

Policing the Most Stressful Occupation: A Study on Tamilnadu Head Constables

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Abstract

Police work tends to impose a high degree of stress and a multiplicity of stressful situations which can affect the physical, mental and interpersonal relationships of police personnel. This research tries to study the reasons leading to stress among Grade III police in Tuticorin District and also aims in analysis the demographical factors of police personnel and their influence in the occupational stress. In this study the researcher collects data from 200 police (Grade III) belonging to 52 police stations in Tuticorin District, Tamilnadu. A structured questionnaire is used to collect the information from the respondents. The questionnaire contains questions related to demographical data and factors leading to stress. Likert Scale is used to measure the opinion about various stress factors. The researcher has applied descriptive analysis, factor analysis, weighted average and Chi-square for data analysis. This research explores the sources of stress and level of stress among the head constables (grade III police constables) in Tuticorin district, Tamilnadu.

Key words: Nature of Work, Personality and Stress, Coping strategies

INTRODUCTION

Stress can be defined as a physiological response to physical and mental demands or “An interaction between environmental forces and events called stress precipitators, which appear threatening to the person’s reaction to the threat”. Evidence from the Health and Safety Executive suggests that 20% of workers feel ‘very’ or ‘extremely’ stressed at work, with the proportion rising to 49% in some occupational groups¹. Police is the one of the most considerable and important profession in the world. To stop crimes from happening and to bring convicts to justice and to help people out who may need help, maybe with some legal issue, this are the main duties of policemen. And they are important for the mere fact they protect and serve the public².

In India, Police is the coercive arm of the State, which is entrusted to perform the basic duty of the State that is maintenance of law and order. Therefore, law and order administration has acquired significance at the Central, State, Range, District and Sub-District level in rural and urban areas. Rapid growth of population, industrialization, urbanization, political consciousness, led to law and order problems. Agrarian and tribal revolts, political caste and communal violence, labour and student unrest and terrorism are indications of law and order problems. In all societies, particularly in developing societies, these conflicts and tensions are inevitable and many manifest in different forms. Freedom and independence will not have meaning unless these basic issues are properly attended. Police officers work stress reactions are always classified as physiological, emotional and behavioral reactions. Physiological reactions maybe termed as having higher than normal probability of death from certain illnesses specifically heart attack and myriad of health problems such as headaches, high blood pressure and stomach problems. On the other hand, emotional reactions may include depression and extreme cases of suicide. Emotion reaction can also be so severe which may be termed as posttraumatic stress disorder (PTSD). PTSD is always associated to severe and prolonged after one exposure to a series of traumatic events. This may lead to job

dissatisfaction, apathy and cynicism³ In this Unit, an attempt will be made to study the organization of police at various levels; and critical issues that confront the Police administration.

Purpose of the Study

Very little research is available on stress management among police constables in India. The main objective of this research is to identify the main stressors and level of stress among the grade III police constables and find out the association between stressor and demographic profile. This research will use to develop effective stress coping strategies that will use to reduce the occupational stress. Therefore, it is important for police constables to understand the occupational stressors and relationship with demographic factors.

Objective of the Study

- To study the socio-demographic factors of the respondents;
- To identify sources of work, personal and interpersonal related stress of police constables;
- To study the relationship between demographic factors and level of stress among the grade II police constables

Review of Literature

Police occupational stress is a widespread problem because of its numerous negative effects on individuals and on police organizations. Officers who experience high levels of occupational stress report a high incidence of physical ailments and psychological problems that affect their work performance. Specifically, they commonly have poor health^{4, 5, 6}, are frequently absent from work Wright *et al.*⁷, experience burnout^{8,9,10,11,12}, are dissatisfied with their jobs¹³ and because of weak organizational commitment, they may not fully invest themselves in their work or they may retire prematurely^{14,15,16}. When individuals are overwhelmed by occupational stress, they suffer from increased chronic stress, depression, heart disease, stomach disorders, alcohol and drug use and abuse, divorce, and even suicide attempts^{17, 18,19,11,20}. It is therefore critical to understand the sources of police occupational stress (i.e., the stressors) and to implement strategies for reducing stressors or, if they cannot be reduced, for assisting officers in coping effectively with them.

