Occupational Stress, Work-related Wellbeing, and Organizational Performance

Abstract

Previous studies suggest that the organizational dynamics of police organizations and the nature of police work contribute to law enforcement stress, which in turn increases burnout. It is also well documented that undesirable organizational factors are more hazardous to the well-being of employees than are the stressors due to nature of police work. Using the survey data on 538 Turkish National Police (TNP) employees from seven cities in Turkey, this study examines whether, and to what degree, organizational and operational stresses in law enforcement are associated with work-related burnout levels. The influence of organizational and operational stresses on the work-related burnout was examined by using structural equation modeling (SEM) under the theoretical framework of Kahn and Byosiere’s (1992) causal theory. The results of the study indicate that TNP employees’ perceived organizational and operational stress have statistically significant positive effects on work-related burnout. Overall, the findings of this study illustrate a need for internal policy reform and managerial change in how the executives of TNP organize their agencies and policies.

Key Words: Organizational stress; operational stress; work-related burnout; law enforcement
1. Introduction

Policing is considered one of the most stressful occupations, exposing staff to occupational, organizational, and personal stressors (Alexander, 1999; Paton and Violanti, 1999; Anshel, 2000). Work-place stress has received a great deal of attention in social psychological research (Cooper, Dewe, and O'Driscoll, 2001). Significant research findings have documented that prolonged stress has negative effects on individual health (Mohren et al., 2003; Ursin and Eriksen, 2004) as well as on employees’ attitudes towards the organization (Cropanzano, Rupp, and Byrne, 2003). Gershon (2000) concur that working under continuously stressful conditions leads to the dissatisfaction and exhaustion of police officers. The stressful conditions that law enforcement officers are exposed can affect both their work-related and their physiological wellbeing. Martinussen et al. (2007) found burnout to be one of the most important outcomes of work-related stress because of its exponential impact on professional relationships. There is considerable evidence in the literature on police stress that burnout influences police officers’ interactions with the public, and especially their violence towards citizens (Kop et al., 1999); and that burnout also influences work-family conflicts (Mikkelsen and Burke, 2004).

Recognizing the factors contributing to stress is highly relevant.

In summary, this study was designed to seek the answer of what specific aspects of policing are most stressful for Turkish National Police (TNP) members. The question is proposed on the premise that identifying the sources of stress associated with policing provides essential information to guide appropriate policies and procedures that can reduce the impact of those stressors.

2. Literature Review

It has been accepted that people working in occupations where they are expected to deal with the problems of others, such as health care, teaching, and especially law enforcement, may suffer more stress than people do in other professions (Finn and Tomz, 1998). Employees’ constant exposure to
stress, if not handled effectively, can be destructive both for them in terms of the quality of their work and their physical and mental state and for the organization where they work (Maslach, 2003).

Because of its varied impacts at the individual, the organizational, and most importantly the community level, many researchers have examined stress in law enforcement (Skolnick, 1997). Many studies have shown how work-related stress can trigger such psychological and physical health problems as depression, anxiety, and chronic anger (Schaufeli and Enzmann 1998).

Law enforcement is one of the important professions in which employees deal with a range of individuals from different levels of society. Police officers interact with criminals; they have many relationships with other community members; and they must have mutual communication with other law enforcement professionals. Even though people working in law enforcement agencies are trained to manage interactions with different kinds of people, the necessity of making decisions under time constraints for specific circumstances creates significant stress for law enforcement personnel (Miller, 2005). In their context, occupational stress is defined as characteristics of a profession that requires employees to interact intensively with others (Ellison, 2004). Such stress appears as people interact with each other, or deals with organizational policies and environmental circumstances (Stinchcomb, 2004; Miller, 2005). Several studies of law enforcement stress have found that work-related factors are the main source of stress for law enforcement personnel, stress that is directly related to their psychological, emotional, and physiological well-being (Harpold and Feemaster, 2002).

