

**PERSONALITY, OCCUPATIONAL STRESS AND WELLNESS
AMONG PRISON OFFICERS: THE MEDIATING ROLE OF SELF
EFFICACY AND PERCEIVED FAIRNESS**

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PRISON OFFICERS: THE MEDIATING ROLE OF SELF EFFICACY
AND PERCEIVED FAIRNESS**

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Abstrak

Kajian ini bertujuan menyelidik isu-isu yang dihadapi oleh pegawai-pegawai penjara semasa kerja: i) tahap kesejahteraan, tekanan pekerjaan, personaliti, efikasi sendiri dan tanggapan terhadap keadilan pegawai-pegawai penjara, ii) perbezaan pemboleh ubah kesejahteraan, tekanan pekerjaan dan personaliti mengikut jantina, umur dan tempoh perkhidmatan pegawai penjara, iii) hubungan di antara pemboleh ubah kesejahteraan, tekanan pekerjaan, personaliti, efikasi sendiri dan tanggapan terhadap keadilan, iv) efikasi sendiri dan tanggapan terhadap keadilan sebagai pemboleh ubah pengantara dan akhir sekali, v) melakarkan model kesejahteraan yang bersesuaian untuk pegawai-pegawai penjara di penjara. Responden terdiri daripada 417 pegawai penjara dari lapan lokasi penjara. Teknik persampelan tahap berganda, iaitu persampelan rawak berstrata dan persampelan rawak mudah telah digunakan. Analisis statistik deskriptif dan inferensi dijalankan menerusi Pakej Statistik untuk Sains Sosial (SPSS) dan *Analysis of Moments Structures (AMOS)*. Penemuan kajian menunjukkan terdapat pertalian yang signifikan di antara pemboleh ubah kajian. Terdapat perbezaan kesejahteraan yang signifikan mengikut tempoh perkhidmatan pegawai penjara. Selain itu juga, terdapat perbezaan yang signifikan bagi tekanan pekerjaan berdasarkan jantina. Kajian juga mendapati adanya perbezaan signifikan dari segi domain personaliti pegawai penjara, iaitu *neuroticism*, *extraversion*, *openness*, *agreeableness* dan *conscientiousness* berdasarkan jantina. Selain itu, didapati efikasi sendiri dan tanggapan terhadap keadilan berperanan sebagai pengantara. Penemuan juga mendedahkan model cadangan bersesuaian dengan data setelah diubahsuai. Kesimpulannya, kajian ini dapat menambah pengetahuan mengenai kesejahteraan diri para pegawai penjara dan kaitannya dengan faktor-faktor personaliti, tekanan pekerjaan, efikasi sendiri dan tanggapan terhadap keadilan, khususnya dalam bidang tingkah laku organisasi dan dalam bidang pengurusan penjara di Malaysia.

Kata kunci: Kesejahteraan, Personaliti, Tekanan pekerjaan, Efikasi sendiri, Tanggapan terhadap keadilan

Abstract

The aim of this research is to examine issues confronting prison officers at work: i) the level of wellness, occupational stress, personality, self efficacy and perceived fairness of prison officers, ii) the difference in wellness, personality and occupational stress variables according to prison officers' gender, age and tenure, iii) the relationship between wellness, personality, occupational stress, perceived fairness and self efficacy variables, iv) self efficacy and perceived fairness as possible mediators and lastly, v) the model fit of prison officers' wellness. Respondents were 417 prison officers from eight prison locations. Multistage sampling technique consisting of stratified random sampling and simple random sampling was used. Descriptive and inferential statistical analyses were performed via Statistical Package for Social Sciences (SPSS) and Analysis of Moments Structures (AMOS). Findings of the study indicated that there were significant correlations between variables in the study. There was a significant difference in wellness according to prison officers' tenure group. There was also a significant difference in occupational stress according to prison officers' gender. The study also revealed significant differences in prison officers' personality domains i.e. neuroticism, extraversion, openness, agreeableness and conscientiousness, according to their gender. Self efficacy and perceived fairness were revealed as mediators. The finding also showed that the model fitted the data after modification. In conclusion, this study had contributed and further enhanced the knowledge about prison officers' wellness in relation to their personality, occupational stress, self efficacy and perceived fairness specifically in areas pertaining to organizational behavior, and prison management studies in Malaysia.

Keywords: Wellness, Personality, Occupational stress, Self efficacy, Perceived fairness

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CHAPTER ONE

INTRODUCTION

1.1. Introduction

Employee wellness issues are currently expanding in organizations especially of those dealing with high risk at work such as the prison professionals. The necessity of maintaining wellness among prison professionals is imperative to guarantee performance at work and effective prison service that entails long-term benefit to the society. In high risk and harsh workplace environment, prison officers' wellness and occupational stress are two interrelated issues. According to research and subjective evidences, occupational stress among prison officers is massive and it seriously retards and causes prison officers' wellness to deplete unswervingly at long-term run (Senol-Durak, Durak & Gencoz, 2006; Pfeffer, 2010; Purcell, Kinnie, Hutchinson, Rayton & Swart, 2003; Karasek & Theorell, 1990). Remarkably, some officers are still committed to their work until their pension dates. Such officers show intense focus and high levels of enthusiasm that expectedly boost their wellness level. Perhaps they possess certain personality traits that cause them happiness instead of illness. Or perhaps they perceive fairness in the organization as reasonable that motivates them to stay on.

Today, the societies are more aware of the influence of employee wellness at work (Els & De La Rey, 2006; Myers & Sweeney, 2005; Tsui, 2008). This is mainly due to the critical expansion of stress in the workplace jeopardizing wellness of employees as well as organization performance. According to Zafir and Fazilah (2006), the increasing

stress at the workplace is caused by the advancement towards globalization era comprising of the change phenomenon in society, technology advances, the availability of resources, and the social structure in order to achieve optimum profitability and resilient competitive advantage.

In line with the phenomenon, the Malaysian government announces to put more focus on developing the health and wellbeing of employees during 2010 Malaysia budget's announcement through relevant health campaign programs (Ministry of Human Resource Malaysia, 2010). The government also acknowledges that a healthier, happier and more productive workforce produces higher productivity and better performance (Ministry of Human Resource Malaysia, 2010). Therefore, gauging employees' wellness at work is sensible because it is a reflexive indicator of employees' performance and productivity that contributes to the organization performance (MacDonald, 2005).

However, it is difficult for health and social service employees to maintain their wellness at work. This is confirmed by Maslach, Jackson and Leiter (1996) when they revealed on the deteriorating wellness and the declining performance of health and social services employees after having a direct long term contact with their clients and patients due to elevated stress. Occupations such as ambulance workers, teachers, prison officers, police and customers service employees in call centers are identified as being most stressful at work resulting depleting physical and psychological well-being and having the lowest level of job satisfaction (Johnson, Cooper, Cartwright, Donald, Taylor & Millet, 2005; Borritz, Rugulies, Bjorner, Villadsen, Mikkelsen & Kristensen, 2006).

These discovery also supports previous findings that identify these occupations as more stressful (Armstrong & Griffin, 2004) than other job because these jobs implicate prolonged stress conditions, emotional labor, constant threat of violence and excessive workload that can have negative impact on employees' mental and physical health (Cooper, Dewe & O'Driscoll, 2001; Zapf, 2002; Holman & Fernie, 2000). Employees that lack of optimal functioning and well balanced of being are not able to effectively service their customers.

Ultimately, neglecting employees wellness severely interrupt and damage overall organizations' performance, profitability and increases overall organization's medical expenditure (Bergman, Arnetz, Wahstrom & Sandahl, 2007). Likewise, in a more recent research by MacDonald (2005), articulated deteriorating wellness results outlay to public and private organizations, government and community. At long term, frequent unbearable strain excessively depletes prison officers' wellness, causing several pertinent infirmities that caused deficient performance - impaired health, excessive sick time, burnout, high staff turnover, reduced safety, prematurely early retirement and impaired family life (Finn, 1998).

Alarmingly, Stack and Tsoudis (1997) revealed suicide attempt among prison officers is astoundingly high at 39% compared to the working age population. In fact, consequences of occupational stress are costly for prison services and their employees. In Australia, correctional or prison officers submitted the highest number of formal

psychological stress claims per 1,000 employees of any occupational group, followed by human service workers, educational sector workers, and police officers (Dollard, Winefield & Winefield, 2001). Prolonged experiences of occupational stress by prison officers are associated with impaired family relationships (Finn, 1998) and poor physical health outcomes in comparison with other occupational groups (Cheek & Miller, 1983). Adverse organizational consequences of stress (e.g., staff illness, turnover, required overtime, early retirement, and workers' compensation claims) also affect prison organization budgets (Childress, Talucci, & Wood, 1999).

For this reason, prison work has often been characterized as one of the toughest position in law enforcement. In order to maintain the role of prison services and safe custody, it is pertinent that prison officials be optimally functioning and well balanced. The unique working environment of prison officers, however, increasingly jeopardizes the fulfillment of such expectations. Thus, the prison officers have to rely solely on themselves in order to cope with high stress at work.

On daily basis, preserving prison officers' wellness while working in prison environment is not easy due to continual interaction of stress. Occupational stress triggers prison officers' harmful physical and emotional responses when the requirements of prison officers' job do not match the capabilities, resources or needs of these officers (Hall, 2004; Rosnah & Azmi, 2008). Moreover, prison officers' daily work revolves around the general routine of prisoners' life (the prison inmates themselves repelling from being held in prison and being closely supervised),

characterized by strict and regimented hierarchies, depersonalized relationships between staff members and pervasive bureaucracy also initiate intense stress (Cheeseman & Dial, 2008).

These researchers' discovery on prison officers' stress is verified during informal interviews with several prison officers in various prison locations in Malaysia. These prison officers regarded their daily work conditions extend from tedium to imminently dangerous. They were also required to supervise imprisoned individuals awaiting trial or convicted of a crime, maintain security, account for inmates, and enforce rules and regulations, preventing disturbances, assaults, or escapes. Usually unarmed in a team of 3 to 5 officers, they often worked in cellblocks of 500 to 1000 inmates. Apart from guarding the prison inmates, their task included rehabilitating the detainees; starts from discipline training through physical activity to spirituality development. Thus, this has signified prison officers' duty to be an "all-rounder" – an adviser, counselor, teacher, supervisor, trainer, instructor as well as safeguarding fellow convicts.