The policing literature has established that officers are exposed to many sources of stress, and thus law enforcement is a particularly stressful occupation^{21, 22, 23, 24}. Since the mid-1970s, there have been numerous studies of the intensity, prevalence, sources, and effects of police officers' stress^{25,26,27,28,29,30,31,32,11,33,34,35,36,37,38,39,40,41,42,43}. The many studies have clearly documented that an important source of police stress is workplace problems, such as harassment and lack of opportunity to advance. Workplace problems are distinct from other stressors, for example, difficulties in balancing a job and family responsibilities or a person's personality traits and related methods of coping with workplace problems. Workplace problems are troublesome features of the work organization.

RESEARCH METHODOLOGY

The research design chosen is descriptive as the study reveals the existing facts. This study is based on the police constables in Tuticorin district and concentrated on eight sub divisions comprising 52 police stations. One hundred and Fifty (N = 150) grade III police constables participated in the present study. The researcher used convenience sampling for the study. The researcher prepared structured questionnaires for data collection for this study. The questionnaires included questions on demographic profile and sources of stress. Primary data were collected through the questionnaire directly from the respondents and the secondary data were collected from government records, books, journals and the Internet. The researcher used descriptive analysis, factor analysis, weighted average and ANOVA for data analysis.

RESULTS

Table 1 shows that 80 respondents are between 40-49 years old, 117 respondents are Male, 92 respondents are having UG level education qualification, 114 respondents are following Hinduism as their religious, 53 respondents are from other community, 99 respondents are from urban area, 70 respondents are Rs.5200-20200 plus grade pay Rs.2800 as a salary, 83 respondents are having two dependents in their family, 60 respondents are having 16-20 years experience and 98 respondents are married.

**TABLE 1:
DEMOGRAPHIC CHARACTERISTICS OF GRADE III POLICE CONSTABLES**

Variables	Options	Frequency	Percentage
Age	20-29 years	31	20.7
	30-39 years	23	15.3
	40-49 years	80	53.3
	50-59 years	16	10.7
Gender	Male	117	78
	Female	33	22
Educational qualification	School level	26	17.3
	Under Graduate	92	61.3
	Post Graduate	32	21.3
Religious	Hinduism	114	76
	Islam	27	18
	Christianity	9	6
Community	Other castes	53	35.3
	Backward castes	53	35.3
	Most backward castes	20	13.3
	Scheduled castes	24	16
Place of residence	Rural	99	66
	Urban	51	34
Income	Rs.5200-20200 plus grade pay Rs.2400	52	34.7
	Rs.5000-20000 plus grade pay Rs.1900	28	18.7
	Rs.5200-20200 plus grade pay Rs.2800	70	46.7
Number of dependents	One	9	6
	Two	83	55.3
	Three	46	30.7
	Four	11	7.3
	Five	1	0.7
Professional Experience	Less than 5years	28	18.7
	6-10 years	16	10.7
	11-15 years	19	12.7
	16-20 years	60	40
	More than 20 years	27	18
Marital status	Married	98	65.3
	Unmarried	40	26.7
	Divorced	5	3.3
	Separated	7	4.7
Total		150	100

**TABLE 2:
RELIABILITY TEST**

Cronbach's Alpha	Number of scaling variables
0.871	44

Table 2 shows Cronbach's alpha is 0.871, which indicates a high level of internal consistency for scale with this specific sample.

Table 3 shows the mean opinion about the amount of stress they face with regard to some 44 stressful activities in due course of their jobs. As the stress levels were measured from a low stress value of 0 and a high stress value of 9 the mean value lies between 0-9.

TABLE 3: MEAN OPINION ABOUT THE LEVEL OF STRESS.