The literature has identified two major source of stress: organizational stress and operational stress (Alexander et al., 1993; Violanti and Aron, 1995; Storch and Panzarella, 1996; Zhao, 2002). Organizational stress is broadly defined as certain characteristics of the organization and behaviors of its employees that may create stress for the employees. Bureaucratic processes, perceived lack of support from the community and leaders, and lack of promotion opportunities in the organization have been
emphasized as organizational stressors (Stinchcomb, 2004; Burke and Mikkelsen, 2006). Toch et al. (2002) noted as features of organizational stress inconsistent discipline procedures and management style, and lack of administrative support. The policies and practices that law enforcement organizations require their employees to follow when doing their job in the field or in the workplace are considered potential organizational stress factors (Ellison, 2004). In addition, the relationship between an organization and the media is identified as a common organizational stressor (Violanti and Aron, 1995). Excessive workload and administrative duties, characteristics of the bureaucratic nature of law enforcement agencies, can create a stressful work environment (Violanti and Aron, 1995). Favoritism also has been examined by many scholars as an important organizational stress that affects the morale and wellbeing of employees (Klockars et al., 2006).

Operational stress is defined as arising from the inherent aspects of police work. Operational stressors are faced daily by law enforcement officers as part of the job. Exposure to traumatic events; murder, assaults, shootings (Violanti and Paton, 1999); dealing with crime victims and perpetrators, and also the criminal justice system; and police work’s requirement of shift work are cited as operational stressors inherent in policing (Violanti and Paton, 1999; Ellison, 2004; Burke and Mikkelsen, 2006).

Operational stressors, or inherent stressors, in police life also include boredom, the continual exposure to citizens and their complaints, the use of force, and the sense of working under the strong possibility of violence, dangerous events, and death. All these clearly are psychologically and physically harmful to wellbeing (Dowler and Arai, 2008). In addition to inherent police stressors such as role conflict, exposure to critical and potentially dangerous incidents, and working conditions that range from excessive overload and excitement to boring routine, now dealing with the criminal justice system and courts and the media attention on law enforcement have gained importance as source of stress for law enforcement officers (Finn and Tomz, 1998).
It is commonly recognized that prolonged stress harms individuals’ health, and that one possible outcome of work stress is burnout (Martinussen et al., 2007). Burnout is defined as a psychological syndrome in response to work-related stressors (Maslach, Schaufeli, and Leiter, 2001). That state of exhaustion is considered an extreme reaction to stress. Its consequence is a person’s inability to accomplish work-related goals or implement the available solutions for work-related problems, due to the lack of energy and attention. While ostensibly functional, such employees are just doing the routines required, but are not actually engaged in their work in terms of improving its quality. They are less likely to be interested in making contributions to the organizations. Therefore, early diagnosis of possible burnout is important in order to retain such employees, since once it is a problem, it may require months or years for the employees to recover (Maslach, 2003). The workplace conditions for law enforcement officers are considered oppressive, triggering feelings of cynicism and leading to burnout and decline in their overall performance (Zhao et al., 1999).

Sauter and Murphy (1995) recognized that workers in a highly stressful occupation are at greater risk for poor physical and psychological health. Stearns and Moore (1993) emphasized the strong associations between occupational stress and employee burnout, with occupational stress a strong predictor of higher levels of burnout. Organizational stress has been found to affect police officers’ level of stress more than operational stress does (Violanti and Aron, 1995; Morash et al., 2006).

3. Theoretical Framework

Kahn and Byosiere’s (1992) process of stress development in organizations is the theoretical foundation for this study. Kahn and Byosiere hypothesized a causal sequence of the relationship among stressors, responses to stress, and consequences of stress in their stress developmental process diagram. They conceptualize the source of stressors in organizational life; physiological, psychological (i.e., depression, job satisfaction), and behavioral responses to stress; and the consequences of stress in health
and illness-related problems (i.e., heart attack, burnout, diminished concentration), diminished performance in other life roles, and diminished organizational performance (i.e., turnover, absenteeism).

Based on the previous studies’ findings and the Kahn and Byosiere’s (1992) model indicating the process of stress development in organizations, conceptual framework of the study is developed as follows:

Figure 1: Conceptual Model of Occupational Stress and Work-related Burnout

Research Hypotheses

To test the structural relations among the study variables, the following hypotheses are proposed:

H1: Turkish National Police (TNP) employees’ organizational stress is positively associated with their self-reported burnout levels.

H2: Turkish National Police (TNP) employees’ operational stress is positively associated with their self-reported burnout levels.