This discovery also supported Senol-Durak, Durak and Gencoz's (2006) revelation on the prison officers' constant stress through direct and unremitting contact with prison inmates when they were on duty. Moreover, new prison transformation structure from custodial-oriented to rehabilitation-oriented had caused prison officers to have conflict and ambiguity of their job role (JPA disyor selami tugas kakitangan penjara, 2004; Prison Department of Malaysia, 2008). In addition to facilitating custody of inmates, the prison officers are required to facilitate rehabilitation programs (Cullen & Gendreau,

2000), although they lack the capability and capacity in rehabilitating prison inmates (Hemmens & Stohr, 2000).

The disparity between the role of pure custodial-oriented system and rehabilitation-oriented system has leave prison officers in Prison Department of Malaysia in a quandary and causing stress on the appropriate manner to carry out daily operations. They are puzzled with their role identity due to great incongruity between their demand for an active role in the rehabilitation process and their duty in safeguarding service. This incongruity creates tension and suppression among prison officers due to their lack of re-training and training to assist them to comply appropriately with the requirements of their work as well as the feelings of unfairness due to their condition (Barling & Phillips, 1993).

Hence, in high risk and highly stress workplace such as in prison, the prison officers are depending on their personality character to react during any confrontation with stressful situation; in order to maintain their sanity. Prison officers' individual personality plays vital role in ensuring their health and wellbeing in this highly stressful environment. Therefore it is necessary that personality (of the individual) and work stress (as the contextual) work together so that the prison officers are able to maintain their equilibrium, sanity and performance at work (Senol-Durak, Durak & Gencoz. 2006).

The importance of prison officers' personality or character was voiced during the tentative interview. The prison officers pointed out on the importance of certain

individual quality to enable them to manage their work stress well and to assure their wellness and sanity were intact throughout their profession as prison officers. Although prison officers' work stress is part and parcel of the working environment and it helps to keep the workers motivated; excessive stress can undermine their performance. As derived from the Dynamic Equilibrium Theory (Hart & Wearing, 1993), personality acts as a bolster in individual's stress process.

Psychologically, prison officers as human beings are embedded by personality explained in terms of five factors (B5) namely neurotic, extravert, openness to experience, agreeableness and conscientiousness. Personality classification as B5 factors pattern is well established in human studies and especially effective in industrial and organizational psychology studies (Ganjeh, Arjenaki, Nori & Oreyzi, 2009; Barrick & Mount, 1991).

During work stress process, prison officers' personality has some influence on stress appraisal and coping efforts; so that these officers' normal level of psychological well-being is at a balance position (Hall, 2004; Rosnah & Azmi, 2008). These officers have to fine tune their personality character to preserve their wellness level and maintain impeccable job performance in this isolated and incompatible surrounding of prison as workplace setting (Rosnah & Azmi, 2008). In spite of high stress at work, prison officers with certain personality characteristic are capable of managing their occupational stress and uphold their wellness level unswervingly (Hall, 2004; Rosnah & Azmi, 2008).

Since prison workplace setting is with endless potential confrontation and arduous environment; prison officers need to refine their outlook through their character qualities to survive. The better they cope with their stress, the lesser their stress will be; and the better their wellness will be. Since Prison Department of Malaysia as people-oriented organization rely heavily on its manpower to effectively render prison service to the society, it is wise for its management to realize the impact of prison officers' occupational stress and their individual's personality can have on their wellness (Pfeffer, 2010; Purcell, Kinnie, Hutchinson, Rayton & Swart, 2003).

Hence, in accordance to aforementioned statement, there is no doubt that occupational stress in prison department is a major challenge to the wellness of prison officers, to the healthiness of Prison Department of Malaysia and to the effectiveness of the prison services that they deliver (Rosnah & Azmi, 2008). As Prison Department of Malaysia is a labor intensive organization, prison officers' wellness is a detrimental element to ensure individual performance (Prison Department of Malaysia, 2008).

Prison officers with high level of wellness are more energetic, sharp thinkers, have high ability to cope with hardship and are more innovative and prolific. These characters are prerequisite to enhance prison officers' performance and Prison Department of Malaysia's performance (Myers & Sweeney, 2004, 2005, 2006). This is especially beneficial and appropriate during and after the restructuring of Prison Department of Malaysia to achieve their vision and mission to be "the International Standard

Correctional Service provider” by the year 2020 (Laporan Kualiti Perdana Menteri, Prison Department of Malaysia, 2008).

Although generally prison officers were capable of surviving their ordeal at work, their wellness was not intact (Senol-Durak, Durak & Gencoz, 2006). In fact, most prison officers require inoculation elements to preserve and motivate their wellness to survive the ordeal. These elements are worth to investigate due to their intensity to improve prison officers’ wellness in prison as workplace. These elements are self efficacy trait (to motivate prison officers’ health and wellbeing) and perceived fairness (to ensure prison officers’ devotion to work and the organization, thus making them contented and happy) (Myers & Sweeney, 2004; Fujishiro & Heaney, 2007). Happy prison officers ensure effectual individual and organizational performance (Seligman, 2008). Therefore these elements are possible suitable intermediary in defending and upholding prison officers’ wellness at work (Seligman, 2008).

1.2. Problem statement

Within the high risk and high stress organization such as prison department, the essential weapon for prison officers to manage their high stress in this environment would be their own personality; otherwise the high stress would ultimately run them down (Schwarzer & Halum, 2008). The high stress work environment combining with the transformation of the prison system would intensify prison officers’ stress causing their wellness to deplete considerably. In an informal interview, a supervisor-ranked prison officer clarified that as the organization is regimented, they are required to conform to

the rule, and abide any instruction from their superiors and location management without questions, despite any unjust circumstances. Within these working conditions, prison officers' perceived imbalance between their definite exertion at work and the rewards of the job leads to stress (Barling & Phillips, 1993) that gradually decrease their wellness (Senol-Durak, Durak & Gencoz, 2006).

This situation creates more conflict and apprehension that will instigate feelings of unfairness because they believe they are being treated adversely (Barling & Phillips, 1993). In prison environment, the feelings of unfairness would likely shape prison officers' stress level that indirectly influences their wellness (Demerouti, Bakker, Nachreiner, & Ebbinghaus, 2002).

Therefore, in this study, prison officers' perceived fairness is an important element to be investigated due to its capability to change the extent of their occupational stress-wellness relationship as well as their personality-wellness relationship. This had been confirmed in previous research where individual's personality trait such as self efficacy and perceived fairness of the situation influenced the individuals' immediate reaction to stressors within the work environment results in positive, neutral, or negative short-term, reversible consequences (Schwarzer & Luszczynska, 2007; Karasek & Theorell, 1990; Wright & Smye, 1996). In this sense, high self efficacious trait as well as positive perception of fairness might alter how prison officers view their stress and remain their wellness level (Luszczynska, Gutiérrez-Doña & Schwarzer; 2005).

Tactfully, any officers with high self efficacy may perceive fairness more positively and were able to maintain their wellness despite of strenuous condition (Luszczynska, Gutiérrez-Doña & Schwarzer; 2005; Schwarzer & Luszczynska, 2007).

A high self-efficacious prison officer perceived the objective demands of daily work as being less threatening than prison officer who hold self-doubts about their professional performance. Sequentially, successful adaptation to stressful demands might prevent the emergence of excessive stress and enhance health and wellbeing of prison officers. Therefore by relying on their personality trait, employees high in self-efficacy were better equipped to have more adaptive responses to setbacks and stressors in their work environment and thus were more likely to maintain healthy levels of psychological wellbeing (Hattie, Myers, & Sweeney, 2004; Liu, Siu & Shi, 2010).

Even though various findings had highlighted on the importance of employee's wellness at work, limited research had been done on prison officers specifically in Malaysia. Insignificant study on the keepers' wellness had given the opportunity to the researcher to comprehensively study prison officers' wellness in prison setting (Karofi, 2005; Yik 2006; Mazlan, Mat Saat & Ahmad, 2010; Choi, Kavasery, Desai, Govindasamy, Kamarulzaman & Altice, 2010).

Moreover, although previous findings had articulated the possibility of perceived fairness and self efficacy as mediating factors between work stress and psychological wellbeing of various respondents (Fujishiro & Heaney, 2007; Schwarzer & Hallum,

2008), the researcher finds hardly any formal tests of both self efficacy and perceived fairness as mediation factor between occupational stress, personality and wellness specifically in prison study in Malaysia. Therefore pursuing this study is deemed appropriate and informative as it will expand the knowledge on wellness, organizational fairness as well as prison and forensic psychology study in Malaysia.

The importance of facilitating this research is due to various factors. Firstly, although wellness is widely researched in areas such as counseling, psychology, clinical psychology, education and medicine (Els, 2005, 2006; Witmer, Myer & Sweeney, 1992b, 1993, Connolly & Myers, 2003; Gill, 2005, Hutchinson, 1996; Shurts, 2004; DiMonda, 2005; Curry, 2007), regrettably, there is inadequate research on the wellness of prison officers specifically in Malaysia. Moreover, albeit wellness is widely research in areas particularly counseling, psychology, clinical psychology and medicine, most studies focuses on the physiological component of wellness (Naydeck, Pearson, Ozminkowski, Day & Goetzel, 2008) more than psychological components.

Secondly, most psychologists and criminologists study prison issues focusing almost exclusively on offenders (Senol-Durak, Durak & Gencoz, 2006) instead of prison officers. Toch (1985) reports prison profession as the most ignored area in prison research studies although at micro-level prison employees encompass the largest part of the prison system's workforce and social environment. Later, studies on prison officers have started on prison workers' outlook and respond on their jobs instead of their health and wellbeing at work (Britton, 1997; Cullen, Golden & Cullen, 1983; Cullen, Latessa,

Burton & Lombardo, 1993; Cullen, Lutze, Link & Wolfe, 1989; Jacobs, 1978; Jacobs & Kraft, 1978; Karasek & Theorell, 1990; Toch & Klofas, 1982; Kifer, Hemmens & Stohr, 2003; Lambert, 2004; Maahs & Pratt, 2001).

