

STRESS AND COPING IN LAW ENFORCEMENT

by

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Abstract

Stress at work is related to a decrease in performance, psychological disorders and errors made under impaired conditions, and it affects one's personal life. Police officers experience stress-provoking situations, such as high-speed chases, car accidents, shootings, and crimes in progress. They are also exposed to witnessing a range of traumatic events, such as death or injuries, as a part of their job. The consequences of stress for the police officers include physical and psychological disorders, decreased performance, and in some cases inability to perform their duties.

The purpose of this study was to examine the occupational stress of police officers in a large metropolitan area in Western Canada; to examine the differences in stressful experiences of men and women police officers; and to explore the differences and patterns in coping strategies employed by men and women police officers in this sample. A package of surveys and questionnaires were administered to police officers from all of the sections of Operational Division of the Police department.

The findings indicated that the officers experienced more stress from the organizational part of their work, than operational, and there was no difference found between men and women. Male and female officers also did not differ in the frequency of the use of coping strategies, except in the usage of instrumental support (for example, seeking assistance, information, or advice about what to do). Women used this coping strategy more often than men did. Men and women differed in patterns of coping with the stress.

Implications for counselling and future research are discussed.

Preface

This thesis is an original intellectual product of the author, I.Della-Rossa. The present study was approved by the UBC Behavioural Research Ethics Board and covered by UBC BREB Number H13-02024.

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Chapter I. Introduction

Occupational stress is well recognized. Stress at work is related to decrease of performance, psychological disorders and errors made under impaired conditions (Cooper & Payne, 1994; Ross & Altmaier, 1994).

The stress at work originates from a number of sources. In the study of stress at work Baker (1985) outlines the following as major sources of workplace stressors: a) work environment stressors (physical/chemical hazards, physical danger, ergonomics), b) job content stressors (task characteristic, such as workload, decision making, deadlines, overtime, shift work, etc.), c) organizational stressors (organizational structure and the individuals' role in it, d) work role factors (ambiguity of work objectives, expectations, responsibility, role conflict and e) extra-organizational stressors (commute, difficulties resting after shift work, sleep disturbances) – however this type of stress factors are usually treated as unrelated to work (Baker, 1985). The effects of the stress affect an individual on physiological, psychological and behavioral levels. Physiological strain is shown to cause changes in heart rate, blood pressure, changes in biochemical measures, development of psychosomatic diseases (coronary heart disease, ulcer, hypertension). Psychological stress results in anxiety and depression, job dissatisfaction, boredom and somatic symptoms, while behavioral changes include lower productivity, absenteeism, substance abuse and problem behavior at home and in the community.

A number of theories tried to enumerate the causes of occupational stress. For example Person-Environment-Fit model views stress at work as a misfit between motives of the person, such as income, participation, self-utilization, and the environment (job) supplies. Or the interaction between the demands of the job, such as workload, task complexity and person's ability to meet those demands (Ivancevich & Matteson, 1984). This model also differentiates the objective environment and person and subjective environment and person. Objective environment is based on scientific observations, while subjective environment exists as a

person's perceptions of the environment the person is surrounded by and self within those surroundings. The misfit that causes strain could be rooted in distorted or accurate perception of the environment.

Another formulation - the Job Demands-Control (JD-C) model regards occupational strain as the effect of job demands on a person's freedom of decision-making facing those demands (job demands latitude) (Karasek, 1979). That implies the person's freedom in control over the use of skills, time needed and decision about organization of the completion of the task. Jobs can be characterized by the relations between job demands and job decision latitude (active – high demands/high decision latitude and passive - low demands/low decision latitude). Based on this theory jobs with high demands and low decision latitude will more likely to result in stress (Baker, 1985).

The theories and models of occupational stress often overlap and generally they view the occupational stress as an interaction between work environments, factors within work environment and person's ability to meet the demands at work. Moreover occupational stress causes physiological, psychological and behavioral response that leads to the use of active or maladaptive coping strategies.

Working in high-stress occupations exposes both men and women to higher than average levels of stress. Police officers experience stress-provoking situations, such as high-speed chases, car accidents, shootings, and crimes in progress on duty. They are also exposed to witnessing a range of traumatic events, such as death or injuries, as a part of their job (Garcia, Nesbary & Gu, 2004; Patterson, 2002; Violanti & Aron, 1994; Violanti & Aron, 1995). The consequences of stress for the police officers include physical and psychological disorders, decreased performance, and in some cases inability to perform their duties (Gotto & Haney, 2009; Heiman, 1977).

Research has shown that alcohol (maladaptive coping strategy) for example may mitigate the anxiety, irritability and depression caused by trauma (Volpichelli, Balaraman, Hahn, Wallace

& Bux, 1999). It is possible that officers use alcohol, drugs, and emotional disengagement as coping strategies to reduce stress.

The purpose of this survey study is to examine the stress and coping experienced by male and female police officers. It is also intended to find whether male and female police officers employ the same coping mechanisms in dealing with those stressors.

The study will add to the body of knowledge about the differences in experiences of stress of male and female police officers and the coping strategies both genders employ. The findings can possibly elucidate the implications for the development of programs and policies designed to prevent or manage stress in law enforcement since men and women may have different experiences at their work.

Chapter II. Stress in Law Enforcement

He, Zhao and Archbold (2002) identified five major sources of stress in police work pertaining to environment, availability of support, police administration, social and family factors and ability to employ various coping strategies. McCreary and Thompson (2006) determined two specific sources of stress in police work - operational and organizational. This classification is based on the source of stressors that are inherent either in the police work environment, such as an accident in a patrol car or felony in progress (Violanti & Aron, 1994), or administrative aspects of their work, for example faulty equipment, shift work and others (Carlan & Nored, 2008). Brown, Fielding and Grover (1999) also classified the stressors as traumatic or routine with regards to frequency and impact and these stressors differently affect officers' psychological and physical well-being.

The number of women in policing has been steadily increasing and much effort has been devoted to adjusting the working environment and creating equal opportunities in police work for women. However, law enforcement is still regarded as predominantly a male occupation. Understandably the experience of female police officers differs from those of their male counterparts and there is some evidence that the working conditions are less favorable for women (Gotto & Haney, 2009). Women experience certain levels of harassment, hostility or other negative interactions on the job, along with operational stress (Balkin, 1988; Martin, 1990).

Some studies attempted to look into coping strategies employed by police officers. It appears that officers who seek social support, share their experiences with peers, and have good marital relationships seem to handle stress better than those who do not (Reiser & Geiger, 1984). Some officers adopt maladaptive destructive strategies to cope with the stress such as turning to alcohol (Corelli & MacAndrew, 1994). Other forms of maladaptive coping include avoidance-

oriented strategies such as substance abuse, smoking, overeating, and detachment from friends and family. The review of literature suggests that female officers value emotional support more than men and rely more on their network at the times of the stress (Thompson, Kirk & Brown, 2006).

Literature Review.

The literature review will start with the overview of transactional theory of stress and coping developed by Lazarus and Folkman (1984) and further review literature pertaining to the stresses specific to law enforcement. Although the literature covers a wide variety of topics this review will focus on major sources of stress specific for this occupation. The main sources of stress and their categories are presented. Coping strategies employed by police officers also differ – they can be problem-solving oriented or emotion-focused and within each category they can be maladaptive and adaptive depending on the situation. Additionally the review will examine the differences in the experiences of stress of men and women in this predominantly male occupation. The review will also overview the differences in coping strategies employed by men and women police officers. And finally the effect of length of employment on the experiences of stress will be reviewed.

Theory of Stress and Coping

A number of theories were formulated to examine and understand the concept of stress in psychology. The present study is based on the theory of cognitive psychological stress developed by Lazarus and Folkman (1984). In this theory stress is regarded as a transaction or relationship between the individual and the environment that the individual appraises as significant for his/her well-being and in which the demands prevail over available coping resources. Two

processes are important in this theory – cognitive appraisal (how the individual appraises the situation) and coping (what the individual does to handle the stressful event).

The concept of appraisal is based on the understanding of individual differences developed as a result of individual experiences, personal and environmental factors that in turn individualize the appraisal patterns. Appraisal is defined as cognitive evaluation of the significance of the event and the threat it may present to the individual's well-being. This process determines and shapes the reaction and further behaviour of the individual as well as the emotional response, its intensity and quality.

Lazarus outlined primary, secondary appraisal and reappraisal along with their components and patterns. Primary appraisal evaluates the relevance of the encounter to the individual and whether or not it is stressful or benign-positive. Stressful events may present in three forms: harm/loss (damage already sustained), threat (potential damage), and challenge (possibility of mastery and/or gain). Secondary appraisal is an evaluation of available coping resources and whether or not the chosen coping strategy will successfully accomplish the goal. Reappraisal is defined as a new evaluation based on changed circumstances, new information from the environment and the individual. It follows an earlier appraisal and is the result of coping efforts.

Folkman and Lazarus define coping as “constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands, that are appraised as taxing or exceeding the resources of the person” (Folkman & Lazarus, 1984, p.141). The authors imply that coping mechanisms comprise behavioural and cognitive strategies to resist the stress, very often they also consist of various single acts and form a coping episode. The authors also distinguished problem-focused coping, that is intended to change the stressful circumstances of

environment that cause the distress and emotion-oriented coping, that aims to change the appraisal of the current stressful event or reduce the negative emotional state. The coping strategies are interconnected and are usually focused on different aspects of the stressful encounter.

The authors defined the immediate outcome as a person's evaluation of the degree of success in resolution of the stressful event. Depending on that evaluation of the outcome of the chosen coping strategy, it is considered either favorable (adaptive) or unfavorable (maladaptive). For example in case of favorable outcome the individual feels that the stressful event was managed as best as possible. Unfavorable outcomes contravene one's values and goals and create a conflict in a person's social environment. Both problem-focused and emotion-oriented coping strategies can be adaptive or maladaptive.

Furthermore, the authors argue that coping styles are determined by individual's personal resources such as health, energy level, existential beliefs and commitments, problem-solving skills, availability of social support. Coping can also be reduced by personal (such as internalized cultural values beliefs) and environmental (such as competition for the same resource or agencies/institutions that hinder coping efforts) constraints. Therefore it is important to take in consideration the circumstances and environment surrounding the stressor to fully understand how police officers experience and cope with stressors in their work.

Review of Stress in Law Enforcement

It is well established that policing is an occupation with high stress levels (He et al, 2002; Roberts & Levenson, 2001; Violante & Aron, 1994). Police officers are also more likely to be exposed to traumatic events on duty than people of other occupations. A number of studies

examined the etiology of stress and identified sources and kinds of stresses specific to police work.

Sources of stress in police duties are attributed to variety of factors. He, Zhao and Archbold (2002) in their study of 943 male officers and 157 female officers from a large metropolitan area in New England outlined 5 major sources of stress in law enforcement identified in literature: a) stress from work environment, e.g., gruesome crime scenes or making a violent arrest b) availability of peer support and trust, e.g., incompatible partner or lack of managerial support c) social and family influence, e.g., work-family conflict, d) bureaucratic characteristics of police organization e.g., impersonal rules, shift work and e) accessibility of coping mechanisms, e.g., substance abuse or detachment. Brown et al. (1999) explored operational stressors, inherent in a police active duty work environment, discerning them from organizational stressors, which derive from structure and organization of their work and administration. Their sample consisted of 601 British police officers, 226 of which were female and 367 were male. Several scales and questionnaires were distributed via internal mail to the respondents, including Policing Events Scale, Social support Scale, World Assumption Scale, Negative Attitudes to Emotional Expression Scale, General Health Questionnaire.