H3: Turkish National Police (TNP) employees’ organizational stress is more influential than the employees’ operational stress on their self-reported burnout levels.
4. Methodology

4.1 Survey Instrument

This study used the Organizational Police Stress Questionnaire and the Operational Police Stress Questionnaire developed by McCreary and Thompson (2006) to measure the TNP employees’ perceptions of organizational and of operational stress. The authors computed Cronbach’s alpha reliability coefficients for both developed operational and organizational scales, and found a .90 Cronbach’s alpha score for the operational scale and a .89 Cronbach’s alpha score for the organizational scale. Guided by the literature review about organizational and operational stress factors and the feedbacks from a small number of TNP members, ten indicators were chosen from both the Organizational Police Stress Questionnaire and the Operational Police Stress Questionnaire developed by McCreary and Thompson (2006). In order to measure the work-related burnout levels of TNP members, the Copenhagen Burnout Inventory (CBI) was used. The CBI contains scales for personal burnout, work-related burnout, and client-related burnout. CBI indicates very satisfactory reliability results for all three scales with corresponding Cronbach’s Alpha values of .85 and .87 (Kristensen et al., 2005). For the purpose of this study, the work-related burnout subscale that consists of seven items was chosen.

4.2 Sampling

The unit of analysis of this study is the individual active police officer in Turkey. Currently, the Turkish National Police (TNP) has about 200,000 active members across multiple cities in Turkey. Sampling includes consideration of the TNP as the only national police organization in Turkey in which members are randomly appointed on a rotating basis to 81 cities of Turkey for specific periods of time. To ensure that the sample represents the whole population of the Turkish National Police, seven survey cities were selected representing each region in Turkey (Istanbul, Ankara, Izmir, Adana, Diyarbakir,
Van, and Samsun). The number in the sample drawn from each city department was proportionately calculated based on its total personnel number. The samples were randomly selected from Department of Personnel lists, using a stratified random sampling method.

4.3 Statistical Methods

Structural equation modeling (SEM) was utilized to test the research hypotheses. SEM analysis consists of confirmatory factor analysis (CFA) and structural equation modeling. Confirmatory factor analysis (CFA) was used to develop and validate the measurement model for the latent variables in the study.

The first stage for developing a measurement model is to check the indicators’ appropriateness. Checking the critical ratio of standardized regression weight of each indicator is the first step, to specify whether it is significant or not at the established confidence level. In addition to checking the statistical significance of the standardized regression weights, the strength of the regression weights should be reviewed (Hoe, 2008). Following the parsimony principle that favors simpler theoretical processes over more complex ones (Kline, 2005), and the recommendations by Hair et al. (1998) for factor loadings, a threshold for factor loadings was determined as .50 to simplify the models. Therefore, any indicator having factor loadings lower than .50 was excluded from the models. In the following process, overall model fit was evaluated to understand how well our measurement models fit the data. Goodness of fit statistics produced by AMOS software was used to evaluate whether or not the measurement model fit the data. To achieve a better model fit, the modification indices were examined to identify correlated error terms. Modification index illustrates how much the value of chi-square decreases by at least the value of the index when the pair of error terms is correlated (Wan, 2002).

The final stage of statistical analysis is Structural Equation Modeling (SEM), a statistical process that assesses how well the collected sample data fit to the theoretically driven developed model. Unlike
other statistical analyses, using SEM in data analysis has the strength to extract measurement error from estimates of observed variables, which provides more accuracy in estimating the strength and degree of relationship (Byrne, 2001).

5. Results

5.1 Descriptive Statistics

A total of 598 people responded to the questionnaire with an approximately 78 % response rate. The missing values were replaced with the mode referring to the most frequent responses of the others. The final dataset of the study comprised 538 responses.