Factors	Mean	SD
1. Killing someone in the line of duty	6.55	1.98
2. Seeing criminals go free	6.35	2.22
3. Racial conflict	6.07	2.10
4. Having to deal with the media	6.04	2.30
5. A fellow officer killed in the line of duty	6.04	2.22
6. Staff shortages	6.03	2.16
7. Shift work	5.98	2.30
8. Personal insult from customer/consumer/colleague	5.92	2.08
9. Inadequate salary	5.87	2.04
10. Dealing with crisis situations	5.85	1.87
11. Experiencing negative attitudes toward the organization	5.84	1.76
12. Meeting deadlines	5.83	2.09
13. Performing tasks not in job description	5.81	2.16
14. Delivering a death message or bad news to someone	5.75	2.42
15. Covering work for another employee	5.74	1.87
16. Having to handle a large crowd/mass demonstration	5.71	2.20
17. Insufficient personnel to handle an assignment	5.71	2.12
18. Insufficient personal time (eg, coffee breaks, lunch)	5.69	2.01
19. Lack of recognition for good work	5.69	2.17
20. Working overtime	5.67	1.85
21. Lack of opportunity for advancement	5.67	1.85
22. Competition for advancement	5.65	2.08
23. Inadequate support by supervisor	5.60	1.94
24. Too much supervision Stressful Job-Related Events	5.54	2.15
25. Conflicts with other departments	5.53	2.26
26. Difficulty getting along with supervisor	5.50	2.07
27. Having to go to court	5.48	2.40
28. Lack of participation in policy-making decisions	5.44	2.10
29. Noisy work area	5.43	2.15
30. Fellow workers not doing their job	5.41	1.96
31. A forced arrest or being physically attacked	5.37	2.19
32. Reorganization and transformation within the organization	5.35	1.96
33. Poorly motivated co-workers	5.35	1.92
34. Inadequate or poor quality equipment	5.33	2.38
35. Making critical on-the-spot decisions	5.28	1.88
36. Frequent changes from boring to demanding activities	5.27	1.81
37. Excessive paperwork	5.27	2.15
38. Assignment of increased responsibility	5.26	2.05
39. Attending to incidences of domestic violence	5.16	1.99
40. Assignment of disagreeable duties	5.09	1.94
41. Frequent interruptions	5.03	2.22
42. Periods of inactivity	5.03	2.21
43. Assignment of new or unfamiliar duties	5.00	2.08
44. Poor or inadequate supervision	4.96	2.01

The first ranked stressful job activity is *killing someone in the line of duty* with a mean stress value of 6.5467, the second ranked stressful job activity is *criminals go free (for example because of lack of evidence, court leniency)* with a mean stress value of 6.3467, and third ranked stressful job activity is *Racial conflict* with a mean stress value of 6.0733 (Table 3). The last ranked stressful job activity is *Poor or inadequate supervision* with a mean stress value of 4.9600, the second last ranked stressful job activity is *Assignment of new or unfamiliar duties* with a mean stress value of 5.000, and third last ranked stressful job activity is *Periods of inactivity* with a mean stress value of 5.0267 (Table 3).

TABLE 4: CHI-SQUARE TEST BETWEEN KILLING SOMEONE IN THE LINE OF DUTY AND DEMOGRAPHIC PROFILE OF THE GRADE III POLICE CONSTABLES.

Demographic factors	Chi-Sqr Value	df	Sig.	Accept /reject	Conclusion
Age	53.533	24	0.000	Rejected	Association
Qualification	51.675	16	0.000	Rejected	Association
Gender	5.930	8	0.655*	Accepted	No association
Religious	40.306	16	0.001	Rejected	Association
Community	40.650	24	0.018	Rejected	Association
Residence	19.637	8	0.012	Rejected	Association
Marital status	67.914	24	0.000	Rejected	Association
Year of service	56.604	32	0.005	Rejected	Association
Number of dependents	45.176	32	0.061*	Accepted	No association
Income	22.398	16	0.131*	Accepted	No association

***H₀ accepted at 5%**

H₀ – There is no association between Killing someone in the line of duty and demographic profile of the Grade III police constables at 5%.