Brown et al. (1999) also classified operational stressors with regard to frequency and impact. The low frequency/high impact stressors were associated with exposure to a traumatic event that was linked to the development of PTSD and included having to deal with death or disaster, arriving at the scene of major, possibly fatal accident and the like. High frequency low impact stressors often occurred during work and did not cause significant psychological disturbance and thus were classed as routine. In addition, vicarious stressors were identified in relation to exposure to sexual crimes that can lead to a secondary trauma. It was found that

female police officers were more likely to attend to sexual crimes. This increased the risk of development of the distress and secondary trauma for women-officers. Females also reported feelings of isolation and limited access to social support in the event of difficult deployment. Overall, the findings of this study suggest a higher level of operational stress than previously suggested by the literature as cited by the authors.

Violante and Aron (1994) surveyed 103 officers to determine intensity of stress. The sample consisted of the officers of a variety of ranks, experience, age and ethnic background, randomly selected in a prescribed geographical area. The measure used was the sixty-item Police Stress Survey, developed by Spielberger et al., (1981). These measures have two major stressor components – organizational (and/or administrative) and operational. Officers scored the items on the scale of 0-100, with 0 being “no stress” to 100 being maximum stress. The scores ranged from lowest $M=22.5$ (racial conflict) to highest $M=79.4$ (killing someone on the line of duty). The highest ranking stressors had to do with death and disaster – killing someone on line of duty (79.4) and death or injury to fellow officer (76.7).

Organizational stressors were ranked high on this scale, with the highest shift work (61.2), inadequate support of the department (60.9), incompatible patrol partner (60.3), insufficient personnel (58.5), excessive discipline (53.2) and inadequate support by supervisors (52.4). Highest operational stressors were physical attack (71.0), battered child (69.2), high-speed chases (63.7), use of force (61.0), accident in patrol car (59.9), felony in progress (55.3) etc.

Another major source of stress in police work relates to the influence of their work on family and marital relationships. Roberts and Levenson (2001) examined the impact of job stress and physical exhaustion on marital relationships in 19 male police officers and their

spouses. Participants completed 30-day stress diaries and interacted in 4 weekly laboratory sessions. The results of study showed that the job stress, negative emotions and physical exhaustion negatively impact the marital relationships of all officers, causing even more stress and putting the police officers at a higher risks of divorce, emotional disturbance and domestic violence (Roberts & Levenson, 2001). This especially applies to female officers as women usually are primary caregivers to their families. Women also have to combine the roles of mothers and wives and the demands of those roles are usually higher than that of the men (He et al, 2002).

Goto and Haney (2009) in their study of prevalence of PTSD symptoms in the Royal Canadian Mounted Police (RCMP) elucidate additional sources of stress among women-police officers. The authors note that hostility from male police officers, as one of the added stressors possibly stems from historical roles women played in policing. Women were traditionally viewed as care and support givers, rather than police agents and their presence was not viewed as a threat to male domination in police. The authors also mention a negative attitude of male officers towards women police officers, including anti-women comments and sexual harassment. In fact in an informal survey in one police departments 80% of women reported being sexually harassed, but only 2% reported that to the authorities. Goto and Haney (2009) also examine the role motherhood plays for women in law enforcement and there seems to be evidence that it is not supported either by unions or by management and can potentially decrease the chances of further career development.

Research on Gender Differences

Thompson, Kirk and Brown (2006) studied 421 Australian female police officers and found that a two-factor model of operational and organizational (managerial) stressors does not

accurately describe the stressors of the female police population. Initial exploratory factor analysis revealed three distinct factors, which were further tested and trimmed to create a well fitting measurement instrument. That model was further tested by confirmatory factor analysis in the second independent sample of female police officers. Results indicated that in addition to operational and organizational stressors women indeed reported interpersonal stressors such as lack of support from colleagues, gender discrimination, sexual harassment, interpersonal conflict, and lack of confidentiality. However Thompson et al. (2006) argue that the distinction between the operational and organizational factors is not as clear as it has been assumed. They question the ways the stress is measured (eg. actual or potential) and the extent to which the traumatic stressors are highlighted in the list. Additionally the authors argue that it is premature to assume that the interpersonal factor is a salient feature of work environment for women only as they are likely to be problematic for males as well. The authors suggest retesting in other police samples including males. It will be interesting to see if the same tendencies appear in this proposed study of gender differences of stress and coping of men and women police officers.

The review of literature suggests that female officers value emotional support more than men and rely more on their network at times of the stress. However workload, time pressure, physical threats, danger, exposure to trauma were reported as the highest stressors, thus reflecting the similar structure as in male officers in a study by He et al. (2002).

Norvell, Hills and Murrin (1993) also focused their study of police stress on gender issues. Fifty two female officers on highway patrol were matched with 52 male officers in age, marital status, years of experience, job title and education. Self-administered questionnaires were completed by participants to examine their satisfaction with work, perceived stress, physical symptoms daily hassles and burnout. The following inventories and scales were completed:

Perceived Stress Scale (PSS), Job Descriptive Index (JDI), Cohen-Noberman Inventory of Physical Symptoms (CHIPS), the Daily Hassles Scale (DHS), Maslach Burnout Inventory (MBI) and demographic questionnaire. The male officers reported higher levels of stress, more daily hassles and experienced greater emotional exhaustion than females. It has been acknowledged in this study that female participants were less representative of women in general and did not report higher levels of stress and job dissatisfaction than their male counterparts. In addition the authors argue that men and women have different motivations and goals entering this profession. Women appear to be more success-oriented and their self-esteem is enhanced by their choice of profession, while men may discover that the prestige and respect of that profession is not so high as before and become disappointed. Women also were more satisfied with their job and with promotion opportunities. The divergent effect of marital status on occupational stress is also discussed. However the study is limited to a specific area of policing – highway patrol, and the sample was relatively small (N=104). The participants also were not very experienced in the field (the average number of years in law enforcement was 4).

Similar results were found by McCarty, Zhao and Garland (2007) in the study of different levels of occupational stress and burnout between male and female police officers. Using the data collected from a sample of 1100 police officers working in large metropolitan department in Baltimore a number of analyses were run to examine gender differences. The authors outlined the sources of additional stress for women that include hostile work environment, irregular working hours, unfair hiring practices, discrimination and the lack of social support from male colleagues. Burke and Mikkelsen (2005) also found that female representatives of their sample of 766 Norwegian police officers experienced lower levels of equal opportunities, discrimination and sexual harassment.

Despite the expectation of women reporting higher overall work-related stress based on their larger load of stressors, prior research revealed mixed results about levels of stress among men and women police officers. He, Zhao and Ren (2005) used the data set from another study titled “Police stress and domestic violence in police families in Baltimore, Maryland, 1997-1999” (Gershon, 1999, as cited in He et al., 2005) to examine gender and race effect on police occupational stress. A sample of 1,106 police officers from 9 Baltimore City police precincts and from the Baltimore City police headquarters was surveyed to investigate police stress and domestic violence. Using that data set He et al. (2005) studied the impact of race and gender on occupational stress, stressors and coping in that sample and found that female officers do experience higher levels of stress than males.

Morash and Haar (1995) developed a scale to identify and measure a range of occupational stress sources in law enforcement, including those that are specific for women police officers. The scale was created through participant observation at 15 statewide and 4 regional meetings over a 7 year period. Field notes were also complimented with in-depth interviews with 6 white and 2 black women that allowed the identification of stressors specific to experiences of women in that field. The qualitative findings formed the basis for further quantitative measures of the workplace problems and stress relationship, including the stressors salient for women. The scale was validated and redesigned a number of times on different samples. The final sample consisted of 1087 officers, of which 745 were men and 342 women of various races. In contrast to previous study the authors found that women did not report higher levels of stress despite having experience of set of stressors different from their male counterparts.

Coping

Coping is defined as the person's constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that exceed the person's resources (Lazarus & Folkman, 1984). Haarr and Morash (1999) also define it as overt and covert behaviors that individuals employ to manage stressful situations. Research on coping shows that people usually maintain positive (adaptive) or negative (maladaptive) strategies to maintain equilibrium (Burke, 1993). In the overview of posttraumatic reactions after life-threatening events, stress and burnout in law enforcement Reiser and Geiger (1984) noted based on research of stress and stress overload that officers who seek social support, share the experience with peers and have good marital relationships seem to handle stress better than those who did not (Reiser & Geiger, 1984).

It is known that some officers employ maladaptive strategies to cope with stress. For example alcohol is known to relieve symptoms of anxiety, irritability and depression after a traumatic event and many officers may turn to drinking as a coping strategy. A study of alcohol and prescription drug use in the RCMP revealed that 35% of employees had 3 or more drinks a day and 11% had seven or more drinks a day (Corelli & MacAndrew, 1994). In the overview of the role of uncontrollable trauma in the development of PTSD Volpicelli et al. (1999) examined PTSD progression and alcohol addiction and noted that the consumption of alcohol notably increased following the trauma. It is possible that officers use drinking as a method of alleviation of anxiety and compensation of emotional distress associated with trauma. Other forms of maladaptive avoidance-oriented coping strategies include substance abuse, smoking, overeating, and detachment from friends and family.

Conflicting results are reported about the differences in coping strategies of males and females. Lipinska-Grobelny (2011) elucidates a discrepancy in research in the study of the effect of gender roles on coping with stress. The authors cited in her article (Carver et al, 1989; Brems & Johnson, 1989;) found that in their sample men preferred problem-oriented coping, while women tended to employ emotion-oriented coping such as seeking social support, venting or focusing on emotion. In contrary a number of studies cited in her article found no difference between men and women in emotion-focused coping (Folkmen & Lazarus, 1980), or described more problem-oriented coping among women than men (Ben-Zur & Zeidner, 1996; Heppner, Reeder & Larson, 1983).

Haarr and Morash (1999) used qualitative methods to collect data about ways of coping from the sample of women police officers. An extensive list of coping strategies used by women of that sample was generated after analysing the field notes and interview responses and formed basis for further development of quantitative instrument which was then tested on 15 members of the sample employed as informants. Based on their comments about wording, technical difficulties in filling out the forms and other related indications the questionnaires were redesigned. At this point the authors included the coping strategies used by men in questionnaires, using literature. However the authors warned that because the development of the questionnaire was gendered it is not exhaustive of coping strategies of the male police population. The scale measured 11 different coping strategies. A number of analyses were applied to refine the scale and the final version was distributed to the sample of 2484 police officers. The final sample consisted of 1087 officers, that consisted of 745 men and 342 women of various races. A number of coping strategies that were not a focus of prior research were also measured in this study, such as trying to get coworkers approval, developing camaraderie and

changing assignments. The authors found that men and women employ a wide range of coping strategies and they mostly use similar methods of coping. However there was a significant difference in using escape – women officers used it significantly more often than men, and women in high-stress group used it more often than women in low-stress group. Women in high-stress group also reported higher levels of coping by keeping written records of offensive events. However the findings in this article might be not complete because of the limited inclusion of male-specific coping strategies.

Folkman and Lazarus (1980) analyzed the coping strategies of 100 men and women in the study of coping in middle-aged community sample. The data were collected through monthly interviews and self-reported questionnaires, as well as 68-item Ways of Coping checklist. The separate measures of problem-focused and emotion-focused coping were analyzed and no significant differences were found in emotional coping based on gender (Folkman & Lazarus, 1980).