Of the 538 respondents, respondents having two-year college degrees and bachelor degrees account for approximately 81 % of the study participants (36.4 % and 44.2 % respectively). In terms of respondents’ rank, 407 of the total 538 respondents (75.7 %) were police officers. Ranked officers constituted the remaining 24.3 % of the respondents. Of the total 538 respondents, the largest group, 158 respondents, had between eleven and fifteen years of service, followed by 155 respondents with five years or less, and 107 respondents with between six and ten years of service. It is not surprising that the majority of the study participants were male (498; 92.6 %). That result is consistent with the over-representation of male officers in TNP, where female officers constitute approximately 9 % of the total members of TNP. For the nature of the work shift, participants were asked to indicate the shift they worked by using four categories commonly used by TNP (12/12, 12/24, 12/36, 8-5 or 9-6). The first two categories were coded as irregular shift work and the last three categories as regular shift work. The shift work distribution is approximately equal (44.2 % vs. 55.8%).
5.2 Confirmatory Factor Analysis

5.2.1 Measurement Model of Organizational Stress

For the measurement of organizational stress, respondents were asked to indicate their agreement or disagreement with the statement of each organizational stress factor over the past six months on a five-point Likert scale ranging from “Strongly Disagree” to “Strongly Agree.” Confirmatory factor analysis was conducted to develop and validate the measurement model of organizational stress. CFA results for the measurement model of organizational stress show that all factor loadings are significant at \( p \leq .05 \). However, factor loadings of the indicators Dealingwithcourt, Policychange, Unequalsharing, and Favoritism are below the determined threshold level (.50), with values of .42, .45, .47, .49 respectively. The Removal process was initiated from the lowest factor loading one at a time, since removing one indicator affects the strength of the remaining indicators. Of those four indicators, three: Dealingwithcourt, Policychange, and Unequalsharing were removed from the measurement model of organizational stress, since the factor loading of favoritism surpassed the established threshold level after three of the indicators were removed. Thus, the indicator Favoritism retained in the model.

Although a better goodness-of-fit result was achieved after removing three indicators from the organizational stress measurement model, goodness-of-fit statistics selected this study did not show acceptable results for model fit. Therefore, specification search was performed to find a better fitting model. Modification index, the most commonly used technique for model fit improvement (Wan, 2002, Schumaer and Lomax, 2004) was used to improve the model fit. One pair of error terms between the indicators Excessiveadminduty and Lackofresources was correlated; after this correlation, the factor loading of favoritism fell below the established threshold level .50. Thus, the indicator favoritism was also excluded from the organizational stress measurement model (see Figure 2).
The revised measurement model of organizational stress demonstrates excellent fit to the obtained data in terms of all the selected goodness-of-fit statistics. Therefore, the revised model was confirmed as the measurement model of organizational stress for further SEM analysis. Standardized factor loadings of six indicators are in a range of .585 to .681, surpassing the threshold level of .50. The indicator *Feelingpressure* has the highest factor loading on the organizational stress latent construct.

### 5.2.2 Measurement Model of Operational Stress

The second exogenous latent variable of this study is operational stress. For the measurement of this latent construct, respondents were asked to indicate their agreements or disagreements about the stress factors inherent in the job over the past six months. The measurement model of operational stress, which includes ten indicators, was examined by CFA to evaluate the validity of the construct. From the generic measurement model of operational stress, three items; *Shiftwork, Traumatic events,* and *Risk of injured* were excluded because of their low factor loadings in relation to the established threshold value. After removing three items from the model, all remaining items’ factor loadings were assessed again. All remaining seven items surpassed the threshold value, having factor loadings ranging from .59.
to 81 and all factor loadings were significant at $p \leq .05$. To further improve model fit, six pairs of measurement errors were correlated to achieve a good model fit (see Figure 3).

**Figure 3: A Revised Measurement Model of Operational Stress**

Based on the cut-off criteria for all the selected goodness-of-fit indices, the revised measurement model indicates perfect fit to the data, and thus is proved to be a valid measurement model of operational stress for further SEM analysis. All factor loadings and correlations between measurement error terms are statistically significant at $p \leq .05$ as they should be. The standardized factor loadings of seven indicators in the revised and final model range from .587 to .814.

### 5.2.3 Measurement Model of Work-related Burnout

Work-related Burnout was conceptualized as a latent construct aiming to measure the respondents’ perceptions of the physical and psychological exhaustion as related to their work, using seven items developed on a five-point Likert scale.