Table 4 shows that the chi-Square Value is greater than 0.05 for the demographical characteristics such as income, number of dependents and gender. So the null hypothesis is accepted and it is concluded that there is no association between Killing someone in the line of duty and demographic profile of the Grade III police constables at such as income, number of dependents and gender at 5%. Further it can be noted that the chi-Square Value is less than 0.05 for the demographical characteristics such as age, qualification, marital status, religious, community, residence and year of service. So the null hypothesis is not accepted and it is concluded that there is association between Killing someone in the line of duty and demographic profile of the Grade III police constables at such as age, qualification, marital status, religious, community, residence and year of service at 5%.

TABLE 5: CHI-SQUARE TEST BETWEEN SEEING CRIMINALS GO FREE AND DEMOGRAPHIC PROFILE OF THE GRADE III POLICE CONSTABLES.

Demographic factors	Chi-Sqr Value	df	Sig.	Accept /reject	Conclusion
Age	48.422	24	0.002	Rejected	Association
Qualification	12.685	16	0.696*	Accepted	No association
Gender	4.576	8	0.802*	Accepted	No association
Religious	23.071	16	0.112*	Accepted	No association
Community	53.673	24	0.000	Rejected	Association
Residence	9.974	8	0.267*	Accepted	No association
Marital status	44.025	24	0.008	Rejected	Association
Year of service	59.390	32	0.002	Rejected	Association
Number of dependents	30.193	32	0.558*	Accepted	No association
Income	30.366	16	0.016	Rejected	Association

***H₀ accepted at 5%**

H₀ – There is no association between seeing criminals go free and demographic profile of the Grade III police constables at 5%.

Table 5 shows that the chi-Square Value is greater than 0.05 for the demographical characteristics such as qualification, gender, religious and number of dependents. So the null hypothesis is accepted and it is concluded that there is no association between seeing criminals go free and demographic profile of the Grade III police constables at such as qualification, gender, religious and number of dependents at 5%. Further it can be noted that the chi-Square Value is less than 0.05 for the demographical characteristics such as age, marital status, community, residence, income and year of service. So the null hypothesis is not accepted and it is concluded that there is association between seeing criminals go free and demographic profile of the Grade III police constables at such as age, marital status, community, residence, income and year of service at 5%.

TABLE 6: CHI-SQUARE TEST BETWEEN RACIAL CONFLICT AND DEMOGRAPHIC PROFILE OF THE GRADE III POLICE CONSTABLES.

Demographic factors	Chi-Sqr Value	df	Sig.	Accept /reject	Conclusion
Age	25.921	24	0.357*	Accepted	No association
Qualification	21.901	16	0.146*	Accepted	No association
Gender	16.645	8	0.034	Rejected	Association
Religious	12.171	16	0.732*	Accepted	No association
Community	29.631	24	0.197*	Accepted	No association
Residence	13.694	8	0.090*	Accepted	No association
Marital status	44.400	24	0.007	Rejected	Association
Year of service	49.547	32	0.025	Rejected	Association
Number of dependents	35.758	32	0.296*	Accepted	No association
Income	44.269	16	0.000	Rejected	Association

H₀ accepted at 5%

H₀ – There is no association between racial conflict and demographic profile of the Grade III police constables at 5%.

The table above shows that the chi-Square Value is greater than 0.05 for the demographical characteristics such as age, qualification, community, religious, place of residence and number of dependents. So the null hypothesis is accepted and it is concluded that there is no association between racial conflict and demographic profile of the Grade III police constables at such as age, qualification, community, religious, place of residence and number of dependents at 5%. Further it can be noted that the chi-Square Value is less than 0.05 for the demographical characteristics such as gender, marital status, income and year of service. So the null hypothesis is not accepted and it is concluded that there is association between racial conflict and demographic profile of the Grade III police constables at such as gender, marital status, income and year of service at 5%.