Recently, few research and subjective evidences highlight on the massive effect of occupational stress on prison officers that may seriously retard or cause prison officers' mental health to deplete unswervingly (Sundt & Cullen, 2002; Senol-Durak, Durak & Gencoz, 2006; Pfeffer, 2010; Purcell, Kinnie, Hutchinson, Rayton & Swart, 2003).

Viewing at the scarcity of this study specifically in Malaysia, pursuing this study would be realistic and sensible. Moreover, Malaysian prison research scenario focuses more on the keep and not the keepers. Several local studies conducted in correctional facilities are focused on incarcerated individuals such as imprisoned drug addicts, HIV sufferers in prison, female inmates, felon awaiting for delinquents, detainees under ISA act (Internal Security Act) viewing from pathological perspectives (Karofi, 2005; Yik 2006; Mazlan, Mat Saat & Ahmad, 2010; Choi, Kavasery, Desai, Govindasamy, Kamarulzaman & Altice, 2010).

Hence, this research would hopefully fill up the knowledge gap on prison officers' wellness, occupational stress and personality specifically in Malaysia.

Thirdly, previous findings had signified that low levels of organizational fairness might act as an occupational stressor and had detrimental effects on employee health and well-

being (Tetrick, Slack, Da Silva, & Sinclair, 2000; Zivnuska, Kiewitz, Hochwarter, & Perrewew, 2002, Bakker, Demerouti, de Boer, & Shoufeli, 2003). Although an extensive literature documented the impact of fairness on employee attitudes, there was insufficient knowledge of its impact on employee health. Moreover nowadays, more occupational health researchers are interested on the study of fairness and injustice at work and its influence on employees' health and wellbeing (Tetrick, Slack, Da Silva, & Sinclair, 2000; Zivnuska, Kiewitz, Hochwarter, & Perrewew, 2002, Bakker, Demerouti, de Boer, & Shoufeli, 2003).

Previous study disclosed the relationship between organizational injustice and weaken health status, absenteeism caused by illnesses (Elovainio, Kivimaki, Vahtera & Ferrie, 2003), smoking habit (Kouvonen, Vahtera, Elovainio, Cox, Cox, Linna, Virtanen & Kivimaki, 2007) and psychological ailments (Kivimaki, Elovainio, Virtanen, & Stansfeld, 2003). Therefore, this research would enhance the knowledge on the impact of perceived fairness on employee health.

Also, in previous studies, perceived fairness was portrayed either as predictor, mediator or moderator variable (Fujishiro, 2005; Fujishiro & Heaney, 2007). In this research, the perceived fairness was postulated as possible mediator between prison officers' occupational stress, personality and wellness. This refers to prison officers' occupational stress that triggers their sense of unfairness towards their organization, in response influences their wellness (Fujishiro, 2005; Fujishiro & Heaney, 2007).

Thus, this study aims to fill up the literature gap on prison officers' wellness, their occupational stress, personality, perceived fairness and self efficacy in industrial/organizational psychology, psychofortology and prison study. Hopefully, the literature and empirical findings of prison officers in Prison Department of Malaysia will broaden the knowledge and initiate more future study of the keepers.

Since the Prison Department of Malaysia aims to be the "International Standard Correctional Service Provider" (Laporan Kualiti Perdana Menteri, Prison Department of Malaysia, 2008), employee personality and occupational stress are strategically and tactically important for the organization to gain employee loyalty and thus enhance employee wellness in achieving high productivity and competitive edge.

Therefore, the importance of studying the relationship between wellness, personality, occupational stress, self efficacy and perceived fairness in prison settings stems from four significant yet alluring reasons: i) looking at the knowledge gap of employee wellness study in prison work setting; ii) considering the prison work setting that is described as dangerous – constant interaction with prison inmates with hideous criminal background and unique – stringent security, concealed operation from the public and constant vigilance in their daily operation (Hawk, 1997; Senter, Morgan, Serna-McDonald & Bewley, 2010) causing substantial tension and stress to its operational section people – those prison officers who directly interact with prison inmates; and iii) the organizational changes as transpired within the Prison Department of Malaysia have put a tremendous negative impact on its employees' health and wellness – on how they

comply appropriately with the requirements of the daily work (Prison Department of Malaysia, 2008; Barling & Phillips, 1993) and iv) ascertaining appropriate personality of prison officers that are able to cope with high strenuous working condition.

Hence, to straighten out the quandary, it is imperative that Prison Department of Malaysia focuses on pertinent upshot. Based from the problems statement, the researcher has listed several research questions in the next section.

1.3. Research questions

Research questions were derived in accordance to the problem statement:

- i) What is the level of wellness, personality, occupational stress, self efficacy and perceived fairness of prison officers at Prison Department of Malaysia?
- ii) Are there differences on prison officers' wellness, occupational stress and personality according to their gender, age and tenure?
- iii) Is there any association between prison officers' wellness, the independent variable constructs which are personality and occupational stress and the mediating constructs which are self efficacy and perceived fairness?
- iv) Is there any mediating effect of self efficacy and perceived fairness on the relationship between prison officers' wellness, personality and occupational stress at the Prison Department of Malaysia?
- v) Does the variance in prison officers' wellness is significantly explained by the independent and mediating variable constructs?

1.4. Research objectives

Based on the research questions, objectives of the empirical research are:

- i) To investigate the level of wellness, personality, occupational stress, self efficacy and perceived fairness of prison officers at Prison Department of Malaysia.
- ii) To determine any difference on prison officers' wellness, occupational stress and personality according to their gender, age and tenure.
- iii) To indicate the degree of relationship between prison officers' wellness, independent constructs which are personality and occupational stress and mediating constructs which are self efficacy and perceived fairness.
- iv) To analyze the mediating effect of self efficacy and perceived fairness on the relationship between prison officers' wellness, employee personality and occupational stress at the Prison Department of Malaysia.
- v) To determine the best fit model of this present study.

1.5. Significance of the study

Through systematic research methodology, this study expected to contribute specifically to the theory enrichment in prison setting, public human service professionals at the organization level and insights to prison department organization policy makers at the national level. The significance of study could be linked to both theoretical and practical levels. There was scarcity of empirical study in organizational psychology, forensic psychology, organizational behavior and psychofortology on the wellness issues in Prison Department of Malaysia (Ahmad Karofi, 2005, Myers and Sweeney, 2004).

Perhaps this study is a pioneering empirical research that investigates the relationship between employee wellness, personality and occupational stress working in arduous and stressful environment in Prison Department of Malaysia. Thus this study attempts to provide empirical evidence to bridge the gap in theoretical knowledge with regards to the relationship between wellness, personality and occupational stress in prison setting as well as to demonstrate and confirm the General Systems Theory and Individual Psychology theory specifically among prison officers in prison setting.

Through comparing results of this study with other research on prison officers' wellness, perhaps some unique wellness characteristics may be observed for those working within government service institution specifically prison department in Malaysia. This will enable public service leaders to direct their employees in a way that best suits the objectives of both the organization and the employees themselves.

1.5.1 Theoretical significance

The research contributes towards an expansion of theoretical and applied science through developing prison officers' wellness model in prison setting as part of the empirical study of this research. The study provides scientific information about the nature of wellness in Malaysia specifically among prison officers. It also shows the capability of prison officers' personality to absorb their high work stress and maintain their wellness level. The appropriateness of wellness and work stress instruments used on prison officers as respondents is also evaluated. Doing this, it confirms on the validity and reliability of measuring instruments used in the study.

The confirmatory of the research model through exploratory factor analysis, measurement and structural confirmatory factor analysis findings will contribute to a sound scientific framework in wellness (Myers and Sweeney, 2003) and psychofortology study (Seligman, 2002). New generated knowledge from the study also validates or contradicts previous findings. Thus knowledge is expanded in this area.

1.5.2. Practical significance

At practical level, it would be beneficial to ascertain important contributory factors of employee wellness at individual level in government service sector, in particular the Prison Department of Malaysia. Basically, healthier employees are more productive, creative, co-operative, competent and committed, miss fewer workdays and have fewer illnesses (Witmer and Sweeney, 1992). Alas only several interventions incorporate strategies to help and support employees to move from illness to wellness in the wellness continuum.

Today, more and more organizations have acknowledged the importance of ensuring employees health and content. In the new millennium, it is the responsibility of the organization to support individuals to develop their own wellness while their organization also benefits from it. This proactive approach to develop employees' wellness is lacking and research studies needs to promote it actively.

Therefore this type of research is lacking in Malaysia. Many organizations in Malaysia have limited knowledge or ignore the importance of the impact of employee wellness could have on the development of the organization. This lack of knowledge leads to mismanagement of the health and wellness of employees. Therefore, the prison officers' wellness model then may indicate the relational influence that exists between constructs of wellness, individual and organizational factors at the workplace.

All of these wellness, individual and organizational constructs dynamically contribute to an integrated and comprehensive employee wellness model in positive organizational behavior field as well as contributing viewpoint and theory building for health and wellness literature.

Therefore, developing an assimilated prison officers' wellness model helps leaders of the Prison Department of Malaysia to understand employee wellness as the whole system. Doing so will enable them to establish and implement programs that address prison officers' illness, health and wellness needs in Prison Department of Malaysia.

