Police Stress in Hong Kong:

Officers of the Emergency Unit, Gender Analysis and the Needs for the Development of Stress Management

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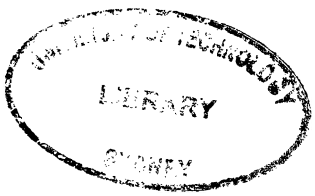
Certificate of Authorship and Originality

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.



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Abstract

Stress in policing affects not only serving officers, but also the community they serve. In particular, officers in the Emergency Units may be expected to experience high levels of stress. While there has been a growing body of research on stress and policing among developed countries, there is a lack of comparable research in the Hong Kong context. In response to environmental changes, female officers were admitted to the Emergency Unit since 1997, and now they perform the same duties as their male counterparts. What are the causes and levels of stress of such officers in EU? What are their ways of coping with stress and are such ways effective? Are there any gender differences in police stress?

This study investigates these pressing questions with a view to developing understandings and strategies to improve the situation for serving officers and for the Hong Kong Force. The research design consists of an historical overview of stress in Hong Kong policing, together with a combination of quantitative and qualitative investigative approaches, replicating a validated international study by McCreary & Thompson (2006) in order to generate comparable results with other countries. Interviews and focus group discussion provided a more fine-grained analysis of sources of stress and strategies for managing stress, and identified strategies for stress management. Results of the study identify, in general, that organizational stressors are significantly greater than operational stressors. Further, significant differences were found between male and female officers in relation to sources and levels of stress.

Implications of these results include an argument for more organizational efforts to address related issues, and further comparative research in other police units. In particular, the thesis argues the need for continuous development of stress management within the Hong Kong situation, and contributes an international comparative reference.

Chapter 1

Research Introduction

Introduction

Stress in policing affects not only serving officers, but also the community they serve. In particular, officers in Emergency Units (EU) may be expected to experience high stress levels. While there has been a growing body of research on stress and policing in developed countries, there is a lack of comparable research in Hong Kong. This dissertation is a report of a study on police stress in Hong Kong targeted at EU officers. The first chapter presents the background of the study, specifies the scope and focus, identifies the research objectives, describes its significance, and presents an overview of the thesis structure.

1.1 Research Background

I have completed 31 years of police service and have specialized as a Force Training officer for the last 14 years. In my daily encounters, I recognized that most police officers suffer from various forms of stress, which, in excess, affects the health and performance of the officers, family relations, and ultimately the quality of police services to the community. Yet within the Hong Kong Police Force, it took until the 1980s for there to be a clear recognition of occupational stress and related issues by management.

Stress in policing has been internationally documented. For example, the International Labour Organization (ILO 2001) lists 19 occupations, which equal or exceed the rate of 6 on a stress rating scale from 0 to 10, (www.ilo.org.). Among these occupations, miners have the highest stress level, up to 8.3 and police officers are second, with scores up to 7.7. Stress and policing has aroused social concerns, for instance, Brown and Campbell (1994) have predicted that police work will become even more stressful in the future, since police are to deal with increasing social problems and tensions. It is noted that police stress is a topic of increasing concern among many police forces or services with a growing body of research on stress and policing in the last decade, particularly among developed countries such as the United Kingdom, United States, Canada, Australia and Europe (Ainsworth, 2002; Brown & Campbell, 1994; Burke, 2007; Jones & Wiseman, 2003; Lawrence, 2006; Mayhew, 2001a & b; McCreary & Thompson, 2006; Parsons, 2004; Toch, 2002).

In contrast, there is a lack of research in the Hong Kong context. On entering the new millennium, Hong Kong experienced tremendous changes such as the return of sovereignty to the People Republic of China in 1997, and the economic downturn related to the Asian financial crisis. The increasing demand and rising expectations from members of the public; the tightening to financial control in policing budgets, manpower and resources; up surge of organized crime and terrorism all were stresses in policing. There was a growing awareness of stress in senior levels of police management such as in 2001, the Commissioner of Hong Kong Police Force, Tsang Yam-Pui, on a radio programme "Letter to Hong Kong", expressed his concern on police stress as follows:

> Our frontline officers now faced increasing range of societal pressures; the pressures on our policemen and women in the street have continued to grow;

> individual patrol officers have the additional stress of never knowing what lies around the next corner.

Internationally, there is considerable variation in response to the problem of police stress. For instance, Brown & Campbell in the United Kingdom (1994, p.5) suspect there is the possibility that some aspects of "police stress" might be socially constructed for certain political purposes rather than reflecting true concerns for health and welfare. Stevens (2008) summarizes his research in the United States by concluding that, and complicating this issue, stressing officers avoid help because it would be construed among co-workers and reinforced through the police subculture that they are weak, untrustworthy, and unlikely to back up an officer in a critical situation. Furthermore, the police organization blames the officer for his or her stressed situation, which in turn reduces the officer's chances of promotion (Stevens 2008, p.4). As a police officer for over thirty years, I note Brown and Campbell's argument that making stress an issue could be a vehicle for vested interests by senior officers and staff associations to increase bargaining powers in fighting over resources. I also share Stevens' understanding on police subculture of seeing stress as mostly an individual issue and a sign of personal weakness.

On the other hand, some not-for-profit organizations or charities also share these concerns and have even formed special units dedicated to supporting services and assistance. For instance, the Central Florida Police Stress Unit Incorporation (CFPSU http://www.policestress.org/main.htm) is a non-profit organization of this kind. It is not affiliated with any police department or law enforcement agency and was established for law enforcement officers and their families. The Unit highlights:

> Stress is law enforcement's hidden assailant. Stress among enforcement officers often affects relationships ending in divorce - an annual rate of nearly five times that of the general population. It spells problems with alcohol, prescription drug

abuse, and domestic violence. Stress also means disruption of normal sleeping patterns, eating habits, poor nutrition, paranoia, fear, anger, and depression.

Negative effects of police stress are obvious; the performance of police officers suffering from stress will deteriorate. This in turn not only affects services provided to members of the public, but may further threaten life and property in the failure to carry out public safety missions during critical incidents or emergencies.

1.2 Scope and Focus

The Preference of Selecting the Emergency Unit (EU)

While it is clear there is a pressing need for research on police stress in the Hong Kong context, it is necessary to define the scope and identify the appropriate focus for a study. Among various police postings and duties, the Emergency Unit (EU) is tasked to deal with emergent situations and cases. Officers attached there have greater chances to encounter critical incidents and life-and-death situations. It can be presumed that they experience greater stress. For this reason, I considered it more urgent to first conduct research on police stress with officers in EU.

The Development of Women Policing and the Feasibility of Gender Analysis

Traditionally, men have dominated police work. There have been barriers to the integration of women police officers (Martin 1996). Generally, police departments hired few women, and those few hired were assigned to the youth-aid division (Lord & Peak 2005, p.35). From my own experience in the Hong Kong Police for the past thirty years, police officers used to be very task oriented; crime fighting and investigation were viewed as real police work, patrol duties were secondary and the service culture was very weak. The majority of women in policing were limited to working with women, juveniles and children; mainly providing administrative and support roles. This was still

the case in Hong Kong in the early 90's. As the types of policing of the two genders used to be quite different especially among junior police officers, there were difficulties in comparing their stress responses on an equal basis.

In 1990 in Hong Kong, the police strength was 26,992; 2,572 were female officers (9.5%), of which 2,242 were junior police officers and 330 were inspectorate and above. Due to difficulties in recruiting male officers in the early 90's and the increasing need for more female officers in both operational and support roles, more female officers were selected. In 1992, female officers were increased to 2,758 with the first breakthrough of over 10% up to 10.4%. After another ten years, in 2002 the police strength was 28,065, and female officers were increased to 3,559 (12.6%), of which 3,069 were junior police officers and 490 were inspectorate and above.

In another breakthrough in 1994, it became compulsory for female recruits to be armed for the first time, while other serving female officers had an option, since their conditions of service did not include the use of firearms. In 1996, there was a major breakthrough in the Hong Kong Police, as the Commissioner of Police decided to develop a new service culture in meeting the increasing needs and demands of the public. A Service Quality Wing was set up in 1995 and a Police Vision, Statement of Common Purpose and Values were published in the end of 1996. Since then more human factors have been integrated into police training and day-to-day practice.

Before 1997, there were no female officers attached to the Emergency Unit. Due to the increasing need for female officers at emergency scenes, the way was opened in 1997 and now there are 111 female officers attached in five regional emergency units, facing

the same situations and performing the same duties as their male counterparts.It becomes comparatively feasible to investigate possible gender differences in police stress for officers working in the Emergency Unit on a more or less equal basis. Would the biobehavioral responses to stress in female officers in EU follow the approach of "tend and befriend" as suggested by Taylor and her colleagues (Taylor, Klein, Lewis, Gruenewald, Gurung, and Updegraff 2000)?

Organizational Approach and the Need for Development of Stress Management

Traditionally, stress has been considered an individual issue, particularly among police forces, as reflected from a historical review of their personal-centered programs (Stevens 2008, p.327-329). Finn (1997) urges for an organization-centered approach to reducing stress. There is an increasing need for appropriate management policy and related training strategy to address this issue. The Central Florida Police Stress Unit Incorporation (CFPSU) points out sources of stress for individual officers can be placed into five general categories: i) issues in the officer's personal life, ii) pressures of law enforcement work, iii) attitudes of the general public toward police work and officers, iv) operation of the criminal justice system, and v) the law enforcement organization itself. It is noted that many people perceive the danger and tension of law enforcement work – as dramatized in books, movies and television shows – to be the most serious sources of stress for officers. The CFPSU indicates the most common sources of stress for police officers involve policies and procedures of law enforcement agencies themselves.

The CFPSU further shows that support must start at the top management and work down through the ranks. Officers have to feel a comfort level when asking for help, and trust it is not seen as a sign of weakness. Law enforcement officers tend to be more open and express their feelings and emotions when they are in a safe environment

(http://www.policestress.org/reduce.htm). With proper training in the areas of stress and ethics, beginning at the academy and continuing through an officer's career and the availability of confidential peer support and professional counseling, law enforcement agencies can significantly reduce costs and casualties of law enforcement stress.

As a former Force Training Officer, I share these views, particularly the intent or approach through proper training in the areas of stress from both operational and organizational aspects to combat related issues. Starting these in the academy would give a good foundation to recruits for better psychological preparation with appropriate skills and means to encounter potential stress in their career. Between 2004 and 2006 when tasked with redesigning the new foundation training for recruit constables, I introduced a module of Psychology in Policing, covering the topic of stress, and recorded this as an example of development in Chapter 2 under section 2.4.

1.3 Research Objectives

Based on the above needs and intent, together with the need to research gender differences, I have worked out three main objectives in this research as follows:

(a) to determine from officers in EU their sources of stress, levels of stress responses, and ways of coping with stress;

(b) to investigate whether female and male constables in EU differ in sources of stress, levels of stress responses, and ways of coping with stress;

(c) to identify the needs for development of stress management.

To achieve the above objectives, I have adopted a mixed method approach. In terms of

quantitative analysis, there is a validated Police Stress Questionnaire (PSQ) to identify participants' sources of stress and levels of responding to stressors (McCreary & Thompson 2006). I will draw valid comparisons with the Canadian work undertaken in the initial use of the PSQ (McCreary & Thompson 2006). In terms of qualitative analysis, I have conducted individual interviews with a focus group meeting in order to gain deeper and better understanding from participants concerning problems they encountered and reasons for their different responses towards stress-related issues.

1.4 Significance of the Study

Hong Kong is a developed area in the Asian region, and the Hong Kong Police have gained the reputation of Asia's finest (Sinclair 1983; Sinclair & Ng 1997). However, there has been a lack of systematic research into police stress in Hong Kong. In terms of scholastic research, this study will provide, firstly findings on police stress in the Hong Kong context; and secondly an opportunity to compare incidents of police stress with other developed countries. Outcomes of this study will also contribute, through publication, to international understanding on police stress.

Further, since Hong Kong is a Special Administrative Region of China, the policing experience in this developed region would provide useful examples and reflections to her mother country, Mainland China. Stress faced by police officers in Hong Kong can be assumed to be somewhat similar to those police officers serving in the east coastal regions of rapid development, such as Shenzhen, Guangdong, Shanghai, and Beijing.

Internally, the findings in this study would facilitate management of the Hong Kong Police in gaining a better understanding of stress responses of its officers, which would

be a useful reference for addressing stress-related issues and enhancing the development of stress management. Meanwhile, it is anticipated that research participants would directly benefit through raised awareness of the stress faced, and mutual support could be enhanced. In return, officers' health may be better maintained and their performance for members of the public could be enhanced.

From reviews of policing studies, some enforcement agencies and their serving officers still regard police stress as an individual issue and sign of weakness for sufferings (Burke 2007, Stevens 2008). Sheelan and Van Hasselt (2003) report the effects of organizational stressors are considered greater than operational stressors. The survey in this study replicates a validated international study by McCreary and Thompson (2006), revealing that organizational stressors are significantly greater than operational stressors. Based on the latest review of stress in policing (for instance, Burke 2007, Finn 1997, Sheelan and Hasselt 2003, Stevens 2008) and my professional experience as police officer over thirty years, there are three main arguments in this study: first, occupational stress is a two-sided issue, involving efforts from both individual officers and organizational management to combat negative effects of stress; second, organizational factors are greater than operational factors; and third, more organizational efforts are needed to address stress related issues. Findings in this study will support these arguments.

Over the past two decades, the issues of gender stress and women policing have attracted regional and world attention such as gender differences associated with work and family roles (Trocki & Orioli 1994); women and the development of community policing (Lord & Peak 2005, Martin 1996); differences in stress responses between males and females (Hegadoren et al. 2006, Nauert 2007, Taylor et al. 2000). Based on

related literature and my personal observations, I anticipate in this study, there are gender differences in stress responses between male and female officers. There are two related arguments in this study: first, in general, male officers tend to have stronger stress than female officers towards both operational and organizational factors; and second, married female officers with children tend to experience greater stress. Findings in this study will support these arguments.

1.5 Overview of Thesis Structure

The thesis proceeds with an historical overview of the recent social history of the Hong Kong Police Force in Chapter 2. This overview has been developed to provide a context for an emerging focus on police stress and of recent attempts to address the problem of stress within the Force. This historical focus is necessary for two reasons: first, it provides the scene for the particular stress issues within the local cultural and political conditions in which Hong Kong is governed; and second, it reveals a trend of continuous development of stress management within the Hong Kong Police to meet the changing situations.

Chapter 3 presents a summary of review covering a range of literature related to the topic of stress in policing. The following dimensions of the topic will be reviewed, with appropriate integration linked to my research areas: conceptualizations of stress; police stress; gender stress and women policing; and stress management. This literature thus forms a contextual framework and basis for analysis of the data in the study.

Chapter 4 details the methodology for this research, consisting of mixed method inquiry: quantitative survey, qualitative interviews and focus group discussion.

Chapter 5 presents the survey results and reports findings on participants' sources of stress, levels of stress, and ways of coping with stress.

Chapter 6 presents a summary of qualitative results, firstly on the main responses obtained from eight individual interviews and then the responses obtained from one focus group consisted of five frontline representatives. Interviews and focus group discussion provided a more fine-grained analysis of stress responses, and identified strategies for stress management.

The analysis and discussion in Chapter 7 focus on a close analysis of the significant findings and implications from the quantitative survey and qualitative interviews. These draw on the international research literature, together with reference to the overview of stress in the Hong Kong policing in Chapter 2. I will conduct this chapter in a dual role with balanced perspectives as a researcher and experienced police officer. Main items of discussion include; responses to operational and organizational police stressors, comparison between these two categories of stress, gender differences in occupational stress, and participants' understanding about stress management.

Chapter 8 concludes the thesis with an examination of the outcomes and implications of the survey, interview and focus group data that form this study in order to consider its implications for change and for further comparative research.

Chapter 2

Historical Development of Stress Management in the Hong Kong Police Force (HKPF)

Introduction

This Chapter reviews the recent social history of the Hong Kong Police Force to provide a context for a focus emerging on police stress and recent attempts to address the problem of stress within the Force. This historical account is necessary in order to situate the particular issues of stress within the local cultural and political conditions where Hong Kong is governed.

I will first review the social status of Hong Kong Police and associated stress factors affecting the Force between 1950s and 1970s. I will then explore the traditional attitudes towards stress at that period. Following this, the historical policy and development of stress management from the 1980s to the present millennium will be discussed. Such development reflects responses to time changes and is relevant for later discussion along with the findings of this research. In the review process, I have consulted policy and historical documentation, conducted an interview with a colleague within the present Psychological Services Group (PSG). Additionally, I will offer some personal reflections of my time as a recruit and professional officer over the 30 years of this history, in order to supplement the policy documentation with some first hand experiences of the different situations I will report here.

Personal reflection of my own position in this history is integral to the experience and insight I bring to this research. I was born in the 1950s and joined the police in the 1970s. With my personal memories of growing up in Hong Kong and a police officer for over 30 years, the later half specialising in Force training, I have witnessed, as well as initiated, various changes throughout the improvement process together with the HKPF and the community we serve. In my capacity as Force Training Officer at the rank of Superintendent, I have official access to the sources of materials related to the historical development of stress management in the HKPF. The results of this historical review would be a useful reference not just for my own study, but represent a systematic documentation for the HKPF as well.

2.1 Social Status of HKPF and Related Stress between 1950s and 1970s

This section will briefly discuss traditional attitudes among Chinese towards army and police alike; major incidents in the 1960s and 1970s affecting the Hong Kong Police as well as Hong Kong for reflections, such as riots in 1966 and 1967; establishment of the Independent Commission Against Corruption (ICAC); my personal experience of organizational police stress during recruit training; and the traditional police perception towards stress. These events and circumstances cover sources of stress for serving police officers and steps taken by the Police Force to address stress.

Reflections from the traditional saying of "good iron is not made into nails"

Traditionally, the military had a very low social status in China: "Good iron is not made into nails, a good man does not become a soldier", as the popular saying goes (Landsberger, 2008). This saying is closely related to the teaching of Confucianism and

the attitudes of ruling emperors. A Chinese scholar, Zhao (2007) points out that for over thousands of years, people have been sorted into four kinds in descending order, namely intellectuals, peasants, workers and merchants, which together were regarded as the foundation of the nation. The intellectual considered one of their main preferences was to become a government official. Likewise, most emperors wished to have supportive intellectuals as officials and did not promote military practice, which could be a source of threat to their rule. An illustration of such a risk is the story of "relieving the military power while drinking", which related to, the first emperor of the Song Dynasty (960-1279) and his old comrades. After founding the new dynasty, the emperor worried that his old comrades might overthrow his rule one day, and so during a feast relieved the military power of his old comrades (Chen ed. 2003). Since then, the saying of "Good iron is not made into nails, a good man does not become a soldier" has become more popular, perpetuating the low social status and image for army and police alike, which may be a background source of ongoing stress to serving officers.

Part of the inference in this popular saying relates to traditional corrupt behaviour, misconduct and malpractices involving the military and government officials who abused their authority and power. In tackling this traditional culture, the People's Liberation Army (PLA) sought to rebuild the status and image of the military as "The Good Iron of the New Chinese Army" (Lang 1939). According to Landsberger (2008), the traditional image of army changed dramatically during the revolutionary war period; and joining the PLA became an aspiration for many young people who felt repressed, in particular for those from a worker or peasant background.

In relation to Hong Kong, the territory was ceded to Britain as a Colony since 1842 under the Treaty of Nanjing after the opium war, and finally returned its sovereignty to China in 1997 under the Sino-British Joint Declaration. With reference to the Hong Kong Police History (HKPF 2010), the HKPF was established in 1844 and had been performing its "Para-Military" role for many decades. Between 1950s and 1970s, the image of the Hong Kong Police and the pay rates of police were low. Academic entry requirements for police constables in the 1950s and 1960s was just completion of Primary Year 6. From my understanding while serving in the Force, some joined the police and viewed it as a last resort for employment. The academic entry requirement was only raised to the minimum of Form 3 in the 1970s.

A similar situation is reported to have existed in the USA, with Rodger (2006), a former police officer who became a mental health professional, noting that police officers, before the 1990s in the United States, had low status in the community and even lower pay. He pointed out that the community perceived police officers primarily as law enforcers. Emphasis was on the physical and mechanical aspects of police work. They detected and apprehended criminals, and their presence deterred others from engaging in criminal acts. Officers were usually selected according to size and general toughness; and received little, if any formal training. As a serving police officer for over 30 years, I can testify to the similarities between the US and HK police forces in these respects.

In the Preliminary Report by the Review Committee on Disciplined Services Pay and Conditions of Service (Rennie et al 1988a-1), traditional Chinese cultural attitudes still found that "good iron is not made into nails", and this was considered a form of social segregation of police officers resulting in additional work-related stress.

Reflections from the Star Ferry turmoil in 1966

The 1966 Star Ferry riots were a turning point in the history of stress in the Hong Kong Police Force. They took place at a delicate moment in Hong Kong's history. In 1965, a run on the banks had occurred, accompanied by a recession in the real estate market and many of its ancillary activities (Chan 2004, p.115-124). Chan points out that general price inflation was commonly perceived, signaling further increases in water charges, school tuition, rent for resettlement estates, and the like. She further analyzes that commonly known as the "five-cents riots", the Star Ferry riots were never simply about the five cent increase in ferry fares, nor were they simply a seven day event from April 4 to 10, 1966. They had actually been overdue, dating back to October 1965 when the public first learned about Star Ferry Company's application for a fare increase. The Company's announcement provoked an outcry from an impressive number of social organizations varying widely across professions and political camps. The public worried that a fare increase would produce a chain inflationary effect.

Sinclair, a well-known newspaper reporter in Hong Kong, said the Star Ferry riots in 1966 caused huge amounts of damage, resulting in a lengthy and expensive commission of enquiry and ruined lives and careers (Sinclair 1983). He argued that the Star Ferry riots of 1966 need to be studied by political scientists as well as police to see how social unrest could explode from the least-expected quarter and from the most inconsequential causes.

The governor at that time, Sir David Trench, ordered a full-scale inquiry into the riots, their causes and events leading up to them. The report of the commissioners also examined in some detail the public attitude to police in Hong Kong. They looked at

claims made by social workers that the public thought some problems as gambling and narcotics had not been eradicated because of inefficiency or corruption. They also investigated reports by social workers, stating that that young people believed that police powers were excessive and used in an arbitrary fashion. A third aspect examined by the commissioners was the inevitable friction, which arose when police had to enforce unpopular laws involving otherwise law-abiding people, such as hawking and traffic regulations.

The commissioner of the inquiry pointed out that public hostility to police was a matter of concern in many countries; that in 1966 there was a connection between a decline in respect for the laws police had to enforce and a decline in respect for the police themselves. The commissioner further warned that the police had to anticipate that the very nature of their tasks could cause dislike; they had to maintain rigorous standards to correct misconceptions in the public mind; and the Force had to improve its image by closer contact with the public at all levels.

Stressful situation during the 1967 Riots

The social unrest in 1966 mentioned above led on to subsequent riots in 1967. According to the Hong Kong Police History, the mass protests tapered off and were replaced by a campaign of terror and bombing. Bus and tram drivers were threatened, and sometimes attacked if they went to work to keep Hong Kong moving. The disorder gradually ebbed and, by September, the situation had begun to settle. The South China Morning Post reported, with a sense of wonder, a headline "Bomb-free day for Colony" (Sinclair 1983). It was to be many months, however, before the city returned to normal.

In April 1969, the Queen of England, Head of State of Hong Kong as a British Colony, bestowed the title "Royal" to the Hong Kong Police in recognition of the loyal commitment of the Force and its members in containing the riots. On 1 July 1997, the title "Royal" was removed from the Hong Kong Police Force upon the return of sovereignty of Hong Kong from Britain to China.

Sinclair (1983), Sinclair and Ng (1997) both provide photos taken at scenes showing banners of the protesters marked "white skinned pigs" and "yellow running dogs", which were referring to the expatriate and local police officers respectively. These photos could reflect the stressful situation encountered by serving officers over that unrest period. Sinclair reported that the police stood firm, and quoted Richard Hughes of the Times, 14 September 1967:

> What do I think of the Hong Kong Police?
> I think they are magnificent, the finest in Asia.

Subsequently in 1983, Sinclair used the epithet "Asia's finest" as title for his book – *Asia's finest: An illustrated account of the Royal Hong Kong Police.* In 1997, Sinclair and Ng published the second edition with the latest updates: *Asia's finest marches on – Policing Hong Kong from 1841 into the 21st century.* These publications have no doubt helped raising the status and image of the Hong Kong Police.

The Godber's incident and establishment of ICAC in 1974

The Royal Hong Kong Police (RHKP) emerged from the confrontations of the 1960s and gained the "Royal" title. Beneath the surface, however, grave problems faced both the community and its law enforcers. It was universally known, but never admitted, that corruption was widespread throughout the force and the community. Peter Godber had

been one of the heroes of 1967, confronting rioters on the streets. When the Commissioner confronted him in June 1973, with proof of his hidden fortune, Godber fainted, later fleeing from Hong Kong, and causing an immense upsurge of public protest.

Sinclair and Ng (1997) reported that corruption had always been an acute problem in Hong Kong, but the British loftily dismissed this phenomenon as a Chinese custom. When news of Godber's flight hit the headlines, it sparked off the witch-hunt and resulted in public demonstrations – "Bring Godber back" and protest rallies. As the storm continued, the Governor, Sir Murray Maclehose, effectively took the matter out of the hands of the police by establishing a new body to investigate and eliminate corruption, the Independent Commission Against Corruption (ICAC) in 1974.

Hong Kong was in a state of rapid change in the 1960s and 70s; corruption was rampant in the public sector, and was particularly serious in the Police Force (ICAC 2007 ed.). From the published Police history, police, who had the closest day-to-day relations with the public, were the major targets of the inquiries of the Commission. Anti-graft operations were both widespread and intense with many arrests. Many, both in the force and the community, felt things were going too far, that practices that had for many years been either accepted or to which authorities turned a blind eye, were now subject to scrutiny and prosecution. In 1977, police protested, and thousands marched on police headquarters or staged meetings to reflect their anger and distress. The government, conceding a good thing had perhaps gone too far, issued an amnesty (Sinclair & Ng 1997). This was a partial amnesty for most corruption offences committed in the past. Current corruption offences would still be vigorously investigated, a stand that was

welcomed by all policemen. Since 1977, the level of corruption within the Police has been low (Sinclair & Ng 1997). Police as well as the ICAC monitor corruption through the joint Corruption Prevention Advisory Committee. Since then, the Force began rebuilding its social status and image.

Personal experience of organizational police stress during recruit training

As mentioned in Chapter 1, during the 1970s, there was a pressing need for new blood to join and make a cleaner Police Force in Hong Kong; and in responding to such need I joined in 1977, and learned of the stormy incidents occurring between Police and ICAC while undergoing probationary training. At that time I could observe from the instructors and among their conversations that the ICAC investigations, subsequent arresting, charging, convicting and jailing of police officers caused enormous stress never anticipated by serving officers, particularly the old guard at the time.

Growing up in the 1950s and 1960s, I could see that the general public had not much expectation of or hope that the police would change their traditional corrupt behaviour, misconduct and malpractices. These perceptions returned as low police status and would undoubtedly have been one form of social stress factors to serving officers at that time.

Upon joining the Force in 1977, I had experienced the organizational stress for local Chinese officers serving under colonial ruling, which would be far greater than an outsider could imagine. I still recall the briefing by one of our Drill and Musketry Instructors (DMI) on the drill square while I was undergoing probationary training over thirty years ago. This man was a local officer but was shouting out loudly in English, "Speak English under the Sun". After the parade, several local colleagues and I went

into the toilet for wash up and just naturally chatted in Cantonese. All of a sudden I felt a cane prodding me in the back, and we heard that DMI shouting, "What are you talking about? Speak in English." Then we began to recognize that "there is no place and no time, which is not under the sun". That night, I had a dream, and the first time I was speaking English other than my mother language in a dream! How stressful it was, and that was only one of the many day-to-day incidents!

Traditional refusal to acknowledge police stress

Traditionally, soldiers and men on security duties, such as police, have been viewed as "tough guys" and "real men", since they have shouldered the responsibilities of defending the country, protecting families, maintaining public order and security. Likewise, on 2008.5.18 at the rescue scene of the earthquake at Sichuen, Hu Jintao, the Chinese president asserted in front of a group of rescuers from the troops, "I truly believe that the heroic Chinese people will not yield to any difficulty!" (People's Daily, 2008, Online).

Bearing hardship and stress have been a public perception as well as an internal image among serving officers reinforced in the police subculture. As noted by Central Florida Police Stress Unit Incorporation (CFPSU), for example, police stress is a "hidden assailant" among law enforcement officers and can lead to problems with alcohol, prescription drug abuse, and domestic violence. From my personal experience and observation as a police officer in the Hong Kong Police Force since 1977, there has been a common traditional perception in the Force that men who could not stand up for hardship and stress were weak and not fit for service duties. I quote a scene in the officers' mess while undergoing training between 1977 and 1978, when one of the

instructors shouted out, "There is nothing an inspector can't do." That was already a form of stress from the top down. Then the whole intake shouted back, "Aye, Aye, Sir", which became another form of stress from peer pressure. The drinking culture and shouting could not erase the existing stress but merely buried it. On the surface, officers enjoyed the drinks and shouting, but the related stress might have eroded deep in their bodies and minds, and even affected their lives and families as reviewed by CFPSU above.

Between the 1950s and 1970s, there was a tendency to discount and failure to recognize stress among serving police officers. The traditional perception of seeing stress as a personal weakness was a fundamental myth. However, as time and situations changed, the HKPF began to recognize police stress and welfare issues in early 1980s, which will be covered in the next section.

2.2 Recognition of Police Stress and Welfare Issues in the 1980s

Following a time of significant change in social awareness and public concerns, police management in the 1980s, began to acknowledge police stress and related issues. This section will report the official recognition of police stress through the establishment of a police psychology unit, and recognition of stress as a factor in pay determination.

The establishment of the Police Psychology Unit and its reasons

Official recognition of police stress increased in line with development of social awareness and public concerns, especially after the establishment of ICAC. In recognition of the impact of stress on members of the Force, the management of the HKPF established a Psychology Unit in 1981 with one Senior Force Psychologist, Dr.

Tully, as Head of Psychology Unit, assisted by two Force psychologists.

As there is little official documentation of this part of the history, I conducted an interview with a senior source who had a profound understanding of these developments. In interview, the informant identified two main reasons for the establishment of the unit, namely, recognition of police stress and the application of psychology to police work.

Concerning the first reason, there were several determining factors, including the change of the local cultural climate in Hong Kong after establishing the ICAC in 1974, rising concern about police suicides, and growing literature related to police stress in western countries. It was also recognised that psychological services were an integral part of police welfare conditions, and thus PSG was established under the Police Welfare Branch.

The second reason for the unit's establishment - application of psychology to police work, was to provide a means of addressing stress through a mandatory counseling service. Related psychological applications were also provided, such as police interview techniques, hostage negotiation, forensic hypnosis, victim psychology and conflict management.

Recognition of stress as a factor in pay determination

Due to differences in the nature of duties, the Disciplined Services Pay Scale has been separated from the Master Pay Scale of the General Civil Service. In April 1988, the Standing Commission on Civil Service Salaries and Conditions of Service appointed Rennie as Chairman of the Review Committee on Disciplined Services Pay and

Conditions of Service. A Preliminary Report was submitted in July 1988 and the Final Report submitted in October 1988 (Rennie et al 1988a-1, b). In the introduction of both reports, the terms of references were laid down, which reflected the priority of police and recognition of stress experienced by the disciplined services:

> (1) to review the work of the disciplined services bearing in mind... the stress and dangers to which the disciplined services are exposed; and
>
> (2) in the light of the conclusions reached on (1), to consider – the basis for determining pay and conditions of service within the disciplined services...

Rennie highlights the significance of stress (Rennie et al 1988a-2, Ch. 9):

> Of all topics mentioned in submissions, stress has understandably received the most emphasis. Most of the factors mentioned below have some bearing on stress.

These factors are similar to those items in the Police Stress Questionnaire (PSQ) used in this research, and some were also raised in interview. Stress factors particularly related to the Police in the Rennie's Report are summarized below:

Hours of work and shift patterns – long periods of continuous duty

Unpredictable calls upon staff time – material effects upon personal lives

Risks – wide variety of danger, even when off-duty, work-related health hazards, risks to families, exposure to possible corruption

Hardship – demands on staff time, poor working environments including exposure to weather, irregular meal times, and inability to obtain a hot meal

Social segregation – timing of work leading to disruption of social and family life, social stigmas associated with work, influence of mass media, traditional Chinese cultural attitude still found – "good iron is not made into nails"

Discipline – subject to disciplinary code, public complaints, formal investigation, exposure to complaints employed as a routine defence tactic

Restrictions on freedom – on-call requirements, prohibition in the organising of industrial action, subject to restrictions relating to places of entertainment

Promotion opportunities – limited, highly competitive, non-transparent

These factors identified by the Rennie Committee showed a clear recognition of stress largely related to police. The recognition of stress as a factor for pay determination, to a certain extent, helped address morale issues and staff retention, although monetary compensation alone could not reduce the stress of serving officers. Nevertheless, the recognition of stress had made Force management begin to consider other ways to release officer stress such as through training, which will be covered in the next section.

2.3 Stress Management in the 1990s

Since official recognition of police stress in the 1980s, the developments of stress management commenced in 1990s and covered several related aspects. This section will refer to such developments including: initial training on police stress management for inspectorate cadre, widening the perspective of stress management, promotion of a healthy life style, inculcating a new service culture and service improvement training, extension of training on stress management, and post shooting stress management.

Initial training in police stress management for the inspectorate cadre

Social climate change led to the beginning of recognition of stress in the early 1980's and the establishment of the Police Psychology Unit (now called the Psychological Services Group - PSG). Training in stress management only commenced in the Probationary Inspectors' Course in early 1990's. Training materials were prepared by PSG and delivered by police instructors using videotaped material from the UK, as the police perspective on stress at that time was mostly British in orientation. Due to staff shortages, initial training in stress management was limited to the inspectorate cadre.