Similarly, Goto and Haney (2009) did not find differences in using adaptive and maladaptive coping strategies in their study of prevalence of PTSD symptoms in RCMP. Self-administered series of surveys were distributed within the division of RCMP in British Columbia, including subscales for adaptive and maladaptive coping. Ninety two police officers in the RCMP of which 73 were males and 19 females responded and results revealed that there was no difference in coping between men and women police officers and both genders used more maladaptive strategies, such as working for distraction. However this finding may have been influenced by the low number of female participants.

Stress and the Length of Employment in Police.

Another interesting factor that possibly plays a role in experiencing stress is the number of years of service in the police occupation. Are years of service a factor that makes law enforcement officers more susceptible to stress? Zachar (2004) examined the association between age, years of service and stress in his dissertation study. Two groups of police officers were compared to each other: 62 police officer candidates at the stage of psychological pre-screening as a part of the selection process and 35 experienced police officers from a suburban police department, varying in age and years of experience. Levels of occupational stress, personal strain, and use of coping resources were measured by administering the Occupational Stress Inventory - Revised (OSI-R). The results indicated that even though all the participants reported levels of stress within the normal range, the experienced police officers reported higher levels of stress with regards to role ambiguity and the physical environment. They also had higher levels of psychological (PSY), interpersonal (IS) and physical strain (PHS).

The experienced officers were asked to rank the sources of stressors in their life. Although the results varied greatly, the common tendency was to rank the departmental/organizational sources of stress in the highest three positions, while stress from the job itself appeared to decrease with the longer years of service.

Additionally, the data showed that police officers with more experience employed fewer coping strategies while younger officers reported higher levels of coping and a wider range of coping resources. The author explained it as a function of age, as individuals tend to rely on certain resources they found useful before. The limitation of that behavior is that a previous resource might not be working in the same way under current circumstances, thus limiting officer's coping abilities. That may be one of the reasons why police officers experience higher

levels of stress as they mature on the job. Another explanation offered by the author is that the younger people tend to employ broader ranges of coping strategies with focus on recreation, self-care and social support. The author suggests that these findings support the need for stress management programs with emphasis on broadening the range of coping strategies for experienced law enforcement officers (G.Zachar, 2004).

Daniello (2000) explored the relationship between police officers' perceived stress and their length of employment. The Langner 22-item Stress Measure was administered to a representative sample of 300 police officers in police departments of three different counties in the USA. The previous findings discussed above suggested that police officers experience the lowest levels of stress in the beginning and at the end of their career. Contrary to that, Daniello's (2000) study found that the participants in their sample reported having the highest levels of stress within the first 5 years of their career. The findings also suggested that with growing experience, police officers develop better abilities to cope with job pressures and their perception of stress. The author also suggested that police officers experiencing greater stresses on the job ended their careers in policing in earlier stages thus resulting in less stressed mid-career and experienced police officers (R.Daniello, 2000).

Somewhat similar results were reported by Burke (1989) in his study of career stages, satisfaction and well-being among police officers. The author examined the relationship between the stages of career and work experiences of police officers attending work-related training at Ontario Police College. The sample consisted of 463 male and 59 female police constables. Five career stages were considered and were defined as less than 1 year, 1-5, 6-15, 16-25 and 25 and more years of service. The results demonstrated that the police officers in the intermediate career stage (6-15 years of service) reported the most negative work settings, greatest reality shock, and

greatest role conflict and ambiguity. Police officers at this stage also reported the highest levels of stress. The analysis of life-style behavior and physical health also showed a decrease in maintaining a regular exercise routine. It was also reported that consumption of alcohol, coffee and smoking, peaked at that career stage (6-15 years of service) or in the next one (16-25 years of service).

Given these divergent reports about the effect of years of experience on levels of stress and coping of police officers, it would be interesting to see what tendencies and patterns will emerge in this proposed study.

Research in Canada

There is little published research in Canada available on the topic, but studies available confirm the general findings of policing being a high-stress occupation. Psychological burnout proved to be significantly correlated with health concerns (Stearns & Moore, 1993). Based in their findings in the study of the physical and psychological correlates of job burnout in Royal Canadian Mounted Police (RCMP) the authors suggest that as the levels of job burnout increases so did the reports of psychological distress and health-related issues. Another important finding was that the general well-being is an important correlate of job burnout as well – police officers were less satisfied with their life and reported less happiness as the levels of burnout increased. The sample consisted of 290 male and female RCMP officers and the burnout was measured by Maslach Burnout Inventory (MBI) along with a number of instruments measuring attitudes, personality measures, health-related concerns and demographics. Alternatively the authors found that pursuing sport and hobbies correlated with the decrease in levels of burnout.

Similar research explored the psychological burnout among a sample of Canadian police officers (Burke, 1993). Five groups of predictor variables of burnout were considered: individual

demographic characteristics, work stressors, stressful events, work-family conflict and coping responses. 828 male and female police officers anonymously completed the multi-dimensional questionnaires. The results indicated that lower ranking police officers with less education and working in larger forces reported greater depersonalization, as well as police officers who were less stimulated in their jobs. The latter also reported feeling less of personal accomplishment. Interestingly officers experiencing more stressful events at work expressed greater feeling of personal accomplishment, possibly because overcoming the stress made them feel more satisfied.

However a study of the burnout of Canadian police managers (Loo, 1994) found that their sample was relatively healthy with regards to burnout and only a few managers (3.7%) could be classified into phase VIII of Golembiewski and Munzenrider's model of burnout. That model was developed in addition to Maslach Burnout Inventory (MBI) considering that individuals differ greatly in their response to burnout and their experiences of burnout differ at various points of their lives. The model includes eight phases with phase I being absence of burnout to phase VIII with highest levels on all three subscales of MBA, included in the model. The findings indicate that the sample was significantly lower in the burnout rates even when a category was formed combining the phases IV to VIII, thus they found it challenging to say that the police officers necessarily experience high levels of burnout, especially given the diversity of their sample. The police officers for this study were recruited from police forces across Canada while attending management course at the Canadian Police College and represented a wide range of police forces – municipal, regional, provincial, and federal, as well as a diversity in their duties ranging from operational policing to administrative duties and training. The authors suggest that psychological services offered to police officers by many Canadian police forces, other human resource management programs, the selection of suitable recruits and proper

training contribute to preventing the high levels of burnout among Canadian police force. Additionally the years of experience are known to lessen the emotional exhaustion and depersonalization as aspects of burnout, which was highly applicable to this sample of police officers with 20 and more years of service. Finally peer-support programs available in many Canadian forces may have contributed as well by providing social support and coping resources.

The gender differences in psychological distress and work-family conflict were researched in the sample of 78 Canadian police officers (Janzen, Muhajarine & Kelly, 2007). Work-family conflict has been described as bidirectional, where family demands interfere with work (family-to-work) or the opposite, where work demands hinder the handling of family responsibilities (work-to-family). Furthermore work-family conflict is described as time- or strain-based with regards to time divided between family and work and fears and anxieties related to meeting the demands of the either side. Psychological distress was assessed by measuring behavioral, emotional, cognitive, and psychophysiological manifestations of distress. Work-family conflict was measured by 12-items 5-point Likert-style scale. Police service employees were recruited in mid-size Canadian city and offered to complete a booklet with self-report questionnaires. With the return rate of 55.4% the sample consisted of 93 participants but was reduced to 78. The results demonstrated that reports of work-family and family work conflict by men and women in this sample were similar. Likewise there was no statistically significant difference between genders in the relationship between work-family conflict and psychological distress.

Instruments measuring occupational stress of law enforcement and police officers coping strategies have been used in two other Canadian studies– in the study of prevalence of Posttraumatic stress disorder (PTSD) and PTSD symptoms in male and female members of

Royal Canadian Mounted Police (Goto, 2006) and in the study of levels of occupational stress and coping of border service officers (Prasad, 2012).

In the study of PTSD and PTSD symptoms Police stress survey (PSS) was administered to 92 RCMP officers to determine what incidents in police work were reported as stressful by that sample and were related to the development of PTSD or PTSD symptoms in that population. The author looked at the differences between men and women and in length of service. The sample consisted of 73 male and 19 female RCMP officers and about half of the sample (52.4%) had 10 or less years of experience. The results of the study indicated that men and women reported different stressors to be most frequent and most traumatic. Women reported fatal motor-vehicle accidents, sudden death, serious injury, child victims of violence and men reported armed violent arrest, serious threats made against themselves, family or friends, followed by serious injury and fatal motor-vehicle accidents as most frequent and most traumatic stressors.

As about years of service the officers with less experience (10 years and less) most frequently reported serious threat made to themselves or friends/family members, while more experienced officers indicated armed violent arrest as being the most traumatic. However experience was negatively correlated to stress – officers with more years of service experienced less stress than their less experienced counterparts.

In addition there was no significant difference found in anxiety and coping between men and women – both men and women tended to use maladaptive strategies more than adaptive and no difference between males and females was found in anxiety and social support (Goto, 2006).

No significant difference between operational and organizational stress was reported in the study of occupational stress and coping mechanisms of border officers (Prasad, 2012).

Eighty-one male and female border officers reported similar mean levels - $M = 4.16$, $SD = .99$

for organizational and s $M = 3.70$, $SD = 1.05$ for operational stressors. Additionally the border officers were asked to rate their current work week stress level on the scale from 1 to 10, the results also indicated moderate level of stress ($M = 5.34$, $SD = .44$). There was also no significant difference found between the two sources of stress when compared by gender and by years of service. However an ad hoc analysis revealed some differences of individual items, for example “staff shortages” was rated the highest by men ($M=6.07$) than by women ($M=5.74$), as did some other items of the scale.

The analysis of an open-ended question showed that border officers experienced stress in a few key areas mainly from the organizational aspect of their work. Management was reported as a source of the majority of stress by both men and women, as well as shortage of staff, time pressure and relationships with colleagues, which mirrored the responses on PSQ-Org scale.

The correlational matrix showed significant correlations between operational stress and both engagement and disengagement coping, while organizational stress was correlated only with disengagement coping. However men and women showed different pattern of coping. Men showed significant correlation between PSQ=Op, PSQ-Org and weekly stress and disengagement coping. Women seemed be using more of engagement coping for operational and organizational stress, which was significantly correlated with social support (Prasad, 2012). Coping strategies were measured by Brief COPE Inventory, that consists of 14 subscales measuring 14 distinct coping mechanisms (Carver, 1997).

Limitations of Research on Stress in Law Enforcement

One limitation suggested in the literature is that it is difficult to recruit participants such as police officers due to their reluctance to open themselves to scrutiny, and their unwillingness to expose themselves to unwanted publicity and criticism (Brown et al., 1999). However Goto

and Haney (2009) do not report having difficulty in their study of prevalence of PTSD symptoms in RCMP officers. A second limitation is that many studies use small sample sizes, which limits the generalizability of findings. The current study aimed to have 150 participants. Self-reported measures present the third limitation as these methods may not capture all of the experiences in detail. A fourth limitation identified in the literature is that there is a comparatively small number of women participating alongside men in research samples. In this study we will attempt to get a more equitable sample of men and women.

Significance of the Study

Despite the plethora of information and research about stress in law enforcement there is little research on gender differences in stress and coping of Canadian police officers. The majority of studies have been done elsewhere in the world. Based on similar findings in different countries, it would be interesting to see if police officers in our sample experience similar or different stresses and employ similar or different coping strategies. Additionally there is little information about the difference in coping strategies between female and male police officers. Moreover, coping strategies in relation to particular stress have not been widely researched and thus, one of the goals of the present study is to examine that.