1.6. Operational definition of terms

The operational definitions of relevant construct variables are as follows:

i) Prison officers

In this study, prison officers are also referred as correctional officers (Prison Department of Malaysia, 2008). The complete definition of prison officers was clearly explained and discussed by Senol-Durak, Durak and Gencoz (2006). They (2006) defined prison

officers as prison staffs who directly involved in daily operation of guarding and rehabilitating incarcerated people. They are inclusive of those adult or juvenile officers, officers working on day, evening, or night shifts; officers working in rural or urban locations; officers in male or female facilities; and officers working in facilities ranging from minimum to maximum security. Therefore this study embraced the definition as Senol-Durak et al (2006) presented.

ii) Wellness

The study embraced Myers and Sweeney's (2004) comprehensive explanation and definition of wellness. Based on the prison work setting, most relevant operational definitions of prison officers' wellness at work are derived from comprehensive definition of Myers and Sweeney (2000, 2005). Prison officers' wellness is defined as their life orientation toward optimal health and well-being in which body, mind and spirit are integrated to capable them to achieve full optimization in all domains of life (Myers, Sweeney & Witmer, 2000).

Wellness dimensions of prison officers using Five Factor Wellness (5F-Wel) (Myers & Sweeney, 2004) refers to five (second-order): i) creative self (intelligence, control, emotions, work, positive humor); ii) coping self (leisure, stress management, self-worth, realistic beliefs); iii) social self (friendship, love); iv) physical self (nutrition, exercise) and v) essential self (spirituality, gender identity, culture identity, self-care) and additional contextual dimensions (local, institutional, global and chronometrical).

iii) Personality

In viewing the uniqueness of prison work setting, the most appropriate operational definition of prison officers' personality as based on Allport's (1961) conceptual definition of individual personality. Allport (1961) defined personality as individual's (in this study prison officers) characteristics which capable to interfere with their health, mental wellness and wellbeing merely as it is a dynamic organization, inside them, of psychosocial systems that create their characteristic patterns of behavior, thoughts and feelings towards their work, personal wellness and stress.

Prison officers' personality domain (Costa and McCrae, 1992a) using NEO-FFI includes five factors which are neurotism, extraversion, openness to experience, agreeableness and conscientiousness. Prison officers' neuroticism personality is their tendency to experience negative effect and emotional distress. Meanwhile their extraversion personality is their disposition toward positive emotions, sociability and excitement. Their openness to experience personality is characterized by a willingness to entertain new ideas and unconventional values. Also their agreeableness personality means the inclination to be agreeable and altruistic. Finally, prison officers' conscientiousness personality refers to the temperament of a strong-willed, determined and organized individual.

iv) Occupational stress in prison setting

Cooperstein (2001) defines prison officers' occupational stress as the occupational hazard in prison environment. Whilst McLean (1974) view it as "the condition in which

some factor or a combination of factors, at work interacts with the prison officers as an individual to disrupt his/her psychological or physiological homeostasis” (Storrs, Trinkoff and Anthony, 1999)

In this study, occupational stress of prison officers accentuates on stresses inherent that are associated with various work roles (Senol-Durak, Durak and Gencoz, 2006). The Work Stress Scale for Correctional Officers (WSSCO) dimensions to measure five stress-inducing work roles as highlighted by Senol-Durak, Durak and Gencoz (2006): (i) work overload, (ii) role conflict and role ambiguity, (iii) inadequacies of physical conditions in prison, (iv) threat perception, and (v) general problem (Senol-Durak, Durak and Gencoz (2006).

v) Self-efficacy

Schwarzer (1992) has conceptually explained self-efficacy (GSE) as a broad and stable sense of personal competence to deal effectively with a variety of stressful situations. In other words, self efficacy is conceptually defined as an optimistic sense of personal competence (Scholz, Gutierrez-Done, Sud & Schwarzer, 2002). In prison settings, operational definition of self-efficacy trait is clearly the prison officers’ personal resource factors that counterbalance taxing environmental demands in the stress appraisal process (Schwarzer; 1992, 1993). It is therefore, refers to a broad and stable sense of prison officers’ personal competence to deal effectively with a variety of stressful situations (Schwarzer, 1992; Schwarzer et al., 1999). In this study, self-efficacy, measured through General Self Efficacy Scale (GSES) is conceptualized from

Schwarzer's (1992) perspective as generalized unidimensional self efficacy consisting of ten items.

vi) Perceived fairness

In consideration of the prison work setting, the appropriate operational definition of perceived fairness or also known as organizational justice as conceptually defined by Moorman (1991). It is concerned with the ways in which prison officers determine if they have been treated fairly in their jobs despite any differences of gender and ranking and the ways in which those determinations influence other work-related variables; consisting of fair treatment – fair outcomes, procedures and process (Lind, 2001). This refers to how prison officers perceive fairness and how fair treatment influences them and other employee work-related variables.

In this study, perceived fairness, measured through Distributive, Procedural, Interactional Justice Scale (DPIJS) (Niehoff & Moorman, 1993) is composed of three dimensions — distributive justice, procedural justice, and interactional justice. Distributive justice is concerned with how prison officers perceive the rewards that they have received such as pay or promotions (Niehoff & Moorman, 1993). Next, procedural justice is concerned with perceived fairness of policies and procedures used in determining employee outcomes (Niehoff & Moorman, 1993). Thus this refers to prison officers' perceptions of the formal procedures that are used to determine the rewards. Interactional justice refers to the interpersonal treatment employees receive from decision makers and the adequacy with which the formal decision-making procedures

are explained (Niehoff & Moorman, 1993). Thus it refers to prison officers' perceptions of the fairness of how the procedures are put into action.

1.7. Scope of the study

The scope of this present study is to seek relationship between 5 constructs namely employee wellness, personality, occupational stress, self efficacy and perceived fairness of prison officers in Prison Department of Malaysia.

Accordingly, several prison locations are involved in the study, namely Sungai Buloh, Kajang Main, Kajang Women, Taiping, Pulau Pinang, Alor Setar, Tapah, Kluang, Simpang Renggam and Kluang prison in Malaysia. These locations are selected because the majority of prison officers are located in these prisons. These prisons facilitate inmates who serve court sentence and remanded inmates. The underpinning of the study is based on General System Theory (von Bertalanffy, 1968), Positive Organizational Behavior (Seligman, 2002) and Individual Psychology of Adler (1931).

Prison Department of Malaysia as the prison body in the Malaysia Juridicial Crime System is under the Ministry of Home Affairs, as custodial and rehabilitation institution for convicts. Prison Department of Malaysia's vision and mission are derived from four objectives, (i) to safeguard the public by separating the offenders from the public as ordered by the courts; (ii) to effectuate judicial decisions by holding prisoners in custody until their actual times of release; (iii) to provide a secure, orderly and humane treatment environment for offenders in department custody, and (iv) to rehabilitate offenders so

that they may regain their self-respect and self-identity and thus eventually return to their community as law-abiding and socially productive citizens (Laporan Kualiti Perdana Menteri, Prison Department of Malaysia, 2008).

The agency is bound under the Prison Act (1952) (Amendment 1995) and the Prison Rule 1953 (Amendment 2000). There are 44 prison institutions under Prison Department (Laporan Kualiti Perdana Menteri, Prison Department of Malaysia, 2008). Currently, there are about 12,536 uniformed officers and 2,000 civilian officers in the organization. Prison or correctional officers in Malaysia perform multiple functions as custodial officers, rehabilitators, vocational instructors and caseworkers.

Since the Malaysian Law System accentuates on prison sentence as a primary manner of punishment, hence the number of inmates are expected to increase in accordance to the increase of crime in the country. Recently, the government plans to build more new prisons to reduce overcrowding and to accommodate the increasing prison population, where convicts has increased steadily since 1998 from 29,000 and continued to rise to 42,500 in 2007 and 36,200 in 2008 (Laporan Kualiti Perdana Menteri, Prison Department of Malaysia, 2008).

1.8. Organization of the study

Chapter One addressed overall perspective of this research such as the research objectives, questions, research significance and conceptual and operational definition of the construct variables were explained. Chapter Two addressed the theoretical

framework, literature review as well as the derivation of hypotheses of the study, the theories that support the development of the proposed framework. In Chapter Three, the research methodology were presented and explained. Chapter Four explained on the preliminary analysis including the normality, reliability and validity of the study as well as exploratory factor analysis and confirmatory factor analysis of measurement model. In Chapter Five, research findings were explicated to answer research questions. Finally, in Chapter Six, thorough discussions of the findings were presented.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1. Introduction

Fundamental element of the study was the notion that substantial prison officers' wellness level was influenced by the level of their work stress as well as their personality. In prison work setting, prison officers were constantly facing stress and pressure due to several pertinent factors namely prison work environment, work related and non-work related factors and prison inmates. Meanwhile prison officers' personality braced their stress level resulting in adjustment in their wellness and performance. These two worked interactively to ensure the wellness level was maintained in the prison setting.

In prison setting, self efficacy trait is seen as possible psychological disposition (as an addition to embedded individual personality) as well as and perceived fairness (as possible management intervention factor) might mediate the relationship between employee wellness, personality and work stress in prison work setting.

Due to extensive stress in prison work setting, it was adamant to consider personality to buffer prison officers' stress level so that they would be able to maintain adequate level of wellness as well as their productivity level. The premise that a relationship existed between prison officers' wellness, work stress and their personality was based on

assumptions as supported by findings of previous research and backed up by convincing paradigms, theories and concepts.

This chapter reviewed the gathered literature relevant to the development of the conceptual model to be tested so as to capture the essential elements of the phenomenon of employee wellness in prison work setting and provided relevant framework that explained how prison officers' personality and work stress impact their wellness in prison work setting and how the relationship was mediated by self efficacy and perceived fairness. This chapter reviewed the literature relevant to the development of the conceptual model to be tested in the study.

Firstly, the review of previous literature in the field of wellness provided a foundation to understand employee wellness concept and its dimensions in the workplace context. This review also provided the theoretical and empirical background for the study. Then, the researcher discussed on prison officers' personality and occupational stress as predictors of their wellness. The impact of both predictor variables on the outcome variable was then explored. Thirdly, the mediating variable constructs namely self efficacy and fairness were reviewed and several propositions were derived, based on the relationships. Fourthly, the researcher discussed on the underpinning theories that i) derived the employee wellness concept; ii) clinched or embraced the conceptual framework together; and iii) derived the framework based on psychofortology paradigm – the study of positive human strength despite pathological inference. Fifthly, the

integration of construct variable was presented. Lastly, the researcher presented the theoretical framework and hypothesis derivation of the study.