Watershed in 1997 – Widening the perspective of stress management

In 1997, the return of sovereignty of Hong Kong from Britain to China under the concept of "one country two systems" gained worldwide attention and local public concerns. The financial market before July 1997 rose to its peak with an influx of capital and speculation. Then the outbreak of the Asian financial crisis shortly after has led to economic recession in the region, including Hong Kong. Many enterprises and individuals went into bankruptcy. In that period, according to internal reports and statistics, the HKPF also experienced related issues, such as increasing cases of Officers with Unmanageable Debts (OUDs), resulting from problem gambling, speculative investment, extravagant life styles and other causes. They were considered to be a highly vulnerable group with undue stress. One resolution was to widen the perspective of stress management to life style management.

Promotion of a healthy life style

Promotion of a healthy life style was first recommended as an initiative to promote a corruption-free working environment for members of the Force in 1996. It was based on the findings of "The Opinion Survey on the Views of Corruption in The Royal Hong Kong Police Force", conducted by me in the capacity of the Secretary of the Force Anti-Corruption Sub Committee on Training (FACSCT) between March and June 1996 (Tang 1996). The survey found that gambling, alcohol, enjoying entertainments, feast gatherings were seen as an intrinsic part of Force culture, viewed by its members as common ways to relieve stress. Most participants of the survey realized the adverse effects of such habits and suggested that means should be found to eradicate them from the culture. To offset working pressure from police duties, healthy leisure activities should be promoted. Officers continuously working under undue stress would have

many unfavourable consequences. For example, they could be more vulnerable to corruption by looking for or accepting bribes as a form of compensation. Therefore, promotion of a healthy life style would contribute to a general improvement in the working environment and workplace performance. Moreover, officers should be encouraged to achieve an acceptable balance between themselves, their work and families. The Force Anti-Corruption Strategy Steering Committee (FACSSC) endorsed such recommendations in October 1996 and directed Assistant Commissioner of Police (ACP) of Personnel Wing (P Wing) to take up action.

Simultaneously, there was cooperation with the University of Hong Kong in promoting a non-smoking campaign for new recruits. In addition, with the support of the Welfare Branch of P Wing, suitable coverage was integrated in recruit training covering well-being from physical, mental and financial aspects. Promotion of a healthy life style obviously requires continuous effort, commitment and participation from all levels. There have been new initiatives from time to time, which will be mentioned in subsequent sections.

Inculcating a new service culture and service improvement training

Inculcating a new service culture among members of the Hong Kong Police Force has been a Force strategy since launching the Vision and Statement of Common Purpose and Values in 1996. In a press release, the Commissioner of Police, Hui Ki-On (Hui 1999) reiterated:

> *Our policy philosophy for the future is therefore to develop a service culture within the Hong Kong Police Force, which involves police officers, at all levels, in living our well-published values and upholding our Force Vision of ensuring that Hong Kong remains one of the safest and most stable societies in the world.*

One of the initiatives was to enhance service-oriented policing through Service Improvement Training (SIT). I was the Force Training Officer, assigned to design, plan and organize a customer service training programme jointly with Service Quality Wing (SQW) to officers of the whole Force. The main theme had four facets: Empathize with others; Courteous to others; Care for others; and Work with others (Tang 1999). Apart from including service attitude and interpersonal skills as topics in the workshops, I particularly brought in the need of recognition of emotion and stress management in the process of service delivery. Feedback from participants was very favourable. The new workshop program was considered a service drive (HKPF 1999).

Extension of training in stress management and related topics

Due to the increasing demand for psychological services, a serving senior inspector with a social work background was redeployed to the PSG between 1995 and 1999. I conducted an interview with him when he revealed he was a Certified Gambling Counselor whose training in Canada in 1998 was sponsored by the HKPF. He explained that his duties in the PSG mostly related to stress issues that could be classified into three categories. The first was direct sharing with recruit constables on stress encountered; the second was facilitating a mutual support group of females including discipline and civilian officers, as well as wives of Force members in regard to life and stress issues. The third category was counseling on problem gambling for Officers with Unmanageable Debts (OUDs) and delivering courses for Training and Staff Relations Officers (TSROs).

In response to the increasing needs for psychological services, the establishment of PSG has been expanded to one SPCP and five PCPs since 1998. With this extra resource,

training in stress management has been extended to thirteen entry points, namely two Recruit Training Courses for Constables and Probationary Inspectors, three Command Courses (Senior for Superintendents, Intermediate for Chief Inspectors and Junior for Inspector/Senior inspector), four Development/Promotion Courses for Junior Police Officers (JPO), one Inspector Continuation Training Course, one TSRO Course, one for Police Tactical Unit (PTU) and one Stress Management Workshop on an *ad hoc* basis open to all officers.

Post shooting stress management

Post shooting stress management is now well documented in the Police General Order (PGO 29-07), Force Procedure Manual (FPM 11-21) (HKPF 2007a), and Staff Relations Manual (SRM 04-04). It began in the late 1980's when the subject officer who used a firearm in a "Police Open Fire" incident was referred to SPCP for a mandatory interview. In October 1998, the post of Divisional Staff Relations Officers (DSROs) was revised as Training and Staff Relations Officers (TSROs) to include both functions of training and staff relations (HKPF 2000). Since then TSROs were trained as Post Shooting Stress Managers (PSSM) who would attend the scene of "Police Open Fire". The PSSM will represent the Formation Commander in offering words of comfort and showing concern to an officer who has opened fire and will seek to minimize further stress that may be caused to the officer by the media and the investigation. Having counselled the officer who opened fire, the PSSM will advise the investigating officer as to the emotional state of the officer concerned. The PSSM will refer the subject officer to the SPCP for the Post Shooting Mandatory Interview. The PSSM will also refer officers who have not opened fire nor been shot at but were critically involved in the same incident to the SPCP for Post Critical Incident Psychological Debriefing and

Support Services. The PSSM performs the role of (a) the information provider, (b) empathic listener/advisor, (c) co-coordinator/moderator of post shooting events, and (d) participant-observer.

From the development of post shooting stress management, I noted that the initial post shooting mandatory interview in the 1980s was still at the individual level between the subject officer and the SPCP. The revised arrangement with the involvement of TSROs as PSSM around late 1990s and early 2000s was a move widening to organizational level in stress management.

2.4 Increasing Stress and Recent Interventions in the New Millennium

Police stress has been increasing in the new millennium. This section will mention some of the major sources of stress in the Hong Kong context, and recent interventions adopted by the management of the HKPF, including stress management following major incidents and post traumatic stress disorder, commitment and initiatives in life style management, better equipping recruit constables in preparing for occupational stress, development of psychological competency training, evaluation of stressors during international event, and use of the latest findings in Staff Opinion Survey (SOS).

Increasing police stress

The economic recession after the Asian financial crisis in July 1997, the outbreak of Avian Influenza (Bird Flu) at the end of 1997, the general dissatisfaction with government policy and administration together with worry about the uncertain computer

system reliability upon entering the new millennium, all built up pressure and stress on local people in Hong Kong. Public gatherings and processions organized by various social groups become more and more frequent in expressing their concerns or airing their grievances. Cases of disputes and complaints were on the increase. In January 2001, the Commissioner of Hong Kong Police Force, Tsang Yam-Pui, on a radio programme "Letter to Hong Kong", expressed his concern on police stress as follows (Tsang 2001):

> Our frontline officers now faced increasing range of societal pressures; the pressures on our policemen and women in the street have continued to grow; individual patrol officers have the additional stress of never knowing what lies around the next corner.

Tsang Yam-Pui, upon taking up the post as commissioner in an interview with the newspaper of the Hong Kong Police Force – *Offbeat* (HKPF 2001), said:

> I will pay a lot of attention to the frontline staff, they are the key to the successful maintenance of law and order - the Constable on the beat is one of the most important people in the Force. We will provide them with the best training and user-friendly equipment, and offer all of our support and encouragement, awarding them not only for enforcement success, but also for their care and compassion in dealing with the public and their colleagues.

From my thirty years of service in the Hong Kong Police Force since 1977, I recall Tsang Yam-Pui was the first senior officer who recognized police officer stress openly in public. Tsang Yam-Pui, in his capacity as the Commissioner, has set the tone for recent stress management interventions from an organizational perspective.

Stress management following major incidents and post traumatic stress disorder

As indicated above, Police stress has increased from day to day duties as well as from major events. Senior management has shown greater concerns about stress management following major incidents. This can be seen from coverage in the Major Incident Manual, Chapter 11-01(HKPF 2002), which focuses on Stress/Welfare, with stress

defined as:

> a mentally or emotionally disruptive or disquieting influence, and a state of tension or distress caused by such an influence.

In the same chapter, stress is recognized as a daily part of police live. The nature of the job makes it impossible to avoid stress as a police officer. However, officers are trained in the recruitment stage as well as on-the-job to be equipped with the ability to deal with stress-provoking situations.

On the other hand, the Major Incident Manual indicates that when police officers deal with a major incident, such as a disaster involving fatalities, stress levels increase dramatically, especially for those officers dealing directly with bodies or body parts, as well as those dealing with survivors and bereaved relatives. Commanders at all levels are under great pressure to handle the emergency competently and make correct decisions. Under all the above conditions high levels of stress may result in stress-related symptoms of a minor nature, possibly ranging up to serious illnesses such as depression or Post Traumatic Stress Disorder (PTSD).

The Major Incident Manual also advises commanders at all levels to identify officers who are beginning to suffer ill-effects of too much stress and mitigate the position by redeployment to less stressful duties or by relieving the officer for rest periods. Intensive training as a police officer with sufficient exposure to operational work and involvement in operational exercises is also recognized as a successful factor in preparing for or mitigating the harmful effects of stress during an emergency response. It further advises commanders to look out for symptoms of stress such as: acute changes in behaviour, deterioration in performing duties, flushing, swearing, extreme irritability, itching, overt aggression, over zealousness, lack of confidence and so on.

Apart from the coverage of Stress/Welfare in Chapter 11-01 in the Major Incident Manual, the PSG has also issued advice on Stress Management after Major Incidents through publishing of leaflets and posting information in the Police Intranet. This information covers three main parts, classifying the types of major incidents; identifying symptoms of stress; and suggesting some stress-releasing solutions. Furthermore, the PSG also provides Critical Incident Debriefing to concerned officers as necessary.

All the above coverage in the Major Incident Manual, advice issued and services provided by the PSG show greater concern and Force commitment in relation to stress management following Major Incidents. The overall effects and feedback so far have been positive.

Commitment and initiatives in life style management

Following the promotion of a healthy life style commenced in mid 1990, new initiatives have been launched on occasion, to sustain the momentum of the movement. Three examples are selected here to illustrate:

(a) "Balanced Heart, Wisdom Starts" Campaign

In mid 2004, the PSG launched a 3-year mental health promotion campaign called "Balances and Wisdom", with the objectives of enhancing Force members' personal growth, increasing their coping capability when facing various contingencies of life, maintaining positive mental health, and improving a sense of well being and level of happiness. PSG has been trying to enlist the help of volunteers within the Force by establishing a "Carelinks Cadre", and recruited "Carelinkers" will be equipped with training so they can get the message and promotional activities to their colleagues (HKPF 2004).

(b) The PSG Earns Commissioner's Commendations

In recognition of the PSG's consistent and outstanding professional services and contributions, the Commissioner of Police presented his commendation to the Group in February 2008. PSG has earned a commendation also for promoting stress resilience and mental health qualities to enhance Force members' psychological competence and effectiveness in their professional dealings (HKPF 2008). The commendation reflects the recognition of police stress by senior management as one of the core issues in policing.

(c) "One Officer One Sport"

Having promoted a healthy lifestyle for the past 10 years, in 2006 the HKPF made a renewed effort to encourage all officers to stay physically fit at all times with "One Officer One Sport". The Force has even written physical health into the Strategic Action Plan (SAP) for 2005-2008, towards the goal of cultivating a culture of physical health among all officers, and families. There are 13 Arts Clubs under the Police Arts Council, which help promote physical health by recruiting more members and offering related activities. The force management noted that sports not only can help officers improve physical fitness, but also relieve stress from work pressure, and build up resilience (HKPF 2006).

Better equipping recruit constables in preparation for occupational stress

Between 2004 and 2006, I was the Project Officer responsible for redesigning the foundation training for recruit constables. To better equip our new officers in meeting the rising needs of the community and the Force, and in preparing for the occupational stress, I introduced two new modules, titled "Psychology in Policing" and "Social

Studies in Policing". "Psychology in Policing" covers communication skills, stress management, victim psychology, conflict management, and skills in handling different special groups, for example, mentally ill or aggressive people, the aims being to equip officers with relevant psychological knowledge to deal with interpersonal matters and to prepare them for better policing. The "Social Studies in Policing" module aims to raise officers' awareness of policing in a social context, with contents covering roles and functions of the police, professional ethic, accountability and legitimacy of policing, as well as relations with the non-ethnic Chinese community and mass media. Through the New Foundation Training commenced in January 2006, Recruit Constables have their perspective broadened and are better prepared in mind, knowledge and skills to discharge their police duties and responsibilities, to meet the changing needs, and develop their capacity in facing stress from all angles in their police career.

Development of psychological competency training

Due to rising public demands and expectations, ever-changing environments, unexpected situations and scenarios, there have been associated increases in police stress. Accordingly, there is an urgent need to provide police officers with new training on psychological knowledge and skills in order to enhance their police professionalism. A systematic training need analysis was conducted in 2002 with eight competences identified, of which "Stress Management in Police Work" was accorded the top priority for development, followed by "Healthy Lifestyle" (Leung 2002).

Between December 2007 and April 2008, the Hong Kong Police College launched an e-learning courseware and a *Practical Booklet on Healthy Lifestyle and Stress Management in Police Work* (HKPF 2007b), for all Force members to achieve an optimum level of health. The foreword (1) of the booklet, spells out a holistic approach,

which is used in these two competencies to enable Force members not only to learn to abstain from problem gambling, taking harmful substances or drinking heavily, but also to strive to manage stress, adopt a healthy lifestyle, build good family relations and friendships, as well as to develop personally meaningful activities and goals to achieve happiness. The project has been co-developed with Lingnan University through outsourcing.

Evaluation of stressors during WTO MC6 in Hong Kong (Dec 2005)

As Hong Kong is an international city, policing for international events conducted in Hong Kong would be another source of stress to serving police officers. In this subsection I will mention the 6th Ministerial Conference (MC 6) of the World Trade Organization (WTO) held in Hong Kong, (in short also called the HKMC) between 13 and 18 December 2005, and the subsequent evaluation of stressors during this event.

During the HKMC in December 2005, representatives from over one hundred countries attended and also attracted thousands of anti WTO protestors led by the Hong Kong People's Alliance on WTO and made up of largely South Korean farmers. The event was a challenge to the HKPF as can be seen from the following remark by the Commissioner of Police, Lee Ming-Kwai (Lee 2005) in the newspaper of the Hong Kong Police Force – *Offbeat*:

> On the ground, we witnessed leadership and courage in the face of committed demonstrators. Officers, while always holding the operational objectives foremost in their minds, displayed determination. In the face of unacceptable levels of provocation and violence, officers held the line, safe in the knowledge that they were supported by their brother officers who stood side by side with them facing the same ugly scenes of violence. As individuals you showed strength: as a Force you were unconquerable.

On the front page of the same *Offbeat* issue, the Chief Executive, Donald Tsang (Tsang 2005) issued a statement to praise officers' professional performance during the conference period:

> I commend the Hong Kong Police Force for its measured and appropriate response to the violence created by some protesters. The officers carried out their duty to preserve public order and protect the Hong Kong citizens in a most professional manner. They have earned our thanks, praise and steadfast support.

After the conference finished, the PSG took up a survey with participating frontline officers in identifying their stressors during HKMC. In a meeting for the Commissioner Rank Officers (CRO) in May 2008, Alison Mak, Police Clinical Psychologist presented "Learning from the HKMC – A Psychological Perspective on Stressors, Morale and Adjustment" (Mak 2008).

Table 1: Top 12 stressors identified during HKMC 2005

Rank	Top 12 stressors during HKMC	Ratings (1-10)
1	Inadequate rest	7.87
2	Prolonged working hours	7.65
3	Negative comments from the public and /or media	7.57
4	Clashes with or attacks by demonstrators	7.43
5	Insufficient colleague back-up	7.40
6	Provocations from demonstrators	7.32
7	Cold weather	7.18
8	Insufficient communication/confusing or conflicting communication messages	7.10
9	Insufficient weapons or equipments	7.00
10	Colleagues being injured during operation	6.95
11	Frequent change of demonstrators' attitudes and action	6.95
12	Heavy weight of equipment	6.75

Table 2: Top 12 stressors categorized into four types

Rank	Top 12 stressors during HKMC categorized into 4 types
1	Physical exhaustion
2	Negative comments from the public and /or media
3	Clashes with or attacks by demonstrators
4	Insufficient or confusing communications between supervisors and officers

Table 3: Lessons learnt on psychological preparation for large-scale incidents

Rank	Lessons learnt on psychological preparation for large-scale incidents
1	Information is king
2	Quality of self-care can make a difference
3	Confusing and conflicting communications pose significant stress to frontline officers
4	Officers are also very mindful of how they are treated by media / public.
5	Fatigue management is basic, and is the responsibility of both the officers themselves and their supervisors
6	Morale affected by team cohesion, recognition from leadership, training on tactics and equipment
7	Acknowledging stressors and stress management

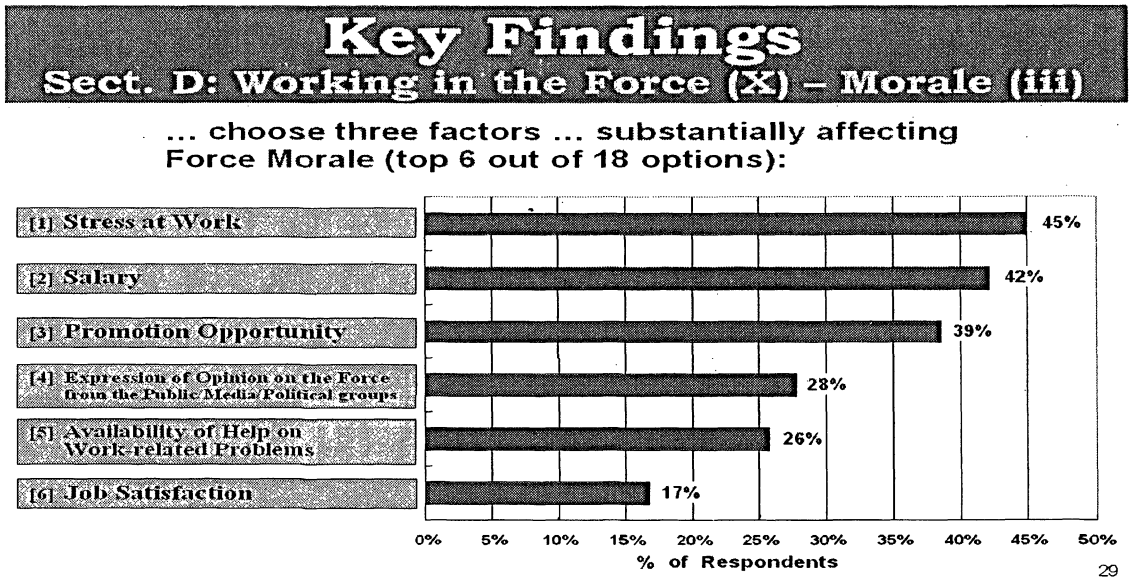
Behind the success and accolades of the HKMC, there are lessons learnt from a psychological perspective. Acknowledging stressors, proper evaluation and stress management are the directions for HKPF further strengthening the care of its members.

Stress at work – Latest findings in Staff Opinion Survey (SOS) 2007

As mentioned above, police stress has increased in the new millennium, and stress at work has become an area of concern. The HKPF has appointed the University of Hong Kong (Public Opinion Programme) to periodically conduct Staff Opinion Survey (SOS) in the Force with three objectives: understand staff perception of the Force performance and the Force as an employer; understand the views of staff on the values held by the Force; and identify current areas of concern.

Since SOS 2000, there has been a survey item – "I can cope with the stress of my job". 75% of the respondents in both SOS 2000 and 2001 agreed. In SOS 2004, the agreement response increased by 2% up to 77% of the respondents. In SOS 2007 (HKPF 2007c), the agreement response had a slight drop of 1% to 76% of the respondents. Another key findings in SOS 2007 relating to stress at work are shown in Figure 1 below, which reflects "Stress at Work" as the top factor affecting Force morale.

Figure 1: Top 6 factors affecting Force morale in Staff Opinion Survey 2007



From the above findings, the effect on morale from stress at work is even high than salary and promotion opportunity. There is an urgent need for effective stress management to ease this morale issue.

2.5 Continuous Improvement in Stress Management

Having described the social status and image of Hong Kong Police and related stress between 1950s and 1970s, the historical development of stress management from the 1980s to the present millennium can be summarized into four stages as follows:

Table 4: Historical development of stress management in 4 stages

Stage	1	Declining to acknowledge police stress in 1970s and earlier;
Stage	2	Recognition of police stress in 1980s (e.g. as factor in pay determination)
Stage	3	Widening the perspective of stress management in 1990s from remedial training to proactive healthy lifestyle management;
Stage	4	Adopting scientific research in the new millennium to stress at work to acknowledge and evaluate effective policing and continuous improvement in stress management.

It can be seen that the development of stress management has been a step-by-step process in line with the environmental changes in the community as well as the cultural changes in the Hong Kong Police Force. The study of organizational culture and stress management will be included in the next chapter. The review of the historical development of stress management in the Hong Kong Police Force will be relevant for further analysis and discussion together with the findings of this research in Chapter 7. The need to study the organizational culture and the role of transformational leadership for comprehensive stress management in the Hong Kong Police Force will be further analyzed in Chapter 8.

Chapter 3

Literature Review

Approaching the Topic of Stress

The review of the recent social history of Hong Kong policing in the previous chapter has provided a context for emerging of a focus on police stress and of recent attempts to address the problem of stress within the Force. It can be seen that the development of stress management has been a step-by-step process in line with changes in the community as well as in the Hong Kong Police Force. This chapter presents a review of a range of literatures related to the topic of stress in policing. The following dimensions of the topic will be reviewed, with appropriate integration into my research: conceptualisations of stress, research on police stress, gender dimensions of stress and female policing, and research on stress management. This literature thus forms a contextual frame for the development of the research design and a basis for analysis of the data in the study.

The process of literature review is interesting and challenging. Rudestam & Newton (2001, P.61-62) make the analogy between undertaking a literature review and making a movie. In filmmaking, there are "long shots", "medium shots", and "close ups", which refer to the relative distance between the camera and the subject matter. As a metaphor, a long shot suggests that the material is background for a particular topic. The medium shot is somewhere between the long and short focus, requiring more descriptive detail. Finally, the close up requires a careful examination of the research and is reserved for those studies with the most relevance to the proposed research question. Likewise, my

review of relevant research studies moves from broad to narrow, from general to specific.

3.1 Conceptualisations of Stress

There are three main elements in the conceptual literature on stress: firstly, the study of stress from physiological and psychological perspectives; secondly, the relation between stress and stressor; and thirdly, the consequences of excessive stress, in particular, recent research in stress undertaken within the field of psychoneuroimmunology, the interdisciplinary study of mind, brain and the immune system. A review of literature on coping strategies and common ways of coping with stress will be addressed in the last section on Stress Management.

Physiological and psychological approaches

Stress has been conceptualized in many different ways. Stress issues were first studied from physiological and psychological perspectives. According to Greenberg (2002), a physiologist Walter Cannon first described the stress response as the "fight-or-flight" response in 1932. This was followed by specification of changes in the body's physiology that resulted from stress conducted by an endocrinologist, Hans Selye, in 1956. There are other accounts of this history, however as Everly (2002), elaborated that the term "stress" was first introduced into the health sciences as early as 1926 when Selye was still a medical student. Selye founded the International Institute of Stress in 1976 at the University of Montreal. Selye's research has the status of a classic reference point still influencing stress research. In Selye's early writings he used the term stress to describe the "sum of all nonspecific changes within an organism caused by function or damage" (Selye, 1974, p.14). Selye noted that individuals suffering from a wide range

of physical ailments all seemed to have a common constellation of symptoms, including loss of appetite and ambition, decreased muscular strength and elevated blood pressure. In Selye's later studies, he refined the concept of stress as "the nonspecific response of the body to any demand" (Selye, 1974). In terms of a psychological emphasis in Selye's work, he stated that, "It is not what happens to you that matters, but how you take it." (Selye 1974, cited in Everly, 2002, p.7) Psychosocial stressors become stressors by virtue of the cognitive interpretation of the event. In other words, people are disturbed, not by things or events, but the views they take of them.

Psychological conceptions of stress grew in significance in the following half-century. In the late 1980s, Fontana (1989), a cognitive psychologist, defined stress as "a demand made upon the adaptive capacities of the mind and body". Fontana introduced the psychological aspect of the mind in addition to the physiological reaction of the body. He further explained that, if these capacities can handle the demand and enjoy the stimulation involved, then stress is welcome and helpful. If they cannot, and find the demand debilitating, then stress is unwelcome and unhelpful. Fontana pointed out that this definition is useful in the following three ways: first, stress can be both good and bad; second, it is not so much events that determine whether we are stressed or not, it is our reaction to them, and, third, stress is a demand made upon the body's capacities. If our capacities are good enough, we respond well. If they are not, we give way.

Fontana's account has been reasonably balanced and useful in framing my research, particularly in understanding individual reactions to stress and the need to develop personal capacity to cope with the demand.

Relations between stress and stressor

The term "stress" was originally borrowed from the science of physics. In 1676, Hooke's Law described the effect of external stresses, or loads, that produced various degrees of "strain" or distortion, on different materials (Rosch 1986). Rosch pointed out the confusion concerning whether stress was a "stimulus" as used in physics, or a "response" as used by Selye (Rosch, 1986, ix). Using the term "stress" to denote a response left Selye without a term to describe the stimulus that engenders a stress response. Selye then chose the term "stressor" to denote any stimulus that gives rise to a stress response (Everly, 2002, p.7).

Basically, the relation between the demand/requirements of the body and mind from job or environment and the physical and emotional reactions/responses remains the essence in conceptualisations of stress. Everly (2002) summarizes stress as a physiological response that serves as a mechanism of mediation linking any given stressor to its target organ effect or arousal.

Consequences of excessive stress

Selye (1974) distinguished constructive from destructive stress, clearly pointing out that not all stress is deleterious. He argued that stress arousal could be a positive, motivating force that improves the quality of life. He calls such positive stress *"eustress"* (prefix *eu* from the Greek meaning "good") and debilitating, excessive stress *"distress."* However, as stress continuous to increase, a point of maximal return is reached. This point may be called the optimal stress, because it becomes deleterious to the organism should stress arousal increase. The point at which an individual's optimal stress level is reached, that is, the apex of one's tolerance for stress as a productive force, seems to be a function of genetic, biological, acquired physiological, and behavioural factors.

Everly (2002) cites a vast research literature, arguing that, when stress arousal becomes excessively chronic or intense in amplitude, target organ (the organ affected by the stress response) disease and /or dysfunction will result. When stress results in organic biochemical and/or structural changes in the target organ, these results are referred to as a psycho-physiological disease or a psychosomatic disease. These terms are used interchangeably to refer to organically base physical conditions resulting from excessive stress. Everly further points out that we must also recognize that the human mind can serve as a target organ. Thus, in addition to somatic stress-related disorders, it seems reasonable to include psychiatric-stress-related disorders as potential target-organ effects as well.

Recent research in stress has been extending to the field of psychoneuroimmunology, the interdisciplinary study of mind, brain and the immune system. For example, a leading researcher in this field, Kiecolt-Glaser's (2008) work has contributed to establishing a causal relationship between stress and depression, chronic inflammation and illness such as cardiovascular disease and arthritis. Kiecolt-Glaser (2008) has developed new perspectives on stress and inflammation and points out how stress can kill. She demonstrates an intricate process in a cascade of negative effects: chronic stress can cause immune dysregulation, and this dysregulation causes increased risk of disease, and that risk in turn increases chronic inflammation, wearing down the immune system, which can be deadly. Her research suggests that physiological and behavioural interventions to diminish stress and depression may improve the outcome of many diseases.

3.2 Police Stress

This section addresses the common signs and symptoms of stress among police; the sources of police stress, and the view from operational and organizational perspectives; and the post-traumatic stress disorder (PTSD). As discussed in Chapter 1, policing was rated second after mining from the information of the International Labour Organization (ILO 2001a) in terms of stressful occupations. Brown and Campbell (1994, p. 12-13) have predicted that police work will become even more stressful in the future, since police are to deal with increasing social problems and tensions. Here I will review the common sources of police stress.

Signs and symptoms of police stress

The Central Florida Police Stress Unit Incorporation (CFPSU - http://www.policestress.org/main.htm 2009.8.30) has one of the most comprehensive analyses of police stress. According to their account, law enforcement today is widely considered to be one of the most stressful occupations, associated with high rates of divorce, alcoholism, suicide and other emotional and health problems such as heart attacks and strokes. The CFPSU further classifies the signs and symptoms of stress from three aspects, namely the physical, emotional and behavioural as follows:

Physical: fatigue, muscle tremors, vomiting, teeth grinding, nausea, profuse sweating, chest pain, rapid heart rate, twitches, breathing difficulty, dizziness, diarrhoea, black outs, and headaches etc.

Emotional: anxiety, severe panic, guilt, uncertainty, fear, depression, denial anger, irritability, and bad thoughts etc.

Behavioural: withdrawal, inability to rest, pacing, anti-social acts, suspicion, change in activity, emotional outburst, and substance abuse etc.

The Central Florida Police Stress Unit Incorporation (CFPSU) derived the above list of common signs and symptoms of stress from two sources: a review of related research and daily experience in counselling stressed officers. This checklist serves as a useful instrument in early identifying stressed officers for follow up interventions and is of considerable benefit for developing strategies that arise from the conduct of my research in the Hong Kong setting.

Common sources of police stress

Finn (1997), a researcher for the FBI Law Enforcement Bulletin, classifies sources of stress for individual law enforcement officers into five general categories: a) issues in the officer's personal life, b) the pressures of law enforcement work, c) the attitude of the general public toward police work and officers, d) the operation of the criminal justice system, and e) the law enforcement organization itself. He comments that many people perceive the danger and tension of law enforcement work to be the most serious sources of stress for officers, as dramatized in book, movies and television shows. However, his research identifies that the most common sources of police officer stress involve the policies and procedures of law enforcement agencies themselves.

Organizational stressors such as poor supervision, and lack of recognition for superior job performance are often more subtle but no less devastating factors interfere with the psychological equilibrium of law enforcement officers (Sheehan & Van Hasselt 2003). Donald Sheehan, a Special Agent on stress management at the FBI Academy, and Vincent Van Hasselt, a psychologist and behavioural therapist jointly completed the development of the Law Enforcement Officer Stress Survey, where they asked officers to identify major areas of stress, and then based on these responses, formulated the situations into scenarios, which officers subsequently evaluated the likelihood of such

encounter, and rated how difficult each situation would be. One of the results from their interview study revealed that the effects of organizational stressors are considered greater than operational stressors.

Similarly, studies of police stress have shown that the most common and negative aspects of policing are the result of bad police management and bureaucratic structures, while stopping citizens, making arrests and discharging their weapons were reported as less stressful (Burke 2007, p.3). Ronald Burke, a guest editor of *Policing: An International Journal of Police Strategies and Management*, further points out that officers are trained in ways of dealing with general public; it is harder to equip them for dealing with a bad supervisor, and potential bias in promotion processes.

A further source of stress is related to perspectives of police management and co-workers, reinforced through police subculture, viewing stress as a sign of personal weakness: stressed officers are construed as weak, untrustworthy, and unlikely to back up an officer in a critical altercation (Stevens 2008, p.2). Dennis Stevens, an Associate Professor of Criminal Justice and counselor of law enforcement and correctional officers at various law academies in the United States, further reveals that the police organization even blames the officer for the stress situation, which in turn reduces the officer's chances of promotion or recovery. A personal response is to identify with this finding, as a police officer for over thirty years, having experienced a similar police subculture.

Operational and organization perspectives

As mentioned above, some enforcement agencies and their serving officers still regard police stress as an individual issue and a sign of weakness for suffering officers. On the

other hand, some leading agencies are willing to put resources in exploring the sources of stress from both the operational and organizational perspectives. A key research study investigating sources of police stress is the work of McCreary and Thompson (2006) in Canada, which developed a key instrument: the Police Stress Questionnaire examining police stress from both perspectives. The project was supported by the Ontario Provincial Police Academy, Ontario Provincial Police Association, Ontario Police College and Defence R&D Canada – Toronto. McCreary and Thompson (2006) developed two reliable and valid measures of stressors in policing: the Operational Police Stress Questionnaire (PSQ-OP) and the Organizational Police Stress Questionnaire (PSQ-Org), both 20 items each, which can be used either separately or together (McCreary & Thompson 2006).

I have reviewed the items in the two PSQ and consider they are also applicable in the local context with the Hong Kong Police. I have adopted the two PSQ in the quantitative part of my research, with adaptations to fit the local conditions in Hong Kong. The development of the two reliable and valid PSQ will be outlined in detail in Chapter 4, and the findings presented in Chapter 5.

There are many stress-related issues that should be addressed from both the operational and organizational perspectives, for instance, health and safety risks surrounding policing as an occupation. Parsons (2004) provides a review of some of the existing research on the occupational health and safety risks that police officers in Canada, the United States and Europe may encounter on a daily basis. Parsons divides the health and safety risks associated with policing into five categories: physical, chemical, biological, ergonomic and psychosocial. This review indicates that occupational stress is a two-sided issue requiring the attention and effort of both individual officers and

management. These findings echo one of the key findings in this study and support the main arguments for stress management outlines in conclusions in Chapter 8.

Post traumatic stress disorder (PTSD)

A manifestation of stress of significance in policing is post-traumatic stress disorder (PTSD). Traumatic incidents are known to have long-lasting effects on the involving officers, and the handling of traumatic incidents is an unavoidable component of the work of officers of the Emergency Unit (EU). In my research, one of the aspects I wanted to determine from participating officers, through individual interviews was their understanding and experience of PTSD.