The purpose of this study was to investigate the occupational stress of police officers of a large city in Western Canada. The study examined the differences of stressful experiences for men and women officers. This study also examined the differences in coping strategies used by male and female police officers.

Research Questions and Hypotheses

The study of stress in law enforcement and differences in coping strategies of men and women police officers looked at the following questions:

- What are the stressors identified by officers in our sample?
 - Are the stressors similar for men and women?
 - How frequent are the identified stressors?

Hypothesis 1: It is expected that men and women police officers will report similar stressors as measured by PSQ-Op and PSQ-Org.

Hypothesis 2: There will be a difference between men and women participants in identification of the most stressful sources as measured by PSQ-Op and PSQ-Org.

- What are the coping strategies employed by officers in our sample?
 - Are the coping strategies different for men and women police officers?

Hypothesis 3: Men and women will differ in the ways they cope with the stress as measured by Brief COPE Questionnaire.

Hypothesis 4: There will be different patterns of coping between men and women as measured by correlation matrix.

- Do the years of experience matter in experiencing stress?

Hypothesis 5: Officers with 1 to 10 years of experience will report more stress than officers with 11 and more years of experience.

Chapter III. Methods and Procedures

The study consisted of the data collection from a large city police department using a survey that includes Police Stress Questionnaire-Operational (PSQ-Op), Police Stress Questionnaire-Organizational (PSQ-Org), Brief COPE scale developed by Carver et al. (1989, 1997), and a descriptive open-ended question concerning the stresses experienced within last 3 months.

One of the main strengths of the survey method is that it allows for standardization of questions and for anonymous responses. The second important strength of the survey design is that it also allows one to categorize the answers, which significantly simplifies the data processing and decreases the chances of errors from another potential source – variability in coding of answers. The closed-ended questions with pre-categorized proposed answers greatly reduce the potential of interviewer's misinterpretation of responses.

Survey research allows for a high degree of anonymity and is relatively inexpensive to administer. Other advantages of surveys include convenience to answer at respondent's own time and no need for trained administrators.

Instruments

McCreary and Thompson (1989) developed and validated two reliable and valid measures of police stress – Police Stress Questionnaire–Operational (PSQ-Op) and Police Stress Questionnaire-Organizational (PSQ-Org) that measure corresponding stressors from both categories of police occupational stress. Their study consisted of two parts. In one part focus groups were used to identify themes and issues. Once they were collected and systematized the questionnaire items were created. Further analysis was applied with different sample of police officers to determine the psychometric properties of the scales, such as reliability and construct,

discriminant and concurrent validity of the scales. Cronbach's alpha reliability was found to be .90 for PSQ-Op and .89 for PSQ-Org.

Both PSQ-OP and PSQ-ORG are 20-item scales that can be used in conjunction with each other or separately and the small number of items on the scales reduces the concern about overwhelming the participants.

Even though much research has been done in this area the measures and results are usually generalized and no attempts have been made to associate coping strategies to particular stress. In order to obtain the information about coping strategies associated with experienced stress for both populations an additional question was added to the survey asking the participants to identify a stressful event that happened in the past 3 months and coping strategy employed to cope in that situation. It helped to gain an insight into relationships between stressful event and coping strategies.

Coping strategies were measured by Brief COPE Inventory developed by Carver et al. (1989, 1997), including Adaptive and Maladaptive coping. Their study also consisted of a number of sub-studies to first identify the coping strategies with further application of psychometric analysis in the following studies to validate the scale and measure the reliability. Their scale consists of 15 subscales (of four items each), including Adaptive coping (active coping, planning, seeking social support) and Maladaptive coping (venting, denial, distancing, avoidance in form of alcohol/drug use). The scale also includes subscales for Problem-oriented and Emotion-oriented coping. The use of abovementioned sub-scales helped to determine the types of coping employed by men and women police officers.

A demographic questionnaire was included in the package to determine the demographical characteristics of the sample. Descriptive variables included age, gender, ethnicity, current relationship status, education, rank, years of service, current position.

Recruitment and Participants

The recruitment took place in Police Departments in Western Canada. The data were collected from the participants after approval was obtained from the police organization.

Procedure

After the approval of UBC Ethics Committee the research proposal was submitted to Research Department of police organization for approval. After the approval was obtained by the researcher an email from administration of the department informed officers about the study. The researcher also presented the purpose of the study on the briefings before shifts. Packages with surveys and questionnaires provided by researcher were then distributed to the officers' mailboxes by administrative staff of the department. The package included a cover letter with the details about the study and privacy information, participant instruction sheet, demographic questionnaire, PSQ-Org, PSQ-Op, COPE Inventory and open-ended question. Another email notified officers about the availability of the packages. An envelope was provided to seal the completed questionnaires. A sealed box with a slit was also provided for officers to drop the envelopes in and the box was emptied weekly by the researcher. Another email from administration was send as a reminder at the end of the third week of the data collection.

The surveys were collected by the researcher, numbered and locked in the cabinet in CNPS department of UBC. Data collection continued until the 92 questionnaires were collected. The data was not analysed until the end of data collection. Data entry and analysis were performed using Microsoft Excel and SPSS software.

Analysis

Descriptive statistics (means, standard deviations) provided the characteristics of the sample on all measures. Analysis of variance (ANOVA's) was used to determine the significance of differences in operational and organizational stressors between groups. The analysis determined how differently men and women police officers experience operational and organizational stress. Similarly ANOVA's measured the difference in coping strategies between groups.

Pearson's product-moment coefficient correlational analysis was used to further explore relationships among organizational and occupational stress, coping and demographic characteristics (gender and years of service). Descriptive analysis identified the most frequently mentioned stressors and coping strategies used most often.

Ethical Considerations

To ensure confidentiality the packages were made anonymous and numbered upon collection.

Another important step to ensure the confidential environment for participants was to assure the officers that their responses will not be accessible to anyone in the police organization itself. Surveys were collected weekly and were kept in locked cabinet at UBC.

Chapter IV. Results

Demographics

The total of 210 packages were distributed via mailboxes in the police department of metropolitan area in Western Canada and 92 were returned, thus resulting in 43.8% response rate. Description of the sample's demographics is presented in the Appendix A.

Group Comparison Analysis (Occupational Stress and Gender)

Hypothesis 1. The first hypothesis stated that men and women police officers will report similar stressors as measured by PSQ-Op and PSQ-Org. There was no significant difference found between the means for operational and organizational sources. Additionally the officers were asked to report the levels of stress they experienced within last 3 months, which also resulted in similar numbers – both genders reported moderate levels of stress – $M=5.51$ ($SD=2.68$) for males and $M=5.67$ ($SD=2.87$) for females on the scale from 1 to 10, with 1 being no stress at all. See Table 1.

The comparison of the two subscales of occupational scale (PSQ-Op and PSQ-Org) showed that the entire sample of officers reported higher levels of stress deriving from the organizational sources ($M=3.65$, $SD=.18$) of their work than from operational ($M=3.31$, $SD=1.23$) $p<0.01$. See Table 2.

Additionally the officers were asked to comment on stressful events they experienced within the past 3 months. The hand-written responses were then analyzed and grouped into 4 categories relevant to the source of stress. The four categories that emerged were 1) workload, 2) dealing with co-workers/change in working environment, 3) management-administrative issues and 4) internal investigations/dealing with public issues and/or public image. See Table 3.

Table: 1
Occupational Stress by Gender

| Source of stress | Gender | N | Mean | SD |
|---------------------|--------|----|------|------|
| Mean_Operational | Male | 80 | 3.28 | 1.18 |
| | Female | 11 | 3.37 | 1.58 |
| | Total | 91 | 3.29 | 1.22 |
| Mean_Organizational | Male | 80 | 3.63 | 1.15 |
| | Female | 11 | 3.70 | 1.48 |
| | Total | 91 | 3.64 | 1.18 |
| Stress_Level | Male | 71 | 5.51 | 2.68 |
| | Female | 9 | 5.67 | 2.87 |
| | Total | 80 | 5.53 | 2.68 |

Table: 2
PSQ Stress Means, SD (Paired T-Test, $p < 0.01$)

| Stressors | N | Min | Max | Mean | SD |
|---------------------|----|------|------|------|------|
| Mean_Operational | 92 | 1.00 | 6.40 | 3.31 | 1.23 |
| Mean_Organizational | 92 | 1.00 | 6.85 | 3.65 | 1.18 |

Table 3.
Reported Stress Categories

| Stressor | Example |
|--|--|
| Workload | “Trying to complete overdue paperwork but unable to do so as a result of a lack of officers on the road. Having to take more files without having completed the previous investigations.” |
| Dealing with co-workers/ Change in work environment | “When co-workers aren't pulling their weight at work” “I received a position in a specialty section outside of patrol and that position was later eliminated, due to restructuring. I had already made plans for child care and my spouse's work schedule. This created a lot of stress for myself and my family”. |
| Management/administrative issues | “Apparent lack of understanding of some work units by management”. |
| Internal Investigations/Dealing with public issues/media | “Police Act complaint investigation for doing my job adds a great deal of stress. Knowing I did nothing wrong, but because the complainant files a formal complaint, it takes months to investigate plus in the meantime I have to wait which adds to stress.” Demands of providing information to multiple sources - public - media-social media via phones, email and social media as in-progress matter takes place in public area(s). |

Hypothesis 2. The second hypothesis stated that there will be a difference between men and women participants in identification of the most stressful sources as measured by PSQ-Op and PSQ-Org.

The descriptive analysis of four highest means for both genders showed that women report different stressors than men as most stressful from the operational source – women were more concerned with finding time to stay in good physical condition, not enough time spent with family and friends and eating healthy at work, while men were concerned with paperwork, traumatic events and occupation-related health issues, however the highest stressor for both genders in this category was fatigue (Table 4).

The stressors inherent in the organizational part of police work were almost the same for men and women. Excessive administrative duties were the main stressor for men, while it was second for women. Women rated staff shortages as the highest, but for men it was the fourth in the order (Table 4). However the differences were not statistically significant for either of the stressors.

Group Comparison Analysis (Coping and Gender)

Hypothesis 3. The third hypothesis stated that men and women will differ in the ways they cope with the stress as measured by Brief COPE Questionnaire (Carver et al, 1989, 1997). The means for Active Coping, Planning, Positive Reframing, Emotional Support, Instrumental Support, and Religion Coping were calculated for adaptive coping and means for Venting, Denial, Self-Distraction, and Substance Use comprised maladaptive coping. There was no statistically significant difference found between the two genders. See Table 5.

Table 4.