The critical ratios for all factor loadings are significant at $p \leq .05$, and all factor loadings surpass the established threshold value of .50 except for the *Emotionalexhaustion* indicator. Factor loading from
the indicator *Emotionalexhaustion* to work-related burnout is .44, so it was eliminated from the measurement model of work-related burnout. Five pairs of measurement errors were allowed to be correlated with each other until a reasonably good model fit was achieved, since removing one low factor item had not revealed acceptable results for model fit according to the selected goodness-of-fit statistics (see Figure 4).

**Figure 4: A Revised Measurement Model of Work-related Burnout**

The goodness-of-fit statistics for the revised model shows that the final revised model of work-related burnout has a very good fit to the data. Goodness-of-fit statistics confirm the revised measurement model for work-related burnout as the valid measurement model for further SEM analysis.

**5.3 Structural Equation Model**

SEM technique was used to explore the relationships among the latent constructs, including organizational stress, operational stress, and work-related burnout.

Checking the critical ratio of standardized regression weight of each indicator and structural path between variables demonstrates that all factor loadings of latent constructs and structural paths from
both organizational and operational stress to work-related burnout are significant at p< .05. Two pairs of measurement errors were correlated to achieve a good model fit. Figure 5 illustrates the revised structural model.

Figure 5: A Revised Structural Equation Model

Goodness-of-fit statistics for both the generic and the revised models are displayed in the following Table.
### Table: Goodness-of-Fit Statistics for Generic and Revised SEM

<table>
<thead>
<tr>
<th>Index</th>
<th>Shorthand</th>
<th>Criteria</th>
<th>Generic Model</th>
<th>Revised Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square</td>
<td>$\chi^2$</td>
<td>Smaller the better</td>
<td>335.824</td>
<td>315.481</td>
</tr>
<tr>
<td>Chi-square associated p value</td>
<td>p</td>
<td>$\geq .05$</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Chi-square / Degree of Freedom</td>
<td>$\chi^2 / df$</td>
<td>$\leq 2$ ; $\leq 3$ ; $\leq 4$</td>
<td>2.451</td>
<td>2.337</td>
</tr>
<tr>
<td>Root Mean Square Error of Approximation</td>
<td>RMSEA</td>
<td>$.05 \leq \text{value} \leq .08$ ; acceptable $\leq .05$ ; good</td>
<td>0.052</td>
<td>0.050</td>
</tr>
<tr>
<td>RMSEA associated p value</td>
<td>PCLOSE</td>
<td>$\geq .05$</td>
<td>0.312</td>
<td>0.498</td>
</tr>
<tr>
<td>Tucker-Lewis Index</td>
<td>TLI</td>
<td>$.90 \leq \text{value} &lt; .95$ ; acceptable $\geq .95$ ; good</td>
<td>0.948</td>
<td>0.952</td>
</tr>
<tr>
<td>Comparative Fit Index</td>
<td>CFI</td>
<td>$.90 \leq \text{value} &lt; .95$ ; acceptable $\geq .95$ ; good</td>
<td>0.959</td>
<td>0.962</td>
</tr>
<tr>
<td>Standardized Root Mean Square Residual</td>
<td>SRMR</td>
<td>$.05 \leq \text{value} \leq .08$ ; acceptable $\leq .05$ ; good</td>
<td>0.0545</td>
<td>0.0535</td>
</tr>
<tr>
<td>Hoelter's Critical N</td>
<td>Hoelter Index</td>
<td>$75 \leq \text{value} &lt; 200$ ; acceptable $\geq 200$ ; good</td>
<td>265</td>
<td>278</td>
</tr>
</tbody>
</table>

Except for the chi-square associated p value, the goodness-of-fit measures indicate a reasonable fit to the data for both the generic and the revised structural equation models. However, pairing two measurement errors provides improvement in the revised model in terms of goodness-of-fit statistics. For example, the values of RMSEA and TLI decreased to .50 and .952 in the revised model, achieving the good model fit threshold.

The revised SEM model demonstrates statistically significant critical ratios for all indicators and correlations between measurement errors at $p \leq .05$. All indicators of latent constructs surpass the determined threshold level of .50. For the endogenous variable of work-related burnout, results from the revised SEM show that organizational stress and operational stress are positively and significantly related to work-related burnout, as anticipated by the study theory, with standardized regression weights of .32 and .17 respectively. These results demonstrate that as organizational stress and operational stress increase, work-related burnout also increases. A positive correlation is seen between organizational
stress and operational stress, with a correlation coefficient of .17 at \( p \leq .05 \). Overall, the predictor variables of organizational stress and operational stress account for 15 \% of the variance in the work-related burnout.