2.2. The wellness of employees at the workplace

In the last several decades, employee wellness literature identified and described the important dimensions of wellness and their application in practice. Reviewing the development of employee wellness concepts provided an important starting point for examining the impact of managerial practices on employee health and wellbeing. However, current research about wellness was disjointed and patchy. Generally, it focused on relational issues between various constructs of wellbeing. The theory generation as a scientific objective, specifically in organizations, was rare and generally lacks of totality to the phenomenon of wellness.

Thus exiting research certainly needed an integrated and systemic understanding of wellness at work in order for health and wellness care to be effectively managed. Also, previously, wellness models were established and focused in the field of clinical psychology. The model did not integrate with the wellness of individuals in the workplace especially in Malaysia. Therefore in this research, the main focus was on the wellness of employees as the opposite of illness based on the illness-health-wellness continuum.

The positive psychology movement and positive organizational behavior research focused on the health and wellness side of the illness-health-wellness continuum (Travis

& Ryan, 2004). This paradigm concerned on the study of positive organizational outcomes and individual attributes promoting human strengths (Keyes & Haidt, 2003; Coetzee, 2004) as the positive organizational behaviors that developed virtuous organizations (Luthins, 2002; Cameron, 2003). The development of optimum health and wellness was based on the recognition and support of the rights of individuals to manage their own quality of life at work (Huiskamp, 2004). It was postulated that healthier employees were certainly more productive, creative, co-operative, competent and more committed; they missed fewer workdays and suffer fewer illnesses (Witmer and Sweeney, 1992).

Unfortunately however, most previous interventions only incorporated strategies to help and supported employees to move from illness to health and not to wellness – only the negative deviant of the continuum.

The positive deviants (developing and maximizing wellness behavior) were neglected; inspiring more researchers to study on this side of the continuum (Seligman, 2002; Seligman & Csikszentmihalyi, 2000). Luthins (2002) supported the view that the new field of positive psychology should promote and focus on the development of positive organizational behavior where a proactive and positive approach through developing strengths was more suitable nowadays, rather than continuing the remedial (negative spiral) approach of only trying to fix weaknesses in organizations.

The suitability of the workplace to prevent physical and psychological illness and promoting wellness, was compatible with (and extends) the mission of positive organizational behavior (Luthins, 2002, Els, 2006). Meanwhile, Cameron (2003) elaborated on defining the field of positive organizational behavior as the best of human condition, the excellence and essence of humankind, and the highest aspirations of human beings at work.

Positive organizational behavior was the study and application of positively orientated human strengths and psychological capacities that could be measured, developed and effectively managed for performance improvement in the workplace (Luthins, 2002) and was a compatible wellness study and integrated in various research particularly in human behavior and organizational behavior studies.

Many researchers reported that wellness at work studies stressed on the positive deviant of organizational behavior and that quality and balance in life were important domain of wellness (Cameron, Dutton & Quinn, 2003; Luthins, 2002; Moller, 2004; Witmer & Sweeney, 1992). The importance of wellness studies was hereby underlined. Nevertheless wellness study focusing on holistic and integrated approach was clearly lacking due to the scarcity of wellness at work models in the literature within Malaysian context. Therefore, the present study fulfilled the wellness knowledge gap in particular within Malaysian context.

2.2.1. The Wellness model

Basically, wellness research revealed several definitions of wellness focusing on wellness being more than physical health. Fundamental insights of wellness also captured the significance of individual continual process of self improvement to reach their personal goals. Currently, there were two most distinguished wellness model developed namely the individual self: an evidence-based model of wellness (IS-WEL) (Myers and Sweeney, 2005) and the perceived wellness model (Adam, Benzer and Steinhardt, 1977). The IS-WEL model was derived from the individual psychology of Adler and the general system theory.

Positive organizational behavior orientation also served as a philosophical basis for the development of the individual self: an evidence-based model of wellness (IS-WEL) (Myers and Sweeney, 2005). Witmer, Sweeney, and Myers (2003) developed the Indivisible Self: an Evidenced-based Model of Wellness (IS-WEL) and the 5F-Wel inventory were created as revised version of the wellness evaluation of lifestyle inventory (Myers and Sweeney, 2005). The revised wellness model was created to evaluate the character of wellness as a foundation to assist individuals in selecting their preferences toward healthier living.

These researchers conducted cross-disciplinary studies to identify aspects of wellness such as health, quality of life, and longevity. This revised model consisted of one highest order, five second-order and 17 third-order factors representing the original areas of wellness demonstrated through a multi-component, systems approach. The

areas within the five-second order factors were (Myers & Sweeney, 2005): i) creative self (intelligence, control, emotions, work, positive humor); ii) coping self (leisure, stress management, self-worth, realistic beliefs); iii) social self (friendship, love); iv) physical self (nutrition, exercise) and v) essential self (spirituality, gender identity, culture identity, self-care).

This model and its application was also fundamentally ecological and it included factors such as: i) local safety (family, neighborhood, community); ii) institutional – policies and laws (education, religion, government, business/industry); iii) global – world events (politics, culture, global events, environment, media) and iv) chronometrical – life span (perpetual, positive, purposeful).

The relationships between the higher-order wellness factor, five second-order factors and the seventeen sub factors were described as an evidence-based model by Myers and Sweeney (2004). Adler (1954) proposed that holism (the indivisible self) and purposefulness were central to understanding human behavior. Such understanding required an emphasis of the whole rather than the divided elements, interaction between the whole and the parts, and the importance of the social context (Ansbacher and Ansbacher, 1967). The higher-order wellness factor therefore indicated the total wellness of the individual system.

The first second-order factor, the creative self was a combination of attributes that individuals developed to determine a unique place for the self among others in social

interactions (Adler, 1954; Ansbacher and Ansbacher, 1956). Thoughts, emotions, control, work and positive humor made up the creative self. As research and clinical experience indicated, what an individual thought affected the emotions as well as the body. Likewise, one's emotional experiences tended to influence one's cognitive responses to similar experiences. Control as explained by Myers and Sweeney (2004; 2005) was a matter of perceived capacity to influence events in one's life.

Positive humor was known to influence physical and mental functioning. Enriching one's ability to think clearly, perceived accurately and responded appropriately decreased stress and enhanced the humor response that affected the immune system positively (Bennett, 1998). Positive expectations influenced emotions, behavior and the anticipated outcomes of individuals. Work and the meaning thereof, were proven to be an indivisible factor to construct individual wellness. It was an essential element in human experience that could enhance or lower one's capacity to live life fully. Seligman (2002) wrote about the difference in attributes that work has to individuals.

Work orientation styles towards an individual's job (in it for the money), career (in it for the status) or a calling (in it for the benefit of something bigger than the self) were separated. Seligman highlighted the fact that calling orientations could develop and promote one's purpose, happiness and wellness in life (Seligman, 2008).

Meanwhile the second second-order factor, the coping self, made up of realistic beliefs, stress management, self-worth and leisure. Realistic beliefs and being in contact with

reality supported the fact that a person functioned in the moment of events as they happened. Irrational beliefs, on the other hand, could be the source of many frustrations and disappointments in the lives of individuals. Self-worth could be enhanced through effective coping with life's challenges. As self-efficacy was experienced through experiences of success, self-worth increases as well. Stress management indicated a person's ability to effectively handle stress in life by having constructive coping strategies. Being resilient also formed some part of it.

Another coping strategy, known as leisure was an essential to the concept of wellness and continual development. It opened pathways for growth in both creative and spiritual dimensions especially if the experience of flow or engagement accompanied it. When this happen the elements of the coping self helped to transcend the negative effects of life.

Next, the social self consisted of two components namely friendship and love. Friendships and intimate relationships enhanced the quality and length of one's life. Isolation, alienation and separation from others generally were associated with poor health conditions and greater susceptibility to premature death. Numerous studies found that social support remains one of the strongest predictors of positive mental health over once lifespan (Ulione, 1996). The mainstay of this support is the family, with healthier families providing the most positive source of social wellness. The families can be either biological or families of choice.

Next, the physical self was inclusive of two components; namely exercise and nutrition. The research by Bernaducci and Owens (1996) indicated individuals attending to their nutrition, diet and physical self would live longer.

Lastly, the essential self comprised of spirituality, self-care, gender identity and cultural identity. Spirituality benefited longevity and quality of life and was viewed as central to holism and wellness, incorporating one's existential sense of meaning, purpose and hopefulness toward life (Mansager, 2000).

Meanwhile self-care was defined as the proactive efforts to live long and well. Contradicting to self-care was carelessness, the act of disregarding health-promoting habits and general ignorance of one's well-being. These factors were potential signs of the presence of despair, hopelessness, and alienation from life's opportunities reflected in a lost sense of meaning and in life. Gender and cultural identity were factors that shape an individual's life experiences. Both gender and cultural identity affected the meaning-making process in relation to life, self and others.

The sixth dimension of wellness, the contextual factors was initiated to understand and incorporate the environmental factors that shape an individual's wellness (Gladding, 2002). Local contexts corresponded closely to Bronfenbrenner's (1999) microsystem. It included interactions of an individual with families, neighbor and communities. While institutional contexts included education, religion, government, business, industry and the media were the macro-system in an individual's life (Bronfenbrenner, 1999). These

contextual interactions affected individuals' lives directly and indirectly. Global contexts consisted of politics, culture, global events, and the environment. Chronometrical contexts reflected the recognition that people over time change in important ways.

All six dimensions of wellness involved the lifestyle behaviors and choices throughout an individual's lifespan (Myers, Sweeney & Witmer, 2001). These components of the IS-WEL model interacted with and were supported by all factors that contribute to holistic functioning (Myers & Sweeney, 2004).

The wellness factors and the individual interacted with each other. These interactions could either be positive or negative shaping the individual's wellness. The significance of wellness model was depending on a positive, holistic orientation that strengthened the components to enhance functioning in other areas (Myers & Sweeney, 2004, 2005, 2007). Looking at the potential contribution and significance of this model towards wellness research, therefore this integrated and wholesome structure of IS-WEL had the potential to develop the model of prison officers' wellness in prison setting in this research.