Most Stressful Sources by Gender

| Gender | Operational Stressor | Mean |
|--------|--|------|
| Men | Fatigue (e.g. shift work, over-time) | 4.16 |
| | Paperwork | 4.15 |
| | Traumatic events (e.g. MVA, domestics, death, injury) | 3.99 |
| | Occupation-related health issues (e.g. back pain) | 3.89 |
| Women | Fatigue (e.g. shift work, over-time) | 4.55 |
| | Finding time to stay in good physical condition | 4.00 |
| | Not enough time available to spend with friends and family | 3.91 |
| | Eating healthy at work | 3.91 |
| Gender | Organizational Stressor | Mean |
| Men | Excessive administrative duties | 4.53 |
| | Bureaucratic red tape | 4.45 |
| | Staff shortages | 4.43 |
| | Constant changes in policy / legislation | 4.28 |
| Women | Staff shortages | 5.00 |
| | Excessive administrative duties | 4.64 |
| | Lack of resources | 4.55 |
| | Bureaucratic red tape | 4.36 |

Table: 5

Adaptive and Maladaptive Coping Strategies by Gender

| Coping Strategies | Gender | N | Mean | SD |
|-------------------|--------|----|------|------|
| Adaptive | Male | 78 | 4.13 | 1.08 |
| | Female | 10 | 4.47 | 1.32 |
| | Total | 88 | 4.17 | 1.10 |
| Maladaptive | Male | 78 | 3.36 | .82 |
| | Female | 10 | 3.20 | 1.06 |
| | Total | 88 | 3.34 | .85 |

To examine the frequency of use of the coping strategies a post-hoc analysis was performed and coping mechanisms were explored by item. The results showed that coping methods were slightly different for men and women, however the only statistically significant difference was found for instrumental support (for example, seeking assistance, information, or advice about what to do) - women reported using that mechanism more often ($M=5.1$, $SD=1.6$) than men ($M=3.79$, $SD=1.62$) $p<0.03$ (Table 6).

Table: 6
Coping Strategies of Men and Women by Item

| Coping strategy | Male (N=78) | | Female (N=10) | |
|--------------------------|-------------|------|---------------|-------------|
| | Mean | SD | Mean | SD |
| Self-Distraction | 4.24 | 1.41 | 4.20 | 1.62 |
| Active Coping | 5.10 | 1.87 | 4.80 | 2.20 |
| Denial | 2.42 | 1.02 | 2.70 | 1.49 |
| Substance Use | 2.64 | 1.28 | 2.00 | 0.00 |
| Emotional Support | 3.79 | 1.54 | 4.60 | 1.71 |
| Instrumental Support | 3.79 | 1.62 | 5.10 | 1.60 |
| Behavioral Disengagement | 2.83 | 1.11 | 2.70 | 0.95 |
| Venting | 4.12 | 1.64 | 4.00 | 1.76 |
| Positive Reframing | 4.24 | 1.56 | 5.00 | 1.94 |
| Planning | 4.79 | 1.83 | 4.90 | 1.85 |
| Humor | 4.36 | 1.82 | 4.90 | 1.85 |
| Acceptance | 4.95 | 1.45 | 5.10 | 2.23 |
| Religion | 3.08 | 1.76 | 2.40 | 0.97 |

Correlational Analysis (Coping Patterns and Gender)

Hypothesis 4. The fourth hypothesis predicted that there will be different patterns of coping between men and women. To assess the patterns of coping of men and women adaptive and maladaptive coping strategies were correlated with stressors and stress level reported in the qualitative part of the survey (Appendix I).

The correlational analysis of both categories of occupational stress for both genders confirmed that there is a strong relationship between both organizational and operational stress and maladaptive coping for men ($r=0.476$, $p<0.01$) (Table 7), indicating that men used maladaptive coping, such as venting, denial, while dealing with any type of occupational stress. While for women the strongest correlation was found between operational stress and adaptive coping ($r=0.676$, $p<0.01$) (Table 8), indicating that women used adaptive coping, such as active coping, planning, etc., while dealing with the stressors coming from their active duties on the field. These results suggest that men and women used different approach when dealing with different sources of stress in their job.

Table: 7
Occupational Stress and Coping (Men)

| Variables | Correlation | Mean Operational | Mean Organizational | Adaptive | Maladaptive |
|------------------------|---------------------|---------------------|------------------------|----------|-------------|
| Mean Operational | Pearson Correlation | 1 | .725** | .167 | .476** |
| | Sig. (2-tailed) | | .000 | .143 | .000 |
| | N | 80 | 80 | 78 | 78 |
| Mean Organizational | Pearson Correlation | .725** | 1 | .188 | .506** |
| | Sig. (2-tailed) | .000 | | .100 | .000 |
| | N | 80 | 80 | 78 | 78 |
| Adaptive | Pearson Correlation | .167 | .188 | 1 | .307** |
| | Sig. (2-tailed) | .143 | .100 | | .006 |
| | N | 78 | 78 | 78 | 78 |
| Maladaptive | Pearson Correlation | .476** | .506** | .307** | 1 |
| | Sig. (2-tailed) | .000 | .000 | .006 | |
| | N | 78 | 78 | 78 | 78 |

** . Correlation is significant at the 0.01 level (2-tailed).

Table: 8
Occupational Stress and Coping (Women)

| Variables | Correlation | Mean Operational | Mean Organizational | Adaptive | Maladaptive |
|------------------------|---------------------|---------------------|------------------------|----------|-------------|
| Mean Operational | Pearson Correlation | 1 | .892** | .676* | .603 |
| | Sig. (2-tailed) | | .000 | .032 | .065 |
| | N | 11 | 11 | 10 | 10 |
| Mean Organizational | Pearson Correlation | .892** | 1 | .564 | .499 |
| | Sig. (2-tailed) | .000 | | .089 | .142 |
| | N | 11 | 11 | 10 | 10 |
| Adaptive | Pearson Correlation | .676* | .564 | 1 | .789** |
| | Sig. (2-tailed) | .032 | .089 | | .007 |
| | N | 10 | 10 | 10 | 10 |
| Maladaptive | Pearson Correlation | .603 | .499 | .789** | 1 |
| | Sig. (2-tailed) | .065 | .142 | .007 | |
| | N | 10 | 10 | 10 | 10 |

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

The correlational matrix revealed that stress level was significantly correlated with maladaptive coping for men ($r = .47$, $p < 0.001$), indicating that men used avoidance, denial, venting as the stress levels increased (Appendix C). On the contrary the stress level was significantly correlated with adaptive coping for women ($r = .78$, $p < 0.02$) (Appendix D), suggesting that the higher the stress levels the more women looked for adaptive coping strategies (e.g., instrumental support, accepted the facts as they were, or took action to change the situation). However there was also a strong evidence that women used maladaptive strategies (avoidance, venting, denial) when dealing with workload ($r = .98$, $p < 0.02$). No significant relationship was found between styles of coping with other reported stress categories (Appendix C, D).

Overall these results indicate that there were different patterns of coping between men and women in this sample.

Group Comparison Analysis (Occupational Stress and Years of Service)

Hypothesis 5. The fifth hypothesis predicted that officers with 10 or less years of experience will report more stress than officers with more than 11 years of experience. There was no significant difference between either of the stressors and stress levels (Table 9).

Table: 9
Occupational Stress by Years of Service

| Variables | Years of Service | N | Mean | SD |
|---------------------|------------------|----|------|------|
| Mean_Operational | 10 and less | 25 | 3.44 | 1.23 |
| | 11 and more | 67 | 3.26 | 1.23 |
| | Total | 92 | 3.31 | 1.23 |
| Mean_Organizational | 10 and less | 25 | 3.46 | .96 |
| | 11 and more | 67 | 3.72 | 1.25 |
| | Total | 92 | 3.65 | 1.18 |
| Stress_Level | 10 and less | 22 | 5.45 | 2.34 |
| | 11 and more | 59 | 5.54 | 2.79 |
| | Total | 81 | 5.52 | 2.67 |

Chapter V. Discussion

The purpose of this study was to investigate the occupational stress of police officers of a Police department in a large city in Western Canada; to research the differences of stressful experiences for men and women officers; to compare the coping patterns and strategies men and women used to deal with stress; and to see if the years of experience made a difference in experiencing stress.

The occupational stress was measured by two scales measuring stressors, originating from operational and organizational parts of police job. Most items on these scales were rated moderately stressful - the average stress ratings were $M=3.31$ ($SD=1.23$) for operational (PSQ-Op) and $M= 3.65$ ($SD=1.18$) for organizational (PSQ-Org) stresses (Table 2). Paired samples T-test was performed to compare these two means and determined that there was a significant difference between the two sources of stress. Indeed, the officers rated stressors associated with organization and administrative issues higher than the ones deriving from active duty work environment. These numbers echo with the means for PSQ-Op and PSQ-Org and this result is consistent with findings of the study that examined Ontario police officers aiming to test the initial reliability and construct validity of the PSQ-Op and PSQ-Org (McCreary & Thompson, 2006).

Open-ended questions in the current study (see appendix H) corroborated these findings and provided a deeper insight on kinds of stresses that officers experienced. Open-ended questions gave the officers an opportunity to bring up other issues that were possibly not captured by the survey. From the analysis of self-reported stressors it can be seen that the majority of reported stressors were also associated with issues coming from organizational/administrative part of their job (Table 3, p.35).

Shane (2008) surveyed police officers from two large urban police agencies and studied how perceived organizational stress impacted performance. One of the findings of this research was that police organizations continue to be a source of stress for officers greater than police operations and these results are no different for the two cities that he studied. A number of other studies also reported similar results and recognized organizational stress as a greater source of strain in police work (Anshel, 2000, Carlan & Nored, 2008, Patterson, 2002). The present findings are consistent with these results.

However Prasad's (2012) study found no difference between the two categories of stress sources, in contrast to the findings of the current study (Prasad, 2012). This contradiction may possibly be attributed to the fact that the PSQ-Op and PSQ-Org scales were developed specifically for police work, and, even though the work conditions for both populations are quite similar and many issues and stressors are the same, the scales might not have captured all the details that border service officers have to deal with during their work. Hence it is possible that it did not reflect the complete picture of stress for border service officers.

The higher levels of stress from organizational sources can possibly be attributed to the fact that the officers, both men and women, enter this profession with certain knowledge and awareness of the operational environment of their future job, thus being mentally prepared for upcoming events on their active duty. It is also possible that the training the recruits are getting puts heavier emphasis on skills, relevant to the field work, such as use of firearms, drills, investigation and patrol techniques for example, more so that the skills necessary to deal with structural and organizational part of police job (Police Academy program, JIBC). This potentially makes the officers more prepared for the field work; therefore they acquire better ability to handle stress deriving from active duties/field work, than organizational stress.

Group Comparison (Occupational Stress and Gender)

Hypothesis 1. To test the first hypothesis the means for organizational and operational stress were compared to each other by performing the ANOVA analysis by gender. It was predicted that men and women police officers will report similar stressors as measured by PSQ-Op and PSQ-Org. There were no significant differences in average stress ratings by men and women for organizational and operational stressors. See Table 1.

Additionally the officers were asked to rate the level of stress they have experienced within past 3 months. Both men and women reported moderate levels of stress on the scale of 1 to 10, where 1 was no stress at all. See Table 1.

The results of the current research match those observed in the study by Morash and Haar (1995), where the authors looked at the gender, workplace problems, and occupational stress in policing. The findings showed that despite having a different set of stressors from men in that sample women did not report higher levels of stress. This research is also supported by a study, conducted in Canada, where no statistically significant difference was found between genders in the relationship between work-family conflict and psychological distress (Jantzen et al, 2007). Similarly no gender difference in psychological strain was found in the study of gender variations of physiological and psychological strain amongst police officers by Gachter, Savage and Torgler (2011).