- This research results shows that 53 % of the respondents are between 40-49 years old,
- 78 % of the respondents are male and 22% of them are female.
- Most of the respondents (61.3%) are having UG qualification, and 21.3% of the respondents are having PG qualification.
- Majority of the respondents are Hindus (76%), 18% of the respondents are following Islam and 6% of the respondents are Christians.
- 35.3% of respondents are belongs to other caste, 35.3% of them are belongs to back word class and 16% of the respondents are belongs to scheduled cast.
- 66% of the respondents are from rural areas and 34% of respondents are from urban area.
- 65.3% of the respondents are married, 26.7% of the respondents are unmarried.
- 6% of the respondents are having one dependent, 55% of the respondents are having two dependents.
- This table shows that 18% of the respondents are having less than 5 years, 40% of the respondents are having 66-20 years experience.
- 34.7% of the respondents are getting Rs.5200-20200 plus grade pay Rs.2400 and 46.7% of the respondents are getting Rs.5000-20000 plus grade pay Rs.2800.

FACTOR ANALYSIS

From this rotation component matrix **five factors** are extracted

1. killing someone in the line of duty
2. Criminal go free (for example because of lack of evidence, court leniency)
3. Racial conflict
4. Poor or inadequate supervision.
5. Assignment of new or unfamiliar duties.

CHI-SQUARE

Table 4 shows that the chi-Square Value is greater than 0.05 for the demographical characteristics such as income, number of dependents and gender. So the null hypothesis is accepted and it is concluded that there is no association between Killing someone in the line of duty and demographic profile of the Grade III police constables at such as income, number of dependents and gender at 5%. Further it can be noted that the chi-Square Value is less than 0.05 for the demographical characteristics such as age, qualification, marital status, religious, community, residence and year of service. So the null hypothesis is not accepted and it is concluded that there is association between Killing someone in the line of duty and demographic profile of the Grade III police constables at such as age, qualification, marital status, religious, community, residence and year of service at 5%.

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Table 6 shows that chi-Square Value is greater than 0.05 for the demographical characteristics such as age, qualification, community, religious, place of residence and number of dependents. So the null hypothesis is accepted and it is concluded that there is no association between racial conflict and demographic profile of the Grade III police constables at such as age, qualification, community, religious, place of residence and number of dependents at 5%. Further it can be noted that the chi-Square Value is less than 0.05 for the demographical characteristics such as gender, marital status, income and year of service. So the null hypothesis is not accepted and it is concluded that there is association between racial conflict and demographic profile of the Grade III police constables at such as gender, marital status, income and year of service at 5%.

DISCUSSION

A sample of police constables in the south Tamilnadu (Thoothukudi district) was surveyed to determine the level of stress. These studies are consisting with major stressors, levels of workplace stress and what should pay attention to objective workplace conditions that need to be changed in order to reduce stress. The primary implication from the present research is that root causes of stress might be "stress due to society & criminals" and "stress due to organizational policy" such as "periods of inactivity", "handling mass demonstrations" and "facing Media".

In interpreting findings about less advancement & disagreeable duties and demand, such as "competition for advancement", "reorganization and transformation within the organization", "frequent changes from boring to demanding activities", it is critical to keep in mind that because of variables are themselves highly correlated in our sample, in this study, stress due to society & criminals, stress due to environment & supervision and poor organization policy directly reflections on age, gender, religion and marital status of the police constables. Job related factors not related with the monthly salary of the police constables. Implementation of effective motivational programs will help the police constables to overcome from negative attitude and give power to handle the crisis situations, decision making ability, increase the performance. During their training this model has to implement. Creating positive image about the job is main motive of the motivational programs. Effective training program to handle crowds, using of new technical components, reducing paper works (implementation of information systems), and developed organizational policy, flexi timings, work based on preference, gender and experience will help the police constables to control over the stress. To the great extent that organizational culture and practices of police create stressors, efforts intended at how constables treat each other and at their control over work activities would be most effective. Efforts to reduce the stress must be coupled with facilitation of constable's use of effective coping strategies. However, even if officers use the most effective strategies for coping with job stress, police departments bear the load of reducing or controlling the workplace conditions that contribute to stress.