PTSD is diagnostically classed as an anxiety disorder that causes significant changes in behaviour (things we do), cognitions (thoughts, and the way that we think) and physiology (physical feelings of anxiety). It can also affect a person's daily life including work, relationships, hobbies and interests (Rogers and Liness 2000). Traumatic incidents are conceptualized as "any situation faced by emergency personnel that causes them to experience strong emotional reactions which have the potential to interfere with their ability to function either at the scene or later" (Patterson 2001). Patterson sets a time range to include an incident occurring within the past six months. Similarly, McCreary and Thompson (2006) used the time range of six months to cover related incidents. This identification of the potential to interfere with an officers' ability, not simply on the scene, but also later, is an important factor influencing the design of the Hong Kong study. Six months should be a reasonable period and have adopted this time line when conducting the survey with PSQ and individual interviews.

Regarding the types of traumatic incidents to be measured, Patterson identifies the following six incidents as representing potentially dangerous situations in which there exists a high probability that either the officer or another individual can be seriously injured or killed: a) handling a domestic dispute, b) handling a child abuse/neglect situation, b) a situation requiring the use of force, d) confronting an aggressive crowd, e) confronting a person with a gun, and f) a high-speed car chase through city streets.

PTSD is considered a normal response by normal people to an abnormal situation (Schiraldi 2009). The traumatic events that lead to PTSD are typically so extraordinary or severe that they would distress almost anyone. These events are usually sudden; they are perceived as dangerous to self or others, and overwhelm ability to respond adequately. Kirschman (2000), a clinical psychologist and a police therapist, points out that behind the primary trauma victim are the nearly invisible family members, friends and co-workers whose lives are also deeply affected by the trauma – but for whom few services exist. These insights on PTSD will be taken up directly in the data analysis in Chapter 7.

3.3 Gender Stress and Women Policing

One important objective in this research is to investigate whether female and male officers in EU differ in their sources of stress, levels of stress responses, and means of coping with stress. In relation to this objective, literature will be reviewed related to gender and stress in general and in relation to women policing. Within the scope of the field of gender and stress, I will review research on gender differences in stress, and explore what has been called a "new stress paradigm for women" (Azar 2000). In relation to research on women policing, two issues emerge as particularly relevant to

this study: namely barriers to integration of women officers, and the development of women and community policing.

Gender differences in stress

The International Labour Organization (ILO 2001) indicates that the relationship between gender, work and stress is generally complex. This subsection will review the chronological development of research on gender differences in stress, including the association with work and family roles brought up between 1950s and 1990s, a new stress paradigm for women identified in the new millennium, and the latest findings from biochemical and neural studies in recent years.

Gender differences associated with work and family roles

Over the past half century, the overall numbers of women in the labour force has increased rapidly. This subsection presents a review of research in the recent two decades on gender differences associated with work and family roles. Trocki and Orioli (1994), cited the United States Bureau of Labour Statistics 1992, that, in 1950, less than one quarter of married women were in the labour force; in early 1990s, over 58% of married women work, and 75% of those work full-time. Cohany and Sok (2007), economists in the United States Bureau of Labour Statistics, revealed that married mothers accounted for most of the increase in total labour force participation during the post-war period. They mentioned that, in 2005, the participation rate of married mothers with preschoolers was 60 percent. In Hong Kong, according to the 2006 population by-census (Hong Kong Government 2006 www.bycensus2006.gov.hk), the labour force participation rate for male in 2006 was 71%, a drop of 4.7% from 75.7% in 1996; while the labour force participation rate for female in 2006 was 52.6%, an increase of 4.8% from 47.8% in 1996. Given the increasing number of women in the workplace, research

on gender and the stressors associated with work and family roles has been the theme of a considerable body of research,

However, research on occupational stress has focused primarily on men and that many gaps and biases exist (Belle 1987; Barnett, Biener & Baruch eds. 1987). Trocki and Orioli (1994) noted that one of the unanswered questions is whether women suffer from greater occupational stress than men. Trocki and Orioli (1994) were among those early researchers in gender stress, who suggested that the lack of a consistent pattern is not irrefutable evidence that gender differences do not exist. Evidence reveals the needs to be more systematic research on the topic conducted with comparable measures and comparable populations. Since then, in the recent decade, there are increasing systematic studies and publications in gender stress, for instance, Gianakos (2000); Taylor et al (2000); Nelson and Burke (2002); Hegadoren et al (2006), which will be discussed in subsequent paragraphs. In my research on police stress with officers in the Emergency Unit of Hong Kong Island (EUHKI), I experienced a similar issue with comparable populations between male and female officers, due to the difference in established strength of different genders.

Trocki and Orioli (1994) also noted the problem of women having heavier demands than men with respect to family roles. Their study with professional and administrative workers shows that, in relation to types of stressors, stress levels and symptoms, women perceived higher stress in relation to personal changes and pressures than men; women had significantly higher scores than men on physical, behavioural and emotional symptoms of distress. In relation to coping, Trocki and Orioli report that women had somewhat lower coping resources, tended to have lower scores on many of the coping measures, except for self-care and social support. These results, together with the

findings by the International Labour Organization in the next paragraph, are useful for comparison and discussion with the findings of my research in Chapter 7.

The International Labour Organization (ILO 2001) also indicates several factors that appear to magnify the impact of stress on women, chief among them being the preponderant role that women still play in the provision of family care. The total workload of women employed full-time is higher than that of full-time male workers, particularly when they have family responsibilities.

In relation to psychological research on gender roles and coping with work stress, there are a variety of conflicting findings. For example, some studies find that women experience overall greater amounts of work-related stress (for example, Gadzella, Ginther, Tomcola, & Bryant 1991), other research argues that different work factors account for gender-related stress (for example, Spielberger & Reheiser 1995), and still others report no gender differences when controlling occupation and position (Gianakos 2000). Irene Gianakos, a gender role researcher, concerned with investigating the relationship between gender roles and styles of coping with work-related stress, examined 176 adult undergraduate students (130 females, 46 males) who were concurrently employed while attending college. One of the results of her study revealed that gender roles were significantly related to reported use of control-related coping and, in most cases, was a more salient factor than biological gender. Gianakos (2000) argues to include the gender-role identity, as the critical variable instead of just focusing on physically determined gender, or biological gender. This view is corroborated by research examining how socially defined gender roles affect individual experience of stress and health at works (for instance, Nelson and Burke 2002).

A new stress paradigm for women

The classic theory of stress response is the "fight-or-flight" response, related to the physiological and psychological aspects of stress responses (Cannon 1932). This subsection addresses what has been termed a "new stress paradigm" (Azar 2000) from a female perspective, leading to a better understanding of the biobehavioral responses to stress in females. This paradigm has been termed "tend-and-befriend", rather than "fight-or-flight" (Taylor, Klein, Lewis, Gruenewald, Gurung, and Updegraff 2000). The new paradigm has attracted considerable discussion and comment in terms of a developing understanding of physiological, psychological and social responses to stress.

Although "fight-or-flight" may characterize the primary physiological and psychological responses to stress for both males and females, Taylor et al (2000) propose that, behaviorally, female responses are more marked by a pattern of "tend-and-befriend". Tending involves nurturing activities designed to protect the self and offspring that promote safety and reduce stress; befriending is the creation and maintenance of social networks that may aid in this process. The biobehavioral mechanism that underlies the "tend-and-befriend" pattern appears to draw on the attachment-care giving system, in conjunction with female reproductive hormones (Taylor et al 2000). Taylor et al's (2000) study and results have in fact involved inter-disciplines including biological, psychological, and socio-cultural paradigms.

This previously unexplored stress regulatory system has manifold implications for the study of stress. Azar (2000) reported the observations of Taylor et al (2000) that the new "tend-and-befriend" model will not simply replace "fight-or-flight"; rather, it adds another dimension to the stress-response arsenal. Taylor argues that the new model fills the gap in the stress response literature: namely, that almost all studies have been

conducted on males and asserted the fight-or-flight as the main response to stress, based on a skewed sample.

For a practical example, Nesbitt, Inglehart, and Sinkford (2001), in their research on "Stress and Coping among Dental Educators – Does Gender Matter?" confirmed Taylor et al's (2000) findings leading to the identification of the "tend-and-befriend" model: that women seem to rely on different support systems than men, such as support from a relative, friend, or housekeeper. Development related to this new paradigm continues within psychobiology. For example, Sternberg (2003), citing Taylor et al (2000), suggest that the difference in the way men and women react to stress might be attributed to the hormone oxytocin. More commonly associated with labor and breastfeeding, oxytocin is also released during touch and massage, and is often called the "affiliation hormone" because of the role it plays in socialization and bonding. Interestingly, it is also released during stress in both men and women. But there the similarities end. In men, testosterone and other such male hormones seem to antagonize, or diminish, the benefits of the oxytocin hormone, whereas in women, estrogens appears to intensify its effects. Thus, in women oxytocin appears to act as an impetus, sending women in search of social support in times of stress and thus providing a protective effect. The relationship among biological, psychological and social aspects related to gender and stress is complex and yet to be further explored.

Gender differences in post traumatic stress disorder (PTSD)

Hegadoren, Lasiuk, and Coupland's (2006) study on post-traumatic stress disorder (PTSD), reveals that women experience depression at roughly twice the rate that men do, and are more vulnerable to PTSD. Kathy Hegadoren, a nursing professor and director of the Women's Health Research Unit in Alberta, Canada, studies the psychological and

biological factors that determines why women are more vulnerable than men to stress disorders. In an interview with *Research News* of Alberta Innovates – Health Solution (http://www.ahfmr.ab.ca/researchnews/2007/spring/stresswomen/), from her research and professional experience, Hegadoren (2007) shared that women biologically are vulnerable to depression after childbirth and around the time of menopause. She points out that a number of social and political factors come into play, including poverty, social justice, childcare burden, home responsibilities and working outside the home. Hegadoren notes that there is a need for integrating these pools of knowledge. She further points out that research on the neurobiology of severe stress has focused on experiences of combat soldiers, prisoners of war, firefighters, and police. Yet women's trauma is often around interpersonal relationships. Hegadoren argues that her research has evolved into recognizing it is important to start with those experiences and understand their full impact on women's mental and physical health. In line with Hegadoren's argument, my interview study on responses to police stress by both male and female constables is a start in the Hong Kong context, and will contribute an international comparative reference.

Barriers to the integration of women officers

In 1996, Susan Martin presented at the Australian Institute of Criminology Conference and the First Australasian Women Police Conference in Sydney a paper titled "Doing Gender, Doing Police Work: An Examination of the Barriers to the Integration of Women Officers". The paper examines the pervasiveness of gender in all aspects of social life, how and why this hinders women's efforts to achieve their full potential in policing and the implications of this understanding for addressing specific policy issues related to women police. The paper examines the barriers to women in policing from the following four areas: i) police work and culture, and men's opposition to women

officers; ii) interaction, ideology and images; iii) policies and practices that disadvantage women; and iv) doing gender on the street. Martin's (1996) findings and arguments are corroborated by Lord and Peak (2005), and their relevancies with this study are summarized below.

Martin (1996) indicates that police work involves both crime fighting, viewed by many as real police work, and service and order maintenance tasks, disdained as far less glamorous and rewarding. Despite changes in both the nature of policing and the status of women, many male officers continue to believe that women cannot handle the job physically or emotionally and, therefore, oppose their presence on patrol. Lord & Peak (2005, p.35) also argue, in their historical overview of women policing, that traditionally few women were hired by police departments, most female officers were assigned to the youth-aid division, as clerical workers, and were rarely allowed to do work on their own without male "protection".

Martin (1996) further states that, beyond the negative attitudes of individual men, is a work culture that is characterized by drinking, crude jokes, and sexism, which demands that women who enter it adopt the "male characteristics" in order to achieve even a limited social acceptability. Similarly, Lord & Peak (2005, p.35) demonstrate that male officers were often hostile toward females and questioned their value as equals, refusing to ride with female partners.

The above findings were a fairly common part of my experience when I joined the Hong Kong Police in the mid 1970s. Police officers were commonly task oriented, crime fighting and investigation were viewed as real police work, patrol duties were secondary and the service culture was very weak. Women officers, particularly junior

officers, normally performed administrative and supportive roles. There were individual male officers who practised resistance to women officers in the belief that women were both physically and mentally weaker, unreliable in the face of danger or even troublesome. These issues, reinforced by the police subculture, no doubt have been causes of stress for women officers.

Women and the development of community policing

In the 1980s in the United States, community based policing became the watchword for gaining public support by linking the officers to the community and citizens in the co-production of crime control and public safety services (Skolnick and Bayley cited in Martin 1996). Martin (1996) points out community-based policing requires police organizations to re-conceptualize what is real police work, changing from the focus from individual crimes to recurrent problems that affect order and public service. It also demands officers who are trained in problem identification, analysis, solutions and interpersonal skills. Martin (1996) raises the question as to whether women are more likely to adapt and succeed with this new style of policing,

Concerning performance, Lord and Peak (2005 p.63-77) cite studies in the New York City Police Department (NYPD) in 1972, 1983, and 1988, which showed that women could perform as well as men on patrol. They suggest that the current era of community policing, with its transition from an emphasis on physical prowess to creative problem solving and effective communication skills, would seem suited for women officers.

Nevertheless, as related to coping and adapting, there are issues concerning acceptance of women officers, with mixed perceptions of their abilities by themselves, the public and their male co-workers. Martin (1980), cited in Lord and Peak (2005 p.72),

developed a model of female officer behavioural adaptations to the discriminatory and stressful situations they were facing in the police culture. Martin labeled the two extremes of a continuum of behaviours as "POLICEwomen" and "policeWOMEN". "POLICEwomen" seek to gain acceptance from male counterparts by becoming even more aggressive, loyal, and streetwise than the male officers. "PoliceWOMEN", at the other extreme, are unable or unwilling to fully accept the patrol role, they tend to enjoy the service aspects of policing and seek non-patrol assignments and personal acceptance as women. It was noted that female officers ranged along the continuum, with few female officers at either extreme. Although women have worked hard to be accepted in law enforcement, and must continue to do so, they have found the means to cope with their own perceptions, and the attitudes of others, in order to have satisfying careers (Lord and Peak 2005, p72-76).

With growing concerns of women in policing from various sources, the Australasian Council of Women and Policing (http://www.auspol-women.asn.au/council.html 2010-03-03) was established in August 1997 as an outcome of the First Australasian Women in Policing Conference held in Sydney 1996. The Council is a growing group of women and men within police services and the community, and its vision is to improve policing for women by making policing organizations more attractive and rewarding employers of women, and ensuring that policing services meet the needs of women in the community. The Council has been publishing the *Journal for Women and Policing* online for easy reference by all concerned fellows. One of the publications of the Council (ACWP 2010), *Surviving your first years – A guide for women entering the policing profession* suggests the possibility of preparing a similar supportive publication for female officers entering the emergency units. As an Asian city, Hong Kong would also benefit from the service of this Council, or a similar body.

3.4 Stress Management

The need for development of an organization-wide approach to stress management is a major focus of my research. Traditionally, as noted earlier, stress was considered an individual issue; people suffering from job stress might be viewed as weak, particularly among co-workers reinforced through the police subculture (Stevens 2008). In this section, I will first review research on the costs of stress, and perspectives on management interventions. In the second and third subsections, I will summarize some common interventions at individual level, and organizational level respectively. The fourth subsection covers the exploration of stress management from the perspective of organizational culture. The section concludes with a review of a comprehensive approach combining both individual and organizational perspectives; since organizations as well as individuals stand to gain in performance from eliminating stress from the workplace, and similarly both stand to lose out when stress is mismanaged (Quick et al 1997).

Costs of stress and the perspective for management interventions

Costs of stress, as analysed by the International Labour Organization (ILO 2001), are enormous. For an individual, in addition to the devastating impact of the serious health impairments, the loss of capacity to cope with working and social situations can lead to diminished success at work, including loss of career opportunities and even employment. It can give rise to greater strain in family relationships and friends. It may even ultimately result in depression, death or suicide. For the company or organization, the costs of stress take many forms. These include absenteeism, higher medical costs and staff turnover, with the associated cost of recruiting and training new workers.

The International Labour Organization (ILO 2001) cited the European Agency for Safety and Health at Work's (2000) recent estimates of the costs of work-related stress:

- In the United Kingdom, it has been suggested that over 40 million working days are lost each year due to stress-related disorders;
- In the United States, over half of the 550 million working days lost each year due to absenteeism are stress-related.

Based on research studies and related statistics, Tangri (2003) derived a formula for measuring the hard costs of stress, which included a variety of costs as follows: 19% of absenteeism; 40% of turnover; 55% of employee assistance programs; 30 % of short and long term disability; 10% of drug plan costs; 60% of total workplace accidents; and the total costs of workers compensation claims and lawsuits due to stress. Making up these calculations will give management a conservative estimate of the costs of workplace stress of their organizations and a better perspective for the need of management interventions.

From more recent statistics, costs of workplace stress of various developed countries have been increasing greatly. In the United States in 2004, it was reported that workplace stress overload resulted in one million absent American workers each day, and the cost of workplace stress was estimated up to $300 billion annually from corporate profits (Ball 2004). In Canada in 2007, stress was considered part of an explosion in workplace mental health issues, costing the Canadian economy an estimated $33 billion a year in lost productivity, as well as billions more in medical costs (MacQueen, Patriquin and Intini 2007). In Great Britain in 2005/6, the cost of work related stress, depression and anxiety was in excess of £530 million, the number of workers who had sought medical advice for what they believed to be work related

stress increased by 110,000 to an estimated 530,000 (HSE 2007). In Australia, according to the Medibank Private commissioned report in 2008, cost of workplace stress direct to employers was up $10.11 billion a year, and to the total economy was high up to $14.81 billion (Medibank 2008). The research further revealed that Australian workers miss an average 3.2 working days a year because they are too stressed to work. There is no comparable research in the Hong Kong context.

Despite these large-scale economic figures, stress in the workplace has been researched predominantly from the perspective of the individual, aiming to reduce its effect instead of tackling actual stressors in the workplace (Cooper et al 2001). In response to the rising costs of stress, there was increasing interest for stress to be investigated from an organizational perspective, with widespread concern for appropriate actions among various countries. For instance, the Health and Safety Executive (HSE) is the UK body responsible for policy and operational matters related to safety and health. HSE has adopted Stress Management Interventions (SMIs) and a Management Standards approach for the control of work-related stress (Jordan et al 2003, and Mackay et al 2004).

Ivancevich et al (1990) define SMIs as "any activity, program or opportunity initiated by an organization, which focuses on reducing the presence of work-related stressors or on assisting individuals to minimize the negative outcomes of exposure to these stressors". SMIs can be grouped into three categories: individual, organizational, and individual/organizational, which will be mentioned in subsequent subsections.

Mackay et al (2004) argue that a Management Standards approach is appropriate for the control of work-related stress. *Management* implies that risks arising from particular deficiencies in aspects of the working environment can be systematically addressed by a

combination of well-established risk management methodologies adapted for the psychosocial work environment, coupled with contemporary human resource management approaches. The term *Standard* implies a set of principles agreed by consensus that can be applied to enhancing health and safety by identifying hazards and reducing associated risks. Cousins et al (2004) summarize the Management Standards as a series of "states to be achieved", which are statements of good practice in six key stressor areas: demands, control, support, relationships, role and organizational change.

The widening perspective from individual to organizational, together with the need for risk management on safety and health issues, certainly assists concerned organizations to form up strategies to prevent and manage stress. Similarly, in the field of policing, there has been increasing demand for more organizational recognition and effective interventions. Finn (1997), for example, argues for an organization-centered approach in reducing stress, indicating that most stress programs adopt a person-centered approach, treating the symptom but not the cause. Finn argues that reducing organizational sources of stress should lead naturally to better morale, improved productivity and enhanced overall department efficiency. Moreover, Sheelan & Van Hasselt (2003) have called for identifying law enforcement stress reactions early, so that managers and mental health practitioners can work out timely, focused interventions, and law enforcement supervisors can formulate useful training programs accordingly. Stevens (2008) argues that police organizational structure must confront its responsibility of providing a suitable environment where personnel can bring the agency closer to its mission.

The next two subsections will summarize some common interventions at individual level, and at organizational level respectively.

Effectiveness of coping strategies and SMIs at the individual level

There are various coping strategies and ways of coping with stress at the individual level. This is a summary of some common ones for subsequent comparison with the findings in this research.

Kariv and Heiman (2005) summarize research by Folkman and Lazarus in the 1980s that identified two primary functions for coping strategies: managing the problem causing stress and governing emotions relating to those stressors. Kariv and Heiman (2005) confirm two major related findings from a body of research in the 1990s. The first is that a situation is evaluated as stressful, in part, whenever the individual perceives a lower ability to cope with it. The second finding is that stressors perceived as controllable elicit more proactive coping mechanisms, while those perceived as uncontrollable elicit more avoidance strategies.

Coping strategies can be grouped into three main classes: task-oriented, emotion-oriented, and avoidance-oriented. The task-oriented strategy is problem-focused, involves taking direct action to alter the situation itself. In the emotion-oriented strategy, efforts are directed at altering emotional responses to stressors, for instance, reframing the problem in a way that it evokes less negative emotional response and less stress. In the avoidance-oriented strategy, it includes directly avoiding the situation, denying its existence, or using indirect efforts to adjust to stressors (Mattlin 1990, Higgins and Endler 1995).

Coping strategies, coping outcomes and work philosophy, were elicited as three over-arching themes in Cropley and Millward's (2009) interview study with workers on effectiveness of the unwinding process from work stress. Cropley and Millward's (2009)

findings revealed differences in core beliefs about work; workers who habitually find it difficult to switch off from work perceived blurred boundaries between work and home life, and they allowed work to mentally predominate during their leisure time, whereas workers who find it easy to switch off from work viewed their work and leisure as two distinct spheres, and actively developed strategies to disengage from work. Cropley and Millward concluded that there is a need for organizations to educate employees about the importance of strategic unwinding post-work to optimize the quality of leisure time and prevent them from becoming fatigued and burnt out. In 2008, Cropley and Millward conducted a workshop on 'Recovery from Work' and invited 20 experts from nine European countries and the USA, with an aim to lay the foundations for a better understanding of the process of recovery, and they reached a consensus that recovery from work had consequences for individual health, work system and safety, and impact of work culture. (http://www.ias.surrey.ac.uk/reports/recovery-report.html). These findings are relevant for discussion and analysis on the results of the interview study in Chapter 7.

In relation to gender, significant differences were found, with women reporting higher level of using avoidance-oriented strategies than men (Haarr and Morash 1999). On the other hand, other researchers found that males favored using task-oriented strategies to solve problems, while females inclined using emotional and social coping resources (Rawson, Palmer & Henderson 1999). These findings will be useful for my comparison in relation to possible similar gender differences in coping strategies for officers in the Emergency Unit.

Common stress management interventions (SMI) at the individual level identified to be effective from research literature are summarized here for subsequent comparison and

analysis on the findings in this study. These effective SMIs include relaxation techniques (McGuigan 1994, Tyler 2003), sleeping and adequate rest (Constable 1998; Jih 2009; Kiecolt-Glaser 2009; Piwowarczyk 2004), physical exercise (Constable 1998; Jih 2009; Salmon 2001), meditation (Alexander, Swanson, Rainforth, Carlisle, Todd, and Oates 1993; Davidson, Kabat-Zinn, Schumacher, Rosenkranz, Muller, Santorelli, Urbanowski, Harrington, Bonus, and Sheridan 2003; Lazar, George, Gollub, Fricchione, Khalsa and Benson 2000), sharing and social support (Parachin 2001; Taylor, Klein, Lewis, Gruenewald, Gurung, and Updegraff 2000; Taylor 2002; Tyler 2003), time management and prioritization (Cartwright and Cooper 1997; Homisak 2003), biofeedback (Greenberg 2002), and comprehensive approach with multi SMIs (Tyler 2003).

It is worth mentioning here that, although sleeping is identified as a major strategy for managing stress (Constable 1998; Kiecolt-Glaser 2009), recent evidence suggests that patients with shift work sleep disorder (SWSD) are at increased risk of these consequences (Schwartz and Roth 2006). According to Schwartz and Roth (2006), SWSD is a relatively common but under-recognized, and hence under-treated, condition with potential serious medical, social, economic and quality of life consequences. In addition to increased risk of gastrointestinal and cardiovascular disease, patients with SWSD experience clinically significant excessive sleepiness or insomnia associated with work during normal sleep times, which has significant safety implications. These findings and implications are relevant for subsequent discussion and analysis on the results of this interview study.

SMIs at organizational level

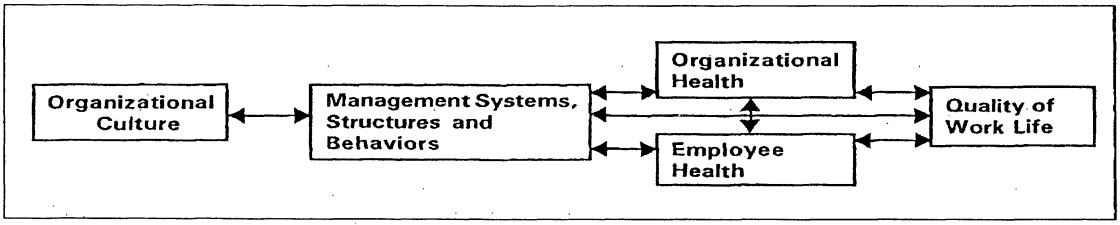
The enterprise culture of the 1980s helped transform economies of Western Europe, but

left behind a legacy of stress, both for managers and workers. Cooper and Cartwright (1997) argue for an intervention strategy for workplace stress. Stress-related absences are about ten times more costly in UK than all industrial relations disputes put together (Murphy and Copper 2000). Murphy and Copper (2000) argue that a collection of good practice with an international perspective would be necessary to create a healthy and productive working environment. There can be many kinds of interventions at the organizational level. Some common and practical ways suggested or adopted by various researchers or organizations in relation to reducing workplace stress are: right selection and placement (Tasmania 2009), on-going training and education (Jordan et al 2003), appropriate physical and environmental characteristics (Cartwright and Cooper 1997; ILO 2001; HSE 2001), effective communication and caring management culture (Burke 2007; People Direction 2009). The relationships between organizational culture and stress management will be mentioned further in details in the next sub-section.

Organizational culture and stress management

The study on stress management from the perspective of organizational culture has developed steadily in these two decades. For instance, Fulcheri, Barzega, Maina, Novara, and Ravizza's (1995) clinical study in Italy on 292 male and female managers found that it would be a serious mistake to dismiss the real and serious emotional impact on people from the culture of their organizations. Further, focusing on work stress in the USA from a cultural perspective, Peterson and Wilson (1998) developed a theoretical framework they titled a 'culture-work-health model', conceptualizing the links of organizational culture, management systems and behaviours, which affect the organizational health and employee health and the overall quality of work life. Figure 2 below shows this model.

Figure 2: Culture-Work-Health Model



A later review (Peterson and Wilson 2002) of the business and health literature related to organizational culture applied the above framework and argued that the corporate culture defines the context in which people behave and how the organization will be structured; as a consequence, culture influences what will be perceived as stressful. Peterson and Wilson (2002) refer organizational health to the well being of the corporate whole, which can be measured in terms such as productivity, performance, quality, competitiveness, and profit. In comparison, they refer employee health traditionally as physical and mental sickness, absenteeism and fatigue of the workers. Peterson and Wilson's review identifies the importance of culture as a component of work stress and argue that it may be a key to creating effective organizational stress interventions. They concludes that work stress is a business concern and a health concern when it is framed in a cultural argument, and the culture-work-health model provides a theoretical basis for new directions in improving work stress.

Simultaneously, the Regents of the University of Michigan (2002) in their report on safety culture declare that no substantive changes can be made without successfully remaking an organization's culture and emphasize the need for driving change through clinical leadership.

As a global strategy on occupational health for all, the World Health Organization (2003), basing on the preparatory report by Leka, Griffiths, and Cox (2003), published a

booklet on work organization and stress as part of an initiative to educate employers, managers and trade union representatives on the management of work stress. Organization culture is noted as one of the key factors in determining how successful an organization will be in managing work stress. Leka, Griffiths, and Cox (2003) point out that organizational culture is reflected in the attitudes of staff, their shared beliefs about the organization, their shared value systems and approved ways of behaving at work. The authors further argue that organizational culture can affect what is experienced as stressful, how both stress and health are reported and how the organization responds to such reports; if necessary, all levels within the organization must engage in culture change activities as an important aspect of improving the management of stress at work. Related study also flourishes in Europe, Kets De Vries, Guillen and Korotov (2009) publish a working paper on organizational culture, leadership, change and stress, with an aim to increase people's understanding of organizational change processes and the relationships between change, organizational culture, leadership and stress. They recognize that the need for adaptation usually induces a high degree of stress, both at individual and organizational levels; they argue that learning how to manage organizational change processes effectively may serve as a platform to motivate people to create better organizations to keep individual and organizational stress at acceptable levels. The report summarizes a four-stage process of how leaders accept the need for change: first, pain in the organizational system makes people aware of the serious consequences of perpetuating existing patterns; second, key power holders react to this awareness with shock and disbelief; third, these reactions can activate defensive routines that block further movement – fear of the unknown may contribute to a reluctance to introduce the kind of change that is needed, consequently, the organization may continue to act as if nothing is happening; and finally, there is the recognition that the status quo cannot be maintained and that change has to be faced. The report points

out that clinging on to the status quo only creates greater problems and a higher level of stress; and reviews the needs and processes for transformational leadership in continuous self-renewal of the corporate and its people in combating stress.

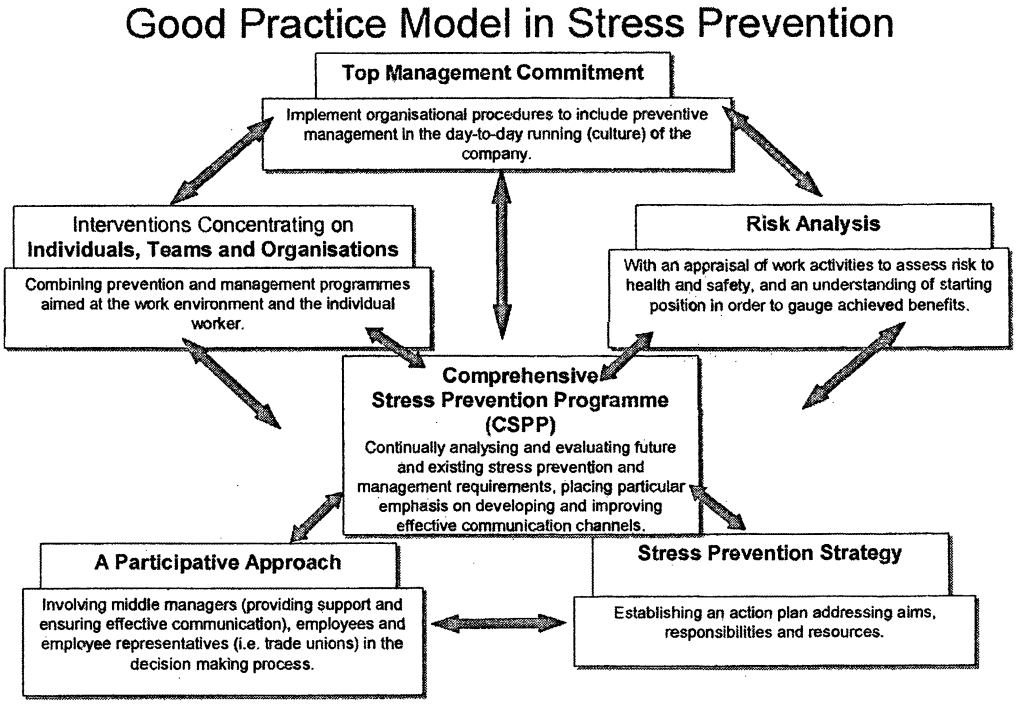
Comprehensive approach with combined perspectives

As indicated earlier, organizations as well as individuals stand to gain in terms of performance from minimizing or better managing stress from the workplace, and similarly both stand to lose when stress is mismanaged (Quick et al 1997). Considering the prevention and management of stress in the workplace, both the organization and individual workers have responsibilities and roles to play; a comprehensive approach combining the perspectives from both sides is likely to be the most effective option (Jordan et al 2003). Jordan et al argue that SMIs should cover both work-related and worker-related aspects. Work-related measures aim to develop a variety of preventive and management strategies dealing with the sources or causes of stress emanating from the work environment. Worker-related measures should also be in place to safeguard individual employees who have not been protected in the first instance by work-related measures or are subjected to specific situational stressors. Examples requiring joint efforts of organization and individuals are: improving communication processes, redesigning jobs, and involving employees in the decision-making process (Cooper et al 2001, Jordan et al 2003). Two comprehensive models with combined individual and organizational perspectives can be identified. .

The first model is a stress prevention model from the Health and Safety Executive (HSE) of the UK In 2003, HSE funded the work in stress prevention; assigned Robertson Cooper Ltd., and University of Manchester Institute of Science and Technology (UMIST) with a view to identify good practice in stress prevention and to develop a

comprehensive stress prevention model. Jordan et al (2003) took up the joint assignment, and identified a variety of intervention programmes being implemented by organizations. Jordan et al (2003) argue that a comprehensive approach to SMIs in organizations should include employee and middle management participation and top management commitment, with coverage of both work-related and worker-related prevention and management strategies. Their derived "Good Practice Model in Stress Prevention" is reproduced below with elaboration from Jordan et al (2003).

Figure 3: Good practice model in stress prevention (UK)



Central to this model is the introduction of a comprehensive stress prevention and management programme, with all components being part of a cyclical process aiming for continuous improvement. Such programme may be viewed as an all-encompassing organizational philosophy that recognizes individual and organizational health issues are interdependent. Senior management is responsible for implementing organizational procedures, without long term commitment, interventions are unlikely to be implemented successfully. A participative approach encourages employees from all

levels of the organization to participate, and include their representatives. The involvement and empowerment of employees at various stages of the intervention improves the likelihood of a positive result.

The stress prevention strategy is related to the development of an action plan addressing intervention aims, tasks, responsibilities and resources. In establishing the strategy, abilities and requirements of organizational members should be considered. Risk assessment and task analysis should be a continual process, enabling planned interventions to be evaluated, and if necessary, re-aligned to keep track with organizational changes. Concerning interventions, they should combine prevention and management programmes aiming at the work environment and individual workers.