A number of studies reported mixed results about stress and gender differences that do not match the findings of the current study. For example one of the overall findings of the study of interactive effect of race and gender in a multi-dimensional assessment of police occupational stress was that female officers had higher levels of stress than male officers (He, Zhao & Ren, 2005). On contrary Norvell, Hills and Murrin (1993) in their study of stress in female and male

law enforcement officers found that in their sample male officers experienced greater degree of perceived stress, emotional exhaustion and greater dissatisfaction with their work than females did. These inconsistencies could be explained by the number of possible reasons, including the culture and style of work in organization, interactions between stress, race and gender (He, Zhao & Ren, 2005), and differences in sample's demographics – for example, women in the sample, who experienced less stress were in their early stages of the career, possibly did not have many negative experiences yet, hence remained optimistic about their work and future career developments (Norvell, Hills & Murrin, 1993).

Hypothesis 2. The second hypothesis stated that men and women will identify different stressors as the most stressful ones. While there were no significant differences, qualitatively the order of intensity was different for men and women. See Table 4. For example in the operational stress category even though fatigue was reported as the most stressful by both men and women, men reported paperwork as the second highest stressor, while for women the second highest stressor was finding time to stay in good physical condition. The third highest for men was traumatic events (e.g. MVA, domestics, death, injury) and women rated not enough time available to spend with friends and family as third. And finally the fourth highest stressor in operational category for men was occupation-related health issues (e.g. back pain), and for women it was eating healthy at work. It appears that women were concerned with issues of physical and mental health, while men included traumatic events and paperwork in their highest stressors, though occupation-related health issues was a concern for them as well. This may be a new contribution to the existing literature.

In the qualitative part of the survey asking participants to share their stressful experience women shared stressful experiences in three categories: workload (36.4%), management/

administration issues (27.3%) and dealing with co-workers/change in work environment (18,2%). Men reported the stress in four categories: workload (23.8%), dealing with co-workers/change in work environment (21.2%), management/administrative issues (31.2%) and internal investigations/dealing with public (media/image) (20.0%). None of the women reported stress from internal investigations or dealing with public issues. This may be due to more men being asked to perform duties in the media.

It has been reported previously in the literature that there is evidence that women police officers have an additional source of stress at work. Thompspon, Kirk and Brown (2006) for example found that women in their sample of 421 Australian female police officers experience a set of interpersonal stressors, such as lack of support from colleagues, gender discrimination, sexual harassment, interpersonal conflict, and lack of confidentiality. Similarly, McCarty, Zhao and Garland (2007) in their study of different levels of occupational stress and burnout between male and female police officers outlined the sources of additional stress for women that include hostile work environment, irregular working hours, unfair hiring practices, discrimination, and the lack of social support from male colleagues. These findings are supported by the number of other studies as well (Brown & Fielding, 1993; Burke & Mikkelsen, 2005; Goto & Haney, 2009). However that additional source of stress for women did not emerge in the current research, none of the women reported such experiences. It appears that women in this sample did not encounter such stressors.

Taken together these results suggest that potentially there might be a difference in experiencing stress for men and women in police as indicated in the number of studies (Brown et al, 1993; Burke & Mikkelsen, 2005; Goto, 2006; Morash & Haar, 1995). The lack of significance in our study could possibly be explained by the small number of women in the sample. There

were only 11 women participants. It is quite possible that if the number of female participants would be larger, the effect would be stronger and the differences would emerge statistically.

Further research is recommended in this area.

Group Comparison Analysis (Coping and Gender)

Hypothesis 3. Third hypothesis was concerned with the ways of coping with stress and it was predicted that men and women will differ in that aspect. The results (Table 5) showed that there was no statistically significant difference between the two genders, which coincides with the findings reported earlier in the literature, such as study of middle-aged community sample, conducted by Folkman and Lazarus (1980). In their sample men and women differed very little in use of coping strategies. There was no gender differences found in emotion-focused coping, but men used more problem-focused coping only at work and in situations as requiring acceptance and more information, Moreover the authors argued that the difference in problem-focused coping at work can be attributed to the nature of work. Possibly men were required to engage in problem-solving processes in job more often than women.

The similarity of coping of the both genders was also observed in the study of the prevalence of PTSD symptoms in RCMP (Goto & Haney, 2009). There was no statistically significant difference found in Adaptive and Maladaptive coping between men and women; in this sample both genders tended to use more of maladaptive coping mechanisms, such as working for distraction (behavioral disengagement).

It is worth noting that in the current study the means for Adaptive coping were slightly higher for women, than for men; similarly means for Maladaptive coping were slightly higher for men, than for women (Table 5, p.38), potentially indicating different trends for men and women. Specifically women used instrumental support more often than men.

Correlational Analysis (Coping Patterns and Gender)

Hypothesis 4. It was expected that there will be different patterns of coping between men and women police officers. This study looked at the relationship between self-reported stress level, reported sources of stress by correlating them with the coping styles, which included adaptive and maladaptive coping. The goal was to determine which coping styles were used by men and women police officers with relation to the variables (Tables 7-8).

The correlational analysis showed strong correlations between maladaptive coping and both operational and organizational stress for men, meaning that male police officers used maladaptive coping when experiencing any type of occupational stress (Table 7).

There was also a strong correlation between stress level and maladaptive coping strategies for men (Appendix C). It appears men used behavioral disengagement, substance use, venting and denial, while dealing with occupational stress they experienced within last 3 months (Appendix C).

For women there was a strong correlation between operational stress and adaptive styles of coping (Table 8). The reported stress level was correlated with adaptive coping, suggesting that the higher the stress levels the more women looked for adaptive coping strategies (e.g., instrumental support, accepted the facts as they were, or took action to change the situation). However when dealing with workload maladaptive coping was related to venting their emotions, distracting themselves mentally or denying the stressor when dealing with excessive paperwork, shortage of staff and having to take up more work for women (see Appendix D).

Considering all the findings discussed above it appears the patterns of coping were different for men and women.

The two studies that used methods, similar to the ones used in current study, reported mixed results. The patterns emerged in the present study are similar to the ones found in the study of Border Service Officers by Prasad (2012). That study analyzed the relationships between coping styles and sources of stress of 46 male and 35 female border service officers and found gender differences in regards to coping. For male officers disengagement coping (maladaptive) was correlated with both operational and organizational stress. On contrary, for females engagement (adaptive) coping was correlated with both operational and organizational stress (Prasad, 2012).

Goto (2006) found that both men and women in her sample used disengagement (maladaptive) coping strategies (substance use, venting emotions, mentally disengaging). It was argued that mental and behavioral disengagement and denial were some of the maladaptive coping mechanisms, that law enforcement officers reported to use (Haisch & Meyers, 2004). It is possible however that, to perform the task at hand and carry on their duties, police officers sometimes are required to disengage themselves from their emotions and reactions. And what seems to be a maladaptive coping strategy perhaps it is adaptive coping, if it helps to enhance coping and functionality (Goto, 2006).

Group Comparison Analysis (Occupational Stress and Years of Service)

Hypothesis 5. We were interested to see if the years of service played role in experiencing stress. There were 25 officers with 10 or less years of experience and 67 officers with 11 and more years of service. No difference was found between more and less experienced police officers (Table 9). Previously some studies reported that the highest stress levels were experienced in the first 5 years of service (Daniello, 2000) or in intermediate career stage of 6-15 years of service (Burke, 1989). It has been suggested that the during their career development the officers

develop better coping abilities and perhaps their perception of stress changes in a way, that they feel less stressed out at work. Another possible explanation of the effect discussed in the studies is that the police officers experiencing high levels of stress on the job possibly ended their career earlier, thus resulting in the population of experienced police officers who are better at handling occupational stress with well-developed coping mechanisms.

Contrary to these findings another study reported the opposite results. Zakar (2004) reported that younger officers had less stress, than those with more years of experience in his sample. The author explained that by the limited coping abilities, as officers tend to use less coping strategies with the age, relying on those mechanisms that worked before, even though they might not be so effective any longer. It was also found that younger officers rely more on recreation, self-care and social support, therefore their coping abilities are more effective (Zachar, 2004).

Given the inconsistencies in findings, including the current study, and a number of possible factors playing role in experiencing stress at the different stages of careers in law enforcement, a study with the focus on coping strategies of police officers at the various stages of career can be recommended. Perhaps a closer look at the perception of stress and its levels, specific coping strategies, including adaptive and maladaptive coping, and correlations of those variables with years of service will reveal a better picture of stress and coping during the career of law enforcement employee.

Limitations of the Study

A limitation of the study is the small number of women-participants. It is possible if more women participated in the study, more variability would emerge in the data and there may have been clearer differences seen between the genders.

Implications for Counselling and Future Research

The findings in this study enhance our understanding of stress and coping in law enforcement and gender differences in coping with stress. This can contribute to the further work on prevention of occupational stress of police officers. Even though statistically there was no difference in experiencing occupational stress between men and women, the entire sample reported having more stress from organizational part of their job, for example dealing with co-workers, change in work environment, internal investigations, etc. Therefore in practical terms this might be an important point to address in counseling the police officers and while developing the stress management programs for law enforcement.

A finding of different patterns of coping for men and women suggest the development of counselling strategies focused on offering the alternative coping strategies in situations where maladaptive coping prevails.

In general, the findings in descriptive analysis suggest there might be trending differences in experiencing stress and ways of coping between men and women. Future research may want to investigate it further using coping questions in the form of a short structured interview. It is also hoped that the future research will include a larger number of women in the sample.

References

- Anshel, M.H. (2000). A conceptual model and implications for coping with stressful events in police work. *Criminal Justice and Behavior*. 27(3), 375-400.
- Baker, D.B. (1985). The study of stress at work. *Annual Review of Public Health*, 6, 367-381.
- Balkin, J. (1988). Why policemen don't like policewomen. *Journal of Police Science and Administration*, 16, 29-38.
- Ben-Zur, H., & Zeidner, M. (1996). Gender differences in coping reactions under community crisis and daily routine conditions. *Personality and Individual Differences*. 20(3), 331-340.
- Brems, C., & Johnson, M. (1989). Problem-solving appraisal and coping style: The influence of sex-role orientation and gender. *The Journal of Psychology: Interdisciplinary and Applied*, 123, 187-194.
- Brown, J., Fielding, J., & Grover, J. (1999). Distinguishing traumatic, vicarious and routine operational stressor exposure and attendant adverse consequences in a sample of police officers. *Work and Stress*, 13(4), 312-325.
- Bryman, A., Teevan, J.J., & Bell, E. (2009). *Social research methods*. OUP Oxford.
- Burke, R. (1989). Career stages, satisfaction and well-being among police officers. *Psychological Reports*, 65, 3-12
- Burke, R. (1993). Work-family stress, conflict, coping and burnout in police officers. *Stress Medicine*, 9(3), 171-180.

Burke, R.J., & Mikkelsen, A. (2005). Gender issues in policing: Do they matter? *Women In Management Review*, 20(2), 133-143.

Carlan, P. E., & Nored, L. S. (2008). An examination of officer stress: Should police departments implement mandatory counseling? *Journal of Police And Criminal Psychology*, 23(1), 8-15.

Carver, C.S. (1997). You want to measure Coping but your protocol's too long: consider Brief Cope. *International Journal of Behavioral Medicine*. 4(1), 91-100.

Carver, C.S., Scheier, M.F., & Weintraub, J.K. (1989). Assessing coping strategies: a theoretically based approach. *Journal of Personality and Social Psychology*, 36(2), 267-283.

Cooper, C., & Payne, R. (1994). *Causes, coping and consequences of stress at work*. Oxford England: John Wiley & Sons.

Corelli, R., & MacAndrew, B. (1994). Booze and the badge. *Maclean's*, 107(13), 52-56.