2.2.2. Previous studies on employee wellness

Today, the illness-health-wellness issues influenced employees from all domains of life in any organizations (Hettler, 1984). Problems that workers perceived and experienced developed from their physical, emotional, intellectual, social and familial as well as

spiritual life domains were becoming dilemmas that organizations had to face. All of these quandaries emphasized the fact that wellness was neglected and that organizations were preoccupied in resolving illness at work. The economic impact of illness-health-wellness mismanagement could be disastrous.

Essentially, physical illness and health was the most dominant life domain that was addressed in studies of wellness and health. Good nutrition formed the basis of healthy living and proper weight management. Benzer, Adams and Whistler (1999) studied the relationship between physical activity and indicators of perceived wellness. They found that greater physical activity and leisure time activity was associated with higher perceived physical and psychological well-being.

Those participants with more leisure-time activity had greater overall perceived wellness scores. Higher discrepancies between the actual self and the ideal self were related to worse functional health and more physical symptoms in cancer patients (Heidrich, Forsthoff and Ward, 1994).

Strauman, Lemieux and Coe (1993) found an association between priming self-discrepancies and negatively altered immune responses in a sample of dysphonic and anxious participants. This study also showed evidence that wellness programs with moderate amounts of physical activity can lead to wellness benefits.

Meanwhile, Marchand, Demers and Durand (2005) reported many people had physical consequences that were attributable to long-term exposure to stressful situations in the workplace. Eysenck (1988) found that smoking in combination with life stress constituted cancer as mediating variable for illness. Benefits of physical health managed care indicated better quality of life, longevity, better immune system and reduced illnesses.

Healthy eating habits were not only promoting physical health but also prevented and protected individuals against illness. According to Maslow (1970), socialization was significant element of wellness. This was confirmed by Campbell (1981). Both agreed that friendships were positively related to higher levels of satisfaction with life. Meanwhile Cohen (1988) revealed possible relation between various elements which were social support, health behaviors, self esteem, personal control and the immune system.

Patients, who were more flexible and non-conforming, tended to have more psychological insight and refused to give up and they were able to survive longer (Zimpfer, 1992). Employees who detached from others and conversely who were so connected as to be completely enmeshed with others, were outside the normal range of socialization and were considered less well (Croese, Nicholas, Gobble and Frank, 1992).

Findings of another research by McWhirter (1990) pertaining to interpersonal relationships, revealed decreased activity of certain cells in the immune system and

higher vulnerability to illness positively were correlated to loneliness, as well as mild upsets and moodiness. Revelation of research by Maslow (1970) indicated a healthy (self-actualized) person in a self actualizing model as someone that showed deep feelings of sympathy and affection for human beings as well as a person who was enjoying profound interpersonal relationships. These two studies suggested social interaction and quality relationships between individuals whether at work or anywhere could therefore directly related and formed part of the development of wellness. Major studies by Berkman and Syme (1979) and Lynch (1977) confirmed health and wellness benefits of intimate relationships.

Spirituality as a positive sense of meaning and purpose in life also grew in importance for wellness research. Dunn (1966) stated that the spirit could no longer be ignored as a factor in medical and health research. In addition medicine has begun to recognize the influence of spirituality on illness.

Duke University verified to all skeptics that prayer indeed has healing power (Moller, 2005). The researchers took into account all variables, including heart rate, blood pressure, and clinical outcomes. Patients who had undergone invasive cardiac procedures were studied and prayed for without them knowing about it. Seven religious groups around the world were asked to pray. Researchers found that surgical patients' recovery could be from 50 to 100 percent better if someone prayed for them (2005).

Other studies indicated that people who had deep-seated spirituality were generally healthier and happier. Harold Koenig (2005) stated that regardless of the denomination of religious following, individuals who had a set belief system and who prayed or meditated regularly appeared to experience less depression, anxiety, drug and alcohol abuse and fewer suicides than people who were not spiritually involved.

Emotional encounters form part of all people's everyday life, as well as the working lives of employees. Emotional experiences could be draining or promotional for employees. The body's basic health and healing mechanisms responded favorably to positive emotions (love, hope, optimism, and joy) and negatively to negative ones (hate, hopelessness, anxiety, depression, loneliness).

The longer negative emotions prevailed, the more harmful their influence on the health of individuals. Continuous negative emotions caused people to experience "dis-ease" that led to disease in the long run (Vermeulen, 2003).

Frederickson (2002) argued that people should cultivate positive emotions in themselves and in those around them, towards fostering and achieving psychological growth and physical health. Research by Cartwright and Holmes (2006) supported the fact that when emotions were properly managed, they would drive trust, loyalty, team spirit and improved organizational accomplishments.

Schutte, Malouff, Simunek, McKenley and Hollander (2002) mentioned the importance of cultivating positive emotion and higher self-esteem as characteristic of wellness among leaders. Most organizations produced highly stressful and pressured working conditions robbing employees of positive emotional experiences and inhibiting the wellness of employees.

Positive emotions were facilitated by managerial actions that supported clear outcome expectancies, gave basic material support, encouraged individual contribution and fulfillment, developed a sense of belonging, as well as promoted a chance to progress and learning continuously (Harter, Schmidt & Keyes, 2003). Workplace attitudes that related most to high-performing business-unit outcomes were the four positive emotions of joy, interest, contentment and love (Frederickson, 1998).

In contrast, emotional deficiency could lead to uncertainty, low morale, lack of initiative, creativity and innovation, poor work performance, stress and burnout and poor relationships between employees (Jonker and Scholtz, 2004). Negative emotions might limit cognition, but positive emotions might broaden and build human potential (Frederickson, 2003).

Positive emotions affected information-processing strategies, influenced creative thinking and broadened cognitive potential (Fiedler, 1988; Schwarz & Bless, 1991). Smith (2002) reported optimistic thinking could lead to wellness in people despite the fact that they sometimes did experience stressful situations. This researcher stated that

neuropathy of functional salutogenic mechanisms could provide strategies to improve health and wellness. Neglecting the role of cognition and mental development could be detrimental to the wellness of employees.

To be truly wellness orientated, managers should be focusing on all of the life domains. They needed to be committed to promoting the capacity of all employees to think and reason in complex ways, to be able to take into account the needs of both self and others, to live their lives fully and responsibly (Hatfield and Hatfield, 1992). Stretching levels of cognitive development empowered employees to consider more alternatives, more self-care possibilities and better personal transactions within the organization, helping them to be more creative and innovative at work. The workplace would be a significant part of an individual's life that affected their wellness. On average, adults would spend as much as a third of their waking lives at work (Avolio & Sosik, 1999).

Meanwhile, Campbell, Converse and Rodgers (1976) argued that as much as a quarter of the variation in adult life satisfaction could be accounted for by satisfaction with work. Employee surveys (Wrzesniewski, McCauley, Rozin & Schwartz, 1997; Shantall, 2002) clearly showed that majority of employees desired greater meaning and personal development from their work and suggested that few employees would see their work as enjoyable, fulfilling and socially meaningful. Job insecurity led to downward spirals of lower morale, less commitment and underperformance performance, higher turnover as well as higher levels of social conflict (Schreurs, van Emmerik, Notelaers, and De Witte, 2010).

The previous findings also revealed consequences of not emphasizing the importance of health and wellness care for employees were illnesses, limits skills development and productivity in organizations. Unproductive administration of wellness where the management or administrators of an organization only focused on illness also influenced on the economic development of organizational functioning. The negligence in conducting employees' illness-health-wellness would impede economic development of an organization.

In a study on the impact of allergic rhinitis on employee health and productivity health by Gemson and Eng (2004), the employees and their family health would significantly affect non attendance at work as well as organization' productivity and expense. Gemson and Eng (2004) also added that proper management of health and wellness would initiate finest output and thriving organization performance. Hence organizations were accountable to support employees to develop their own wellness.

Through proper support to employees in developing their wellness, this would promote financial benefit to the respective organizations.

2.2.3. Concluding remarks on employees' wellness

In this sense, prison officers' wellness is the process of living own highest possible level as a whole person despite strenuous condition that reduced his / her wellness and health (Schafer, 1996). It is the integration of many dimensions including creative self, coping

self, social self, physical self and essential self of the person that inflate the prison officers' own potential to live and work effectively and to make a significant contribution to society (Corbin and Lindsey, 1994). Schafer (1996) reported that the personal benefits of wellness include minimal frequency of illness, low illness risk, maximum energy for daily living, and enjoyment of daily life, continuous development of abilities, contribution to wellbeing of those around them and contribution to the common good in the larger environment.

Prison officers who are physically fit will have more energy, be able to think clearer, will display improved confidence in certain areas and will be present at work more days of the year than if he/she were unfit (Seligman, 2008; Myers & Sweeney, 2004; 2008).

However, in order to achieve that, Prison Department of Malaysia must considers few significant antecedent predictors that influence prison officers' wellness level – from the work-related or operational aspect namely occupational stress level of prison officers (Senol-Durak, Durak & Gencoz, 2006) as well as the non work-related aspect namely the personality of prison officers (Semmer, 2006; Barrick, Mount, & Judge, 2001; Hurtz & Donovan, 2000)

No doubt abundant of research has shown that individual differences in personality are important predictors of performance for over the past ten years. Recent meta-analytic studies (Barrick & Mount, 1991; Barrick, Mount, & Judge, 2001; Hurtz & Donovan, 2000) have consistently reported significant relationships between axes of the Five

Factor Model (FFM) of personality and important work behaviors, with conscientiousness and neuroticism having the strongest effects.

Furthermore the closed and uncommunicative to the public nature of Prison Department and the strenuous and stressful working condition gave an extreme impact to prison officers' wellness. But should their self efficacy trait was high as well as their perceived fairness was judged as highly positive then they were able to defeat their difficulties and remain well.