The second comprehensive model is the workplace health model from the Peel Region in Canada (peelregion.ca). Traditionally, workplace health has focused on the safety of the physical work environment, and more recently on the lifestyle related health practices of employees in the workplace. The Canadian Healthy Workplace Criteria were developed in 1998 by the National Quality Institute (NQI) in partnership with Health Canada and in association with professionals from the health and safety sector. Research and knowledge of the success factors, contributing to employee wellbeing in the workplace as well as the practical experience and outcomes of successful organizations served as the foundation for the design of the Criteria. The Criteria bring together environmental, physical, mental, safety and social issues into a strategic model helping organizations set goals and manage their wellness programs (nqi.ca). The Peel Region of Ontario and many leading organizations in Canada and internationally have adopted the Comprehensive Workplace Healthy Model reproduced below.

Figure 4: Comprehensive workplace healthy model (Canada)

(Model adapted from National Quality Institute "Canadian Healthy Workplace Criteria")

The three elements of the above model are interrelated and include a focus on awareness, skill-building and supportive environments (ohwc.ca, peelregion.ca). The first element relates to occupational health and safety, aimed at reducing work-related injury, illness and disability by addressing the workplace environment and related aspects. The second element relates to healthy and lifestyle practices, aiming at individual behaviours and organizational strategies. The final element relates to organizational culture, focusing on psychosocial issues in the workplace environment.

These three elements have also been practised in the Hong Kong Police Force in the past decade. Occupational health and safety issues are receiving worldwide attention in policing, and Hong Kong is no exception. Occupational health and safety risk faced by police officers range from homicide, assaults, communicable disease, stress and fatigue, other injuries and illnesses (Mayhew 2001a). As mentioned earlier under section 2.3 and 2.4, the Hong Kong Police Force started promoting a healthy life style and inculcating a new service culture in mid 90s, and commits in life style management as one of the stress management interventions of recent years.

3.5 The Link to Research of Police Stress in the Hong Kong Context

The above review has covered a range of literature related to the conceptualisations of stress, police stress, gender dimensions of stress and women policing, stress management from both the individual and organizational perspectives. The conceptualisations of stress serve as a good contextual framework for my research in the Hong Kong context. Adaptation of the two validated Police Stress Questionnaires (Operational & Organizational) and the subsequent findings can be compared with the results of the Canadian study. From the review on gender dimensions of stress and women policing, it is noted that indeed how little research on gender and policing has been undertaken into police stress in the Hong Kong context. The review on the development of stress management reflects the needs for interventions from both the individual and organizational perspectives; and this can be compared with the latest development of the stress management in the Hong Kong Police Force, as well as compared with findings from participants in this research. Overall, there is a lack of research on stress, policing and gender in the Hong Kong context, compared with the body of research in other developed countries. Findings in this study provide an understanding on the situations of Hong Kong – a Special Administrative Region of China, and an international comparative reference.

Chapter 4

Research Design and Methodology

Introduction

This research has adopted a multi-method approach; and the research design consists of a historical overview of stress in Hong Kong policing, a survey questionnaire, a qualitative interview and focus group study. The historical overview of stress in the Hong Kong policing has been presented in Chapter 2. This chapter will first outline the rationale for the mixed method approach, and then describe the process of identifying an appropriate questionnaire for the survey, as well as the steps followed in the interview-based research procedures. Procedures of the three phases in this research will be outlined: the questionnaire survey, individual interviews, and focus group discussion. Finally, there will be a discussion of ethical issues associated with undertaking this research within the organization where I was a senior serving officer at the time the study commenced.

4.1 The Reasons for Multi-Method Approach

As mentioned earlier in Chapter 2, a historical overview is necessary to situate the particular issues of stress within the local cultural and political conditions in which Hong Kong is governed, and this works well with a combination of quantitative and qualitative investigation. In their review of mixed methodology research, Rudestam and Newton (2001, p.45-47) noted that perhaps the most common application of mixed methodology is to assess a large number of participants using standardized scales and

measures in a field study and then conduct open-ended interviews with a subset of the original sample to reach a richer understanding of the related issues.

I consider this mixed methodology to be highly applicable in this research. The first quantitative phase of the design, in the form of a standard questionnaire identifies participants' sources of stress, their levels of responding to stressors and their ways of coping with stress. The second phase, the qualitative individual interviews, provide insight into the perspectives and experiences of participants in greater detail, and reasons for their different responses towards various stressors. The final phase, the qualitative focus group discussion ascertains the need to develop stress management in addressing stress-related issues. The findings and conclusion of empirical and analytical research are drawn from facts, which can help future improvement. Nevertheless, without any interviews or observations, there is no deeper understanding of the experiences and feelings of the participants. The mixed approach is necessary for investigating the social complexities, including gender differences, in stress responses.

4.2 Identifying an Appropriate Questionnaire

The need for an appropriate and valid questionnaire to measure causes and levels of stress is of obvious significance in providing reliable data. Donald McCreary, chief designer of the Police Stress Questionnaire (PSQ), was a defence scientist in Canada, working with a group of social and clinical psychologists studying stress and coping among military personnel and other high-risk groups such as the police. He led the project "Development of the Police Stress Questionnaire" under the funding of Workplace Safety and Insurance Board of Ontario, Research Advisory Council in 2004. The intent of the project was to develop a short, psychometrically sound measure of

stressors associated with policing, which could then be used in a future program of research investigating the associations among stress, physical health, and psychological well being. With the help of focus groups, they identified two general categories of stressors faced by police officers: Operational Stress and Organizational Stress. Accordingly, they created two separate Police Stress Questionnaires: the Operational Police Stress Questionnaire (PSQ-Op) and the Organizational Police Stress Questionnaire (PSQ-Org). The two questionnaires are both 20-item surveys and can be used either separately or together. The short length of each PSQ helps reduce the burden placed on officers completing them.

Based on my professional experience, these two questionnaires were appropriate to my research. Fortunately, both PSQ are provided free for non-commercial, education, and research purposes. As a result of these validated questionnaires being available in this way, there will be opportunities for comparison between the Canadian and Hong Kong findings.

Here I summarize the development procedure adopted by McCreary and his team in assuring the reliability of the PSQ:

Focus groups – A series of six focus groups were conducted with 55 experienced, active duty officers from the Ontario Provincial Police (OPP). The focus groups helped identifying current and commonly experienced stressors associated with policing. Based on these, there were two general categories of stressors faced by police officers: Operational Stress and Organizational Stress. It was decided to use the most commonly mentioned stressors from the focus groups to create two separate police stress questionnaires: the Operational Police Stress Questionnaire (PSQ-Op) and the Organizational Police Stress Questionnaire (PSQ-Org).

Pilot testing – the PSQ-Op and the PSQ-Org using a 7-point scale from "not at all stressful" to "very stressful" were then given to a group of 47 OPP officers to determine whether there were any problems with the wording of the items or instructions. Participants related each item for both stress and frequency. In addition, the first pilot testing served as an initial assessment on the reliability of the PSQ-Op and PSQ-Org. Based on the responses; the wording of three items was altered slightly, as were the instructions. One item from the PSQ-Org was split into two separate questions. Cronbach's alpha reliability coefficients were computed for both the Operational and Organizational scales. The Cronbach's alpha for PSQ-Op was .90, whereas the alpha for the PSQ-Org was .89. The two scales showed adequate reliability in that their coefficient alphas were above .80.

Further testing – This was conducted in two parts. In the first part, 197 active duty police officers from throughout Ontario completed the PSQ-Op (20 items), the PSQ-Org (20 items). Findings demonstrated that the Cronbach alphas for both the PSQ-Op and PSQ-Org were .92 highly reliable (alpha >.90). The corrected item-total correlations for the PSQ-Op ranged from .39 to .70, whereas for the PSQ-Org they ranged from .43 to .71. In the second part, a different group of 188 police officers (mostly from Ontario, but with some officers coming from other Canadian provinces) completed the PSQ-Op and the PSQ-Org. The results again showed that the Cronbach's alpha for the PSQ-Op was .93, and the alpha for the PSQ-Org was .92, both highly reliable (alpha > .90). The corrected item-total correlations for the PSQ-Op ranged from .50 to .70, whereas for the PSQ-Org they ranged from .43 to .73. These reliability statistics suggest that the two measures have adequate internal consistency and can be confidently used by researchers.

In order to determine the suitability of these questionnaires for the Hong Kong professional setting, I conducted consultations with several colleagues at various levels ranging from constable to superintendent during my daily encounters. They tried out the two questionnaires and found that those items in the two PSQ were also applicable and appropriate in the Hong Kong context. Copies of the two PSQ are in Appendix A1 and A2 for reference. To meet the particular conditions of the Hong Kong setting, I have adopted the two PSQ with the following adaptations. A copy of PSQ with adaptations for Hong Kong context is in Appendix B for reference. First, the questionnaire was literally translated from English into Chinese for convenience of the participants. Second, a section on demographic information was added at the beginning of the questionnaire for statistical purposes. Third, five specific questions were added at the end of the questionnaire:

i) related training to address stress issues;

ii) level of need for a training strategy to address stress issues

iii) three ways commonly used to cope with stress

iv) any system support to address the issues; and

v) any suggestions to improve the situation.

The results of the Canadian study by McCreary and Thompson (2006) identify, in general, that organizational stressors were perceived to be significantly greater than the operational stressors. A key question was whether this study in the Hong Kong context would reveal similar findings. From the review of literature summarised under section 3.2, the effects of organizational stressors are generally considered greater than operational stressors (Burke 2007, Sheelan & Van Hasselt 2003, Stevens 2008). It is anticipated that the results of Hong Kong study would also in general, identify a similar finding.

4.3 Developing the Interviews

Qualitative research writer Kvale (1996, p.88) sets out seven stages of an interview-based research design. These stages are: Thematizing, Designing, Interviewing, Transcribing, Analysing, Verifying and Reporting. These seven procedures offer a systematic method and I have adopted the interview guide approach of Kvale (1996, 2007) in my qualitative interview process according to my research objectives and environment setting as follows:

Thematizing – This is the preliminary stage of an interview study, outlining the theoretical basis of the study, its broad aims, practical value and reasons why the interview approach was chosen. Concerning my research, the theoretical basis of this study is related to stress, police stress, gender differences and stress management. The research objectives are to find out from police officers of the Emergency Units in Hong Kong their sources of stress, levels of responses to stressors associated with policing, ways of coping with stress, and any gender differences in stress responses between male and female officers. The aims and practical value are to enhance awareness of participants as well as the police management in addressing stress-related issues through training and appropriate measures. The benefits for qualitative individual interviews would provide a deeper understanding of stress responses between male and female officers.

Designing – This involves translating the research objectives into the questions. The choice of question format, for instance, depends on some of the following factors: objectives of the interview, nature of the subject matter, specificity or depth to be sought, need for structure in the interviews, the interviewer's insight, the level of support and

response from interviewees etc. A list of structured questions for individual interviews is in Appendix C, focusing on participants' understanding in the following areas: causes and effects of stress, ways of coping with stress, post-traumatic stress, gender differences; as well as identifying their perspective in perceiving stress as an individual or organizational issue, and inviting suggestions for management interventions in addressing stress-related issues.

Interviewing – Setting up and conducting the interview should be well planned beforehand. To start, a quiet, comfortable environment and relaxed atmosphere was selected to put the respondent at ease. Each respondent was briefed on the nature and purpose of the interview, and given information about the study on the consent form, a copy of which is in Appendix D. Assurances of confidentiality of the information provided and the importance of his/her contribution are communicated to each participant. Each interview lasted around an hour. The interview is not merely a data collection exercise, but also a social and interpersonal encounter so as to let the participant feel secure to talk freely. With Kvale's (1996 and 2007) interview guide approach, I have given the respondents the list of questions and issues to be discussed in advance, as in the interview protocol in Appendix C, as mentioned earlier. The structured outline has increased the comprehensiveness of the data and made data collection somewhat systematic for each respondent. Each interview remained fairly conversational and situational.

Transcribing – This is a crucial step, for there is potential for massive data loss, distortion and reduction of complexity. I share the view that an interview is a social encounter, not merely data collection, It is noted that one problem with transcription is that it becomes solely a record of data rather than a record of a social interaction and

may neglect some non-verbal communication that might provide insight rather than simply verbal communication, particularly given knowledge of the context and culture. I have been cautious with this potential problem and arranged for each interview to be audio taped. I have paid attention to the following issues in transcribing: what was said, tone of voice, emphasis as well as the respondent's mood to ensure its accuracy in reflecting the actual understanding and meaning of the respondent. The record of each interview was first transcribed in written Cantonese, the native dialect of the respondent, and then literally translated into English.

Analysing – The analysis of qualitative data is inevitably interpretive, a form of reflexive, reactive interaction between the interviewer and respondent. The stages in analysis may include generating natural units of meaning, classifying and ordering these units of meaning, structuring narratives to describe the interview contents and then interpreting the interview data. Some tactics for generating meaning from transcribed interview data may include: counting frequencies of ideas, themes, pieces of data; noting patterns and themes, their causes or explanations; seeing plausibility – trying to understand data, using informed intuition to reach a conclusion; clustering – setting items into categories, behaviours; identifying and noting relations between variables; building a logical chain of evidence and making conceptual/theoretical coherence (Cohen, Manion and Morrison 2003; Kvale 1996, 2007; Kvale & Brinkmann 2009; Miles and Huberman 1994). I will present the discussion and analysis of the interview data in Chapter 7.

Verifying – This is related to issues of validity, reliability, and ability to generalise interview data. Cohen et al (2003, p.105) point out that validity is an essential requirement for both quantitative and qualitative research. They further explain that in

qualitative data validity might be addressed through the honesty, depth, richness and scope of the data achieved, participants approached and the objectivity of the researcher. The issue of reliability, in qualitative research, can be regarded as a fit between what a researcher records as data and what actually occurs in the natural setting being researched, i.e. a degree of accuracy and comprehensiveness (Bogdan and Biklen 1992, p. 48).

Verifying validity and reliability in this study has been assured throughout each of the seven stages of the interview-based research procedures from thematising to reporting. One of the assurances is my deep knowledge of policing in Hong Kong, personal experience as an operational police officer, as well as a professional trainer and counselor. Another assurance is the match between what the participants in this study have said and what is said in the relevant literature. As mentioned earlier, I have paid attention to things such as tone of voice and non-verbal communication of interviewees to ensure accuracy in interpretations and subsequent analysis.

Reporting – The nature of the reporting will be decided to some extent by the nature of the interviewing process. A standardized, structured interview may yield numerical data that may be reported succinctly in tables and graphs, while a qualitative, word-based, open-ended interview, as in this case, yields word-based accounts and takes up considerably more space. I will report the results of survey in Chapter 5, results of interview study in Chapter 6, and the analysis and discussion in Chapter 7. For reporting the dissertation of this study, I am obliged to submit a copy to the Hong Kong Police Force management, as a condition of approval for conducting this research, for consideration of following up the implications before sending it to the Force Library for reference. Beyond this, the results of the study are available for scholarly publication

and further comparative analysis, for example, with the Canadian study (McCreary and Thompson 2006), mentioned earlier.

4.4 Commentary on Methodology

Outlined here are the three phases and related procedures adopted in this research:

Phase 1 – Conducting the survey questionnaires

Seeking Approval

Before conducting the research with the Emergency Unit, permission was sought from the approving authority of the Hong Kong Police through an application outlining the nature, purpose, and methodology of this research, together with the proposed questionnaire adapted for the Hong Kong context as mentioned earlier (Appendix C).

When seeking approval, the list of follow up questions for individual interview (Appendix C) and the consent form (Appendix D) were also submitted. All questions and forms used were bi-literal in English and Chinese; and wordings were accordingly validated by an Official Language Officer in the Police College of the Hong Kong Police Force.

Permission was granted with comments from the Senior Police Clinical Psychologist as follows: "since only officers from the Emergency Unit are enlisted, it will be difficult to generalise subsequent results and recommendations to the rest of the Force. Furthermore, the proposed Operational Police Stress Questionnaire seems to be a focus mainly on a mix of stressor items, the management of some may not be directly achieved through training, for example, Shift work." These comments are included in a discussion of the limitations of the research design.

Data collection

In the Hong Kong Police Force there are five Emergency Units, one for each land region. At first I intended to survey all including around 1000 officers. Due to administrative and operational issues, this research was confined to the Emergency Unit of the Hong Kong Island Region (EU HKI). The quantitative research was conducted in September 2005. With the support and assistance of the Superintendent in charge of the Emergency Unit of the Hong Kong Island Region (SP EU HKI), I attended their platoon training days and explained the purpose of this research to the participating officers and their need to complete the police stress questionnaire. The survey was anonymous. Within a month, Phase 1 data collection with EU HKI was completed for all four platoons of officers. The establishment of each platoon is 41 officers, and 152 questionnaires were collected. One was invalid due to incorrect demographic information.

Data processing

The 151 valid questionnaires have been processed by the SPSS and taken through the reliability analysis – scale (alpha) with the reliability coefficients for PSQ-Op = .9086 and for PSQ-Org = .9313 both > .9. Results of the survey findings will be presented in Chapter Five.

Phase 2 – Qualitative individual interviews

Data collection

Qualitative interviews were undertaken with the support of the SP EU HKI, who arranged for the interviews to be conducted in the officers' duty time while they attended their monthly training day. Two constables, one male and one female, were nominated from each platoon, making up a total of eight interviews from four platoons.

Due to the shift pattern and training day schedule, the interviews were spread over between 23 March and 2 June 2006. Each interview was conducted within the scheduled hour. Participating officers were frank and supportive in offering their views and experience, providing valuable data. Through these interviews, we are able to develop a much better understanding of the extent of the stress experienced by these officers in their daily work encounters. Transcripts of the interviews are retained in my records for further reference.

Data processing and application

The seven stages in the Interview-based research procedures outlined in the previous section have been closely followed. The audio files of the interviews have been transcribed and de-identified. Findings have been analyzed and communicated to the concerned formation commander and supervising officers for follow up and addressing related issues.

Phase 3 – Focus group discussion

With the assistance of the commanding officer of the Emergency Unit Hong Kong Island Region, a focus group was conducted in November 2006. The focus group consisted of one station sergeant, two sergeants and two constables (one male and one female). The inclusion of inputs from constable level was appropriate since they represent the majority as well as the target group, and the arrangement allowed a female perspective. Initial statistical returns from Phase 1 survey have been forwarded to concerned nominees for prior reference before the focus group meeting, conducted in a somewhat free atmosphere in sharing. The Interview-Based Research Procedures have been closely followed to ensure meeting the validity and reliability requirements. The focus group discussion has been transcribed and de-identified.

Limitations

There are certain limitations in this research related to generalizability, sample size, the use of cross-cultural survey tool, and arrangement of interviewees. I will share them one by one and explain my effort in mitigating the effects.

Generalizability – The reason and preference of selecting the Emergency Unit of Hong Kong Island Region (EUHKI) for research has been mentioned in the introduction of Chapter 1 as well as in Section 1.2. Due to the specific nature of duties of the sample unit, it has been recognized that the findings would not be generalized and applied to the whole Hong Kong Police Force. Nevertheless, it is suggested that similar comparative research may be conducted in other police units depending on the priority of concerns from the management perspective and other stakeholders.

Sample size – The development of women policing and feasibility of gender analysis has been reviewed under Section 1.2. Since the gate to EU for female officers was opened in 1997, it becomes comparatively feasible to investigate possible gender differences in police stress for officers working there on a more or less equal basis. However, due to the historical and cultural context as well as the organizational structure of the unit, the proportion between male and female officers differs greatly, altogether there were only 111 female officers comparing with over a thousand of male officers attached in the five regional EUs. The sample size of male constables in the survey with EU of HKI region was 103, while the size of female constables was just 15. Some might suggest extending the research to all the five land regions, so that there could select equal number of male and female officers, for instance, 100 for each gender. As this was an academic research and not an official forcewide project, there were manpower constraints, operational and political hindrance for extending it to cover all

the EUs in the five land regions with limited personal capacity. This research could be viewed as a pilot for subsequent consideration of conducting it forcewide by the management of the HKPF. As limited by the great difference in sample sizes between male and female constables in the survey, there would be potential limitation on the reliability of subsequent statistical analysis on gender differences; nevertheless, it would still be a source of reference. On the other hand, as related to the qualitative individual interviews, the number of male and female constables chosen was equal, with four for each gender.

Use of cross-cultural survey tool – The two Operational and Organizational Police Stress Questionnaires (PSQ) chosen for this survey were developed by McCreary and Thompson (2006) in the Canadian context. Some might have reservation on its suitability for being used in the Hong Kong context with a different ethnic culture and police sub-culture. To ensure its suitability, the two PSQs were tried out initially by over ten Hong Kong officers from constable to superintendent rank, and they all considered these items so listed were suitable and applicable in the Hong Kong context. Most pilot users noted that under the influence of globalization and international policing, there seemed not many differences in the causes of police stressors; the division into two categories of operational and organizational stressors with the most common twenty items in each group was an effective design. Subsequently, the two PSQs were literally translated from English into Chinese and verified by the Government Language Officer and went through formal application for permission to be used. As could be seen from the findings of the survey later in Chapter 5, there were no particular discrepancies in using this cross-cultural survey tool, and the survey findings in the Hong Kong context contribute an international comparative reference. To keep the effect of potential limitation of this cross-cultural survey tool to the minimum, individual interviews were

conducted to facilitate a more fine-grained analysis. When interviewees were asked on their causes of stress, they were allowed to generate their own items in addition to making reference from the two PSQs, as there might be other important issues not taped by the two scales.

Arrangement of interviewees – The arrangement of officers for individual interviews and focus group discussion was made by the commanding officer, SP EU HKI. Some might comment on such arrangement as this might affect the reliability of the interviews, due to the norm within the Force that only good and reliable officers would be chosen for survey, and that might potentially exclude different views from outspoken officers. In this research, such potential drawback was kept to the minimum. First, I have known the commanding officer for years and recognize he is a man of integrity, and that was why I chose his unit out from the five land regions. Second, he shared the interest and objective of this research with a view to find out the truth for improving the situation of his subordinates and related management system. Third, we both agreed that ethically all interviewees must be on voluntary basis; they voiced their interest to participate before selection. Finally, identities of all interviewees were kept anonymous; from the findings, we can see that the interviewees were outspoken and did not hide any negative feeling.

Summary of Methodology

This chapter has explained the needs and reasons for a mixed method approach, involving both quantitative and qualitative elements, and has described in detail the methods and procedures in each phase of the research. In brief, the quantitative research has provided general basic data for answering the research questions, while in-depth

interviews have provided deeper and better understanding of their problems encountered and ways of coping with stress. As focus of this research was targeted at the constable level in the Emergency Unit serving the Hong Kong Island Region, the results generated from the survey and interviews will be illustrative rather than being able to make sweeping generalizations. Nevertheless, the research design and methodology have proved their effectiveness; and the results of the survey and the interview study will be presented in the Chapter 5 and 6 respectively.

Chapter 5

Survey Results

Introduction

This chapter presents the results of the validated questionnaire survey that sought to elicit from participants their sources of stress, levels of stress and ways of coping with stress. The presentation of the survey results includes a breakdown of the demographic information of the survey group, participants' responses to operational and organizational police stress, a comparison of responses between male and female constables to these two categories of police stressors, and a discussion of participants' ways of coping with stress. At the end of the questionnaire, there was a direct question concerning training with a view to ascertain the need for a training strategy to address stress-related issues. The results confirmed the need for training, a finding which will be discussed further in the concluding chapter, as will the need for the development of stress management strategies.

The survey group was the Emergency Unit of the Hong Kong Island Region (EUHKI), which consists of four platoons, each with 41 officers, for a total of 164 officers. Several officers were not available for this survey on the training days due to court attendance, leave or other causes. A total of 152 completed questionnaires were collected, resulting in a very high response rate of 92.68%. One questionnaire was found to be invalid due to incorrect demographic information.

The remaining 151 valid questionnaires have been analysed for reliability using the SPSS, resulting in a reliability coefficient (Cronbach's alpha) for the Police Stress

Questionnaire – Operational (PSQ-Op) of .9086 and for the Police Stress Questionnaire – Organizational (PSQ-Org) of .9313. Concerning standards for interpreting reliability coefficients, Schumacker (2005) quoted guidance from Nunnally and Bernstein (1994) that suggested a value of 0.70 is sufficient for early stage research, while for basic research, a reliability coefficient of 0.80 should be required. When important decisions are to be made based on the test scores, a reliability coefficient of 0.90 is considered the minimum. Since both the coefficients for PSQ-Op=0.9086 and PSQ-Org=0.9313 in this survey were > 0.9, these results can be considered statistically reliable.

5.1 Demographic Information of the Survey Group – EUHKI

The survey was anonymous, as discussed in the previous chapter. The first part of the questionnaire focused on demographic information broken down by platoon, gender, rank, age and years of service, as presented in Table 5 through Table 9 respectively.

Table 5: Demographic Information of Sample by Platoon

Platoon	Number	%
1	38	25.2
2	37	24.5
3	35	23.2
4	41	27.2
Total	151	100.0

Table 5 reflects a high return rate of between 38 and 41 out of the maximum possible of 41 officers in each platoon.

Table 6: Demographic Information of Sample by Gender

Gender	Number	%
Male	136	90.1
Female	15	9.9
Total	151	100.0

It can be seen from Table 6 that female officers in the sample comprise only 9.9% of the total, which is below the overall female representation of 12.6% in the Force (2006). The inclusion of female officers in Emergency Units is very selective due to the established difference in the strength of the genders. The population sizes for male and female officers are therefore not comparable, a fact which could constitute a limitation of this research. The problem of comparable sample sizes between male and female officers may be mitigated if the survey is extended forcewide in the future.

Table 7: Demographic Information of Sample by Rank

Rank	Number	%
Constable (PC)	118	78.1
Sergeant (SGT)	27	17.9
Station Sergeant (SSGT)	3	2.0
Inspector/Senior Inspector (IP/SIP)	3	2.0
Total	151	100.0

Table 7 shows the general composition of officers of different ranks in Emergency Units, with Constables comprising the majority at 78%, supervisors from the Junior Police Officer (JPO) Cadre, i.e. Sergeant and Station Sergeant, together comprising 20%, and Inspectorate officers make up the remaining 2%. The Emergency Unit works on a team basis by patrol car, with a crew of one sergeant leading three to four constables, including a police driver. In the absence of a sergeant, a more senior or experienced constable takes the lead. The Station Sergeant and Inspectorate officer are responsible for general supervision and administration of the platoon.

Table 8: Demographic Information of Sample by Age Group

Age Group	Number	%
22-25	14	9.3
26-29	55	36.4
30-33	34	22.5
Over 34	48	31.8
Total	151	100.0

As Table 8 shows, the largest age group surveyed was 26-29, comprising over 1/3 of the population. Over 90% of the officers surveyed were above the age of 25. This composition reflects the need for officers with greater maturity in dealing with emergent incidents. It might be interesting to explore whether there is a correlation between age and stress responses. However, due to the small sample sizes of the various age groups, it was not appropriate to do such detailed analysis here. Again, this question may be a subject for further study if the survey is extended forcewide in the future.

Table 9: Demographic Information of Sample by Years of Service

Years of Service	Number	%
3-6	28	18.5
7-10	57	37.7
11-14	23	15.2
15 & above	43	28.5
Total	151	100.0

The largest grouping by length of service was 7-10, comprising over 1/3 of the population. Similarly, due to the need for mature officers as suggested by the information presented in Table 4, over 80% of the officers surveyed had at least seven years of service as recorded in Table 5. These figures again reflect the need for more experienced officers with longer terms of service and more exposure to working in emergency units. It may also be interesting to find out whether there is a correlation between years of service and stress responses, if the scale of a future survey is extended force wide.

5.2 Responses to Police Stress

In this survey, the causes of police stress were classified into two categories: operational and organizational. Two related questionnaires were used, the Operational Police Stress Questionnaire (PSQ-Op), and the Organizational Police Stress Questionnaire (PSQ-Org), each consisting of 20 items using a 7-point scale. This section presents the participants' responses for each category of stressors associated with policing, and compares responses between the two categories.

Responses to Operational Police Stress

Participants indicated responses to the twenty operational police stressors by rating their stress levels from the lowest, at 1, to the highest, at 7. Through the use of SPSS, the mean for each item was found, and the averaged mean for all twenty items was found to be 4.52. Since there were no norms available for the tests used for comparative data, I took the mid-point, 4, as the test value, and conducted a one-sample *t* test to test whether the mean of each item differed from this hypothesized value of 4.The results of the one-sample statistics and one-sample *t* test for PSQ-Op are shown in Table 10 below, with explanation thereafter.

Table 10: Results of One-Sample Statistics and One-Sample Test for PSQ-Op

Operational Police Stressors	One-Sample Statistics			One-Sample Test		
				Test Value = 4		
	N	Mean	Std. Deviation	t	Sig. (2-tailed)	Note
Shift work	151	4.81	1.453	6.888	.000	***
Working alone at night	151	4.56	1.594	4.339	.000	***
Over-time demand	151	4.42	1.485	3.507	.001	***
Risk of being injured on the job	151	4.64	1.293	6.106	.000	***
Work-related activities on days off	151	4.28	1.485	2.357	.020	*
Traumatic events	151	4.51	1.451	4.319	.000	***
Managing social life	151	3.74	1.449	-2.190	.030	*
Not enough time available for friends and family	151	4.95	1.441	8.074	.000	***
Paperwork	151	4.13	1.303	1.187	.237	
Eating healthily at work	151	4.46	1.473	3.867	.000	***
Finding time to stay in good physical condition	151	4.44	1.389	3.926	.000	***
Fatigue	151	5.41	1.348	12.859	.000	***
Occupation-related health issues	151	5.17	1.512	9.474	.000	***
Lack of understanding from family and friends	151	4.40	1.541	3.169	.002	**
Making friends outside the job	151	4.20	1.575	1.550	.123	
Upholding a higher image in public	151	4.43	1.421	3.722	.000	***
Negative comments from public	151	4.79	1.486	6.517	.000	***
Limitations to social life	151	4.45	1.315	4.208	.000	***
Feeling like one is always on the job	151	4.81	1.345	7.381	.000	***
Friends/family feeling stigma effects	151	3.75	1.493	-2.071	.040	*
Averaged Mean		**4.52**				

Note: Levels of Significance
(*) $p<0.05$ (95%); (**) $p< 0.01$(99%); (***) $p< 0.001$(99.9%)

With reference to the p values *(Sig. (2-tailed))* shown in Table 10, two items, namely "Paperwork" and "Making friends outside the job" were higher than 0.05, indicating that they were not significantly different from the test value of 4. The p values of the remaining eighteen items were less than 0.05, indicating that they were significantly different from the test value 4; among these, two items with negative t values, namely "Managing social life" and "Friends/family feeling stigma effects" with means of 3.74 and 3.75 respectively, were significantly lower than the test value 4; all the other sixteen items showed positive t values, indicating that they were significantly higher than the test value 4, with levels of significance ranging from 95% ($p<0.05$) to 99.9% ($p<0.001$).

Responses to Organizational Police Stress

Similarly to the results for Operational Police Stress, Table 11 shows the results of the one-sample statistics and one-sample *t* test for Organizational Police Stress (PSQ-Org), with an averaged mean of 4.697.

Table 11: Results of One-Sample Statistics and One-Sample Test for PSQ-Org

Organizational Police Stressors	One-Sample Statistics			One-Sample Test		
				Test Value = 4		
	N	Mean	Std. Deviation	t	Sig. (2-tailed)	Note
Dealing with co-workers	151	4.14	1.405	1.216	.226	
Favouritism	151	4.93	1.482	7.744	.000	***
Always proving yourself	151	4.95	1.418	8.207	.000	***
Excessive administrative duties	151	4.30	1.509	2.427	.016	*
Changes in policy	151	5.11	1.234	11.016	.000	***
Staff shortage	151	5.54	1.408	13.405	.000	***
Bureaucracy	151	5.55	1.289	14.769	.000	***
Too much computer work	151	3.86	1.447	-1.181	.239	
Lack of training on new equipment	151	4.26	1.463	2.170	.032	*
Perceived pressure to volunteer free time	151	4.65	1.493	5.341	.000	***
Dealing with supervisors	151	4.50	1.518	4.020	.000	***
Inconsistent leadership	151	5.17	1.373	10.430	.000	***
Lack of resources	151	4.74	1.427	6.331	.000	***
Unequal sharing of work responsibilities	151	4.44	1.355	4.025	.000	***
Being looked down on for being sick or injured	151	3.88	1.724	-.850	.397	
Leaders over-emphasising the negatives	151	4.88	1.527	7.087	.000	***
Internal investigations	151	5.15	1.525	9.232	.000	***
Dealing with the court system	151	4.54	1.491	4.476	.000	***
Needing to account for the job	151	5.13	1.343	10.300	.000	***
Inadequate equipment	151	4.25	1.462	2.116	.036	*
Averaged Mean		**4.697**				

Note: Levels of Significance
(*) $p< 0.05$ (95%); (**) $p< 0.01$(99%); (***) $p<0.001$(99.9%)

With reference to the *p* values *(Sig. (2-tailed))* in Table 11, three items, namely "Dealing with co-workers", "Too much computer work" and "Being looked down on for being sick or injured" showed values higher than 0.05, indicating they were not significantly different from the test value of 4. The *p* values of the remaining seventeen items were less than 0.05, with positive *t* values and means above 4, indicating that they were all significantly higher than the test value of 4, with levels of significance ranging from 95% (p <0.05) to 99.9% (p<0.001).

Responses between Operational and Organizational Police Stress

Based on the averaged mean of PSQ-Op at 4.52 as shown in Table 10 and that of PSQ-Org at 4.697 as shown in Table 11, there was an implication that operational police stress might be perceived among respondents as being lower than organizational stress, or to view it the other way around, that organizational police stress might be perceived as higher than operational stress. Through the use of SPSS, I conducted a paired-sample *t* test to compare the means of the two variables, i.e. PSQ-Op and PSQ-Org. The paired comparison *t* was used to determine whether the average of the differences between PSQ-Op and PSQ-Org differed from 0. Table 12 shows the results of the *t*-test, and its interpretation will be given thereafter.