REFERENCES

1. Selokar D, Nimbarte S, S Ahana, Gaidhane A, Wagh V., 2011. Occupational stress among police personnel of Wardha City, India. *Australasian Medical Journal*, 4 (3): 114 -117.
2. M.Shanmuga Sundaram and M.Jeyakumaran, 2012a. Occupational Stress and Coping Strategies among Grade II Police Constables *Int.J.Buss.Mgt.Eco.Res.*, 3(4): 579-589.
3. M.Shanmuga Sundaram and M.Jeyakumaran, 2012b. A Study on Occupational stress and Coping strategies among Police Head Constables (Grade III). *Research Journal of Management Sciences*. 1(1), 44-47
4. Cooper, C. L. and Davidson, M. (1987). Sources of stress at work and their relation to stressors in non-working environments. In R. Kalimo, M. A. El-Batawi, & C. L. Cooper (Eds.), *Psychological factors at work and their relation to health* (pp. 99-123). Geneva: World Health Organization.
5. Fletcher, B. C. (1988). The epidemiology of occupational stress. In C. L. Cooper & R. Payne (Eds.), *Causes, coping and consequences of stress at work* (pp. 12-57). Chichester, UK: Wiley.
6. Kirkcaldy, B., Cooper, C. L. and Ruffalo, P. (1995). Work stress and health in a sample of U.S. police. *Psychological Reports*, 76, 700-702.
7. Wright, K. N. and Saylor, W. G. (1991). Male and female employees' perceptions of prison work: Is there a difference? *Justice Quarterly*, 8, 508-524.
8. Brown, J., Cooper, C. L., & Kirkcaldy, B. (1996). Occupational stress among senior police officers. *British Journal of Psychology*, 87, 31-45.
9. Burke, R. J. and Deszca, E. (1986). Correlates of psychological burnout phases among police officers. *Human Relations*, 39, 487-502.
10. Crank, J., Regoli, R. and Culbertson, R. (1995). Institutional and organizational antecedents of role stress, work alienation, and anomie among police executives. *Criminal Justice and Behavior*, 22, 152-167.
11. Lord, V. B. (1996). An impact of community policing: Reported stressors, social support, and strain among police officers in a changing police department. *Journal of Criminal Justice*, 24, 503-522.
12. Stotland, E. and Pendleton, M. (1989). Workload, stress, and strain among police officers. *Behavioral Medicine*, 15, 5-18.
13. Norvell, N., Belles, D. and Hills, H. (1998). Perceived stress levels and physical symptoms in supervisory law enforcement personnel. *Journal of Police Science and Administration*, 16, 75-79.
14. Kop, N., Euwema, M. and Schaufeli, W. (1999). Burnout, job stress, and violent behaviour among Dutch police officers. *Work and Stress*, 13, 326-340.
15. Malloy, T. E. and Mays, L. (1984). The police stress hypothesis: A critical evaluation. *Criminal Justice and Behavior*, 11, 197-224.
16. Stevenson, T. M. (1988). *Stress among police officers: Burnout and its correlates*, California School of Professional Psychology.
17. Anshel, M. H. (2000). A conceptual model and implications for coping with stressful events in police work. *Criminal Justice and Behavior*, 27, 375-400.
18. Biggam, F. H., Power, K. G. and MacDonald, R. R. (1997). Self-perceived occupational stress and distress in a Scottish police force. *Work and Stress*, 11, 118-133.
19. Dietrich, J. (1989). Helping subordinates face stress. *Police Chief*, 56, 44-47.
20. Walker, M. (1997). Conceptual and methodological issues in the investigation of occupational stress: A case study of police officers deployed on body recovery duty. *Policing and Society*, 7, 1-17.
21. Alkus, S. and Padesky, C. (1983). Special problems of police officers: Stress related issues and interventions. *Counseling Psychologist*, 11, 55-64.
22. Anshel, M. H., Robertson, M. and Caputi, P. (1997). Sources of acute stress and their appraisals and reappraisals among Australian police as a function of previous experience. *Journal of Occupation and Organizational Psychology*, 70, 525-549.
23. Paton, D. and Violanti, J. M. (1997). Long-term exposure to stress and trauma: Addiction and separation issues in police officers. In G. M. Hubermann (Ed.), *Looking back and moving forward: 50 years of New Zealand psychology*. Wellington: New Zealand Psychological Society.
24. Violanti, J. M. and Aron, F. (1994). Ranking police stressors. *Psychological Reports*, 75, 824-826.
25. Aaron, J. (2000). Stress and coping in police officers. *Police Quarterly*, 3, 428-450.
26. Aldag, R. J. and Brief, A. P. (1979). Examination of a measure of higher-order need strength. *Human Relations*, 32, 705-718.
27. Bannerman, E. D. (1997). *Female police officers: The relationship between social support, interactional style, and occupational stress and strain*. Vancouver: Simon Fraser University.
28. Brooks, L.W. and Piquero, N. L. (1998). Police stress: Does department size matter? *Policing: An International Journal of Police Strategies & Management*, 21(4), 600-617.
29. Geick, E. (1998). *Occupational stress of female police officers: An empirical investigation*, Texas A&M University.
30. Hillgren, J. S., Bond, R. and Jones, S. (1976). Primary stressors in police administration and law enforcement. *Journal of Police Science and Administration*, 4, 445-449.
31. Kroes, W. H., Margolis, B. L. and Hurrell, J. J., Jr. (1974). Job stress in policemen. *Journal of Police Science and Administration*, 2, 145-155.
32. Laufesweiler-Dwyer, D. L. and Dwyer, G. R. (2000). Profiling those impacted by organizational stressors at the macro, intermediate, and micro levels of several police agencies. *Justice Professional*, 12, 443-469.
33. Morash, M. and Haarr, R. N. (1995). Gender, workplace problems, and stress in policing. *Justice Quarterly*, 12(1), 113-140.

