 23*, 395-405.

Van Hasselt, V.B., & Sheehan, D.C. (2000). Introduction. In D.C. Sheehan (Ed.), *Domestic violence by police officers*. Washington, DC: U.S. Government Printing Office.

Violanti, J.M. (1996). *Police suicide: Epidemic in blue*. Springfield, IL: Charles C. Thomas.

Violanti, J.M., & Paton, D. (1999). (Eds.). *Police trauma: Psychological aftermath of civilian combat*. Springfield, IL: Charles C. Thomas.

White, E.K., & Honig, A.L. (1995). Law enforcement families. In M.I. Kurke & E.M. Scrivner (Eds.), *Police psychology into the 21st century*. Hillsdale, NJ: Lawrence Erlbaum.