Daniello, R. J. (2000). *Police officer perceived stress and police officer length of service*. (Order No. 9961017, Nova Southeastern University). *ProQuest Dissertations and Theses*, , 270-270 p. Retrieved from <http://search.proquest.com.ezproxy.library.ubc.ca/docview/304678103?accountid=14656>. (304678103).

Folkman, S., & Lazarus, R.S. (1980). An analysis of coping in a middle-aged community sample. *Journal of Health and Social Behavior*, 21(3), 219-239.

Gächter, M., Savage, D.A., Torgler, B. (2011). Gender variations of physiological and psychological strain amongst police officers. *Gender Issues*, 28(1-2), 66-93.

Garcia, L., Nesbary, D.K., Gu, J. (2004). Perceptual variations of stressors among police officers during an era of decreasing crime. *Journal of Contemporary Criminal Justice*, 20(1), 33-50.

Goto, C., & Haney, C.J. (2009). PTSD and stressful events in police officers. (Master's Thesis).

Haarr, R.N., & Morash, M. (1999). Gender, race, and strategies of coping with occupational stress in policing. *Justice Quarterly*, 16(2), 303-336.

Haisch, D. C., & Meyers, L. S. (2004). MMPI-2 assessed post-traumatic stress disorder related to job stress, coping, and personality in police agencies. *Stress And Health: Journal Of The International Society For The Investigation Of Stress*, 20(4), 223-229.
doi:10.1002/smi.1020

Hart, P. M., Wearing, A. J., & Headey, B. (1994). Perceived quality of life, personality, and work experiences: Construct validation of the Police Daily Hassles and Uplifts Scales. *Criminal Justice and Behavior*, 21(3), 283-311.

He, N., Zhao, J., & Archbold, C. (2002). Gender and police stress: The convergent and divergent impact of work environment, work-family conflict, and stress coping mechanisms of female and male police officers. *Policing: An International Journal of Police Strategies & Management*, 25(4), 687-708.

He, N., Zhao, J., & Ren, L. (2005). Do race and gender matter in police stress? A preliminary assessment of the interactive effects. *Journal of Criminal Justice*, 33(6), 535-547.

Heiman, H.M. (1977). Suicide among police. *American Journal of Psychiatry*, 134, 1286-1290.

Heppner, P.P., Reeder, B.L., & Larson, L., M., (1983). Cognitive variables associated with personal problem-solving appraisal: Implications for counselling. *Journal of Counseling Psychology*, 30, 537-45.

Ivancevich, J. M., & Matteson, M. T. (1984). A Type A-B person–work environment interaction model for examining occupational stress and consequences. *Human Relations*, 37(7), 491-513. doi:10.1177/001872678403700701

Janzen, B. L., Muhajarine, N., & Kelly, I. W. (2007). Work-family conflict, and psychological distress in men and women among Canadian police officers. *Psychological Reports*, 100(2), 556-562. doi:10.2466/PRO.100.2.556-562

Karasek, R. A. (1979). Job Demands, Job Decision Latitude, and Mental Strain: Implications for Job Redesign. *Administrative Science Quarterly*. 24 (2), 285-308.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York, NY: Springer.

Lipinska-Grobelny, A. (2011). Effects of gender roles on personal resources and coping with stress. *International Journal of Occupational Medicine and Environmental Health*, 24(1), 18-28.

Loo, R. (1994). Burnout among Canadian police managers. *The International Journal Of Organizational Analysis*, 2(4), 406-417. doi:10.1108/eb028818

Martin, S.E. (1980). *On the move: The status of women on policing*. The Police Foundation, Washington, DC.

McCarty, W.P., Zhao, J., & Garland, B.E. (2007). Occupational stress and burnout between male and female police officers: Are there any differences? *Policing: An International Journal of Police Strategies and Management*, 30(4), 672-691.

McCreary, D. R., & Thompson, M. M. (2006). Development of two reliable and valid measures of stressors in policing: The operational and organizational police stress questionnaires. *International Journal of Stress Management*, 13(4), 494-518.

Morash, M., & Haarr, R. (1995). Gender, workplace problems and stress in policing. *Justice Quarterly*, 12(1), 113-140.

Norvell, N. K., Hills, H. A., & Murrin, M. R. (1993). Understanding stress in female and male law enforcement. *Psychology of Women Quarterly*, 17(3), 289-301.

O'Leary, Z. (2004). *The essential guide to doing research*. London: Sage.

Patterson, G. T. (2002). Development of a law enforcement stress and coping questionnaire. *Psychological Reports*, 90(3,Pt1), 789-799. doi:10.2466/PR0.90.3.789-799

Prasad, L.R. (2012). Behind the front line stressors and coping in border service officers. (Master's thesis) Retrieved from ProQuest Digital Dissertations.

Reiser, M., & Geiger, S. P. (1984). Police officer as victim. *Professional Psychology: Research and Practice*, 15(3), 315-323.

Roberts, N. A., & Levenson, R. W. (2001). The remains of the workday: Impact of job stress and exhaustion on marital interaction in police couples. *Journal of Marriage & Family*, 63(4), 1052.

Ross, R., & Altmaier, E. (1994). *Intervention in occupational stress: A handbook of counselling for stress at work*. Thousand Oaks, CA US: Sage Publications, Inc.

Shane, J.M. (2010). Organizational stressors and police performance. *Journal of Criminal Justice*, 38(4), 807-818.

Stearns, G. M., Moore, R. J. (1993). The physical and psychological correlates of job burnout in the Royal Canadian Mounted Police. *Canadian Journal Of*

Criminology, 35(2), 127-147

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

Thompson, B. M., Kirk, A., & Brown, D. (2006). Sources of stress in policewomen: A three-factor model. *International Journal of Stress Management*, 13(3), 309-328.

Violanti, J. M., & Aron, F. (1994). Ranking police stressors. *Psychological Reports*, 75(2), 824.

Violanti, J. M., & Aron, F. (1995). Police stressors: Variations in perception among police personnel. *Journal of Criminal Justice*, 23(3), 287.

Volpicelli, J., Balaraman, G., Hahn, J., Wallace, H., & Bux, D. (1999). The role of uncontrollable trauma in the development of PTSD and alcohol addiction. *Alcohol Research & Health*, 23(4), 256-262.

Zachar, G. W. (2004). *Assessing the association between age, years of service and stress within the law enforcement community: A pilot study*. (Order No. 3136151, Adler School of Professional Psychology). *ProQuest Dissertations and Theses*, , 95-95 p.

Appendix A
Demographics

Table A1.
Demographics

| Variable | | N | Percent |
|-------------------------|---------------------------|----------|----------------|
| Age | 39 and younger | 29 | 31.5 |
| | 40 and up | 63 | 68.5 |
| Gender | Male | 80 | 87.0 |
| | Female | 11 | 12.0 |
| Ethnic | Caucasian | 81 | 88.0 |
| | Other | 9 | 9.8 |
| Marital | Single | 5 | 5.4 |
| | Separated | 5 | 5.4 |
| | Common-law | 6 | 6.5 |
| | Married | 74 | 80.4 |
| | Other | 1 | 1.1 |
| Education | High School or equivalent | 2 | 2.2 |
| | Some post-secondary | 44 | 47.8 |
| | Bachelors or equivalent | 36 | 39.1 |
| | Some graduate school | 4 | 4.3 |
| | Graduate school or higher | 6 | 6.5 |
| Years Of Service | 10 years and less | 25 | 27.2 |
| | 11 years and more | 67 | 72.8 |
| Rank | Const | 57 | 62.0 |
| | Sgt | 17 | 18.5 |
| | Other | 12 | 13.1 |

Appendix B

Most Frequently Used Coping Strategies by Gender

Table B1.

The most frequently used coping strategies per item by gender

| Male (N=78) | M | SD |
|--------------------------|------|------|
| Active Coping | 5.10 | 1.87 |
| Acceptance | 4.95 | 1.45 |
| Planning | 4.79 | 1.83 |
| Humor | 4.36 | 1.82 |
| Behavioral Disengagement | 2.83 | 1.11 |
| Substance Use | 2.64 | 1.28 |
| Denial | 2.42 | 1.02 |
| Female (N=10) | | |
| Acceptance | 5.10 | 2.23 |
| Instrumental Support | 5.10 | 1.60 |
| Positive Reframing | 5.00 | 1.94 |
| Planning | 4.90 | 1.85 |
| Denial | 2.70 | 1.49 |
| Behavioral Disengagement | 2.70 | 0.95 |
| Religion | 2.40 | 0.97 |
| Substance Use | 2.00 | 0.00 |

Appendix C Correlational Matrix (Men)

Table C1.
Correlations of Coping strategies and stressors (men)

| | | Adaptive | Maladaptive | Stress_Level | Workload | Dealing with coworkers/Change in work environment | Management- Administrative issues | Internal Investigation/Deal ing with public image/media |
|---|---------------------|----------|-------------|--------------|----------------|--|---|--|
| Adaptive | Pearson Correlation | 1 | .307** | .218 | -.265 | .423 | -.185 | -.271 |
| | Sig. (2-tailed) | | .006 | .067 | .273 | .091 | .375 | .311 |
| | N | 78 | 78 | 71 | 19 | 17 | 25 | 16 |
| Maladaptive | Pearson Correlation | .307** | 1 | .473** | -.138 | -.028 | -.315 | .410 |
| | Sig. (2-tailed) | .006 | | .000 | .574 | .915 | .125 | .115 |
| | N | 78 | 78 | 71 | 19 | 17 | 25 | 16 |
| Stress_Level | Pearson Correlation | .218 | .473** | 1 | -.251 | -.263 | -.025 | .201 |
| | Sig. (2-tailed) | .067 | .000 | | .316 | .308 | .907 | .455 |
| | N | 71 | 71 | 71 | 18 | 17 | 25 | 16 |
| Workload | Pearson Correlation | -.265 | -.138 | -.251 | 1 | . ^a | .535 | . ^a |
| | Sig. (2-tailed) | .273 | .574 | .316 | | . | .353 | . |
| | N | 19 | 19 | 18 | 19 | 1 | 5 | 1 |
| Dealing with coworkers/Change in work environment | Pearson Correlation | .423 | -.028 | -.263 | . ^a | 1 | . ^a | . ^a |
| | Sig. (2-tailed) | .091 | .915 | .308 | . | | .000 | . |
| | N | 17 | 17 | 17 | 1 | 17 | 3 | 2 |
| Management-Administrative issues | Pearson Correlation | -.185 | -.315 | -.025 | .535 | . ^a | 1 | . ^a |
| | Sig. (2-tailed) | .375 | .125 | .907 | .353 | .000 | | .000 |
| | N | 25 | 25 | 25 | 5 | 3 | 25 | 6 |
| Internal Investigation/Dealing with public image/media | Pearson Correlation | -.271 | .410 | .201 | . ^a | . ^a | . ^a | 1 |
| | Sig. (2-tailed) | .311 | .115 | .455 | . | . | .000 | |
| | N | 16 | 16 | 16 | 1 | 2 | 6 | 16 |

** . Correlation is significant at the 0.01 level (2-tailed).

a. Cannot be computed because at least one of the variables is constant.