2.3. Human personality at work

Several years ago, Marshall, Wortman, Vickers, Kusulas and Hervig (1994) suggested on healthy personality factor that played a role in health maintenance and promotion. Marshall and colleagues (1994) postulated on the broad personality domains of neuroticism, extraversion, openness, agreeableness, and conscientiousness could be sufficient and significant factors at understanding linkages between personality and wellness and health in scientific research. Personality theories, or models, were metaphors for describing the overwhelming and intricacies of the human personality. Personal characters or dispositions were then encapsulated as traits describing the individual differences. A personality trait was the basic unit of personality structure (Allport, 1937; Cattell, 1965; Eysenck, 1967; Guilford, 1959, 1967).

The validity of personality types, or traits, gained recognition through meta-analyses performed by various researchers, with significant work completed by Barrick and

Mount (1991) and Tett, Jackson, and Rothstein (1991). Basically, personality described how an individual typically thought, felt and related to others. Personality focused on the individual's attitudes, inclinations and preferences. In addition, consistency in personality trait or characteristics also played an important role. Verbal style and non-verbal cues also guide the personality of an individual. Verbal style which inclusive of word choices, sentences choices and fluidity of speech, as well as how the person refers to another while speaking. Meanwhile, non-verbal cues are inclusive of posture and the way the individual moves his/her body when interacting with others (Isbister & Nass, 2000).

Personality assessment was used in competency development, team building, stress management, professional development, leadership style, culture fit, enhancing selling or customer service and many other areas of activity. Additionally, there was evidence that personality traits were related to various occupational behaviors. There was evidence that performance prediction using personality profiling for professional staff was significantly higher than it was for nonprofessional staff (Tett et al., 1991). These predictions were also true for managerial versus non-managerial personnel (Barrick & Mount, 1991).

In an extensive meta-analytic review of personality measures of job performance, Tett et al. (1991) acceded on the use of personality measures in employee selection. Today, five factors personality consist of neuroticism, extraversion, openness to experience, agreeableness and conscientiousness, were used in variety of settings inclusive of

psychopathology (Widiger & Trull, 1992), understanding health (Smith & Williams, 1992), adolescent adjustment (Graziano & Ward, 1992), close relationships (Buss, 1992), and the study of traits and temperament (Watson & Clark, 1992). The Five-Factor Model or the Big Five personality (Costa & McCrae, 1992a, 1995; Goldberg, 1990); measured by the Neuroticism-Extraversion-Openness Personality Inventory (NEO-PI).

2.3.1. Five-factor model of personality

The Five Factor Model (Costa & McCrae, 1992a) consisted of neuroticism, openness to experience, conscientiousness, extraversion, and agreeableness personality domains was the current dominant framework for studying personality (McAdams, 1994; Marshall et al., 1994; Paunonen & Ashton, 2001; Wiggins & Trapnell, 1997). According to Costa and McCrae (1992a), through five broad domains, this model provided parsimonious yet reasonably comprehensive representation of personality. The longer version of personality measure consisted of 240-item NEO-PI-R.

To reduce participant burden, a 60-item version of the NEO-PI-R called the NEO-Five-Factor Inventory (NEO-FFI) was developed (Costa & McCrae, 1992a). The NEO-FFI assessed the five broad personality domains through by utilizing one question from each facet from the NEO-PI-R. Although the long form allowed for greater insight into each personality domain and was more reliable than the short form (Costa & McCrae, 1992a), the researcher used NEO-FFI after considering the respondents' education background.

NEO-FFI as the brief and comprehensive measure of the five domains of personality, took about 10 minutes to administer.

2.3.2. Defining the five factors

The definitions of the five factors were in accordance to Costa and McCrae (1992a). Through describing the individual's outlook on the five factors, researchers would be able to provide detail justifications of an individual's characteristics focusing on his/her emotion, interpersonal, experience, attitude, and motivation styles. According to Costa and McCrae (1992a), neuroticism (N) signified the contrast between adjustment or emotional stability and maladjustment or neuroticism. Individuals with high score of N were prone to have irrational ideas, less able to control impulses, and poor when coping with stress. In contrast, individuals with low scores on N were typically calm, relaxed, and capable of facing stressful situations without becoming upset (Costa & McCrae, 1992a).

Next, the extraversion (E) scale gauged the extrovert/introversion tendency in individuals. Extroverts were the prototypical assertive, active, and talkative. However, introvert individuals were more challenging to define. Introverts were considered as those that lack extraversion in their personalities.

Meanwhile, openness to experience (O) personality individuals were with active imagination, aesthetic, sensitive, attentiveness to inner feelings, preferences for variety, intellectual curiosity, and independence of judgment. High openness individuals were

leading experientially richer lives, entertained unconventional ideas, and experienced emotions stronger than the lower openness individuals. Low openness or closed individuals had a narrower scope and less intense interests. According to Costa and McCrae (1992a), both open and closed individuals played important roles in society and neither should be considered a negative aspect of self.

Next, agreeableness (A) factor was associated with interpersonal tendencies. High agreeableness individuals would be altruistic, sympathetic, and eager to help, while low agreeableness individuals would be antagonistic, egocentric, skeptical of others, and competitive. Neither of the extremes on this factor was ideal. High agreeableness person would not be suitable in many professions such as law and armed services. A narcissistic, antisocial, paranoid with personality disorder person was usually associated with low agreeableness person.

Lastly, conscientiousness (C) individuals were more prone toward planning, organizing, and carrying out tasks. High C scores were indicative of scrupulous, punctual and reliable person. High C person would exhibit tendencies such as being a workaholic or compulsively neat. Low C persons had lower moral standards and less exact in goal seeking (Costa & McCrae, 1992a).

2.3.3. Previous studies on personality and wellness

Personality appeared to be affected not only by biological and psychological factors, but also by social and cultural factors (Schimmack, Radhakrishnan, Oishi, Dzokoto and

Ahadi, 2002). The influential effect of personality was a function of its interaction with contextual factors (Barber, 1992), such as gender, socioeconomic status, age, and culture. Men and women were found to have differences in developmental and socialization patterns (Emery, 1982; Gilligan, 1982), and family economic status could shape the process of personality development (Bowles & Gintis, 2002). Using five factors of conscientiousness, extroversion, neuroticism, openness to experience, and agreeableness, gerontologists found personality differences among different age groups but there was no evidence to distinguish whether they were influenced by cultural demands, generational effects, or genetic factors (Costa & McCrae, 1990).

Biofeedback research and its application in stress management consistently indicated that mind and body were interrelated and interdependent: What one thought could produce physiological symptoms, and what one's body was feeling could direct one's thinking (Witmer, 1985). The perception that one's resources for coping were inadequate for the demands triggered a cascading set of physiological changes that, if chronically experienced, would lead to appreciable mental, physical, and emotional pain. Stress coping referred to cognitive and behavioral efforts to eliminate stressors, reduced the intensity of stressors, or reduced the emotional costs of dealing with stressors (Folkman & Lazarus, 1980).

Although individuals were essentially self-determining, purposive, and creative in responding to stressful life events, researchers found relatively stable individual differences in stress coping. Personality traits constituted one category of such stable

factors (Carver, Scheier, & Weintraub, 1989) where individuals pulled out the traits when dealing with stressful situations (Bolger, 1990). Folkman and Lazarus (1980, 1985) added people selected ways to cope with specific problems they were dealing and the contexts within the problems occurred according to their personality.

In addition, Costa and McCrae (1990), Houtman (1990) and Kozak, Strelau and Miles (2005) revealed in their research that certain personality types directly affect one's stress coping resources. Meanwhile Heikkinen (1986) and Lazarus (1993) reminded that some personality traits might lead to dysfunctional stress coping. Matheny and McCarthy (2000) summarized a series of research studies indicated personality factors often mediated the relationship between stress and illness, and the duration of a stressor had a greater effect on one's health than the intensity of the stressor. Therefore, due to the enduring nature of personality traits, they either might be the source of stress in a person's life or a buffer against stressful reactions which in the end influenced level of wellness.

Using a meta-analytic method, Friedman, Howard, and Booth-Kewley (1987) found certain emotions (anger/hostility, depression/ anxiety/ repression) to play a causal role in the development of diseases (i.e., chronic heart disease, asthma, ulcers, arthritis, and headaches). While some personality traits were found to be disease-prone, other traits were found to be coping resources that reduce stress. Witmer, Rich, Barcikowski, and Mague (1983) studied psychosocial characteristics and stress responses of 363 nonclinical adults aged 18 to 63 and found that optimism (the belief that good things are

likely to happen and when bad things happen they are likely only to be temporary) was the common characteristic of healthy copers. Under the same stressors, healthy copers had less anxiety and fewer physiological symptoms than poor copers.

Studying life events, health, and personality on 670 people, Kobasa (1979) found that people who were able to preserve good health amidst strong adversity and stress showed a stronger commitment to healthy life, a positive attitude toward the environment, a sense of meaningfulness, and a sense of internal control. She found the “three C’s” (challenge, commitment, and internal locus of control) accurately predicted well-being regardless of exercise and family medical history. Kobasa, Maddi, and Kahn (1982) studied the same population for over 5 years and found that psychological hardiness (perseverance and endurance) is related to the three Cs and decreased the likelihood of illness symptom onset.

Another moderator of life stress was the social interest as revealed by Crandall, 1984; was the significant indicator of an individual’s healthy personality (Dreikurs & Soltz, 1964) as well as the marker of an individual’s mental health (Sweeney, 1998). In various research conducted on the united states adult populations has disclosed positive connection between social interest with various psychological constructs such as self efficacy (Dinter, 2000), coping resources (Kern et al., 1996), internal locus of control and perceiving good in others (Leak & Williams, 1991), life satisfaction and psychological well-being (Rodd, 1994), and high expectations for success and satisfaction with one’s work and interpersonal relationships (Edwards & Kern, 1995).

Low social interest was associated with depression and anxiety (Fish & Mozdierz, 1991), narcissism (Joubert, 1998); feelings of alienation and loneliness (Brown, Consedine and Magai, 2005), external locus of control (Wheeler & White, 1991), and substance abuse (Keene & Wheeler, 1994). Social interest as a personality variable, then, was associated with good mental health and superior coping resources. The tendency to dominate or control others, which was an indication of lack of social interest, however, was associated with illness and lack of coping resources.