Based on the theoretical framework of the study and the findings of the literature review, the following research hypotheses were formulated to be tested:

**H1:** Turkish National Police (TNP) employees’ organizational stress is positively associated with their self-reported burnout levels.

The first hypothesis is supported by the study findings. The results show that organizational stress has a positive and significant effect on work-related burnout (\( \beta = 0.323, p < 0.05 \)). With an unstandardized regression coefficient of .492, this relationship suggests that one standard deviation increase in organizational stress level results in a .49 increase in work-related burnout level.

**H2:** Turkish National Police (TNP) employees’ operational stress is positively associated with their self-reported burnout levels.

The finding of a positive and significance relationship between operational stress and work-related burnout (\( \beta = 0.174, p < 0.05 \)) supports the second hypothesis. The result confirms that, like organizational stress, operational stress also has a significant effect on work-related burnout. The positive unstandardized regression coefficient of .210 shows that as the operational stress level increases by one standard deviation, the job satisfaction level increases by .210.

**H3:** Turkish National Police (TNP) employees’ organizational stress is more influential than their operational stress on their self-reported burnout levels.

The results of the study also support the third hypothesis. Between organizational and operational stress, organizational stress has a relatively higher regression coefficient, with a value of
.323 (compared to .174). This result confirms that organizational stressors are stronger predictors than the stressors inherent in policing in determining the work-related burnout levels of TNP members.

6. Discussion and Conclusion

The primary research question this study sought to answer is the nature of the relationship between reported organizational and operational stressors, and work-related burnout. The findings of the study support the hypotheses that the more police officers perceive their organization to be stress inducing, the higher their work-related burnout. The same pattern is true for operational stress. The more police officers perceive work-related factors to be stressful; they are more likely to report high levels of burnout. In terms of the relative importance of the two types of occupational stressors, this study’s findings reveal that organizational stressors are more influential than operational ones in determining work-related burnout levels of TNP employees.

The findings of this study illustrate a need for internal policy reform and managerial change in how the executives of TNP organize their agencies and policies, since specific organizational stressors are within the agency’s control but members of TNP are constrained by rules and policies that infringe upon their actions, leaving them little or no control over certain policies and situations.

It is very important to recognize that the success of any law enforcement agency depends upon the wellbeing of its members. Therefore, as emphasized by Crank (1998), it is incumbent on the agency to support its employees in order to overcome their stressful work environments. From the findings of this study it seems that the current configuration of TNP does not provide a work climate that could reduce organizational stressors and in turn improve officers’ wellbeing and, thus the quality of service delivery. Improving officer wellbeing and the quality of TNP service delivery requires a strong commitment to and investment in personnel.
As cited by Shane (2008), to improve police performance, the rigid hierarchical structure of TNP must be changed by fostering organizational democracy. Officers should be given more decision-making authority and increased responsibility. Police managers should act in such a way that subordinates have more voice in decisions, especially those affecting them. Proving constructive feedback to their employees about their performance is also a vital step for supervisors. Giving the employees more decision-making authority, increased responsibility, and constructive feedback definitely raises their self-esteem, commitment and dedication to the organization and that in turn increases both the well-being of TNP members and organizational performance. One of the important aspects of organizational democracies is to increase the informal relations among employees in the name of increasing social capital. The importance of informal interactions in increased organizational performance is stated by Sahin (2010):

Informal structures shaped by informal interactions among members within an organization may also be an important factor for organizational performance. Therefore, the informal structure of the departments should also be taken into account by police managers in the management process (p. 160).

Evaluating the measurement model of organizational stress revealed that the scheduled working hours are no longer a major problem for TNP employees. The findings of this study provide support for policies to improve the working hours of TNP employees, implemented by the TNP in recent years. However, overtime demands that make employees subject to extra assignments are still a major problem.

Another important finding of the study is that staff shortage is one of the important organizational stressors reported by TNP employees. That result is not surprising because of the multiple tasks in the police job description, many of them, unfortunately, not directly related to policing.
References