Table 12: The t-test for Paired Samples: Operational and Organizational Police Stress

12 (a) Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Op	4.5179	151	.87354	.07109
	Org	4.6974	151	.95392	.07763

12 (b) Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	99% Confidence interval of the Difference				
					Lower	Upper			
Pair 1	Op - Org	-.17947	.64942	.05285	-.31735	-.04159	-3.396	150	.001

The *Mean of the Paired Differences* between PSQ-Op and PSQ-Org was -0.17947 (4.5179-4.6974). The sample means, above, indicated the mean ratings for PSQ-Op were lower than those for PSQ-Org. A *99% Confidence Interval of the Difference* extended from -0.31735 to -0.04159. The *p* value 0.001 *(Sig. [2-tailed]]))]])* associated with the *t* statistic of -3.396 was very small (<0.01), indicating that the difference of -0.17947 departed significantly from 0. (0 is not found between the *Lower and Upper*

Interval of the Difference.) Responses to Operational Police Stressors (PSQ-Op) did tend to be lower than those to Organizational Police Stressors (PSQ-Org), or in other words, responses to Organizational Police Stressors (PSQ-Org) did tend to be higher than those for Operational Police Stressors (PSQ-Op).

5.3 Responses between Male and Female Constable to Police Stress

One of the objectives of this research was to find out whether there are any differences between the genders in responding to police stress. This section presents a comparison of the responses between male and female constables to the two categories of police stressors: first, Operational Police Stress (PSQ-Op) and second, Organizational Police Stress (PSQ-Org). In order to remove rank as a variable, given that no female officers were of those ranks, of the population of 151 officers, 33 male officers at the rank of Sergeant, Station Sergeant or Inspectorate were excluded from the comparison, the sample size of male constables was thus 103 and the sample size of female constables was 15. The difference in the two sample sizes stems from the ratio of men to women in the EUHKI, resulting from the historical and cultural context of the force, and could constitute a limitation of this survey as I have suggested earlier.

Table 13(a) provides a comparison of responses to operational police stressors between male and female constables by mean and median. Since the sample sizes of male and female constables were disproportionate, it was not deemed advisable to compare their means by using the parametric *t* test, which assumes that the populations compared are normally distributed. Instead, distribution-free nonparametric tests are used to compare the centre of location (median) for the two samples. Table 13(b) shows the nonparametric Mann-Whitney test for PSQ-Op by gender, and Table 13(c) shows the

related test statistics. Interpretation of these results will be offered thereafter.

Likewise, Table 14(a) shows a comparison of responses to organizational police stressors between male and female constables in terms of mean and median. Table 14(b) shows the results of a nonparametric Mann-Whitney test for these two variables, and Table 14(c) shows the related test statistics.

Responses between Male and Female Constable to Operational Police Stress

Table 13(a) below shows the comparison of means and medians of responses to operational police stressors between male and female constables. The averaged mean for male constables was 4.55, while for female constables it was slightly lower, at 4.34.

Table 13(a): Mean and Median of PSQ-Op Items by Gender (PC only)

Operational Police Stressors	Male Constable			Female Constable		
	N	Mean	Median	N	Mean	Median
Shift work	103	4.97	5	15	4.40	4
Working alone at night	103	4.56	5	15	5.07	5
Over-time demand	103	4.39	5	15	4.87	5
Risk of being injured on the job	103	4.57	5	15	4.60	5
Work-related activities on days off	103	4.31	4	15	4.07	4
Traumatic events	103	4.46	4	15	3.93	4
Managing social life	103	3.79	4	15	3.33	3
Not enough time available for friends and family	103	5.02	5	15	4.40	4
Paperwork	103	4.03	4	15	3.93	4
Eating healthily at work	103	4.46	4	15	4.93	5
Finding time to stay in good physical condition	103	4.45	5	15	4.53	5
Fatigue	103	5.50	6	15	5.20	6
Occupation-related health issues	103	5.14	5	15	5.67	6
Lack of understanding from family and friends	103	4.48	4	15	3.80	4
Making friends outside the job	103	4.29	4	15	3.93	4
Upholding a higher image in public	103	4.42	4	15	4.07	4
Negative comments from public	103	4.88	5	15	4.07	4
Limitations to social life	103	4.50	5	15	4.13	4
Feeling like one is always on the job	103	4.83	5	15	4.87	5
Friends/family feeling stigma effects	103	3.89	4	15	3.00	3
Averaged Mean		**4.55**			**4.34**	

Based on the means, "Fatigue" and "Occupation-related health issues" were the top two items for both groups. For male constables, the highest stress item was "Fatigue" at 5.5, followed by "Occupation-related health issues" at 5.14. For female constables, the highest reported stress item was "Occupation-related health issues" at 5.6, followed by "Fatigue" at 5.2. As revealed in subsequent individual interviews, though both genders often work at the same scene, female constables tend to have a lesser fatigue level since male constables almost always exert greater physical effort in their duties, while female counterparts are often deployed in supporting duties.

Table 13(b): NPar Tests, Mann-Whitney Test of PSQ-Op Items by Gender (PC only)

Operational Police Stressors	Male Constable			Female Constable		
	N	Mean Rank	Sum of Ranks	N	Mean Rank	Sum of Ranks
Shift work	103	61.83	6369.00	15	43.47	652.00
Working alone at night	103	58.66	6042.00	15	65.27	979.00
Over-time demand	103	58.22	5997.00	15	68.27	1024.00
Risk of being injured on the job	103	59.76	6155.00	15	57.73	866.00
Work-related activities on days off	103	60.13	6193.50	15	55.17	827.50
Traumatic events	103	60.56	6237.50	15	52.23	783.50
Managing social life	103	61.00	6283.00	15	49.20	738.00
Not enough time available for friends and family	103	61.38	6322.00	15	46.60	699.00
Paperwork	103	59.56	6135.00	15	59.07	886.00
Eating healthy at work	103	58.01	5975.00	15	69.73	1046.00
Finding time to stay in good physical condition	103	59.29	6107.00	15	60.93	914.00
Fatigue	103	60.18	6198.50	15	54.83	822.50
Occupation-related health issues	103	57.85	5959.00	15	70.80	1062.00
Lack of understanding from family and friends	103	61.45	6329.00	15	46.13	692.00
Making friends outside the job	103	60.44	6225.00	15	53.07	796.00
Upholding a higher image in public	103	60.43	6224.50	15	53.10	796.50
Negative comments from public	103	61.35	6319.50	15	46.77	701.50
Limitations to social life	103	60.54	6235.50	15	52.37	785.50
Feeling like one is always on job	103	59.33	6110.50	15	60.70	910.50
Friends/family feeling stigma effects	103	61.91	6376.50	15	42.97	644.50

Table 13(c): NPar Tests, Test Statistics of PSQ-Op Items by Gender (PC only)

Operational Police Stressors	NPar Tests		
	Mann-Whitney U	Asymp. Sig. (2-tailed)	Note
Shift work	532.000	.046	*
Working alone at night	686.000	.476	
Over-time demand	641.000	.274	
Risk of being injured on the job	746.000	.825	
Work-related activities on days off	707.500	.591	
Traumatic events	663.500	.363	
Managing social life	618.000	.198	
Not enough time available for friends and family	579.000	.111	
Paperwork	766.000	.957	
Eating healthy at work	619.000	.205	
Finding time to stay in good physical condition	751.000	.859	
Fatigue	702.500	.560	
Occupation-related health issues	603.000	.161	
Lack of understanding from family and friends	572.000	.097	
Making friends outside the job	676.000	.428	
Upholding a higher image in public	676.500	.424	
Negative comments from public	581.500	.114	
Limitations to social life	665.500	.374	
Feeling like one is always on job	754.500	.881	
Friends/family feeling stigma effects	524.500	.038	*

Note: (*) $p<0$ .05 (Level of Significance at 95%)

With reference to Table 13(c): test statistics of the Mann-Whitney test, two items with p values <0.05 were found, namely: "Shift work", and "Friends/family feeling stigma effects", showing there were significant differences in values reported for these two items between the genders. In response to "Shift work", male constables (median =5) reported having significantly higher stress than female constables (median =4), U =532, p=0.046<0.05, at a 95% confidence level. In response to "Friends/family feeling stigma effects", male constables (median =4) perceived significantly higher stress than female constables (median =3), U =524.50, p=0.038<0.05, at a 95% confidence level.

As emerged in subsequent individual interviews, though both genders work at the same scene, male constables tend to be assigned to work in the operational front and female constables tend to be assigned to provide backup support. This being the case, it stands to reason that the stress from shift work for male constables might tend to be higher

than that for female constables. Regarding the tendency of male constables to perceive higher stress related to "Friends/family feeling stigma effects" than female constables, one possible reason might be that, given that the proportion of male officers (around 90%) is much larger than that of female officers (less than 10%) as reflected in the demographic information provided in section 5.1, the public image of police officers might naturally or normally be tied to male officers, together with any associated stigma effects.

Responses between Male and Female Constables to Organizational Police Stress

Table 14(a) below shows a comparison of responses to organizational police stressors between male and female constables in terms of mean and median.

Table 14(a): Mean and Median of PSQ-Org Items by Gender (PC only)

Organizational Police Stressors	Male Constable			Female Constable		
	N	Mean	Median	N	Mean	Median
Dealing with co-workers	103	4.29	4	15	3.87	4
Favouritism	103	5.13	5	15	4.87	5
Always proving yourself	103	5.07	5	15	4.53	4
Excessive administrative duties	103	4.33	4	15	3.80	4
Changes in policy	103	5.28	5	15	4.67	5
Staff shortage	103	5.66	6	15	5.07	6
Bureaucracy	103	5.77	6	15	5.13	5
Too much computer work	103	3.80	4	15	3.93	4
Lack of training on new equipment	103	4.32	4	15	4.13	4
Perceived pressure to volunteer free time	103	4.81	5	15	4.67	5
Dealing with supervisors	103	4.75	5	15	4.33	4
Inconsistent leadership	103	5.35	5	15	4.87	5
Lack of resources	103	4.81	5	15	4.67	4
Unequal sharing of work responsibilities	103	4.50	4	15	4.27	4
Being looked down on for being sick or injured	103	4.03	4	15	3.73	4
Leaders over-emphasise the negatives	103	5.14	5	15	4.33	4
Internal investigations	103	5.29	6	15	4.07	4
Dealing with the court system	103	4.60	5	15	3.80	4
Needing to account for the job	103	5.21	5	15	4.13	4
Inadequate equipment	103	4.25	4	15	4.13	4
Averaged Mean		**4.82**			**4.35**	

Table 14(a) shows that the averaged mean of male and female constable responses to organizational police stress were 4.82 and 4.35 respectively. It is anticipated that male constables might face greater organizational stress than female constables in the context of this study. The nonparametric Mann-Whitney test was conducted comparing the center of location (median) for these two variables to see if there were any significant differences between them, and the results of this test are shown in Table 10 (b). The test statistics of the Mann-Whitney test are shown in Table 10(c).

Table 14(b): NPar Tests, Mann-Whitney Test of PSQ-Org Items by Gender (PC only)

Organizational Police Stressors	Male Constable			Female Constable		
	N	Mean Rank	Sum of Ranks	N	Mean Rank	Sum of Ranks
Dealing with co-workers	103	61.20	6303.50	15	47.83	717.50
Favouritism	103	59.96	6176.00	15	56.33	845.00
Always proving yourself	103	60.91	6273.50	15	49.83	747.50
Excessive administrative duties	103	61.03	6286.00	15	49.00	735.00
Changes in policy	103	61.38	6322.50	15	46.57	698.50
Staff shortage	103	60.57	6238.50	15	52.17	782.50
Bureaucracy	103	61.37	6321.00	15	46.67	700.00
Too much computer work	103	59.01	6078.00	15	62.87	943.00
Lack of training on new equipment	103	59.58	6137.00	15	58.93	884.00
Perceived pressure to volunteer free time	103	59.79	6158.50	15	57.50	862.50
Dealing with supervisors	103	61.40	6324.00	15	46.47	697.00
Inconsistent leadership	103	60.62	6243.50	15	51.83	777.50
Lack of resources	103	60.20	6201.00	15	54.67	820.00
Unequal sharing of work responsibilities	103	59.94	6173.50	15	56.50	847.50
Being looked down on for being sick or injured	103	60.42	6223.00	15	53.20	798.00
Leaders over-emphasise the negatives	103	61.69	6354.00	15	44.47	667.00
Internal investigations	103	62.82	6470.50	15	36.70	550.50
Dealing with the court system	103	62.03	6389.50	15	42.10	631.50
Needing to account for the job	103	63.14	6503.00	15	34.53	518.00
Inadequate equipment	103	59.70	6149.00	15	58.13	872.00

Table 14(c): NPar Tests, Test Statistics of PSQ-Org Items by Gender (PC only)

Organizational Police Stressors	NPar Tests		
	Mann-Whitney U	Asymp. Sig. (2-tailed)	Note
Dealing with co-workers	597.500	.144	
Favouritism	725.000	.695	
Always proving yourself	624.500	.230	
Excessive administrative duties	615.000	.189	
Changes in policy	578.500	.104	
Staff shortage	662.500	.358	
Bureaucracy	580.000	.107	
Too much computer work	722.000	.673	
Lack of training on new equipment	764.000	.944	
Perceived pressure to volunteer free time	742.500	.804	
Dealing with supervisors	577.000	.104	
Inconsistent leadership	657.500	.339	
Lack of resources	700.000	.547	
Unequal sharing of work responsibilities	727.500	.706	
Being looked down on for being sick or injured	678.000	.436	
Leaders over-emphasise the negatives	547.000	.063	
Internal investigations	430.500	.005	**
Dealing with the court system	511.500	.030	*
Needing to account for the job	398.000	.002	**
Inadequate equipment	752.000	.865	

Note: (*) $p< 0.05$ (95% level of significance); (**) $p< 0.01$(99% level of significance)

Table 14(c), test statistics of the Mann-Whitney test, shows one item with p value <0.05, namely "Dealing with the court system", and two items with p value <0.01, namely "Internal investigations" and "Needing to account for the job", demonstrating there were significant differences in these three items by gender. In response to "Dealing with the court system", male constables (median =5) reported perceiving significantly higher stress than did female constables (median =4), U =511.500, p=0.03<0.05, at a 95% confidence level. In response to "Internal investigations", male constables (median =6) reported perceiving significantly higher stress than female constables (median =4), U =430.500, p=0.005<0.01, at a 99% confidence level. In response to "Needing to account for the job", male constables (median =5) reported feeling significantly higher stress than female constables (median =4), U =398.000, p=0.002<0.01, at a 99% confidence level.

It is understandable that male constables would consider "Internal investigations", "Dealing with the court system", and "Needing to account for the job" more stressful than do their female colleagues, given that such items have a greater bearing on male constables in this context, given that they are more exposed to and involved in daily operational duties, resulting in increased opportunity for internal investigations, court attendance, and needing to account for the job than female colleagues, who are generally assigned to provide back-up support.

5.4 Ways of Coping with Stress

One of the objectives of this survey was to discover ways participants cope with stress. For the modified Police Stress Questionnaire, participants were asked to list the top three ways they coped with stress. Of the 151 participants, all listed their top choice for coping with stress; for the 2nd and 3rd choices, some were left blank, some were duplicated. After careful consideration, only the first choices were tabulated for this study, and these were then sorted into appropriate groupings in Table 15 below.

Table 15: Ways of Coping with Stress in Descending Order

Ways of Coping with Stress	Number	%
Various types of physical exercise	57	37.7
Sharing with family, friends, colleagues, and others	20	13.2
Sleeping and rest	20	13.2
Vacation and travel	11	7.3
Reading and learning	9	6
Music and song	7	4.6
Shopping and street-walking	6	4
Various entertainment, movies and others	6	4
Drinking, eating	5	3.3
Computer games	3	2
Miscellaneous relaxing activities including: bathing, improving living environment, talking to oneself, looking after kids, raising pets, sex, and retirement	7	4.6
Total	**151**	**100**

It is worthy of note that "Various types of physical exercise" was the most frequently reported way to cope with stress, scoring 57 counts, and constituting 37.7% of tabulated responses. Physical exercise has been widely recommended as an effective method of stress relief, and seems to be widely embraced by police officers for its personal and fitness benefits. In recent years, the Management of the Hong Kong Police has been promoting "One officer One Sport" as one of its initiatives for developing a "Healthy Life Style". Qualitative results obtained from individual interviews indicated that some officers did not find performing physical exercise an effective way to reduce stress. Others expressed worry about the chance of sustaining an injury in the course of doing physical exercise. According to the interviews, some officers focus on muscle building without knowing or caring about the side effects of excessive exercise or the influence of unnecessary medication. The appropriateness of exercise in meeting individual needs of officers will be further discussed in the subsequent chapter presenting qualitative results.

The second most popular method of stress relief was "Sharing with family, friends, colleagues and others", with 20 counts, comprising 13.2% of tabulated results. Such communication is also a commonly recommended means of relieving stress. Individual and focus group interviews revealed that some officers encounter difficulties finding an appropriate and reliable person with whom to share. This problem will be further reviewed in the subsequent Chapter 6, Interview Results. Training in empathetic listening could be developed as a component of a stress management strategy, as will be explored in the discussion chapter. The effectiveness of other ways to cope with stress as listed in Table 15 will be further reviewed together with the interview results, in Chapter 7, Analysis and Discussion of Findings.

Conclusion

This survey, apart from eliciting from participants their causes of stress, levels of stress and ways of coping with stress as presented above, had as its objective to confirm the need for training strategies to address stress-related issues. Upon further consideration, it seems more appropriate to revise the objective of confirming the need for training strategies to confirming the need for the development of stress management programs. Such a revision would make the research more fruitful given that some of the recommendations for stress-related issues extend beyond the limits of what training strategies can do, and the development of a comprehensive approach in stress management is a much more appropriate solution. Among the 151 participants, only one declined to respond to that query; the 150 ratings together confirm such a need, with a mean response of 4.97, higher than the centre mark 4 on the 7-point scale. The need for the development of a stress management program will be explored together with the findings from the qualitative interviews and reviewed in Chapter 7 – Analysis and Discussion of Findings.

To follow the foregoing summary of the survey results, the next chapter will present the results of the interview studies, including eight individual interviews and one focus group interview. The purpose of the individual interviews was to facilitate a more fine-grained analysis and to ascertain possible gender differences in police officers' sources of stress, levels of stress, and ways of coping with stress. The focus group interview was held to provide an opportunity for me to share findings of the survey and individual interviews with officers, with a view to formulating appropriate stress management programs to address stress-related issues.

Chapter 6

Interview Results

Introduction

This chapter continues the analysis of data, shifting from the survey data discussed in Chapter 5, to the qualitative components of the study. I present first, a summary of results of individual interviews at the constable level, and second, the responses from one focus group discussion consisting of five officers with mixed ranks of constable, sergeant and station sergeant. The purpose of conducting the individual interviews was to facilitate a more fine-grained analysis and to ascertain any possible gender differences in police officers' sources of stress, levels of stress and ways of coping with stress. The specific purpose of the focus group discussion was to identify and form an appropriate strategy for stress management in addressing stress-related issues.

Overall, the results of the interviews and focus group discussion corroborate the findings of the surveys in terms of the relationship between operational and organizational stress, confirming that the effects of organizational stressors were perceived as greater than those of the operational ones. Additionally, the findings allow valuable insights into how the participating officers experienced the various elements of stress listed in the questionnaires. Because research of this kind has not previously been conducted within the Hong Kong context, in this chapter I describe in some detail the key elements of the interview and focus group responses; then, in the following chapter, I provide analysis and commentary on the implications of the survey, interview and focus group data.

6.1 Summary of Individual Interview Responses

Eight follow-up individual interviews were conducted, with one male and one female constable nominated on a voluntary basis from each of the four platoons in the Emergency Unit of Hong Kong Island Region (EUHKI). As mentioned in Chapter Four, the interviews and discussions were conducted in Cantonese, the native dialect of the participants, and were first transcribed in Chinese and then translated into English. To maintain confidentiality, I have used pseudonyms to represent these participants, namely Alan, Alice, Benny, Betty, Charles, Carol, Denis and Derby. The majority of these participants were in the age group 26 to 29, having a range of seven to ten years of service, and these characteristics match the pattern of the population from which the sample was drawn. The sequence of this summary of their responses follows that of the list of the eight follow-up questions; a copy of which is presented as Appendix C.

Q1. What do you understand about the relationship between stress and health?

All the eight interviewees had a good understanding of and personal experiences with the adverse effects of stress on both physical and mental health. For instance, Alan commented:

> *If the stress is great, it affects the quality of sleeping. One cannot concentrate at work, cannot rest properly, and that affects the body's metabolism and strength recovery.*

The common experiences of the officers interviewed included the following: exhaustion, fatigue and loss of appetite; headache, stomachache, back pain; sleeping problems and nightmares; effects on body metabolism and digestive systems, as well as on nutrition and body immunity, resulting in frequent illness, such as flu, cold and so on. The officers noted that the physical and mental effects were inter-related: without good

physical strength and recovery from sleep and good food, their daily performance was affected. Alan's comment is representative:

> *There is a continuous cycle of mental stress, for example, worry about the views of the supervisor of your performance, and then the effect on promotion.*

Alice shared her experience of gradually losing up to twenty pounds, suffering from flu and fever frequently over a period of several months after changing her post and boss. A medical examination found that she had a thyroid problem. Alice recalled:

> The doctor explained to me that it was probably due to my heavy work stress. Then I began to sense that work stress would affect my health seriously. Subsequently, I made adjustments and gradually adapted.

Q2. What is the major cause of your stress?

(In reference to the items shown on the Operational Police Stress Questionnaire and the Organizational Police Stress Questionnaire, officers were asked to describe the effects of these factors; they were also allowed to generate their own items.)

In this survey, causes of police stress have been classified into two categories, the operational and the organizational. I summarize below the interviewees' accounts related to these two aspects respectively.

On the operational side, the common high stress items discussed by the interviewees were: "shift work"; "sleeping problems"; "eating healthily at work"; "not enough time available to spend with friends and family"; "finding time to stay in good physical condition"; "occupation-related health issues"; and "feeling like one is always on the job". Their accounts are summarized below.

<u>Shift work (Item 1) and its knock-on effects</u>

Because police services have to be provided around the clock, each day is divided into

three shifts, namely the A, B and C shifts. The interviewees explained that, to ensure there is no gap of coverage between the changes of shifts, the duty time of each shift is eight hours and forty-five minutes; the forty-five minutes forms a cushion for the changeover period. A further cushion to absorb any emergency cases occurs during the changeover period, by virtue of the duties in each shift being further split into two lots. Altogether there are six shifts: A1, A2, B1, B2, C1 & C2, as illustrated in Table 6.1. Most interviewees reported that they considered the long working hours in each shift to be extremely stressful and further reported that adapting to different shift patterns each week was another major cause of stress. Alan shared frankly:

> *I think the top thing would be shift work, which results in fatigue; and adapting to a different shift each week is a stress for me, up to level 6 on the 7-point scale.*

Table 16: Duty rosters in the EUHKI

Shift	Duty Time	Shift	Duty Time
A1	0645 – 1530 hrs	A2	0730 – 1615 hrs
B1	1445 – 2330 hrs	B2	1530 – 0015 hrs
C1	2245 – 0730 hrs	C2	2330 – 0815 hrs

With reference to the shift patterns in Table 16, Denis explained in detail why he and his fellow colleagues considered "shift work" one of the most significant sources of stress:

> *Starting with "A" shift, a young man won't sleep early after the job, because life is so colourful, for instance, going out, watching TV, working on the computer and the Internet that could easily pass midnight by the time he got to bed, but has to, wake up at around 5 a.m., so he just gets 5 to 6 hours sleep working the "A" shift. As for the "B" shift, almost all the time is given to the Force, I just take a snack after duties, then go home to sleep, wake up around 11 or 12 the next day, and after some preparation it is time to go to work. "C" shift is completely the opposite; the consumption of strength is great; besides, many serious crimes occur at night and so one has to be especially alert. I have to recover to sleep right after work, but due to the time being upside-down, the quality of sleep is not good.*

"Knock-on" stress effects related to shift work include sleeping problems, unhealthy eating at work, not having enough time available to spend with friends and family, not being able to find time to stay in good physical condition, and fatigue, all of which will be discussed below.

Sleeping problems

All interviewees shared that "C" shift greatly taxed their strength; they reported feeling fatigue after their duties and needing to sleep longer for recovery. The weekly change of shift greatly affected interviewees' sleeping patterns, eating habits and lifestyles. Because of the work stress from operational emergencies, most interviewees had at times experienced sleeping problems. These included the surfacing in their dreams of cases and persons encountered on their shifts. As Alan recalled:

> *Shift changes lead to time differences in sleeping and confusion of the biological clock; sometimes I needed to sleep early, sometimes late; sometimes after I woke up I was not sure of the time, and was quite confused, thinking it was time to go to work and later realizing it was just my sleep after the night shift and it was time for dinner.*

Betty explained the relationship between her stress due to her inability to achieve deep sleep and its effect on her mood:

> *I dared not have deep sleep when going on "A" shift, worrying about being unable to wake up on time and miss duty, especially when relieving the Sergeant in Charge. The mental stress is greater, and I need to return early to get things prepared. Too little sleep even affects my mood.*

All interviewees treasured the available evening time after the "A" shift and so it was common for bedtime to be pushed back. Derby explained, for example:

> *In "A" shift, most of the social and family activities are concentrated in this period.*

A further factor causing short sleep for officers working the "A" shift, as reported by Benny, involved transportation, since the transports available and their frequency are both low during that period.

Difficulties of healthy eating at work – Item 10

Five out of the eight interviewees reported difficulties of eating well at work. There were at least four reasons reported: changing of shift patterns, the work practice of carrying personal gear during the meal, uncertainty about getting proper meals, and hasty eating in the work environment. Benny elaborated on the first difficulty due to changing of shift:

> *Take "A" shift for example; we go to work around 6 a.m., and it's very difficult to eat breakfast. If I wish to eat breakfast at home, then I need to get up even earlier. Besides, I am living on the Kowloon side, and I need longer travel time; so it is very difficult to eat breakfast before work. The first opportunity for a quick snack might be around 8 a.m. during the tea break if there are no pressing cases.*

In B shift, the eating pattern is different. Most interviewees reported they would wake up after 10 or 11 a.m., some even later, around noon, depending on when they finished "B" shift. Thus, quite a number of officers would take "brunch", i.e. breakfast and lunch together. When going off "C" shift in the morning, many officers were so fatigued that they had no appetite for breakfast and might go straight home for sleep. Thus, their eating patterns fluctuated from shift to shift and this fluctuation greatly affected their digestive system.

The second eating difficulty reported relates to the work practice of officers carrying their personal gear throughout the shift, even during meal breaks. As Alan pointed out:

In the EU, we have to listen to the beat radio even during meal breaks, and have to be able to go into action any time; so we do not turn in our revolvers and beat radios during meal break, and we have to wear our personal gear throughout the whole shift.

The third difficulty reported was the uncertainty of having proper meals, as Benny pointed out:

We have no guaranteed meal breaks in the EU. Once there is an emergency case, we have to cancel our meals and rush to the scene at once; we have to put our food down even if we are eating. We have usually lost our appetites when we come back from the scene.

Betty confirmed that the second difficulty also applied to female officers, and outlined the third difficulty in greater detail:

There is no compensation time for meals after work; most officers eat when there is an opportunity to do so. They might have a heavy breakfast but skip lunch due to operational commitment. Similar situations occur for dinner in "B" shift, as that is the peak time for emergent calls. So many times officers are either too full or too hungry, and again that affects their digestive systems.

The fourth and final difficulty reported related to having to eat hastily in the work environment. Due to the need for speedy response to emergency calls, EU officers are used to eating very fast. Alan revealed:

Some colleagues just swallow everything within 10 minutes, and that greatly affects both their digestion and their minds.

Charles further reported a limited choice of meals:

For convenience and speedy action, the EU car crew used to buy meal boxes collectively, and there would be limited choices, usually confined to barbequed meat with very few vegetables. In the long run, this would cause digestion and nutrition problems.

Charles experienced major medical problems associated with this manner of eating:

Over the past two weeks, I have suffered from gastrointestinal problems, with blood in the excrement. After a medical check, the doctor considered it was the excrement becoming too hard and causing an abrasion at the anus. He advised me to pay more attention to healthy diet and my digestive problems.

Practical ways to address the eating problem

Several interviewees, on the other hand, for example, Carol, considered "Difficulties eating healthily at work" a low stress item:

I eat less but more meals so I am not too empty or too full. I have some biscuits or a snack readily available. For instance, I might bring some stuff, like vegetable salad, fruit and bread, easy and convenient to eat. Other colleagues have to find places to buy meal boxes and so might often miss their chance. Being too empty or too full and eating quickly are harmful to health. For me, I won't, I have a snack prepared for when I am feeling hungry.

Carol said she found her practice convenient, and that it helped maintain her best physical condition for operational needs. However, she observed that some male colleagues seemed to consider preparing their own meal boxes troublesome, and that most tended to eat meat and rice, otherwise they felt hungry easily.

Not enough time available to spend with friends and family – Item 8

Half of the interviewees considered this a high stress item. Alan explained the competing activities:

Apart from work, I need to get rest and find time to stay in good physical condition; therefore I do not have enough time for family. Within the limited available time, there are too many competing activities, including time for continuous studies, and time for friends and a social life.

Charles reported feeling uncomfortable about missing his first wedding anniversary:

The most uncomfortable feeling was during the period of the MC6 (the 6th Ministers' Conference of WTO), during which I could not even keep my wife

company for our first wedding anniversary on 16 December! My wife and family were all understanding and considerate, and didn't give me stress, but I know they were worried about me, and so I couldn't avoid having stress in my mind.

Derby shared difficulties regarding quality communication time:

After "C" shift, I must sleep to recover my strength, so not much time is left during that period; working "B" shift, I return home late, after midnight, and the family are most probably already asleep, and when I wake up after 10 a.m., they have left for work. Due to the high demands on both my physical and mental strength while on duty, I am fatigued after work and sometimes am so tired that I cannot concentrate or am not in the mood to communicate with my family.

It may be observed from the above reflections that not having enough time available for friends and particularly for family has been a source of stress and frustration for both male and female officers, and their loved ones. Family relationships and thus job performance will both be hampered if the situation cannot be improved.

Finding time to stay in good physical condition – Item 11

Most interviewees reflected that, due to the need for speedy response to emergency calls, the physical demands of the job are great. Some examples of demanding task like rushing to a crime scene, chasing thieves, patrolling and searching high-rise buildings. Three of the eight interviewees considered it highly stressful trying to find time to stay in good physical condition. Most interviewees shared that "C" shift was particularly difficult in this regard; they needed sleep and recovery after work and did not do physical exercise while working the "C" shift.

Similarly, although there might be time for exercise before "B" shift, Betty pointed out:

I am not in the mood to do it before work, and running before work consumes physical strength. If cases at work were flooding in, there would be a worry of not having adequate strength to handle them.

Benny revealed working the "A" shift to be the most amenable to exercise:

> *It is more relaxed, so that you can run or do physical exercise after work. Besides, there is a risk of injury during physical exercise and you might miss duty. So most officers consider the time after "A" shift to be the most suitable for staying in good physical condition.*

As performance of officers' operational duties requires physical fitness, their being able to find time to keep fit is a necessity, but finding time and energy to do so was reported as stressful for most officers given their time constraints.

Occupation-related health issues (e.g. back pain) – Item 13

Benny and two of the female interviewees revealed that they had experienced back pain due to having to wear heavy personal gear throughout their shifts, even during meal breaks. Betty further reported:

> *The space for officers sitting in the front is restricted; you have to sit straight and it's painful to be pressed by the equipment so frequently in the confined compartment.*

Occupation-related health issues are gaining awareness among frontline workers. Previously, most officers accepted such issues as part of the duty environment and that was life; now more younger officers and female colleagues are increasingly open in airing these issues. All this being the case such health issues constitute a situation, which will warrant attention from management for remediation, improvement and prevention.

Feeling like you are always on the job – Item 19

Two interviewees, one female and one male identified this item as very stressful. Betty revealed that work stress was so high that it was difficult to release:

> *I experienced dreaming about work during sleep. Incidents and persons I encountered just floated up in the dream.*

Denis shared his stressful experience:

> *In the EU there is a tactic of assigning one plainclothes officer working discreetly with uniformed teammates in their close vicinity. Whilst I was off duty and shopping, I would remain attentive towards suspicious characters and for criminal activities. Sometimes, I even forgot that I was already off duty, since I am so keen on making off duty arrests. This of course would be a good performance indicator, but would be stressful as well.*

Feeling like one is always on the job is closely related to the working culture and environment, and is particularly stressful to those officers in the process of seeking promotion.

Having thus summarized interviewees' responses to operational police stressors, I present below their responses to organizational stressors. The common high-stress items include "Staff shortages"; "Feeling like you always have to prove yourself to the organization"; and "Inconsistent leadership".

Staff shortage – Item 6

This is the most prevalent cause of stress for the majority of interviewees; five out of eight highlighted this as a stressor. Betty commented that staff shortages often lead to increased work stress:

> *Staff shortages occur quite often, especially when there are colleagues transferring in or out. They may take leave or coincidentally attend a course, and then the post will be vacated, manpower will be tight, and work stress increases accordingly.*

Carol observed that staff shortages lead to what she perceived as unfair deployment:

> *The workload keeps increasing but there is no increase in staff; the only way is to work fast, and that means relying on the most skilled colleagues. This is not fair. The most skilled colleagues have been working themselves to death, and the less-skilled colleagues have no chance of practice for improvement.*

Most interviewees revealed that if there were more staff, coverage during meal breaks would be better; they could enjoy a decent meal, put aside the personal gear and actually take a break for recovery. Due to staff shortages, both the opportunity to take leave and the length of leave periods are very tight, and this situation hinders proper release of stress and recovery of strength.