34. Sewell, J. D. (1981). Police stress. *FBI Law Enforcement Bulletin*, 50, 7-11.
35. Silbert, M. H. (1982). Job stress and burnout of new police officers. *Police Chief*, 49, 46-88.
36. Singleton, G.W. and Teahan, J. (1978). Effects of job-related stress on the physical and psychological adjustment of police officers. *Journal of Police Science and Administration*, 6, 355-361.
37. Storch, J. E. and Panzarella, R. (1996). Police stress: State-trait anxiety in relation to occupational and personal stressors. *Journal of Criminal Justice*, 24, 99-107.
38. Teahan, J. E. (1975). A longitudinal study of attitude shifts among Black and White police officers. *Journal of Social Issues*, 31, 47-55.
39. Terry, W. C. (1985). Police stress as a professional self-image. *Journal of Criminal Justice*, 13, 501-512.
40. Violanti, J. M. and Aron, F. (1993). Sources of police stressors, job attitudes and psychological distress. *Psychological Reports*, 72, 899-904.
41. Washington, B. (1981). Stress and the female officer. In L. Territo & H. J. Vetter (Eds.), *Stress and police personnel* (pp. 142-147). Needham Heights, MA: Allyn and Bacon.
42. Wexler, J. G. and Logan, D. D. (1983). Sources of stress among women police officers. *Journal of Police Science and Administration*, 11, 46-53.
43. White, S. E. and Marino, K. E. (1983). Job attitudes and police stress: An exploration study of causation. *Journal of Police Science and Administration*, 11, 264-274.