Appendix D
Correlational Matrix for (Women)

Table D1.
Correlations of Coping strategies and stressors (women)

| | | Adaptive | Maladaptive | Stress_Level | Workload | Dealing with coworkers/Change in work environment | Management- Administrative issues | Internal Investigation/Deal ing with public image/media |
|---|---------------------|----------------|----------------|----------------|----------------|--|---|--|
| Adaptive | Pearson Correlation | 1 | .789** | .775* | .551 | 1.000** | -.610 | . ^a |
| | Sig. (2-tailed) | | .007 | .024 | .449 | . | .582 | . |
| | N | 10 | 10 | 8 | 4 | 2 | 3 | 1 |
| Maladaptive | Pearson Correlation | .789** | 1 | .687 | .978* | 1.000** | -.929 | . ^a |
| | Sig. (2-tailed) | .007 | | .060 | .022 | . | .242 | . |
| | N | 10 | 10 | 8 | 4 | 2 | 3 | 1 |
| Stress_Level | Pearson Correlation | .775* | .687 | 1 | -.141 | 1.000** | -.189 | . ^a |
| | Sig. (2-tailed) | .024 | .060 | | .859 | . | .879 | . |
| | N | 8 | 8 | 9 | 4 | 2 | 3 | 1 |
| Workload | Pearson Correlation | .551 | .978* | -.141 | 1 | . ^a | . ^a | . ^a |
| | Sig. (2-tailed) | .449 | .022 | .859 | | . | . | . |
| | N | 4 | 4 | 4 | 4 | 0 | 2 | 1 |
| Dealing with coworkers/Change in work environment | Pearson Correlation | 1.000** | 1.000** | 1.000** | . ^a | 1 | . ^a | . ^a |
| | Sig. (2-tailed) | . | . | . | . | | . | . |
| | N | 2 | 2 | 2 | 0 | 2 | 1 | 0 |
| Management-Administrative issues | Pearson Correlation | -.610 | -.929 | -.189 | . ^a | . ^a | 1 | . ^a |
| | Sig. (2-tailed) | .582 | .242 | .879 | . | . | | . |
| | N | 3 | 3 | 3 | 2 | 1 | 3 | 0 |
| Internal Investigation/Dealing with public image/media | Pearson Correlation | . ^a | . ^a | . ^a | . ^a | . ^a | . ^a | . ^a |
| | Sig. (2-tailed) | . | . | . | . | . | . | . |
| | N | 1 | 1 | 1 | 1 | 0 | 0 | 1 |

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

a. Cannot be computed because at least one of the variables is constant

Appendix E

Cover Letter



a place of mind
THE UNIVERSITY OF BRITISH COLUMBIA

Faculty of Education

**Department of Educational and Counselling
Psychology, and Special Education**
2125 Main Mall
Vancouver, BC Canada V6T 1Z4

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Dear Research Participant!

We are asking you to complete this anonymous survey package to help explore occupational stress in Law Enforcement.

The purpose of this study is to identify stresses experienced by police officers in their daily duties and coping strategies they use to cope with those stressors. This is an opportunity for you to share your experiences as police officers working on frontlines and contribute to the research on psychological health and well-being of the police officers.

It is expected that the survey package will take approximately 30-40 minutes to complete. Please do not put your name on any of the surveys to insure your anonymity. The University of British Columbia (UBC) researchers will collect sealed survey packages and no individual information will be disclosed to anyone. The only people that will have an access to the information will be the research team at UBC.

All information resulting from this study will be kept strictly confidential. Documents will be identified by code number and kept in locked filing cabinet once they have been collected. No participant will be identified during the research and in any reports of the completed study.

If you have any questions about the study you may contact Dr. Colleen Haney in the Department of Education and Counselling Psychology at UBC (604-822-4639) or Irina Della-Rossa, Master's student researcher in the Department of Education and Counselling Psychology at UBC (778-320-7953). If you have any concerns about your treatment or rights as a research participant you may contact the Research Subject Information Line in the UBC Office of Research Services at 604-822-8598.

You may refuse to participate in this study at any time. If you complete the survey it is assumed that consent for participation has been given. After you complete the survey package please put it back into envelop provided, seal and placed in the box marked "UBC Study" which will be placed in the mailroom at your work location. You can also hand your responses directly to Irina Della-Rossa, Master's student researcher in the Department of Education and Counselling Psychology at UBC.

Sincerely

Dr. Colleen Haney

Irina Della-Rossa

Appendix F

Participant Instruction Sheet

This study aims to explore occupational stress of police officers and their coping strategies.

In this envelope you will find:

- Cover letter
- Operational Police Stress Questionnaire
- Organizational Police Stress Questionnaire
- Open-ended Question
- COPE Inventory
- Demographic Questionnaire

1. Please read the cover letter before completing the questionnaires.
2. Please fill out the questionnaires as completely as possible.
3. Once completed please place all the documents back in the original envelope and seal it.
4. Once the envelope has been sealed please place it in the box marked “UBC study”
located in the mailroom at your work location.
5. If you prefer to hand the envelope directly to the research team please contact Irina Della-Rossa, UBC researcher (778-320-7953).

Appendix G

Operational Police Stress Questionnaire

Below is a list of items that describe different aspects of being a police officer. After each item, please circle how much stress it has caused you over the past 6 months, using a 7-point scale (see below) that ranges from “No Stress At All” to “A Lot Of Stress”:

| No Stress At All | | Moderate Stress | | | A Lot Of Stress | |
|---------------------|---|-----------------|---|---|--------------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

| | | | | | | | | |
|----|--|---|---|---|---|---|---|---|
| 1 | Shift work | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2 | Working alone at night | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3 | Over-time demands | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4 | Risk of being injured on the job | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5 | Work related activities on days off (e.g. court, community events) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6 | Traumatic events (e.g. MVA, domestics, death, injury) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7 | Managing your social life outside of work | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | Not enough time available to spend with friends and family | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9 | Paperwork | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10 | Eating healthy at work | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11 | Finding time to stay in good physical condition | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12 | Fatigue (e.g. shift work, over-time) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 13 | Occupation-related health issues (e.g. back pain) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 14 | Lack of understanding from family and friends about your work | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 15 | Making friends outside the job | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 16 | Upholding a "higher image" in public | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 17 | Negative comments from the public | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 18 | Limitations to your social life (e.g. who your friends are, where you socialize) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 19 | Feeling like you are always on the job | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 20 | Friends / family feel the effects of the stigma associated with your job | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Appendix H

Organizational Police Stress Questionnaire

Below is a list of items that describe different aspects of being a police officer. After each item, please circle how much stress it has caused you over the past 6 months, using a 7-point scale (see below) that ranges from “No Stress At All” to “A Lot Of Stress”:

| No Stress At All | | Moderate Stress | | | A Lot Of Stress | | |
|---------------------|---|-----------------|---|---|--------------------|---|--|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |

| | | | | | | | | |
|----|---|---|---|---|---|---|---|---|
| 1 | Dealing with co-workers | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2 | The feeling that different rules apply to different people (e.g. favouritism) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3 | Feeling like you always have to prove yourself to the organization | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4 | Excessive administrative duties | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5 | Constant changes in policy / legislation | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6 | Staff shortages | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7 | Bureaucratic red tape | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | Too much computer work | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9 | Lack of training on new equipment | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10 | Perceived pressure to volunteer free time | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11 | Dealing with supervisors | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12 | Inconsistent leadership style | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 13 | Lack of resources | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 14 | Unequal sharing of work responsibilities | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 15 | If you are sick or injured your co-workers seem to look down on you | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 16 | Leaders over-emphasize the negatives (e.g. supervisor evaluations, public complaints) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 17 | Internal investigations | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 18 | Dealing the court system | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 19 | The need to be accountable for doing your job | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 20 | Inadequate equipment | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Can you comment on a time when you felt stressed about work in past 3 months? What was the stressor?

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

1 2 3 4 5 6 7 8 9 10

Appendix J

Brief COPE Inventory

| Please check off all the items below that you used to deal with the stressful event you have identified. | I haven't been doing this at all | I've been doing this a little bit | I've been doing this a medium | I've been doing this a lot |
|--|----------------------------------|-----------------------------------|-------------------------------|----------------------------|
| 1. I've been turning to work or other activities to take my mind off things. | | | | |
| 2. I've been concentrating on doing something about the situation I'm in. | | | | |
| 3. I've been saying to myself "this isn't real." | | | | |
| 4. I've been using alcohol or other drugs to make myself feel better. | | | | |
| 5. I've been getting emotional support from others. | | | | |
| 6. I've been giving up trying to deal with it. | | | | |
| 7. I've been taking action to try to make the situation better. | | | | |
| 8. I've been refusing to believe that it has happened. | | | | |
| 9. I've been saying things to let my unpleasant feelings escape. | | | | |
| 10. I've been getting help and advice from other people. | | | | |
| 11. I've been using alcohol or other drugs to help me get through it. | | | | |
| 12. I've been trying to see it in a more positive way. | | | | |
| 13. I've been criticizing myself. | | | | |
| 14. I've been trying to come up with a strategy about what to do. | | | | |
| 15. I've been getting comfort and understanding from someone. | | | | |
| 16. I've been giving up the attempt to cope. | | | | |
| 17. I've been looking for something good in what is happening. | | | | |
| 18. I've been making jokes about it. | | | | |
| 19. I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping. | | | | |
| 20. I've been accepting the reality of the fact that it has happened. | | | | |
| 21. I've been expressing my negative feelings. | | | | |
| 22. I've been trying to find comfort in my religion or spiritual beliefs. | | | | |
| 23. I've been trying to get advice or help from other people about what to do. | | | | |
| 24. I've been learning to live with it. | | | | |
| 25. I've been thinking hard about what steps to take. | | | | |
| 26. I've been blaming myself for things that happened. | | | | |
| 27. I've been praying or meditating. | | | | |
| 28. I've been making fun of the situation. | | | | |

Appendix K

Demographic Data

Please mark a X in the space provided for items that are applicable to you and fill up the space provided.

Age

| | |
|--------------|--------------------------|
| 20 – 29 | <input type="checkbox"/> |
| 30 – 39 | <input type="checkbox"/> |
| 40 and above | <input type="checkbox"/> |

Education (*indicate the highest level*)

| | |
|---------------------------|--------------------------|
| High school or equivalent | <input type="checkbox"/> |
| Some post-secondary | <input type="checkbox"/> |
| Bachelors or equivalent | <input type="checkbox"/> |
| Some graduate school | <input type="checkbox"/> |
| Graduate school or higher | <input type="checkbox"/> |

Gender

| | |
|--------|--------------------------|
| Male | <input type="checkbox"/> |
| Female | <input type="checkbox"/> |

Years of Service

| | |
|---------------------|--------------------------|
| 3 years and less | <input type="checkbox"/> |
| 4 years to 10 years | <input type="checkbox"/> |
| 10 years and more | <input type="checkbox"/> |

Ethnicity

| | |
|--------------|--------------------------|
| Caucasian | <input type="checkbox"/> |
| South Asian | <input type="checkbox"/> |
| First Nation | <input type="checkbox"/> |
| African | <input type="checkbox"/> |

Other _____

Current Position

Section _____

Unit _____

Current Rank _____

Current Relationship Status

| | |
|------------|--------------------------|
| Single | <input type="checkbox"/> |
| Separated | <input type="checkbox"/> |
| Common-law | <input type="checkbox"/> |
| Married | <input type="checkbox"/> |

Other _____

Current Religious Identification

| | |
|-----------|--------------------------|
| Christian | <input type="checkbox"/> |
| Muslim | <input type="checkbox"/> |
| Sikh | <input type="checkbox"/> |
| Hinduism | <input type="checkbox"/> |
| None | <input type="checkbox"/> |

Other _____