Feeling like you always have to prove yourself to the organization – Item 3

Half of the interviewees considered this a high stress item, and it emerged as a concern that is closely related to the issue of seeking promotion. Alan even rated it at the maximum stress level of 7:

> *You need to prove yourself continuously, and gain recognition from supervisors and fellow colleagues. For instance, high-rise patrol and searches are teamwork; if you are falling behind, it means you are unfit.*

Charles gave further details:

> *Naturally the figures on arrest cases would be a stressor, and these must be of quality. Apart from these, there is stress from less substantial matters. For instance, when the Training Day Package was on "Counter Terrorism", you'd better have prepared well in advance. With better knowledge you can have greater confidence during discussions and prove your competitive merit among colleagues and before supervisors. Again, that is very stressful.*

This stressful situation also applied to female officers. Alice felt that she constantly needed to prove herself for the purpose of seeking promotion through continuous studies and performing voluntary services. Derby revealed:

> *In the EU the general working atmosphere is enthusiastic and promotion seeking is high. If everyone is on high key, you alone cannot adopt a low profile, so it is rather tense.*

Inconsistent leadership – Item 12

Almost half of the interviewees considered this a high-stress item. Alan pointed out:

> *Each patrol car has a Sergeant in Charge. Each might have his own style, one might consider you right, and another might not. Sometimes it's very difficult to adapt, and it becomes very stressful.*

Betty observed there is a need to adapt to each senior officer's managing style, though the process is stressful. On the other hand, while Carol affirmed that this process could be stressful, she viewed it as a challenge for her interpersonal skills, and reported that this outlook lowered her stress level.

Q3. How do you cope with these stressors? Describe the degree of effectiveness of your coping methods.

The eight interviewees had some common ways of coping with stress, the most typical ones being sleeping, running or doing physical exercise, and sharing. The degree of effectiveness for these methods varied among individuals. I summarize the results below.

Sleeping

Sleeping was considered the best way of releasing stress among both male and female officers. As Denis commented:

> *I hope to forget my stress after sleeping, or at least put it down for a while; after sleep my mind is better, I'm in a better mood, and I feel less stress.*

Derby also considered sleeping a must but reported that her quality of sleep was deteriorating:

Better and adequate sleep would lead to a better spirit and mood. However, the quality of my sleep has been getting worse. I cannot sleep right away, but wake up once I reach a set time.

Running

Running was reported as another popular way of releasing stress for both the male and female officers. Benny shared:

I normally run for about an hour. Running after "A" shift is less stressful; I cannot push too hard before "B" shift as I don't wish to lose too much energy before work, and I want to avoid causing an injury resulting in my being unable to work. I feel relaxed after running and sweating. There's no need to think too much about work, and I can keep fit at the same time.

Sharing with colleagues, family, friends or someone suitable

Sharing was another common way of releasing stress reported by most participants. Some reported being open to sharing with colleagues, family, friends or someone else, so long as they were considered suitable. Alice, for example, expressed a wish to broaden her knowledge through sharing:

Sharing with friends, classmates and colleagues broadens my knowledge. The views of my friends and classmates are closer to the views of the general citizens, and I don't confine my view within the police circle. Having a wider span of knowledge and a better understanding of public views helps me reduce work stress.

Some participants reported not feeling comfortable sharing their stress with colleagues for fear of the possibility of spreading gossip. Moreover, they referred to a desire to widen their social circles. On the other hand, some participants reported enjoying sharing with family more. The different experiences they related are summarized below.

Benny said he preferred drinking with friends outside the Force for a wider social circle:

> *I feel more relaxed under some effect of liquor, and more relaxed and more confident when sharing with friends outside the Force. There would be worries of gossip spreading if I were drinking among fellow colleagues.*

Unlike Benny, Betty expressed no worries about gossip spreading; she said she liked sharing with colleagues for their mutual understanding and support:

> *You've got to find a familiar and reliable person for sharing. I think my friends in general have little understanding of police work, and we would not have a mutual understanding, and so we would not talk too deeply.*

Charles reported liking sharing with his family and friends:

> *I share with my wife. She can observe when my stress is high, and talks with me. Also, I share with my parents and younger sister. I also go to dinner gatherings of my friends or classmates from time to time, where we share our job stress.*

Leisure activities

There were various forms of leisure activities reported by individual officers as ways of coping with stress. For instance, Alan said he liked driving; spending time with his family and girlfriend, chatting in the car, and listening to songs to help him temporarily put aside the job stress. Betty reported leisurely walks, shopping and traveling as ways of relieving her stress. Due to staff shortages, Betty could go traveling only once a year; if possible, she would take leave up to ten days or more and go farther.

Watching TV, movies and listening to music were common reported leisure activities for coping with stress for both male and female colleagues. Alan reported watching cheery and relaxing series, such as comedies and love stories, and avoiding those involving

violence, since officers' daily encounters are very stressful already. Derby said watching movies broadened her perspective, and listening to music gave her some personal space:

> *Watching movies broadens my perspective; "Schindler's List" is an example. People in that film were miserable, and I realized how lucky and blessed I am. I also enjoy listening to sentimental music, and consider that a form of rest. I can use the Internet while listening to music, which gives me some personal space.*

Alice reported performing voluntary service with her family during leisure as a way to reduce stress:

> *That would produce many effects in one go. Some members of my family and I joined the counseling program for critical youth. Once we established a friendship with them, we could offer our influence. During the process I have enhanced my interpersonal skills, and I have a strong sense of satisfaction when I see their improvement.*

Aside from sharing, Charles said he liked electronic gaming and playing football to release stress:

> *Sometimes I just could not release the job stress, and I thought hard about how to improve myself; gaming helps shift my attention from work. Playing football with a group of people is also useful. It's more fun and more effective in releasing stress than running alone.*

<u>Diversification approach for stress relief</u>

Carol reported adopting a diversification approach in coping with stress and said she considered enhancing knowledge her first priority in reducing job stress:

> *I find the effects of a diversification approach much better. The first thing is to enhance my knowledge, and be prepared anytime. For instance, when a citizen asks me on what authority I have for an enforcement action, I can quote the law right away, and that is how professional knowledge helps reducing job stress.*

Second, Carol elaborated the need to develop a healthy lifestyle:

> *I am open to a variety of ways to find fun and interest. Recently I have developed an interest in tennis, golf and fishing. I keep swimming and running*

as well. With a healthy lifestyle, I feel more balanced and have less stress, and have a sense of achievement and satisfaction.

Third, Carol shared the need for mutual support:

I widen my social circle and perspective through study and activities. The inter-relations are a ground for mutual support; we can help one another with knowledge in our own fields.

In the interviews, several forms of leisure activities emerged as ways of coping with stress as reported by individual interviewees, such as driving, electronic gaming, watching movies, and so on, but these could provide stress relief only temporarily. Caltabiano (1994) conducted a study on the usefulness for stress reduction of 83 leisure activities through a factor analysis, which showed three identifiable clusters of activities, namely outdoor-active sport; social; and cultural-hobbies, which were perceived to be equivalent in their potential to reduce stress. Caltabiano's findings supported the perceptions shared by Charles, who reported that playing football with a group of people was more useful, more fun, and more effective in releasing stress.

Among all the interviewees, Carol stood out as being well informed and resourceful. Her well-prepared diverse array of coping strategies, rather than one or two habits here and there, seemed more effective in terms of their coping outcomes. In a study by Cropley and Millward (2009) on the recovery process of how individuals switch off from work-related thoughts post-work, three major themes emerged from the authors' interpretative phenomenological analysis: first, work philosophy; second, coping strategies; third, coping outcomes. Cropley and Millward revealed differences in core beliefs about work. High ruminators perceived blurred boundaries between work and home life, and they allowed work to mentally predominate during their leisure time, whereas low ruminators viewed their work and leisure as two distinct spheres, and actively developed strategies to switch off and disengage from work. Cropley and

Millward concluded that there is a need for organizations to educate their employees, particularly high ruminators, about the importance of strategic unwinding post-work to optimize the quality of leisure time and prevent them from becoming fatigued and burned out. Carol appears to be a good example of someone who follows such advice, since she has an appropriate work philosophy and coping strategies, which together appear to lead to effective coping outcomes.

Q4. What do you understand about post-traumatic stress?

Q5. Have you experienced any post-traumatic stress?

If yes, could you describe the incident, its effect on you, how you cope with it, and the result?

I have grouped the results of these two questions related to post-traumatic stress together. The eight interviewees demonstrated varied levels of understanding of post-traumatic stress. Four interviewees reported having encountered some form of stress related to traumatic incidents, ranging from handling a major strike incident, handling an unexpected incident, and suffering an injury in a traffic accident.

Understanding of post-traumatic stress

Four interviewees, three males and one female, had some basic understanding of post-traumatic stress, and reported that male officers have a better understanding of this topic.

In Alan's view:

> *I think post-traumatic stress may be related to the handling of some serious crime resulting in trauma of the body and mind, and subsequent stress.*

Benny related post-traumatic stress to a serious incident that would cause obsessive repetitive thinking. Denis related it to the handling of some unexpected case with no

psychological preparation, resulting in a shock or unpleasant experience, which would lead to subsequent stress, such as nightmares and so on. Carol had a better understanding of these issues, since she was a member of the negotiation cadre and had received some related training. She understood that the effect of post-traumatic stress depends on the significance of the incident, and might be different for different people.

It is noted that half of the interviewees did not seem to have an understanding of post-traumatic stress. Due to the nature of emergency duties, the chances of officers in the EU experiencing traumatic incidents tend to be greater. There are important implications of this finding for training with respect to post-traumatic stress, in order to reduce adverse effects when the occurrence of such incidents cannot be avoided.

Experience related to traumatic incidents

Four interviewees shared their experiences in facing various traumatic incidents. Alan told of a stressful experience in performing crowd control duties during the 6th Ministers' Conference of World Trade Organization held in Hong Kong in December 2005:

> *Our sub-unit was standby on the first defense line, when the protesters for Korean farmers rushed toward us all of a sudden. We had not been fully prepared, the Korean protesters pushed the police vehicles and mills barriers, the situation was extremely critical and tense. We tried to defend but it was hard. People from both sides sustained injuries; luckily they were minor. I was rather scared when I looked back at the incident; at that moment we had just a few dozen colleagues facing a few hundred protesters. Those Korean farmers were well organized and used to using violence. On the other hand, we, the police, had been instructed to be restrained and we could use only a minimum level of force. I realized that the protesters just wanted to express their views and feelings and we the police needed to maintain the public peace, and the roles of both sides were different. Both were human, and had flesh, blood and feelings. Thus many fellow colleagues and I felt frustrated and helpless at the scene.*

Alan concluded that, because there had been no serious injuries or death and because the incident was not prolonged, no significant post-traumatic stress was incurred. However, Alan's account of this incident serves as a useful example of the kinds of stressors faced by police officers under circumstances such as these: frustration and helplessness, in addition to direct danger and its associated fears.

Denis and Derby both told of experiences in handling an unexpected incident with no psychological preparation, which resulted in subsequent stress. Denis recalled:

> *The incident occurred 3 months after I had come out of police training school; the heading of the case was "Person Collapse". When I arrived at the scene, a female told me mildly that her father was inside the toilet. I then pushed open the door, some small flies flew out; the male body lay on the ground and was all black, already decayed and putting out an awful smell! I dashed out to vomit at once. After the incident, I had no appetite and had nightmares for several nights. Luckily I could take a few days vacation for a trip, and had no more nightmares after playing and relaxing, and no further post-traumatic effects.*

Derby recalled an incident in which she was attached to the Police Tactical Unit (PTU) and the platoon responded to an outbreak of violence by Vietnamese boat people detained in Hei Ling Centre:

> *The situation was very tense. The Vietnamese prisoners set fire to the camp, and the police had to fire tear-gas bombs to force them out. When I advanced, I stepped unknowingly on a prisoner lying on the ground with a burn injury. I was panicked at the time. After the incident, when I slept at night, the scene came back to my mind and I could not sleep properly. Later I calmed down and the stress reduced gradually.*

Based on the experience of Denis and Derby, it seems clear that handling unexpected incidents with no psychological preparation can result in significant subsequent stress. The potential for such events argues for a pressing need to give EU officers better advance psychological preparation as to the likely occurrence of various forms of

traumatic scenes, as well as knowledge concerning handling post-traumatic stress.

Benny recalled a traffic accident he had when riding a motorcycle off-duty:

> *I was admitted to the hospital for several weeks. I took a month of sick leave and recovered gradually. Since then, I have been afraid of riding a motorcycle. To avoid recalling the trauma, I have not ridden the motorcycle, and have turned to driving a motorcar.*

Benny's experience illustrates that the effect of post-traumatic stress can be long lasting. Subsequent analysis of the cause of traffic accidents and remedial actions may be deemed necessary to prevent similar future incidents. Furthermore, the long-term effects of such incidents on the quality of life of the officers is an additional factor that needs to be part of an adequate analysis of the effects of stress.

Q6. Do you consider there are gender differences in occupational stress in your workplace?
Describe your observations or reasons for your perception.
Is there any need to improve the situation and how?

Most of the eight interviewees considered there were gender differences in occupational stress. Some of their observations were common among them and some were varied. In terms of stress levels between the two genders, male interviewees considered female colleagues to have higher stress; on the opposite side, female interviewees considered male counterparts to have higher stress. In actuality, as revealed by the statistical results in Chapter 5, male officers showed higher averaged means for both operational and organizational stress (4.55 and 4.82) than their female counterparts (4.34 and 4.35).

In terms of job deployment, all interviewees were of the view that there were practical gender differences related to division of labour. When the subject was related to family, most interviewees agreed that female officers experienced greater stress after marriage and particularly if they had children. There were some other perceived differences between the genders in terms of occupational stress. I summarize the officers' accounts below.

Differences in perception of gender and stress

Most male interviewees reported that they believed that female officers had higher levels of stress. An example of this perception is Alan's view:

> *The stress for female colleagues should be higher, because males generally handle most of the tasks; it is tougher for female colleagues to pick up the same job.*

Regarding the ways to reduce stress, Alan considered female colleagues to have fewer channels:

> *Where males can go for drives, go to ball games and so on, for most female colleagues, they would find someone for a meal or sharing, and probably there are more constraints.*

In contrast to Alan's view, Betty and other female interviewees maintained that their male counterparts would have slightly greater stress. She quoted an example:

> *In special cases requiring wearing the "Robot Cop" gear, which must be worn by male colleagues, they have to face possible attack. For us female officers, we just help our male counterparts to put on the gear speedily and properly, and provide backup. Sometimes, I feel I cannot help much and that I seem not too useful since the kinds of jobs for males are more.*

Practical gender differences related to division of labour

Both male and female interviewees agreed that there were practical gender differences related to the division of labour. The following two examples cover the range of views.

Charles observed:

> *The job at EU for male and female officers should be basically the same. In real life there are practical differences. For some cases male officers are more convenient, while for other cases female officers might be suitable, for example, the handling of female protestors.*

Alice reported:

> *Male and female colleagues can work together on the same case but doing different things. For instance, at a fire scene, male colleagues would speedily carry the injured away from the scene and hand them to female colleagues for comforting and care. With mutual understanding about the essence of cooperation and the willingness to accept the divisions of work, there should not be a cause of stress from gender differences.*

Both male and female interviewees appeared to have some mutual understanding of the practical gender differences related to the division of labour, together with a commitment to cooperation, support and respect. Their insights should prove useful in developing gender-appropriate strategies for training and stress management.

Married female officers with children experiencing greater stress

All interviewees expressed a similar view that male officers are more career-focused while female officers are more family-oriented, and that female officers tend to experience greater stress after marriage. According to Carol, for example:

> *There are gender differences in job stress particularly for female officers after they are married and have children; their attention would normally be on the family. I am now seeking a promotion and so would not consider marriage and children. If pregnant, how would you put up your hand for an interview like the others? Once you stop for a year due to pregnancy, it would be difficult to catch up to the competition.*

Denis also demonstrated an appreciation of this point:

> *In fact the stress of female officers is not light, particularly after being married, and it would be rather painstaking to take care of the family and perform shift duties. If the husband has no understanding, the marriage would be troublesome. On the other hand, the stress for male officers tends to be less in this respect.*

When being asked for suggestions to improve the situation, Denis commented:

I agree male officers can also share the burden of family issues so as to reduce the stress for females.

Some perceived differences between genders in occupational stress

Most interviewees expressed a view that there were some differences between genders in terms of occupational stress; I have selected the most relevant observations from four interviewees related to gender interaction, cultural perceptions, and job performance.

Alan observed as follows concerning the interactions between male and female colleagues:

> *Some male colleagues would treat female counterparts just like men with no difference in words and deeds. However, I am not sure whether there were some female colleagues just pretending that they did not mind, so as to prove they could mix well with male colleagues, and in fact they were suppressing themselves.*

To improve the situation Alan further suggested:

> *I considered having some seminars about listening to the voices of female colleagues as well as teaching them how to relieve stress.*

Charles recognized the differences between the genders in terms of cultural perceptions:

> *It is related to cultural perception, though it has changed a lot. Probably female colleagues would worry about the views of others toward them, thinking they were not so capable and competent as males. The number of male colleagues is still much greater than of female colleagues, because many cases involve the use of force. I believe the physique and strength of the male is stronger than the female. It would be fine to recognize the gender differences so long as there is*

no discrimination. Overall, it is fair, based on personal ability and performance.

Alice commented on the gender differences in job performance:

> *Since the ratio of female officers is small, the male still takes the lead; some senior officers or fellow colleagues would look down on the judgment of female officers. I have observed that there are gender differences in case handling; male colleagues are mostly action oriented, while female colleagues mostly prefer assessing and planning before action.*

Derby pointed out a trend toward "those competent take the seat":

> *Previously, female officers would only be assigned for support. Now they can work together for many cases, can even take up command. In the past, female officers had no chance for many courses, now we have a chance to participate, more towards "those competent take the seat".*

Alan's observations on the interactions between the genders brought up a likely scenario in which some female colleagues might suppress themselves so as to prove they could mix well with male colleagues. This issue is worth following up in subsequent studies. Regarding gender differences in terms of job performance and opportunity for promotion, comments from Charles, Alice and Derby were reasonably positive regarding the trend of promotion being based on personal competence.

Q7. Do you consider occupational stress in your workplace an individual issue, an organizational issue, or both? Elaborate on your understanding.

All interviewees considered occupational stress in the EU to be both an individual and organizational issue, but believed the organizational element to be more significant. They noted that, as an individual issue, stress varies among persons' attitude, aptitude and ability. In general, they agreed that causes of police stress tend to be more related to

organizational management, such as staff shortages, provision of training, policy-making, and bureaucracy. I summarize their accounts below.

Alan suggested that there was a need for improvement in training and instruction:

> *During the strike at MC6 (The 6th Ministers' Conference of World Trade Organization in Hong Kong), our fellow colleagues were very stressful and frustrated. The training and instruction we received were not in balance with the environment at the scene, and these issues certainly require improvement at the organizational level.*

Alice focused on the need for organizational effort in terms of occupational safety:

> *Occupational stress is a personal and organizational issue and requires great support from the Force in promoting occupational safety and health through setting policy and offering related training.*

Benny noted the stress from expectations of the community and the Force:

> *The community does have expectations of the Force and its officers. When the Force is under stress from the community, it also has expectations of the staff, and then the staff would face greater stress.*

Derby pointed out that police stress involves more organizational issues:

> *In general, stress involves more organizational issues. For instance, staff shortages are related to value for money, promoting a new service culture, accountability, living the values and so on. It would be impossible if you were not affected.*

Q8. Do you consider training and education as one way to improve the issue of occupational stress? What would you suggest to management regarding the training and education to be provided?

All interviewees agreed that pursuing training and education was one effective way to improve the issue of occupational stress. They urged the need for conducting related workshops for interested and needful colleagues.

For instance, Alan suggested:

> *Participants with common goals and needs would give better effects than simply launching a force-wide Training Day, in which some colleagues would not be interested and have no commitment.*

On being asked whether applicants might be labeled as unfit, Alan replied:

> *If colleagues don't face their problem, then it would be difficult to help them. To include those interested colleagues would reduce the labeling effect since there should be applicants from each division.*

Most interviewees considered the appropriate size of such a workshop to be around 20 participants, to be divided into subgroups to enable deeper communication. They also suggested the topics for the workshop might include: awareness of job stress and its effects; management techniques; how to handle stress from seeking promotion; how to deal with supervisors; and sharing of experiences by supervisors, fellow colleagues and psychologists. Overall, their views were constructive and practical.

6.2 Summary of Main Responses from the Focus Group Interview

As mentioned above in this chapter, the specific purpose of the focus group was to identify an appropriate strategy for stress management in addressing stress-related issues. Since appropriate stress management must be client-based, members of the focus group needed to be frontline officers who had actual experience of the stress-related issues. With the assistance of the management level of EUHKI, a total of five officers from various ranks were invited on a voluntary basis from different platoons. Again, I have used pseudonyms to represent them, namely Eric (Station Sergeant), Frank and George (Sergeants), Herman and Irene (Constables). Summary of the discussion covers two main aspects: the strategy of strengthening stress management for frontline supervisors first, and practical training arrangements.

The strategy of strengthening stress management for frontline supervisors first

This strategy emerged as a result of affirmative answers to the following three questions:

- Is the stress of supervisors much greater?
- Should supervisors know more about the ways to relieve stress, and thereby cater to the needs of individual subordinates more effectively?
- Would it be a useful training strategy to strengthen supervisors on stress management first?

All participants agreed that the stress of a supervisor is likely to be greater, since supervisors need to take care of both themselves and their subordinates. Eric shared his personal experience:

> *In general, supervisors would not share their stress with subordinates. Sometimes, orders from seniors were difficult to execute, but you can't disobey. The resistance from below was great, and occasionally some feedback was hard to bear. The seniors were not all right and the subordinates were not all wrong; the stress was really great from being stuck in the gap.*

The focus group agreed that this strategy would first strengthen the frontline supervisors on stress management, and foster their responsibility in assisting their subordinates on stress related issues. Since the number of frontline supervisors in the total population is relatively small, the process to run a workshop for them could be quicker and the cost involved would be lesser for a start.

Practical training arrangements

The focus group discussed practical arrangements for stress-related training to ensure its effectiveness; items discussed included duration of the course, size of the workshop, training content, and the need for a pilot course.

George, for example, brought up the need for periodic follow-up:

> *Periodic follow-up would be necessary and effective, because the understanding from a one-off course would be limited. There is a need to assist our fellows and that takes times to understand and digest.*

Frank elaborated why, in his view, a short course would be inadequate:

> *If you need to assist others in relieving stress, you must be able to relieve your own stress first. You need to understand your colleague's mental stress, and the appropriate method to cater for his or her individual character, and how to gain his/her trust; meanwhile, you have to tell him/her to carry out daily tasks; it's really difficult, and a short course is inadequate.*

Eric reflected on practical difficulties surrounding training arrangements related to operational commitments and manpower constraints. The group agreed to a practical and feasible framework with two parts: the first part being conducted in one go for three days to lay a foundation, covering basic concepts and ways of relieving stress and so on, and the second part consisting of four days for follow-up development to be held one day per quarter over the course of a year, step-by-step, for participants to practise and evaluate, and improve and renew.

The group discussed whether to start with just the NCOs (Non Commissioned Officers, including the rank of Station Sergeant and Sergeant) or also include some other colleagues on the basis of interest. Eric initially suggested integrating the ranks and including interested colleagues to enhance communication and mutual understanding. George and Irene suggested separation for the first part concerning basic concepts, since participants of the same rank can talk more freely; and then mix the different ranks for practice in later stages. Eric noted the deep-rooted rank culture, and also supported separation for the first part.

In terms of the appropriate class size for effective learning and cost considerations, the group agreed with Eric's suggestion:

> *I suggest between 15 and 18. That will speed up the warm-up stage, and the facilitator can also grasp the character of the trainees quicker and provide more suitable advice on stress-relieving methods. Having more time for communication will enhance learning and responses.*

Overall, the arrangement of bringing the ranks together for this focus group proved to be effective, as observed above under Section 4.4. Members of the focus group shared a common interest in and concern for the research, and they were committed to holding the discussions with mutual respect. They were practical in proposing a cost effective strategy of starting training first with frontline supervisors, and including concerned and interested colleagues at a later stage. The suggested training framework in two parts appeared practical and feasible; the first three days of intensive training would help in laying a foundation; then on one day per quarter, a step-by-step approach would facilitate practice and evaluation to foster continual improvement.

Next Chapter

In this chapter I have summarized the main responses to the interview questions of the eight interviewees and the results from the focus group. In the next chapter, I will offer my analysis and observations from a research as well as a professional police trainer perspective. Then in the final chapter, in light of the review of the historical development of stress management in Chapter 2, I will offer a conclusion in line with the set research objectives.

Chapter 7

Analysis and Discussion of Findings

Introduction

This chapter will provide a close analysis of the principal results from the survey and interviews administered to determine the stresses experienced by police in Hong Kong, and will discuss the implications of these findings with respect to the international research literature. The analysis and discussion will be carried out with reference to the overview of stress in the Hong Kong police practice that was detailed in Chapter 2. The international comparisons are necessary for the practical purpose of positioning the analysis of police stress in Hong Kong within the wider context of worldwide practice in policing. The principal items of discussion include the responses to operational and organizational police stressors, comparisons between these two categories of stress, gender differences associated with occupational stress, and participants' understanding of stress management. My analysis and observation will be based on both the research encompassed in this thesis project and my 30 years of police experience in various postings, including 14 years of specialization as a Force Training Officer.

A particular focus of this chapter will be the discussion and consideration of the findings from the study by McCreary and Thompson (2006), in which participants were found to experience greater stress from organizational factors than operational factors, and how they relate to those from my study. Overall, the findings from these two studies are concordant and provide evidence to support the argument for more organizational efforts to address stress-related issues.

7.1 Responses to Police Operational Stress

Among the twenty items composing the operational police stress questionnaire (PSQ-Op), participants' responses yielded an average mean score of 4.52 on a 7-point scale. This response score is higher than the results of the Canadian police study, which yielded an average stress rating of 3.47 for the PSQ-Op (McCreary & Thompson 2006, p.501). One reason to explain such differences can be related to the nature of the participants' duties. In the Canadian context, participants originated from a wide range of duties; participants in this study were all from the Emergency Unit (EU), which is anticipated to produce greater stress.

From the results of statistical tests (one-sample, *t*-test), sixteen items on the PSQ-Op were identified as being significantly higher than the test value of 4 (center point of a 7-point scale.) In this section, I will focus on those items of greatest concern and group them among three groups, according to commonality and significance: occupational health and safety issues; issues of time; and, job-related issues, including relationships with the public.

Occupational health and safety issues

Occupational health and safety issues in the policing realm are receiving worldwide attention, and so in Hong Kong. Occupational health and safety risks faced by police officers range from homicide, assaults, communicable disease, stress and fatigue, as well as other bodily and mental injuries and illnesses (Mayhew 2001a). Issues considered in this study include respondents' fatigue, as associated with shift work, sleeping problems and the challenge of maintaining a healthy diet at work, risk of being injured on the job and traumatic events, and ergonomic hazards.

Fatigue

In this study, fatigue was identified as the operational issue of greatest concern, yielding the highest mean score of 5.41. Fatigue is defined medically as a lack of energy and motivation. *Fatigue can be a normal and important response to physical exertion, emotional stress, or lack of sleep* (Medline Plus, US National Library of Medicine). From individual interviews and my professional police experience, the nature of tasks and the operational needs of the EU require members to respond speedily to emergency calls such as fire outbreak, robbery in progress, or searching high-rise buildings for suspects or culprits. Officers need to maintain a high level of physical and mental strength. The feeling of fatigue is common and strong for officers in EU, where the caseload is high, hours of work are long, but the time for recovery is minimal.

According to the Central Florida Police Stress Unit (CFPSU 2008) the signs and symptoms of stress are classified according to three aspects: physical, emotional and behavioural (http://www.policestress.org/signs.htm). In this classification, fatigue is defined as a physical symptom. In relation to the findings of this study, however, it can involve all three aspects. There was a consensus among participants that the "knock on" effects of fatigue, if not alleviated within an appropriate time, would directly affect their quality of performance (behavioural), as well as their motivation to serve (emotional), and could lead to sleeping problems. There are clear interactions among the physical, emotional and behavioural aspects of fatigue. For example, one female interviewee, Derby, expressed feeling fatigue after work to such an extent that it affected her communication with her family:

> *Due to high demand of both physical and mental strength while on duties, I felt fatigue after work and sometimes was so tied that I could not concentrate or did not have the mood in communicating with my family.*

The demographic data in this survey indicated that the officers recruited into EUHKI are young and energetic. According to age group, 45.7% of the sample was between 22 and 29 years old, and 68.2% was under 34 years old. Meanwhile, 56.2% of the sample had served three and ten years. Despite the comparative youth of participants, their feelings of fatigue were real and they rated this parameter as the most stressful item, indicating this issue is alarming.

Shift work, sleeping problems and maintaining a healthy diet at work

Mayhew (2001a) summarized an extensive body of research into categories of ill effects of shift work, including gastrointestinal upsets, psychosomatic disorders, and serious long-term disorders such as coronary heart disease. Night work is known to involve a significant disruption to the normal circadian body rhythm, resulting in decreased capacities at low biological time points (between 2 am and 4 am). In this study, the stress rating for shift work was found to be 4.81, ranking at fourth; while healthy eating at work was found to be 4.46, still well-above the mid-point of 4. All eight interviewees expressed that working on the night shift exerted great demands on their physical strength and mental attention; the change of shift on a weekly basis greatly affected their sleeping patterns, eating habits and lifestyle. Some interviewees revealed they had nightmares, digestive and nutritional problems, and they experienced weaker immune system function. For example, Charles is one of the victims suffering from operation-related problems:

> *For convenience and speedy action, EU car crew used to buy meal box collectively with limited choices, usually confined to barbeque meat with very few vegetable. In the long run, it would cause digestion and nutrition problems. I suffered from gastrointestinal problem with blood in the excrement. The doctor advised me to pay more attention to healthy diet and digestive problem.*

As discussed in Chapter 3, Schwartz and Roth (2006) used recent evidence to suggest that patients who suffer from shift work sleep disorder (SWSD) are at increased risk of these consequences. SWSD is a relatively common but under-recognized, and hence under-treated, condition with potential serious medical, social, economic and quality of life consequences. In addition to increased risk of gastrointestinal and cardiovascular disease, patients with SWSD experience clinically significant excessive sleepiness or insomnia associated with work during normal sleep times, which has important safety implications. In this study, most interviewees experienced at least some of the mentioned negative consequences, such as gastrointestinal problems, requiring longer sleep times to recover, and confusion of the normal biological clock. For instance, Alan's sleeping problem is representative:

> *Shift changes lead to time difference in sleeping and confusion of biological clock; sometimes needed to sleep early, sometimes late; sometimes after woke up I was not sure of the time, quite confused, thinking it was time to go for work and later realized it was just sleeping after night shift and was time for dinner.*

Furthermore, in the focus group meeting, and from my daily encounters, it was observed that most officers accepted shift work, sleeping problem and difficulty of maintaining a healthy diet at work as part of their routine lives once they had joined the police. These findings tend to support Schwartz and Roth's (2006) arguments concerning shift work sleep disorder (SWSD) as mentioned above. The consequences of these findings indicate a need for greater awareness, both by individual officers and the Force management of the potentially serious medical, social, economic and quality of life consequences, as well as safety implications, of excessive fatigue.

Occupation-related health issues risk of being injured on the job and traumatic events

The PSQ-Op revealed that the stress rating for occupation-related health issues, risk of being injured on the job and traumatic events was 5.17, 4.64 and 4.51, respectively; all factors scored well above the mid-point 4. Interviewees revealed that they were highly concerned about the negative consequences of these associated issues for four main reasons: their own safety, impedance to their career path, being a burden to their family or loved ones, and encumbering their fellow colleagues. It is understandable that the safety and health conditions of an individual officer would become a concern to their family and loved ones and is likely to increase the workload of their colleagues. Most interviewees did not wish to cause concern or worry to their loved ones. For instance, Charles shared his stressful experience in facing riots during the 6th Ministers' Conference of World Trade Organization (WTO MC6) held in Hong Kong 2005:

> *My wife and family all have understanding and are considerate, and didn't give me stress, but I know they are worrying about me, and so I can't avoid having stress in my mind.*

Charles' feelings are representative of the whole group of interviewees. As Stevens (2008, p.2) previously argued, stressed officers avoid seeking help because it would be construed among coworkers as a weakness and reinforced through the police subculture that they are vulnerable, which in turn reduces the officer's chances of promotion. Some interviewees revealed that they might be viewed as unfit or weak after sustaining an injury or not being able to face up to traumatic events; the result of being posted to indoor duties would effectively limit their career path and promotion prospects, and ultimately impact their families and home life, as well. It is worth noting that the traditional management perspective and police subculture are even stronger stressors on officers at the operational front. This stressful situation was also found to be applicable to female officers, as Derby revealed:

In EU, the general working atmosphere is enthusiastic and promotion seeking is high. If everyone is on high key, you along cannot adopt a low profile, so it is rather tense.

Ergonomic hazards

Ergonomic hazards involve risk of injury to the muscloskeletal system of the worker; they arise from uncomfortable or inappropriate working positions or heavy physical tasks (Parsons 2004). An example of an ergonomic hazard is sitting in a police patrol car for long hours. Most interviewees in this study revealed that they had experienced back pain due to carrying heavy personal gear throughout their shift. The situation exacerbated officers' digestion and nutrition problems for they could not release the heavy load even during their meal breaks, due to staff shortages and the need for speedy response to incoming emergency calls. One female interviewee, Betty, further pointed out the sitting problem inside her patrol car was a cause of her back pain:

The space for officers sitting in the front of the police car is constricted; I have to sit straight and would feel painful for being pressed by the equipment so often within the confined compartment.

Time issues

There are two aspects related to time issues revealed by the interviewees. The first was the officers' feelings of having insufficient time for friends and family, with a correspondingly high stress rating of 4.95 in the top three stress factors. The second aspect concerned their problems in finding time to stay in good physical condition. Here the stress rating was 4.44, around the middle among the twenty items. Most interviewees brought up the issues of not having enough time for friends and family, mainly resulting from their limited availability due to shift work and duty commitment, time necessary to take a proper rest and keep fit, as well as time for continuous studies to maintain their competitive power. Alan explained his difficulties with limited

available time:

> *Within the limited available time after work, I do not have enough time for family, since there are many other competitive activities, including time for rest, exercise, continuous studies, and social life.*

In another uncomfortable example, Charles revealed that he had been prevented from meeting a very important personal commitment:

> *The most uncomfortable feeling was at the period of WTO MC 6 being held in Hong Kong, during which I even could not keep my wife in company for our first wedding anniversary on 16 December 2005!*

During focus group discussion, most officers appreciated that duty commitment and operational needs seemed unavoidable. However, some younger officers questioned whether it was possible for supervisors to be more considerate in arranging the duty schedules so as to allow time for some compassionate needs of individual officers, such as the instance Charles mentioned above. The consequences of not having enough time with family may be very serious from the point of view of stress. From my own police experience and observations, common effects could include poor communication or breakdown in communication and misunderstandings within families, even leading to divorce or domestic violence. On the other hand, it is common for officers to lose their job motivation when they are suffering from increased work stress, when they consider such kinds of stress to be unnecessary or unbearable. It was brought up during the interviews that the relation between work stress and family stress is worthy of in-depth discussion.

Job issues

There are two items I wish to discuss in this subsection, namely participants' feelings as though they are always on the job and negative comments from the public. The stress

rating for feeling like an individual is always on the job was 4.81; same to the value obtained for shift work and both occupied the top fourth. Meanwhile, negative comments from the public were nearly as high and scored at 4.79.

Feeling like always being on the job

This item was identified as one of the operational police stressors by McCreary and Thompson (2006). From results of interviews in this study, participants' feelings of always being on the job supported the argument that occupational stress is both an individual and organizational issue. Most interviewees experienced a constant preoccupation with job matters, even during leave, and reported dreaming of incidents and persons encountered at work. They expressed the view that the police have a long-standing subculture of being task-oriented and tending towards the characteristic of "workaholic". For instance, Denis shared a relevant stressful experience:

> *In EU there is a tactic of assigning one plainclothes officer working discreetly with uniform teammates in the close vicinity. Whilst off duty and shopping, I would remain attentive towards suspicious characters for criminal activities; and sometimes just forgot I was already off duty since I am so keen to making off duty arrest. This, of course, would be a good performance indicator, but would be stressful as well.*

As Stevens (2008, p. 29-34, 114-116) argues, stress is cumulative in nature; personality and subculture are both well-recognized sources of stress. Stevens notes that individuals with type A personalities tend to be workaholics, and are likely to experience stress levels higher than type B personalities who tend to be more inherently relaxed than their type A counterparts. As expressed by participants in this interview study, the workaholic situation is related to both individual personality and the long-standing subculture of being task-oriented.

In this interview study, participants' feelings of always being on the job reflected the fact that they habitually found it difficult to switch-off from the cumulative effect of work stress. There is a growing interest in exploring the recovery process of how individuals switch-off from work-related thoughts post-work (Cropley & Millward 2009). Cropley and Millward elicited three over-arching themes in their recent study: work philosophy; coping strategies; and, coping outcomes. Their investigations revealed differences in the core beliefs about work; high ruminators allowed work to mentally predominate during their leisure time, whereas low ruminators viewed their work and leisure as two distinct atmospheres and developed strategies to switch-off and disengage from work. Cropley and Millward concluded that there is a need for organizations to educate their employees, particularly high ruminators, about the importance of strategic unwinding post-work to prevent them from becoming fatigue and burn-out.

From my thirty years of police experience, I have come to the realization that given the population in the Force involves several generations, from young recruits joining at the age of 18 to retiring officers at 55 years old, the effects from management promotion of healthy life style in recent years to offset the long-standing subculture of workaholism was an inherently gradual process. This has become an issue for management to address at all levels.

Negative comments from the public

The attitude of the general public toward police work and officers is considered a significant source of stress for law enforcement officers (Finn 1997). Police performance tends to produce huge social costs when it does not match policy or social expectations (Stevens 2008, p.3-4). Stevens pointed out that social costs often include a challenge to the legitimacy of law enforcement by the public, policymakers, media and

interest groups. Results from the survey administered in this study and interviews and focus group discussion indicated that most officers were highly concerned about negative comments from the public; participants reported wishing that the positive image of the Force would be projected and recognized. In particular, they mentioned the high degree of critical attention towards police actions on the part of the public and the media coupled with poor understanding of police practice and procedure by general citizens. Some interviewees expected the Force management, Police Public Relation Bureau (PPRB) or other appropriate commanders to openly confront and rectify the negative comments and to educate the public in order to promote respect towards the Force. It is noted that the Force management already applies distinctive communication strategies on these internal and external matters. Nonetheless, the results from this study will provide a focus for further reflection and continuous image improvement.

7.2 Responses to Police Organizational Stress

In the PSQ-Org survey, the average mean of the 20 items was up to 4.697 on a 7-point scale. There were 10 items that scored above the average and 6 items with a mean score over 5.000. Results of one sample *t*-test indicated that 17 items were significantly higher than the test value of 4 (centre of the 7-point scale). Such responses were particularly high in comparison to the Canadian police PSQ-Org study which identified the average stress rating for their population to be 3.80 (McCreary & Thompson 2006, p.501). As with the discussion in the former section, I will focus here on those items of greatest concern and group them according to commonality and significance. There are three groups that will be covered: bureaucratic and inconsistent leadership, staff shortage, and accountability pressures.

Bureaucracy and inconsistent leadership

Previous studies on police stress have shown that the most common and negative aspects of policing are the result of bad police management and bureaucratic structures; interestingly, stopping citizens, making arrests and even discharging weapons were reported as less stressful (Finn 1997, Burke 2007, and Stevens 2008). Burke (2007) further pointed out that, while officers are trained in ways of dealing with the general public, it is harder to equip them in ways of dealing with a bad supervisor and potential bias in the promotion process. In this section, I will consider these two issues in the context of the Hong Kong police department.

Bureaucracy

The stress rating for bureaucracy was 5.55on a 7-point scale, standing at the top of the list. It clearly reflected that all the 151 participants have been experiencing, at least to some extent, the burden of the bureaucratic system. It is noted that, in the wide span of rank structure with thirteen ranks from commissioner down to constable, there would certainly have some police leaders or supervisors using excessively bureaucratic methods to safeguard their benefits or even to apply pressure on their subordinates. Nevertheless, officers from all ranks reported experiencing some degree of stress related to the bureaucracy within the organization.

Hong Kong's history as a British Colony for over 150 years has meant that, in one way or the other, Hong Kong has inherited the UK bureaucratic system and its practices. From my personal experience and observations in the Hong Kong Police for over thirty years, the Force management in Hong Kong has been paying attention to the latest trends in international policing, including those in the UK. According to the history of reducing police bureaucracy published by the UK Police Home Office (Police Home

Office 2002 http://police.homeoffice.gov.uk/reducing-bureaucracy/history/index.html), the UK government recognized that achieving an increase in police numbers alone would not, in itself, guarantee the delivery of a more professional and high quality service to the public. It pledged to provide the means to enable police officers and support staff to work more effectively and more efficiently. In 2002, the UK policing bureaucracy taskforce was established and aimed to reduce unnecessary bureaucracy. Between 2007 and 2008, there was a review of policing (Flanagan 2007 & 2008), and in December 2009, the latest publication on "Reducing bureaucracy in policing" (Berry 2009) was released.

From my own professional experience over thirty years, I have come to recognize the bureaucratic burden on police officers is critical factor on fundamental police activities and individual's responses. In many cases, the police morale became low when officers on the management levels did not recognize the pressures being experienced by their staff, and did nothing to improve the situation. On the other hand, care and concern, together with positive actions to alleviate the pressures, can help ease police stress and enhance effectiveness and efficiency.

Inconsistent leadership

This factor was rated the third most stressful item, with a mean of 5.17, and was highlighted by half of the interviewees. An example of the problem of inconsistent leadership was provided by Alan:

> *Each patrol car has a Sergeant in Charge; each might have his own style, one might consider you right, another might not, sometimes [it can be] very difficult to adapt and became very stressful.*

Two female interviewees, Betty and Carol, agreed it was a stressful process, but they adopted a more positive reaction. Betty shared her approach:

> *There is a need to adapt to each senior officer's management style; you can't avoid such happening though the process is stressful.*

Carol viewed the problem as a challenge:

> *I realized this could be stressful, but I viewed it as a challenge to my interpersonal skills. I become more open and focused on learning and improvement, and the stress feeling would be less.*

As argued in Chapter 3, a positive and constructive attitude, together with sophisticated interpersonal skills, tended to reduce the negative effects from inconsistent leadership; female interviewees seemed to be more flexible and "natural" in adopting the "tend and befriend" model suggested by Taylor *et al.* (2000).

The issues with leadership style have their roots in the unique history of the police force in Hong Kong, and could be a separate topic for further research. From my experience in the Hong Kong Police, I have made several observations to augment the interpretations of participants' views in the interviews. Leadership style has, to some extent, been related to rank consciousness, which has been ingrained in the police subculture. Leadership or management style, in general, tended towards authoritative, especially under the historical colonial ruling when the police took up paramilitary roles. "Order is order" has been a common saying and practice within the police system. As time progressed up to the 1970s, situational leadership (Hersey & Blanchard 1972 in Hersey, Blanchard, & Johnson 2007) became more familiar to the management levels in various fields, including the Hong Kong Police. Hersey pointed out in an interview with Schermerhorn (2001) that situational leadership is about appropriately adapting the combination of directive behaviours and supportive behaviours to the readiness of

others in order to effectively perform specific tasks. Schermerhorn (2001), in turn, argues that there is no single all-purpose leadership, as evidenced from research; successful leaders are those who can adapt their behaviour to meet the demands of their own unique situation. From results of interviews in this study, most participants have been trying hard to adapt to the inconsistent leadership styles of their supervisors, and this is largely related to the police culture of rank consciousness mentioned earlier.

Around the 1980s, issues with human rights began to gain visibility and importance in Hong Kong after the Sino-British Joint Declaration, which stated that the Hong Kong Special Administrative Region Government shall protect the rights and freedoms of inhabitants and other persons therein according to law. While the Hong Kong Police Force is developing its new service culture in the first decades of the new millennium, more and more members of the public, as well as police insiders, anticipate officers in their leading positions to "walk the talk" and live up to the values and behaviours they launch. All these changes and developments have a certain bearing on the formation of various leadership styles, which might attract different responses among individuals with different backgrounds serving within the same organization.

After reflecting on the insights attained from the interviews, it can be understood that, within a disciplined environment, it would be more difficult for subordinates to comment to their supervisors directly and openly on any matter if there are concerns of consequences. However, these are important implications for the development of a management strategy for organizational stress, which will be further discussed in the next chapter.

Staff shortages

The item of Staff shortages was rated the second highest on the PSQ-Org with a mean 5.54, just 0.01 lower than the topmost item of Bureaucracy. For the majority of the interviewees, staff shortage was reported as the greatest cause of stress. Five out of eight interviewees mentioned that, due to staff shortages and stretching of manpower, workload and related stress were increased.

Alan highlighted the associated problems:

> *Staff shortage is a great cause of stress, which is associated with the issues for attending court and various courses; it becomes very difficult to take leave for rest or handling personal matters.*

Carol commented on what she saw as the related unfair deployment:

> *The workload keeps on increasing but there is no staff increase; the only way is to work faster, and get hold of those skilled colleagues. This is not fair, those skilled colleagues have been working to death, and those less skilled colleagues had no chance of practice for improvement.*

General comments from interviewees indicated that, if there were adequate staff for coverage during meal breaks, they could enjoy a decent meal, put aside their personal gear and actually take a break for recovery. They also highlighted that, due to staff shortages, both the opportunity for taking leave and the length of their leave periods became tight; this hindered proper releasing of stress and recovery of strength, which led to subsequent consequences such as lower performance, unsatisfactory services, illnesses, and sick leaves, to name a few.

From my experience in the Hong Kong Police, the issue of staff shortage has been controversial due to many associated factors, such as financial constraints, recruitment situation, staff deployment, differences in perspective and position between the

management and its staff. There are implications for the development of a management strategy for organizational stress, which will be discussed in the next chapter.

Need to account for job and feeling like always having to prove yourself

The stress rating corresponding to the need to account for job was 5.13, and ranked 5th; the officers' feeling like they always have to prove themselves to the organization was scored at 4.95, and ranked 7th. Half of the interviewees considered these items as high stress and related them significantly to the ambition for promotion. Due to the police culture of rank consciousness and promotion seeking, it is quite common for ambitious officers to feel the stress of having to account for their job and to prove themselves continuously in all situations, so as to avoid the negative consequences of accountability, and positively to gain recognition from supervisors and fellow colleagues. The related and cumulative stress is extremely great, particularly under a long-standing and strong competitive environment. The process of seeking for promotion and proving oneself may last for a few years, or even over ten years, for one rank.

From my professional experience, I have noted that many supervisors have been using the prospect of promotion as a management tool to "squeeze" their subordinates for outstanding performance and productivity. This can present a health hazard to the individuals, as well as to the organization, when there is no heart in their service. Upon noticing the problem of promotion seeking and limited opportunity under financial constraint around the time of the new millennium, in 1998 the management began highlighting the significance of developing a service culture, building a caring force, promoting job satisfaction and healthy life style. These aspects have been detailed in the historical review of stress in Hong Kong policing in Chapter 2.

As Stevens (2008, p.3) argues, police officers should accept the responsibility and the consequences of their own conduct. However, there are important lessons arising from this study concerning the responsibilities of police organizational structure for providing a suitable environment where personnel can bring the agency closer to its mission in a manner that does not unnecessarily exacerbate stress.

7.3 Comparison Between Operational and Organizational Police Stress

In this section, I will compare the responses of the operational and organizational police stress factors, according to the results attained from the survey and interviews. As this study is a replication and adaptation of McCreary and Thompson's (2006) Ontario survey research, I will draw further comparisons with their results, which will prove useful for illuminating the current situation in both Hong Kong and Canada.

Comparison according to results of survey and Canadian findings

As presented in Chapter Five – Results of Survey, the average mean of PSQ-Op was 4.54 out of a 7-point scale, with the highest score of 5.41 being recorded for fatigue, and the lowest score 3.74 for managing social life. The average mean of the PSQ-Org was 4.697, with the highest score being recorded as 5.55 for bureaucratic and the lowest score as 3.86 for too much computer work. Results of *t-test* for paired samples of Operational and Organizational Police Stress (Table 12) revealed a significant statistical difference with $p=0.001<0.01$ at 99% confidence. The survey reflected that the responses towards Organizational Police Stress were significantly higher than Operational Police Stress.

When comparing the results of the survey conducted for the Ontario Provincial Police (OPP) by McCreary and Thompson (2006), the original developers of the PSQ-Op and PSQ-Org, it is noted from the descriptive statistics that the mean of PSQ-Op was 3.64, and the mean of PSQ-Org was 3.78. Both surveys in Canada and Hong Kong reflected that organizational stressors were perceived to be significantly higher than the operational stressors. When looking back at the descriptive statistics for EUHKI with the mean of PSQ-Op at 4.52 and the mean of PSQ-Org at 4.697, it is obvious that officers working in EUHKI perceived their work to be more stressful than did officers working in OPP.

Comparison according to results of interview studies and previous research

In individual interviews and focus group discussion, participants agreed with the results of the survey, specifically, that they encountered greater organizational stress than operational stress. Some revealed that, with increasing experience through years of service, they could perform more effectively and efficiently on the operational side. However, when facing organizational stress, they realized that many stressors, such as bureaucracy, staff shortage, and inconsistent leadership, were out of their control.

As mentioned in the previous section, Burke's (2007) review of a range of studies on police stress showed that the most common and negative aspects of policing are the result of bad police management and bureaucratic structures, while stopping citizens, making arrests and discharging their weapons were reported as less stressful. Burke pointed out that officers were trained in ways of dealing with the general public; it was harder to equip them in ways of dealing with a bad or difficult supervisor and potential bias in the promotion process. Such considerations tally with the views presented by participants during individual interviews and focus group discussion in this research.

Finn (1997) classified sources of stress for individual law enforcement officers into five general categories: issues in the officer's personal life, the pressures of law enforcement work, the attitude of the general public toward police work and officers, the operation of the criminal justice system, and the law enforcement organization itself. He commented that many people perceived the danger and tension of law enforcement work to be the most serious sources of stress for officers, as dramatized in books, movies and television shows. He identified that, in fact, the most common sources of police officer stress involved the policies and procedures of law enforcement agencies. Similarly, Sheelan and Van Hasselt (2003) reported that organizational stressors, such as poor supervision or lack of recognition for superior job performance, are often more subtle, but no less devastating, factors that can interfere with the psychological equilibrium of law enforcement officers. From these findings, the effects of organizational stressors are considered greater than operational stressors. Finn (1997) has called for an organization-centered approach in reducing stress; Sheelan and Van Hasselt (2003) have argued for identifying law enforcement stress reactions early, and Stevens (2007) has pointed out that police organizational structure must accept its responsibility for providing a suitable environment where personnel can bring the agency closer to its mission in an appropriate fashion while alleviating unnecessary stress.

7.4 Gender Differences in Police Stress

In this section, I will discuss some major findings and observations from the survey, interviews and focus group discussion, together with previous research on gender differences in occupational stress and in methods of coping with stress. There are three aspects I wish to discuss. The first is on statistically significant gender differences in

stress responses. The second concerns some observations on the responses given by both genders in this study, which include perceptions of gender differences, ways of coping and adapting. The third is an encouraging reflection: division of labour and mutual support based on gender differences.

Statistically significant gender differences in stress responses

In Chapter 5, Table 13(a) and 14(a) show the statistical responses between male and female constables, respectively, to operational and organizational police stressors in terms of mean and median. Since the sample sizes of male and female constables varied (103 and 16, respectively), non-parametric Mann-Whitney Tests were conducted to see if there were any statistically significant differences that existed between male and female constables in their responses to these two categories of police stressors, which are shown at Table 13(b) and 14(b). Regarding the responses among operational police stressors, with reference to the test statistics at Table 14(c), two items were found to have significant differences between the genders, namely: "Shift work" and "Friends/family feel stigma effects". In response to the shift work item, male constables (median=5) reported a significantly higher stress than female constables (median=4), with p=0.046<0.05 at 95% confidence. In response to the Friends/family feel stigma effects item, male constables (median=4) again reported a significantly higher stress than female constables (median=3), with p=0.038<0.05 at 95% confidence.

As revealed from individual interviews, although both genders were working at the same scene, male constables were more accustomed to working in the operational front and female counterparts were commonly used to provide backup support. In this respect, the stress from shift work for male constables tended to be higher than for female constables. Male constables, on the other hand, considered a higher stress to

"Friends/family feel stigma effects" than did female constables. One possible reason for this, mentioned earlier in Chapter 5, is that the portion of male officers (around 90%) was much larger than the female officers (less than 10%). Therefore, the images of police naturally or normally corresponded to male officers, and so did the stigma effects.

Regarding the responses among organizational police stressors, with reference to the test statistics in Table 14(c), three items were found to have significant differences between the genders, namely: Dealing with the court system, Internal investigations, and Need to account for job. In response to Dealing with the court system, male constables (median=5) reported a significant higher stress than female constables (median=4), with p=0.03<0.05 at 95% confidence. In the response to Internal investigations, male constables (median=6) again reported a significantly higher stress than female constables (median=4), with p=0.005<0.01 at 99% confidence. In response to Need to account for job, male constables (median=5) reported a significant higher stress than female constables (median=4), with p=0.002<0.01 at 99% confidence. It can be understood that male constables are more exposed and involved in daily operational duties, resulting in their higher opportunities for internal investigations, court attendance, and need to account for their work than their female colleagues. Likewise, the levels of stress on male constables in regards to these items are significantly higher than female colleagues.

Observations from responses given by both genders in this study

Further reflection on the results of the interviews and focus group discussion lead to some useful observations on the following two aspects: perception to gender differences and coping and adapting.

Perceptions of gender differences

There is a considerable body of research on gender and the stressors associated with work and family roles, and these subjects have been the topic of numerous articles and books (Trocki & Orioli 1994, International Labour Organization (ILO) 2001). It has been noted that research on occupational stress has focused primarily on men, and that many gaps and biases exist. One unanswered question is whether women suffer from greater occupational stress than men. As discussed in Chapter 3, Trocki and Orioli (1994) pointed out that the lack of a consistent pattern is not irrefutable evidence that gender differences do not exist, only evidence that there needs to be more systematic research on the topic conducted with comparable measures and comparable populations. As time progresses, increasing studies on occupational stress from a female perspective will continue to come forth (Gianakos 2000; Taylor, Klein, Lewis, Gruenewald, Gurung, and Updegraff 2000; Lord and Peak 2005).

In the interview study, most participants expressed the view that there were gender differences in occupational stress. One interesting reflection is that male interviewees considered female officers to have higher levels of stress. On the other hand, female interviewees considered that their male counterparts would experience slightly greater stress. The representative views from Alan and Betty are quoted below, respectively:

> *The stress for female colleagues should be higher, because males normally handled most of the tasks, thus it would be tougher for female colleagues.*

> *Male officers would have slightly greater stress than female officers; for cases of violent nature, male officers used to work more at the front and had to face possible attack. For us, female officers we just help our male counterparts to wear the gear speedily and properly, and provide backup support.*

In fact, from results of the survey, male constables reported higher levels of stress in response to both operational and organizational stressors than did the female constables.

Coping and adapting

Lord and Peak's (2005) review concerning women in law enforcement careers concluded that women officers were more sensitive and responsive to social needs, and the current era of community policing brought about new opportunities for female officers to effectively use their interpersonal skills. I observed these findings and comments from Lord and Peak were noticeable and applicable to the research presented herein involving officers in the Emergency Unit of the Hong Kong Police Department, which will be discussed below.

As mentioned earlier, Hong Kong is an international city and the management of the Hong Kong Police has been paying attention to the worldwide trends in policing, including aspects of community policing and women policing. For instance, the gate to the Emergency Unit was opened to female officers in 1997, which made the gender analysis on police stress in this study feasible.

From the interview regarding the ways by which participants coped with stress, Alan considered female colleagues to have fewer channels:

> *As males can go for driving, games etc., for most female colleagues, they would find someone for meal or sharing, and probably there are more constraints.*

This view corresponds to Trocki and Orioli's (1994) findings that women had somewhat lower coping resources, except for self-care and social support.

From earlier discussions, male officers commonly reported finding it more difficult to adapt to bureaucracy and inconsistent leadership, and were more likely to become frustrated and overly stressed. On the other hand, female interviewees, whilst they agreed it was a stressful process, observed the need to adapt to each senior officer's managing style and viewed it as a challenge to communication and interpersonal skills; thus, their stress levels became lower. The responses of female participants in this study tended to support the befriending approach proposed by Taylor *et al.* (2000) and Lord and Peak's (2005) findings that there are new opportunities for female officers in effectively using their interpersonal and communication talents in the job.

With respect to the issue of adapting, Alan's observation on the interactions between male and female colleagues is worth discussion:

> *Some colleagues would treat female counterparts just like men with no difference in words and deeds. I am not sure if there were some female colleagues just pretending that they did not mind, so as to prove they could mix well with male colleague[s], and in fact they were suppressing themselves.*

Alan's remark brought up the possibility that some female colleagues might suppress their femininity so as to prove they could mix well with male colleagues. During focus group discussion, female interviewees said they would not pretend and suppress themselves, but they also considered such observation to be likely. This likelihood tends to corroborate earlier research on female officers' behavioural adaptations, between the two extremes of "POLICEwomen" and "PoliceWOMEN", when they were facing discriminatory and stressful situations in the police culture (Martin (1980) cited in Lord and Peak (2005)).

From my service in the Hong Kong Police, I have encountered women officers at the two mentioned extremes, though the majority ranged along the continuum. I still recall in the 1980s, when I was an instructor in the Police Training School, some male colleagues did remind their female recruits to be "POLICEwomen" in order to survive in the police culture. With the passage of time and the development of women policing over the past few decades, the likely issue of suppression during interactions between genders as reflected by Alan and the focus group may be changing. Again, there are clear directions for further, large-scale research into these patterns of gender adaptation within the Hong Kong setting.

Another male interviewee, Charles, also expressed the view that there were some differences in stress responses between male and female officers related to cultural perceptions:

> *Probably female colleagues would worry about the views of others on them, thinking they were not so capable and competent as male[s], especially [since] the number of male colleagues is still much greater than female colleagues and many cases involve the use of force.*

One female interviewee, Alice, shared a similar experience as observed by Charles:

> *Since the ratio of female officers is small, the male is still taking the lead; some senior officers and fellow colleagues tend to look down on the judgment of female officers.*

Lord and Peak (2005, p.63-73) report that, during the past two decades, female officers have gone through adaptations to the discriminatory and stressful situations, as also conceded by Martin (1980), to become more recognized as professionally competent in order to progress into wider police roles. The above findings in this research do support such processes of development. I have observed that there is further need to promote and practise mutual understanding and support between male and female officers, with

more understanding from male supervisors and due respect to their female subordinates, so as to reduce unnecessary stress derived from possible gender differences.

Division of labour and mutual support based on gender differences

Although both male and female officers are performing the same duties together at the scene of an emergency, there is still a gender-related division of labour, depending on the nature of each case and strengths of each gender. For instance, in handling cases involving domestic violence or mental disorders, interviewees revealed that male colleagues would naturally approach first to contain the situation and would rely on their female counterparts to perform the follow-up counseling and administrative work. For other cases of handling female protestors or victims, most interviewees considered female officers to be more appropriate as the point-of-initial-contact. Such arrangements concern mutual coordination and practices of best utilization of human resources; hence, the job stress of male and female colleagues might be different and non-comparable, due to this practice of informal division of tasks. From the results of interviews and focus group discussion in this study, I found an encouraging reflection that the respondents have a common understanding that male and female colleagues could supplement one other and offer mutual appreciation and support. Mutual understanding and cooperation can help reduce unnecessary stress caused by gender differences. Some respondents noted that female colleagues should not feel inferior to their male counterparts; at the same time, they reported there was no need to be overly assertive. For instance, Derby pointed out the trend of "those competent take the seat":

> *Previously, female officers would only be assigned for support; now, they can work together for many cases, can even take up command. In the past, female officers had no chance for many courses, now we have the chance to participate, more towards "those competent take the seat".*

There has been a concern whether different stress management techniques should be offered to men and women. There is no simple answer to this question. From responses given by both genders in this study, there were certain differences between male and female perspective toward gender stress, as well as their approach on coping and adapting. Both genders were satisfied with the division of labour and mutual support based on gender differences. No request for separate treatment was raised. Nevertheless, there was a clear suggestion for better mutual understanding between genders and that should be promoted for continuous improvement.

7.5 Understanding about Stress Management

In this final section, I will analyze and discuss the quantitative and qualitative findings to determine the understanding of participants about their stress management. This investigation will be carried out with a focus on the two particular aspects, of participants' ways of coping with stress and their experience with Post Traumatic Stress Disorder (PTSD).

Ways of coping with stress

Snyder (2001) provided the following psychological definition for "coping":

> For the average person, coping represents a description of what must be done to keep his or her life at a reasonably high level of satisfaction. Thus, coping may involve a variety of thoughts, emotions and actions. Coping reflects thinking, feeling, or acting so as to preserve a satisfied psychological state when it is threatened.

Bearing this definition in mind, I will discuss the participants' chosen ways to cope with stress, which were categorized into four areas: performing physical exercise (37.7%);

sharing with family, friends, colleagues, and others (13.2%); sleeping and rest (13.2%); and, adopting various forms of healthy life style (the remaining 35%).

Physical exercise

As reported in section 5.4, using various types of physical exercise is the most popular way to cope with stress, with over one-third (37.7%) of the 151 participants indicating this as their preference. It is observed that, to a certain extent, the popularity of physical exercise may have some effects related to the promotion of "One Officer, One Sport" as one of the initiatives for developing a healthy life style implemented by the management of the Hong Kong Police upon entering the new millennium (reported in section 2.4; The HKPF 2006). Constable (1988, p.33) stated that, although studies have shown that many types of exercise – stretching, meditation, aerobics, massage – are able to reduce stress, not every exercise will appeal to everyone, nor will all the forms of exercise be appropriate for every time and place. It is noted that an effective program of stress management normally includes exercise with a variety to choose from and this matches with the idea of "One Officer, One Sport".

However, as reported earlier in section 5.2, most officers considered it stressful to find time to stay in good physical condition. Some participants cited the reasons for such difficulty as competition for time to perform other necessary or desirable functions including rest, family and social life, studies and recreation. In addition, the effects of changing in shifts, becoming exhausted after duty, worrying about injury or depleting energy as a result of exercise before duty were expressed as concerns. These reflect the fact that many officers were thinking of waiting for "A" shift (Duty time of A1: 0645-1530 hrs, A2: 0730-1615 hrs.) to keep fit; they did not feel like doing exercise before "B" shift (Duty time of B1: 1445-2330 hrs, B2: 1530-0015 hrs.) or "C" shift

(Duty time of C1: 2245-0730 hrs, B2: 2330-0815 hrs.), and so they simply responded according to their logic and feeling.

There is research to support strategies for managing these difficulties. For example, the Centers for Disease Control and Prevention of the US Government (CDC 2008) support spreading physical activity out over the week. Similarly, Mulcahy (2003) pointed out that there is certainly some scientific evidence to support the claim that exercise can improve a person's ability to think more clearly; but there is also evidence to show that fatigue and over-exercising has little benefit. It appears necessary to widen the perspective and understanding of officers to address their feelings on maintaining personal health practices. I have noticed that most officers have become more concerned about their health over the past thirty years. However, in view of increasing workload and its related stresses, today's officers do experience certain difficulties in finding time to keep up their fitness. There are always some officers reluctant to do physical exercise, while there are some officers over-exercising and even applying drugs to build up their muscle mass. It is quite clear that physical fitness and mental performance are gradually built up over time, and do not naturally appear over-night. Likewise, stress release would be better achieved through daily long-term practice. All these suggestions could be included as agenda items in the training day programme to enhance the coping ability of participants.

Sharing

The second most popular stress releasing method reported in the survey and interviews was "Sharing with family, friends, colleagues and others", reported by 13.2% of the population (see section 5.4). However, most officers consider having "not enough time for friends and family" as the third highest police operational stress item (see section

5.2). In practical terms, the degree of stress release achieved by this method is somewhat hindered by the time available. From individual interviews and focus group discussion, it was noted that some officers treasure the opportunity of sharing with their family or friends, whilst others find it difficult to explain the complications of their situation to their loved ones who have no point of reference for understanding police career demands. Still some officers do not feel confident enough to share with their fellow colleagues, and hesitate for fear of spreading gossip. On the other hand, some officers report routinely sharing with colleagues in order to gain a mutual understanding and support. Again, as pointed out by Snyder (2001), different ways of coping reflect the individual officers' thoughts, emotions and actions. In recent years, recruit training and training day packages in the Hong Kong Police Force have wider coverage on empathetic listening and interpersonal skills. Such training, to a certain extent, can enhance the coping ability of officers through venting, listening and sharing. To address the issue of limited available time, appropriate training on time management would be useful and necessary.

Sleeping

Sleeping and rest were reported at the same rate as sharing (13.2%) for a preferred stress releasing method. According to Constable (1998) and Kiecolt-Glaser (2009), it is important for an individual to establish a regular sleeping schedule, not to take trouble to bed, and to learn to release body's tension through progressive exercise. From individual interviews and focus group discussion, most officers appeared to realize the significance of proper sleeping and rest. Some officers reported no sleeping problems and would feel better after waking up, having a better mood and a clear mind and view. In contrast, some officers reported experience significant sleeping challenges and could not establish a regular sleeping schedule due to change of shift pattern on a weekly basis.

These sleep-deprived officers suffered from deteriorating quality of sleep, were unable to go to sleep in a timely manner, and experienced work incidents in their dream state. For instance, Alan shared his difficulties in sleeping:

> *Sometimes I can't sleep when change of shift...whilst sleeping in bed would think about what should be done to improve next time...would keep on thinking, then unable to fall asleep, or insomnia...*

Experts and fitness instructors advise that adequate rest is important for stress reduction and is a source of power for carrying out daily activities; apart from maintaining regular sleeping pattern, the occasional "power nap" of 15 to 30 minutes has been suggested as useful in conditions of sleep schedule constraints (Piwowarczyk 2004). Likewise, medicine physicians advise that, if a person is stressed, his or her brain has a lot to handle before it can shut down and rest; there are two components of rest: the ability to fall asleep and the ability to stay asleep (Jih 2009). Stress and rest are intimately inter-related and there are chain effects between the two. Officers in the EU have much to learn from the above findings and resultant advice, in order to release stress at the end of a workday and enjoy good sleep and rest.

Healthy life style

As reported in section 5.4, the remaining 36% of participants adopted various forms of healthy life style in order to release stress, including taking vacations and tours, reading and learning, music and song, shopping and leisure walking, various entertainment activities such as movies, drinking and eating, computer games, bathing, improving living environment, self-talk, looking after children, and raising pets. All these activities were considered workable solutions to everyday challenges, but some techniques may be required in each different activity.

The promotion of healthy life style was first recommended as one of the initiatives to promote a corruption-free working environment for members of the Hong Kong Police in 1996 (see section 2.3). Over the past decade, the Force management continues its commitment and has worked out new initiatives in life style management, such as promoting "Balance and Wisdom" and the "One Officer One Sport" program, so as to counter increasing police stress (see section 2.4). Certainly, the promotion of life style management has a bearing on widening the coping perspective of its members, as can be seen from the various different forms of healthy life activities being adopted by officers of the Emergency Unit in this research. It should be noted from section 5.1 that the majority of the sample population, over two-thirds, falls between the ages of 22 and 33. These individuals are usually more open and ready to take up the new initiative of life style management. Furthermore, it is encouraging to see from the results of individual interviews that there is a female officer, Alice, who enjoys performing voluntary services with her family in a counseling program for at-risk youth as her way to reduce stress. Another female officer, Carol, adopted a diversified approach to release her stress through enhancing knowledge, developing a healthy life style and finding suitable support. It seems that female officers who participated in this research were more naturally inclined to adopt the befriending approach (Taylor *et al.* 2000) in coping with their stress, as discussed in Chapter 3.

Understanding about post traumatic stress disorder (PTSD)

Finally in this chapter, I will discuss PTSD. By drawing on the most recent research in the field, the understanding and experience of participants will be analyzed in this area.

PTSD has been diagnostically defined by Rogers and Liness (2000) as:

> an anxiety disorder that causes significant changes in behaviour (things we do),

> cognitions (thoughts, and the way that we think) and physiology (physical feelings of anxiety). It can also affect a person's daily life including work, relationships, hobbies and interests.

Schiraladi (2009) further comments on the causes of PTSD:

> PTSD results from exposure to an overwhelmingly stressful event or series of events, such as war, rape, or abuse. It is a normal response by normal people to an abnormal situation. The traumatic events that lead to PTSD are typically so extraordinary or severe that they would distress almost anyone. These events are usually sudden. They are perceived as dangerous to self or others, and they overwhelm our ability to respond adequately.

Based on the individual interviews with the eight participants in this research, none of them appeared to have or reported having suffered from PTSD, as diagnostically described above. Four interviewees, three males and one female, revealed a basic understanding of PTSD and quoted some examples, such as: incidents related to serious crime that resulted in body and mind trauma and subsequent stress; shooting incident causing obsessive recall, sustaining injury from incident or accident, causing distress with anxiety; traffic accident resulting in panic and stress, leaving a shadow in the mind after the incident. As reported in Chapter 6, there was a concern that half of the interviewees seemed to completely lack any understanding about post-traumatic stress. Due to the nature of emergency duties, the opportunities for officers in the EU to experience traumatic incidents tend to be greater. These findings have significant implications for training on post-traumatic stress so as to reduce the adverse effects when the occurrence of such incidents cannot be avoided.

Regarding their experience on post-traumatic stress, it is worth noting here that half of the participants recalled a particularly stressful experience associated with performing crowd control duties in the 6th Minister Conference (MC6) of World Trade Organization

(WTO) in Hong Kong in December 2005. Further to the summary provided in Chapter Six, participants Alan and Charles revealed that even after a month or so after MC6 was over, they still frequently recalled the incidents of striking at the scene in which colleagues were injured.

Alan recalled:

> *There were sleeping difficulties and post-effects a few months after the incident; the scared situation floated up occasionally. Luckily, no serious injuries or death occurred, and the incident did not prolong further; thus, I could overcome gradually.*

Charles shared:

> *I could not sleep well over that period. Once woke up, I would watch the live news broadcast at scene and the development of the incident. I naturally had stress at heart, and would think of this incident frequently, even after a while when the MC6 was over.*

Most interviewees said that luckily there were no serious injuries or death on both sides, and the incident was not prolonged further; thus, their fellow colleagues could recover with no significant post-traumatic stress. As reviewed in Chapter Two, after the completion of the HKMC, the Police Psychological Services Group (PSG) undertook a survey of the participating frontline officers to identify their stressors during that period and presented their findings to senior management from a psychological perspective on stressors, morale and adjustment (see section 2.4). This incident effectively reflects the needs for continuous organizational efforts in addressing stress related issues.

Next Chapter

As accurately pointed out by Burke (2007), events in police work may produce a constant hyper-vigilant state of arousal; exposure to traumatic work events emphasize the need for more work on the impact of PSTD experienced by police personnel. I reiterate, here, that acknowledgment of stressors, proper evaluation and stress management are effective directions to be followed. In the final chapter, I will point out that occupational stress is a two-sided issue involving individual officers and organizational management. There are increasing needs for more organizational input, particularly in terms of training on stress management.

Chapter 8

Conclusion: Implications for Development and Further Research

Introduction

This chapter concludes the thesis by providing an examination of the outcomes and implications of the survey, interview and focus group data that formed this study, in order to consider the implications for effective change. It will prospectively examine the need for more organizational efforts to address stress-related issues, continuous development of stress management, and further comparative research in other police units within the Hong Kong Police context. Ultimately, this study will contribute as an international comparative reference.

There are three sections in this chapter. In the first section, I will summarise findings from the research literature and from this current study to demonstrate that occupational stress is a two-sided issue, involving efforts from both individual officers and organizational management to combat the negative effects of stress; and calling for continuous renewal of organizational culture and transformation leadership. The first section will round up with the need for more organizational recognition of the problems and implementation of more effective interventions. In the second section, I will summarize the comments and suggestions from individual interviews and focus group discussions to demonstrate the need for continuous development of stress management and other related training. In the third section, I will discuss the implications for further comparative research in other police units as an organizational effort to identify appropriate stress interventions.

8.1 Occupational Stress – an Individual and Organizational Issue

A two-sided issue

Stevens (2008, p.3) points out that officers are not equal in terms of stress because each officer is affected differently by events and circumstances that produce stress. Officers should accept the responsibility and the consequences of their own conduct. However, the police organizational structure must also accept its responsibility of providing a suitable environment where personnel can bring the agency closer to its mission in the best possible fashion. Stevens' research and professional experience is in Criminal Justice in the USA. He has taught and counselled law enforcement and correctional officers at various law academies, and has conducted many case studies in applied community policing in America. Stevens (2008, p.4) argues that there is a combined responsibility between the organization and serving officers for dealing with stress, especially before it is able to reach a crisis point.

For instance, the concerns of occupational safety and health (OSH) involve a two-sided issue for both officers and the organization. Parsons (2004) reviewed some of the existing research on the occupational health and safety risks that police officers among Canadian, American and European agencies might encounter on a daily basis, and identified many health safety issues surrounding policing. The Hong Kong Police bi-weekly magazine, *Offbeat* (2005) stated that the management has an obligation to predict what OSH risks it faces and to act accordingly to prevent undesirable outcomes. On the other hand, individual officers also have the responsibility to follow the applicable procedures and standards so as to reduce the occurrence or negative effects of such risks. Given that the Force itself recognizes the OSH implications of stress, it is

important to look at how to carry these responsibilities out more effectively.

In the interviews in this study, all eight officers considered occupational stress in the Emergency Unit (EU) to be both an individual and organizational issue. The personal attitude, ability, and ways of coping with stress, of course, are individual issues, and vary from person to person. However, bureaucracy, inconsistent leadership, and staff shortages are typically organizational issues, which the respondents identified as management's responsibility.

Continuous renewal of organizational culture and leadership

As reviewed in Section 3.4, Peterson and Wilson (2002) has cleared demonstrated the influence of organizational culture to the quality of work life under the culture-work-health model. The working paper on organizational culture, leadership, change and stress by Kets De Vries, Guillen and Korotov (2009), in particular, the summary of a four-stage process of how leaders accept the need for change is also applicable in the police culture of Hong Kong context. As reflected in Chapter 2, the leaders and management of HKPF had a culture of declining to recognize work stress, until going through a long and painful battle for recognition as contained in the Rennie Report (1988). Since the completion of the 6th Ministerial Conference (MC6) of the World Trade Organization (WTO) held in Hong Kong in 2005, the management of the HKPF opened to the initiative of adopting a scientific research towards stress encountered by officers in international event and took up the findings of staff opinion survey for continuous improvement. In the ever-changing stressful working environment, there is no room for complacency. It is envisaged that officers in the leading position of various levels within the HKPF would have a better understanding and recognition of the causes and effects of stress their subordinates are facing, and that

they would take up their roles in the process of transformational leadership towards continuous renewal of the organizational culture in combating stress.

More organizational recognition and effective interventions

As discussed in section 7.3, the effects of organizational stressors are considered higher than operational stressors, as reflected in both quantitative and qualitative findings from this study. A summary of the literature below also supports this conclusion. Much of the available research comes from the USA. For example, Finn (1997), in calling for an organization-centered approach in reducing stress, pointed out that most stress programs are carried out by using a person-centered approach, and treating the symptom but not the cause. Finn's research experience was drawn from a large-scale study, conducted by the US National Institute of Justice (NIJ), of programs devoted to reducing police officer stress; the researchers interviewed nearly 100 stress-management program directors, law enforcement administrators, mental health providers, union and association officials, officers and their families, and civilians. Finn argued that reducing organizational sources of stress should lead naturally to better morale, improved productivity and enhanced overall department efficiency. Moreover, Sheelan and Van Hasselt (2003) have called for early identification of law enforcement stress reactions, so that managers and mental health practitioners can work out timely focused interventions, and law enforcement supervisors can formulate useful training programs accordingly. Sheehan's background was as a Special Agent teaching Stress Management in Law Enforcement at the FBI Academy, whilst Van Hasselt was a psychologist in behaviour therapy. Sheelan and Van Hasselt (2003) presented the Law Enforcement Officer Stress Survey as a potential tool for agencies to employ in their efforts to help their officers cope with job-related stress. Similarly, Stevens (2008, p.3) argued that "police organizational structure must own up to its responsibility of providing a suitable

environment where personnel can bring the agency closer to its mission in an admirable and stress-free fashion." Stevens (2008, p.113-116) further contended that the stress of the police organization fosters a police subculture in which officers protect themselves from the organizational inconsistencies, which are then used by officers as grounds to rationalize and justify even unlawful behaviour.

In the interview herein, officers brought up their experience with community and public expectations, some rational and some irrational, regarding policing and police officers; these naturally become stressful to both the organization and its serving officers. For instance, one male interviewee, Benny, highlighted the stress from both community and Force expectations:

> *The community does have expectations of the Force and its officers. When the Force is under stress from the community, it would also have expectations of their staff, and then the staff would face greater stress.*

When the organization is facing stress from the community and members of the public, it passes this on to its staff; directives will be routed and amplified through the ranks, resulting in greater stress to frontline operational officers. Ronald Burke, a guest editor for Policing – An International Journal of Police Strategies and Management (2007), noted from his review on police stress, that the most common and negative aspects of policing are the result of bad police management and bureaucratic structures. While officers are trained in ways of dealing with the general public, it is harder to equip them in ways of dealing with a bad supervisor. Stevens (2008, p.2-9) further commented that, complicating the issue, stressed officers avoided help because it would be constructed among coworkers and reinforced through the police subculture that they are weak; in effect, the organization will first blame the officer for his or her stressed situation, with the consequence of reducing the officer's chances of promotion or recovery. Altogether,

there has been a call for more organizational recognition of the problems and difficulties, together with subsequent effective interventions, to combat police stress. Officers urge management to recognize the negative effects from organizational stressors and to rectify the issues accordingly; on the operational side, officers expect the management to provide greater support and more appropriate training to better equip them for the job and for coping with stress.

As discussed in Chapter 3, organizational research over the past decade has demonstrated a need for development of an organization-wide approach to stress management, combining individual and organizational perspectives for the benefit of both sides (Quick *et al.* 1997). The review of two comprehensive models – the Health and Safety Executive (HSE) of the UK and the Peel Region of Ontario in Canada – both emphasize the fact that effective implementation of related strategies and practices would develop a culture of involving employees at all levels of the organization towards stress prevention and management for mutual gains by individuals and the organization. Furthermore, management of the Hong Kong Police Force might take reference from these two widely adapted international models, together with the findings in this study, to derive a comprehensive stress management model to meet its needs in the Hong Kong context.

8.2 Continuous Development of Stress Management and Related Training

In this section, I will first refer back to the management's effort in the development of stress management within the Hong Kong Police Force, as overviewed in Chapter 2. Then, I will summarize the survey results, suggestions from individual interviews and focus group discussions, in order to demonstrate the need for continuous development of stress management and related training.

Hong Kong is an international city and policing for international events is conducted routinely and is a significant source of stress to serving police officers. A single major incident may provide a watershed in the overall history of experience and awareness of stress within the Force, as discussed in detail in Chapter 2. After the completion of the 6th Ministers' Conference of World Trade Organization in Hong Kong in December 2005 (in short called WTO MC6 or HKMC), the Psychological Services Group (PSG) of the Hong Kong Police Force undertook a survey with the participating frontline officers to identify their stressors during that period. Mak (2008), a Police Clinical Psychologist representing the PSG, subsequently presented a briefing to the Commissioner Rank Officers on "Learning from the HKMC – A Psychological Perspective on Stressors, Morale and Adjustment" (Mak 2008). Apart from identifying twelve top stressors, Mak (2008) pointed out that one of the lessons to be learnt was acknowledging stressors and stress management. The related evaluation no doubt formed part of the learning process for both the police organizational structure and serving police officers, and the psychological perspective obviously reflected the need for continuous development of stress management.

When questioned about the incident of WTO MC6, all interviewees in this study expressed they felt highly stressed throughout that period. One male interviewee, Alan, highlighted the issue of inadequate training, and his comment was representative:

> *Those farmers were well-organized professional protesters, they were used to using violence; and, we were instructed to be restrained, we could use only the minimum level of force; the training and instruction we received were not in balance with the environment at scene.*

As reported in Chapter 2, under section 2.4, one of the key findings in the Staff Opinion Survey reflected that "Stress at Work" was the top factor affecting Force morale, since up to 45% the respondents identified it (HKPF 2007). The effect on morale from stress at work was even higher than salary (42%) and promotion opportunity (39%). Implications of these findings again reflected an urgent need for effective stress management with continuous measures to ease this morale issue.

From the survey results on training and management reported in the concluding section of Chapter 5, 150 out of 151 respondents confirmed the needs for enhanced training to address stress-related issues, with an average rating of 4.97, higher than the centre mark of 4 on the 7-point scale. During the interviews and focus group meeting, participants confirmed such needs and further gave their views and suggestions, which have been summarized into two aspects: the first on related training contents and the second on training approaches and related arrangements. I will discuss these suggestions based on the related literature with respect to my own professional experience.

Training contents

Concerned officers in the interviews and focus group meeting shared their training needs on stress-related issues and suggested related topics for the workshop on stress

management, which can be grouped into the four areas below:

1. awareness of job stress, its causes, symptoms, and effects
2. effective ways of coping with stress
3. understanding post-traumatic stress disorder (PTSD), and acute stress disorder (ASD)
4. time management and priority setting

The first two areas from awareness of stress and related issues to effective coping are the most basic components of stress management. On the basis of the literature in this field (for example, Everly 2002; Sheehan and Van Hasselt 2003; Stevens 2008), I believe that the results of this study support inclusion of these two basic areas in the future training content.

The third area, concerning PTSD and ASD, is particularly related to frontline enforcement officers. As reported in Chapter Six under Question 4 and 5 related to post-traumatic stress, there exists a concern that half of the interviewees did not seem to have any understanding of post-traumatic stress. As further discussed in section 7.5, due to the nature of emergency duties, the opportunities of EU officers experiencing traumatic incidents tended to be greater. These officers, in particular, should be provided with adequate training on post-traumatic stress so as to reduce the adverse effects when the occurrence of such incidents cannot be avoided.

Rodgers and Liness (2000), both clinical nurse specialists, pointed out that PTSD is a relatively new disorder, although the effects of trauma have long been established under differing labels. They demonstrated how this disorder has significant impact on a person's lifestyle, in terms of the distress and actual symptoms suffered and the impact that these symptoms have. The authors then urged that innovative training and supervision programmes are required at both pre-and post-registration levels across all

professional groups to meet the increasing need. Similarly, Burke (2007, p.167), as mentioned earlier a guest editor for an international journal – *Policing*, argued that exposures to traumatic events emphasized the need for more work on the impact of PTSD on police personnel. Schiraldi (2009) pointed out that by helping people recognize the coping mechanisms and by dealing directly with the effects of a traumatic experience, there is great reason for hope. Schiraldi has served on the stress management faculty at the U.S. Pentagon and the University of Maryland, and has authored various articles and books on human mental and physical health. From the results of interviews and focus group discussion, it has been observed that officers' understanding of PTSD is quite limited. The above literature review and findings from this study lend strong support to the inclusion of this topic in future training contents, which would help reduce the negative effects of PTSD and reinforce recovery of officers when they are not able to avoid such exposure.

Regarding the fourth suggested area on time management and priorities setting, these aspects are critically necessary to any stress management programme, as discussed under the subheading Time Issues in section 7.2, where participants reported feelings of stress as a result of not having enough time for friends and family or to stay in good physical condition. How to make good use of the limited available time under the conditions of dynamically changing shifts among various desirable activities is an important matter for follow-up research. Training on effective time management skills and priorities setting, coupled with a balance of healthy style, is likely to help reduce the negative consequences of cumulative occupational stress, enhancing job performance and services provided to the community.

In working out the training contents for enhanced stress management, more research

and planning are necessary. For instance, as discussed in section 7.2, many officers have brought up their problems with sleeping and healthy eating at work that have resulted from shift work. Schwartz and Roth's (2006) research on shift work sleep disorder (SWSD) demonstrated that patients with SWSD were at an increased risk of negative consequences; SWSD remains a relatively common but under-recognized, and hence under-treated, disorder. Schwartz and Roth's research corroborates the findings of this current study, namely, that most officers accept shift work, sleeping problems and difficulty of healthy eating at work as part of their lives once they joined the police. How to sleep and to eat appropriately at work in the context of Emergency Unit (EU) requirements could be the subject of further research, findings of which would be very useful for future training.

There is a wide range of materials available for use in training and management of stress. The following are some examples of related articles for reference in developing effective training contents, and planning for stress management workshop; for instance, the health journal *Vibrant Life* includes: Jih (2009) – How to get a good night's sleep; Parachin (2001) – 15 Ways to Destress Your Life. Helpguide.org has published Healthy eating – Tips for a healthy diet and better nutrition, and Stress management – How to reduce, prevent, and cope with stress. These selected articles on coping with common stress-related issues, such as sleeping and eating problems, are representative of the wealth of up-to-date resources publicly available and can be adapted to the Hong Kong setting in order to better prepare participants to combat occupational stress.

Training approaches and related arrangements

Concerned officers in the interviews and focus group meeting suggested the following approaches for consideration in future training programmes on stress management:

- better in the format of workshop, avoiding didactic lecturing
- small group communication for deeper sharing and discussion
- experience sharing among fellow colleagues
- experience from supervisors and clinical psychologists
- train-the-trainers approach through selected supervisors
- train-the-trainers approach through the selection of peer leaders to reduce unnecessary stress from rank

From my experience as a professional Force Training Officer and researcher on stress management, I support the format of workshop to facilitate effective learning and to avoid didactic lecturing. I also agree with the arrangement of small groups to encourage better discussion and deeper sharing among participants. Regarding the size of the workshop, most officers considered between 15 and 20 individuals to be appropriate, which can readily be subdivided into 3 groups. This is quite an optimal size with due consideration to the overall cost effectiveness of the workshop.

The suggestions to include experience sharing among fellow colleagues, as well as from supervisors and clinical psychologists are supported. Experience-sharing sessions, if managed in an effective manner, would encourage mutual understanding and support, widen individual officers' perspectives, and facilitate reflection and learning. Care should be given to prevent rank-consciousness in the sharing environment, including a multi-rank study group of supervisors and subordinates, and avoiding over-emphasis on airing of grievances. Participants, irrespective of rank, should be reminded to focus constructively on learning from various experiences in coping with stress.

The suggestion of a "train-the-trainers" approach is supported in general, as this will speed up the dissemination process, but the quality of training must be ensured. As summarized in section 6.2, the proposal by the focus group to initiate the frontline supervisors first, and to absorb concerned and interested fellows at a later stage, is

considered a cost effective training strategy. The suggested training framework with two parts is practical and feasible. Part 1 will incorporate the foundation stage with 3-day intensive training for laying foundation on stress management, covering those basic components such as awareness of job stress, causes, symptoms, and effects, various ways of coping with stress, and provide some basic knowledge and skills on time management. Part 2 will then encompass the developmental stage with one day per quarter, extending to one year, developing step-by-step techniques and covering enhanced subjects such as PTSD and ASD, evaluation on effectiveness of ways of coping, interpersonal skills in sharing and counseling as necessary.

8.3 Implications for Further Comparative Research

Implications of the results from this study support the argument for more organizational efforts to address stress-related issues as reported in section 8.1, and include a demonstrated need for continuous development of stress management and related training, as summarized in section 8.2. In this section, I will point out the implications for further comparative research in various police units within Hong Kong. The use of the Police Stress Questionnaires (PSQ), for both operational (PSQ-Op) and organizational (PSQ-Org) stressors, in the quantitative survey in the Hong Kong context has proven to be an effective means in achieving the foundational research objectives. As this research project was designed to replicate a validated international study, the results from this survey will contribute a useful international comparative reference, as will the future results of related research in other units of the Hong Kong Police Force.

In the organizational structure of the Hong Kong Police Force, there are altogether six regions: five land regions and one marine. As mentioned early on in Chapter 1, this

study was confined to the investigation of stress responses in the Emergency Unit (EU) of the Hong Kong Island Region. What, then, are the situations of stress responses among officers in EU of the other four land regions? Would they be similar or are there regional differences? Similar study in EU of the other land regions will provide the Force management a comparative reference that there may be regional differences associated with stress responses among officers performing the same type of duties.

Due to the difference in ratio between genders in the Force, the sample sizes of male and female constables in the quantitative survey are not comparable. This may constitute one limitation of this survey, as pointed out in section 5.1. If further research is extended to EUs of other regions, then the sample size of female constables can be increased to 100 and matched with an equal number of male constables for comparative analysis on likely gender differences in stress responses. Implications of such an analysis could provide evidence to support a more targeted strategy appropriate to different genders.

Beyond further comparative research among EU officers from different regions, similar research can be conducted in various police units among officers performing different types of duties as an organizational effort to identify appropriate stress interventions. For instance, a comparative study of stress responses between officers from the Uniform Branch and Crime Stream within the same region would provide a useful reference for staff deployment and personnel management. Comparative research could also be extended to officers of other police units, such as Police Tactical Unit, Traffic Enforcement and Control, Task Force, and Marine Launch, depending on the priority of concerns from the management perspective or serving officers in these units. Likewise, comparative study can be conducted among officers performing similar types of duties

but in different regions so as to uncover any regional differences in stress response.

The findings from the quantitative survey, supplemented by the small scale qualitative data revealed through this study, have proved to be cost effective and fruitful. Survey data here illustrate the larger picture of the stressful situations officers experienced from operational and organizational factors; the qualitative analysis facilitated a more fine understanding of how officers are experiencing these stress and managing them. Altogether, the mixed method approach yielded deeper insights into the means by which stress-related issues could be most effectively managed through strategic stress management interventions at various levels, for instance, appropriate training to better equip officers for the job and for coping with stress.

As summarized in section 2.5, the Hong Kong Police Force has gone through four stages in the development of stress management. The period prior to the 1970s was rife with the Force declining to acknowledge police stress, then in the 1980s police stress began to be recognized and considered; in the 1990s, this perspective was broadened from remedial training to proactive healthy lifestyle management, and has progressed to its current state in which scientific research has been incorporated to help manage stress at work. I anticipate the results of this study and subsequent comparative research taken up by the Force management will help reinforce the continuous development of stress management in the Hong Kong Police Force. Furthermore, the findings from this study will strengthen the care of serving police officers, as well as contribute to the international policing sphere as a comparative reference.

Appendices

Appendix A: Police Stress Questionnaires (PSQ)

Appendix A1: Operational Police Stress Questionnaire (PSQ-Op)

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

The Operational Police Stress Questionnaire is provided free for non-commercial, educational and research purposes.

Appendix A2: Organizational Police Stress Questionnaire (PSQ-Org)

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

The Organizational Police Stress Questionnaire is provided free for non-commercial, educational and research purposes.

Appendix B: PSQ with adaptations for HK context

Demographic Information (人口統計資料)

1. **The Region you are serving (服務區域)** HKI___ KE___ KW___ NTS___ NTN___
2. **Gender (性別)** Male (男)___ Female (女)___
3. **Rank (階級)** PC___ SGT___ SSGT___ IP/SIP___
4. **Age Group (年齡組別)** 18-21___ 22-25___ 26-29___ 30-33___ over 34___
5. **Years of Service ((服務年資)**
   Less than (少於)3___ 3-6___ 7-10___ 11-14___ 15 & above (及以上)___

Police Stress Questionnaire 警察壓力問卷

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": (下列是作爲警務人員要面對不同方面的一些事項，請就過去六個月期間，用以下的七點比例從全無壓力到極多壓力，圈出各事項給你的壓力。)

Not Stress At All 全無壓力			**Moderate** 適量			**A lot of Stress** 極多壓力
1	**2**	**3**	**4**	**5**	**6**	**7**

Operational 行動方面

1	Shift work 輪更	1	2	3	4	5	6	7
2	Working alone at night 夜間單獨工作	1	2	3	4	5	6	7
3	Over-time demands 需要超時工作	1	2	3	4	5	6	7
4	Risk of being injured on the job 工作中受傷的危險	1	2	3	4	5	6	7
5	Work related activities on days off (e.g. court, community events) 休假時與工作有關的活動 (例如: 出席法庭，參與社區活動)	1	2	3	4	5	6	7
6	Traumatic events (e.g. MVA, domestics, death, injury) 創傷性事件 (例如: 嚴重交通意外、家庭暴力、其他傷亡)	1	2	3	4	5	6	7
7	Managing your social life outside of work 管理個人工作以外的社交生活	1	2	3	4	5	6	7
8	Not enough time available to spend with friends and family 沒有足夠時間陪伴朋友及家庭	1	2	3	4	5	6	7
9	Paperwork 文件工作	1	2	3	4	5	6	7
10	Eating healthy at work 工作中保持良好飲食	1	2	3	4	5	6	7
11	Finding time to stay in good physical condition 尋找時間保持良好身體狀態	1	2	3	4	5	6	7
12	Fatigue (e.g. shift work, over-time) 疲乏 (例如: 輪更，超時工作)	1	2	3	4	5	6	7
13	Occupation-related health issues (e.g. back pain) 與職業有關的健康問題 (例如: 背痛)	1	2	3	4	5	6	7

14	Lack of understanding from family and friends about your work 缺乏家人及朋友對本人工作的瞭解	1	2	3	4	5	6	7
15	Making friends outside the job 在工作以外認識朋友	1	2	3	4	5	6	7
16	Upholding a "higher image" in public 在公眾間維持較高的形象	1	2	3	4	5	6	7
17	Negative comments from the public 從公眾而來的負面評語	1	2	3	4	5	6	7
18	Limitations to your social life 對社交生活的局限	1	2	3	4	5	6	7
19	Feeling like you are always on the job 感覺經常置身於工作中	1	2	3	4	5	6	7
20	Friends / family feel the effects of the stigma associated with your job 朋友/家人感受到與你工作關聯的污名的效應	1	2	3	4	5	6	7

Organizational 機構方面

1	Dealing with co-workers 與夥伴相處	1	2	3	4	5	6	7
2	The feeling that different rules apply to different people (e.g. favouritism) 感到不同的規則應用於不同的人 (例如: 偏袒)	1	2	3	4	5	6	7
3	Feeling like you always have to prove yourself to the organization 感到經常要向機構作出自我証明	1	2	3	4	5	6	7
4	Excessive administrative duties 過度的行政職務	1	2	3	4	5	6	7
5	Constant changes in policy / legislation 經常轉變的政策/法規	1	2	3	4	5	6	7
6	Staff shortages 人手短缺	1	2	3	4	5	6	7
7	Bureaucratic red tape 官僚作風	1	2	3	4	5	6	7
8	Too much computer work 太多電腦工作	1	2	3	4	5	6	7
9	Lack of training on new equipment 缺乏對新器材的訓練	1	2	3	4	5	6	7
10	Perceived pressure to volunteer free time 感到壓力要自願交出時間	1	2	3	4	5	6	7
11	Dealing with supervisors 與上級相處	1	2	3	4	5	6	7
12	Inconsistent leadership style 不一致的領導風格	1	2	3	4	5	6	7
13	Lack of resources 缺乏資源	1	2	3	4	5	6	7
14	Unequal sharing of work responsibilities 職責分配不均	1	2	3	4	5	6	7
15	If you are sick or injured your co-workers seem to look down on you 如果你有病或受傷，你的夥伴似乎會看低你	1	2	3	4	5	6	7
16	Leaders over-emphasize the negatives (e.g. evaluations, complaints) 領袖過份強調負面 (例如: 評核，投訴)	1	2	3	4	5	6	7
17	Internal investigations 內部調查	1	2	3	4	5	6	7
18	Dealing the court system 處理法庭制度	1	2	3	4	5	6	7
19	The need to be accountable for doing your job 需要對所承担的工作負責	1	2	3	4	5	6	7
20	Inadequate equipment 器材不足	1	2	3	4	5	6	7

Specific questions regarding local context: 有關本區背景的特別問題：

1. Is there any related training in your Region to address the above issues of stress?
   你的區域有否相關的訓練來處理以上壓力的問題？ Yes 有___ No 沒有___

   If yes, please give the type of training and hours required below

   如果有請寫下訓練的種類及時數: Type 種類:_____Training Hours 時數:_____

2. Please circle how great is the need for a training strategy to address the above issues of stress:
   請圈出訓練策略的需要程度來處理以上壓力的問題：

No Need At All 全無需要			**Moderate** 適量			**A lot of Need** 極至需要
1	**2**	**3**	**4**	**5**	**6**	**7**

3. Please put down one to three ways you commonly used to cope with the above issues of stress:
   請記下一至三種你經常採用的方法來處理以上壓力的問題：

   (1)_____(2)_____(3)_____

4. Is there any supportive system in your Region to address the above issues of stress?
   在你所屬的總區有沒有什麼支援系統來處理以上壓力的問題？Yes 有___ No 沒有___
   If yes, please give a gist of the system below:如有請扼要記下有關支援系統：

   _____

5. Any suggestion from you to improve the situation? 你有什麼意見來改善這情況？

   _____

   _____

   _____

   _____

   _____

Appendix C: Follow up Questions for Individual Interviews

1. What do you understand about the relationship between stress and health?
   你對壓力與健康的關係有什麼了解？
2. What is the major cause of your stress?
   (With reference to the items shown on the Operational Police Stress Questionnaire and the Organizational Police Stress Questionnaire. Describe the effect on you.
   你主要的壓力成因是什麼？(請參照警察壓力問卷的項目)
   請講述這些壓力對你的後果。
3. How do you cope with these stressors?
   Describe the degree of effectiveness on your coping methods.
   你如何應付這些壓力？請講述這些方法的效果
4. What do you understand about post-traumatic stress?
   你對創傷後壓力有什麼了解？
5. Have you experienced any post-traumatic stress?
   If yes, could you describe the incident, the effect on you, how do you cope with it, and the result?
   你曾否經驗過創傷後壓力？
   如有，請講述事件，對你做成的後果，你如何應付及效果怎樣？
6. Do you consider there are gender differences in occupational stress in your workplace? Describe your observation or reasons of your perception.
   Any need to improve the situation and how?
   在你的工作中你會否認爲職業壓力存在性別差異？
   請講述你的觀察或你的看法的原因。
   是否有需要改善這情況，並如何改善？
7. Do you consider occupational stress in your workplace an individual issue or organizational issue or both? Elaborate on your understanding.
   在你的工作中，你認爲職業壓力是個人的問題、機構的問題、還是兩者？
   請闡述你的理解。
8. Do you consider training and education is one way to improve the issue of occupational stress?
   What would you suggest to the management regarding the training and education to be provided?
   你會否認爲訓練及教育是改善職業壓力的一個方法？
   你會如何向管方建議提供有關的訓練及教育

Appendix D: Consent Form for Individual Interviews

I (_____) agree to participate in the research project "Police Stress in Hong Kong – Officers of the Emergency Units, Gender Analysis and the Need for a Training Strategy" being conducted by Mr. Clarence K.Y. TANG, Force Training Officer.

I understand that the purpose of this study is to find out from officers in the Emergency Units of Hong Kong Police, what are the sources of their stress, the level of stress they experience and the ways they cope with stress; whether there are difference between male and female officers in the mentioned issues; and to identify the need for a training strategy for the Force in order to assist officers in overcoming stress related issues.

I understand that a report would be provided to the Hong Kong Police at the conclusion of the research.

I understand that my participation in this research will involve a voluntary individual interview conducted by the researcher related to occupational stress I encounter, and it would be audio recorded. I am aware that I can contact Mr. Clarence K.Y. TANG with the below details, if I have any concerns about the research. I also understand that I am free to withdraw my participation from this research project at any time I wish, without consequences, and without giving a reason.

I agree that Mr. Clarence K.Y. TANG has answered all my questions fully and clearly.

[Note: This paragraph is only appropriate where the researcher has spoken directly with the participant, i.e. not suitable for mailed questionnaires.]

本人（　　）同意參與由鄧祺殷先生(警察訓練主任)負責的研究計劃"香　警察壓力 - 衝鋒隊的人員，性別分析及訓練策略的需要"。

我明白這項研究的目的是要找出香　警察衝鋒隊的人員所要面對的壓力來源，所經驗的壓力程度及處理方法；找出當中的問題會否有性別差異；及找出訓練策略的需要從而幫助人員克服壓力相關的問題。

我明白在研究結束時一份有關報告將會交給香港警隊。

我明白我參與這項研究是一個自願的個人面見，由研究員詢問有關我所遇到的職業壓力，並會進行錄音。我知悉如果我對這項研究有什麼問題，可以從下列資料聯絡鄧祺殷先生。我亦明白我可以在任何時間撤回我參與這個研究，而無須承擔後果及無須提供理由。

我同意鄧祺殷先生已完全及清楚解答我所有的問題。

〔註：此段祇適用於研究員曾直接向參與者講解，而不適用於郵遞式問卷〕

Contact of Mr. Clarence K.Y. TANG: 鄧祺殷先生的聯絡資料：
Hong Kong Police College 20/F Arsenal House, 1 Arsenal Street, Wanchai, Hong Kong
香港灣仔軍器廠街一號警政大樓二十樓警察學院
Tel.: (852) 2860 2389　Mobile: (852) [redacted]　Fax: (852) 2200 4376
Email: clarencetang@police.gov.hk or [redacted]@gmail.com

I agree that the research data gathered from this project may be published in a form that does not identify me in any way. 我同意從這計劃搜集到的資料會以不確定到我個人身份的形式刊出。

_____　　____/____/____
Signature (participant) 參與者簽署

_____　　____/____/____
Signature (researcher or delegate) 研究員簽署

NOTE:

This study has been approved by the University of Technology, Sydney Human Research Ethics Committee. If you have any complaints or reservations about any aspect of your participation in this research, which you cannot resolve with the researcher, you may contact the Ethics Committee through the Research Ethics Officer (ph: 02 - 9514 9615, Research.Ethics@uts.edu.au), and quote the UTS HREC reference number. Any complaint you make will be treated in confidence and investigated fully and you will be informed of the outcome.

註: 這項研究由雪梨科技大學人力研究操守委員會批准。如有任何有關你參與這項研究的問題而又不能與研究員解決的，可與操守委員會聯絡(ph: 02 - 9514 9615, Research.Ethics@uts.edu.au)，並引述有關批准編號。任何投訴將會保密，並全面調查及通知有關結果。

Clearance number 批准編號: UTS HREC REF NO. 2005-47A

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