Personality was also tested in other positive psychology study focusing on the subjective well-being of individuals. McGillivray and Clarke (2006) described subjective wellbeing as the evaluation of life, including cognitive judgments of life satisfaction and affective evaluations of emotions and moods. In this context wellness was a holistic view of individual's wellbeing focusing at the process and the state of wellbeing of the individual. In subjective well-being study, Diener (1984) suggested the structure of subjective well-being was determined by the affective/emotional component (related to personality and stress coping) and the life satisfaction component (cognitive/judgmental component). Ryff and Keyes (1995) supported Diener when they suggested personality traits and stress coping resources should not be separable from the subjective well-being components.

Meanwhile Shapiro (2004) found that intrapsychic processes and individual personality traits served as coping strategies to buffer the influence of social experiences on both

self-evaluations and well-being. He further suggested that age and gender played a significant role in the differences of subjective well-being based on his comparison study between parent with adult children and parents with children less than 18 years of age. Accordingly, based on the study, it was imperative that both age and gender were considered for further study in future wellness research. Diener, Oishi, and Lucas (2003) found that personality and cultural factors explained a significant amount of the variability in subjective well-being.

Meanwhile Schimmack, Radhakrishnan, Oishi, Dzokoto, and Ahadi (2002) examined the effects of personality and cultural factors in the prediction of subjective well-being in the United States, Germany, Japan, Mexico, and Ghana. Their results suggested that the influence of personality on the emotional component of well-being was significant.

According to Adler (1927), human beings were holistic social beings. Therefore, to understand their personality factors that made individuals more resilient and resourceful, or more vulnerable to stress symptoms and diseases, it was pertinent to learn about human from a socially-embedded perspective through understanding the individual personality in individual, familial, and cultural contexts.

2.3.4. Concluding remarks on personality and wellness

Personality was a cluster of consistent traits that accounted for the individual's unique and consistent ways of thinking, feeling, and behaving (Adler, 1927/1954; Ansbacher & Ansbacher, 1967; Erikson, 1959). Personality traits were found to be long-lasting

throughout the human life period although individuals altered behavioral responses to accommodate the changing demands of work, friendship, and love (Adler; Sweeney, 1998). Unless he or she experienced psychotherapy, powerful life experiences, or the impact of brain injury or drugs, the individual's personality would not change (Adler). When the researcher tried to understand the determining factor or factors that influenced prison officers' wellness level, the researcher focused at the prison officers as the whole person.

Personality study was primarily concerned with examining separate traits that combined into a unique and individual pattern and made it possible to distinguish prison officers as individuals. Personality as viewed by Filsinger and Stilwell (1979) also involved the dynamics of the individual in a social context. They found additional support that different types of personalities existed and could be empirically discovered.

Presently, it was minimally known how or in what way personality traits of individual could influence his/her health; in this study specifically the prison officers. Previous research in forensic psychology and psychology in prisons focused more on studying illness and abnormality of prison inmates and prison officials such as prison warders and prison counselor but limited study was done on prison officers' human strength – on how they survived stress and maintained their wellness through the personality strength and positive view of stressful situations.

Vera-Villarroel, Sánchez and Cachinero (2004) suggested that there were some behaviors that were more dependent on personality variables than others. Also according to Edlin and Golanty (1988), research showed that particular personality characteristics were more dominant in certain health and wellness situations and caused the person to be more prone to such problems as heart disease and heart attacks.

Basically prison officers' lifestyles were influenced by his / her goals, values, interests, attitudes and self concept. Wurtele, Britcher and Saslawsky (1985) determined that individuals who most valued their health were reported to participate in greater number of health-promoting behaviors that were those who valued their health less despite strenuous work and workplace setting. Because personality was consistent, behavior was to some extent, predictable.

At the same time, experience caused modification of behavior, resulting lower self efficacy level, negatively viewing stress and perceived unfairness that resulted lower wellness. In the study, prison officers' personality traits which were five factor personalities and self efficacy trait played significant part in influencing their wellness level despite enormous work pressure and arduous workplace setting.

2.4. Prison officers' occupational stress

Stress was seen primarily as a physical trauma to which humans respond. More recently it was linked to physical events, as well as the appraisal of the events, which was a cognitive phenomenon (Jones & Bright, 2001). Prior, in early 19th century, Bernard

suggested that external changes in the environment could cause a disruption in a living organism (Noble, 2007). In order to adjust, organisms had to achieve stability of internal functioning and maintenance of vital balance in the *milieu interieur*.

A physiologist, Walter Bradford Cannon as cited in McEwen and Wingfield (2010) had developed Bernard's presumption through describing and researching the process of homeostasis (Ivancevich & Matteson, 1993; Jones & Bright, 2001). Then, in the middle of 20th century, a biologist and the leading light of stress concept, Selye (1956) was at first mesmerized with the concept of stress and homeostasis as described by previous researchers. He researched the physiological reactions to stress, as a non specific (wide range of stressors) response of the body to any demand made upon it. Then he defined the concept of stressor as any stimulus causing a stress response. If the stimulus did not abate, stress response would result the General Adaption Syndrome indication, causing damage on a physiological level (Selye, 1956).

There was considerable body of research showed evidences on client-centered professions as intrinsically stressful; inclusive of police officers (Maslach & Jackson, 1981b), school teachers (Schwab, 1986), psychologists (Cushway, 1992), as well as the nursing profession (Snelgrove, 1998). These researches also revealed factors such as job security (Fagin, Brown, Bartlett, Leary, & Carson, 1995), age (Moore & Cooper, 1996), perceived managerial support (Firth, McIntee, McKeown & Britton, 1986) and violence or threats of violence by a patient (Whittington & Wykes, 1992) were significant

variables in predicting occupational stress in individuals employed in people-centered professions.

Nikolaou and Tsaousis' (2002) research on healthcare professionals in a mental health institution discovered the job type such as medical, psychological, paraprofessional and administration personnel had an effect on the overall stress levels experienced by individuals in these occupations. Furthermore, Nikolaou and Tsaousis (2002) also reported job type might had a moderating effect on the relationship between personality and occupational stress as it was found that medical and psychological staff scored significantly higher in self efficacy and lower in occupational stress, than other occupations in the mental health context (e.g. paraprofessional and administration personnel).

2.4.1. The depiction of occupational stress

There had been many attempts by researchers in a number of publications, to accurately define occupational stress but yet there seemed to be no generally accepted definition thereof. This, however, did not reduce the importance of recognizing and managing occupational stress in the workplace that might threaten employees' health and wellness. Rees and Redfern (2000) had suggested that due to the lack of clarity related to the construct definition of occupational stress, it could easily occur that employers and employees were misguided by their own perceptions of the nature and causes of occupational stress, when involved in stress-related issues.

In occupational stress research, stress was generally defined in one of three ways (Jex, 1998). Firstly, stress was defined as a stimulus, indicating to the stimuli in the environment that might require some adaptive response on the part of an employee. Secondly, stress was defined as a response, implying to the feelings that an individual could experience when the demands of the job exceeds the individual's ability to cope. A third option would be to define stress as a stimulus-response, indicating stress referred to the overall process by which job demands impacted on employees. When stress was defined as stimulus-response, the term stressor was used to indicate the job or organizational conditions and strain was used to refer to a multitude of negative ways an employee responded when faced with different stressors. If an employee responded to a stressor in a positive manner, such a response would not be perceived as a strain (Jex, 1998).

Contrary to the definitions cited above, Cooper, Sloan and Williams (1988) described stress as a response to a situation in which individuals were unable to meet the demands placed on them, resulting in a negative outcome. They argued that this definition acknowledged the sources of stress and its effects were multiple and not limited to a particular situation. Henceforth, stress was viewed not just as a function of being under pressure in an occupational sense, but as a function of an individual's whole life situation. It included aspects intrinsic to the job; relationships at work; organizational structure and climate; role ambiguity and conflict; opportunities for career development and progression as well as the home-work interface (Cooper, 1996, Siu, Spector, Cooper, Lu and Yu, 2002).

Cooper and Marshall (1976) identified the following seven main categories of stressors which could impact on occupational stress, namely intrinsic factors of work (working environment, repetitive tasks, job overload); role in organization (role conflict, management support); relationships at work; career development; organizational structure & climate; external sources (family, life crises & financial issues); as well as individual characteristics (personality, levels of motivation, family support).

Other causes of occupational stress, which indicated an overlap with the categories identified by Cooper and Marshall (1976) included organizational stressors (insufficient administrative support, long hours, poor salary, procedures & policies, uncertainty and safety, organization type); work-related stressors (role conflict, role ambiguity, role confusion, overload, unrealistic job demands, limited input in decision making, supervisors, colleagues, lack of variety, poor communication, poor leadership, technology, interpersonal conflict); and task-related stressors (responsibilities, clients & subordinates, unclear tasks).

Similarly, Jex (1998) identified work place stressors such as role stressors, workload, interpersonal conflict, situational constraints, perceived control and traumatic job stressors.

Basically, most researchers had similar conception of stress. Therefore taking into consideration the prison service in Malaysia and the demands placed on these employees

by the public, this definition of stress by Cooper and Marshall (1976) was deemed appropriate in the sense that the demands placed on prison officers not only stemmed from their immediate work environment, but include a vast range of factors such as prison inmates' families, their own families and general work relationships.

Stehle (1981), in a review of findings on stress in a critical care environment, found many of the identified stressors were related to interpersonal relationships. Professional relationships on many occasions were also identified as sources of stress; inclusive lacking of effective direction and guidance from senior personnel in organizations. Firth and Britton (1987) supported this finding when they reported ambiguity issues pertaining to supervisor expectations, were associated with higher levels of burnout and professional depression among employees.

Subsequently, it might therefore be logical to assume that such individuals could possess a higher level of stress tolerance. Stress tolerance can be defined as the ability to withstand adverse events and stressful situations without falling apart by actively and positively coping with stress (Stein & Book, 2001). This ability is based on (1) a capacity to choose courses of action for dealing with stress (being resourceful and effective, being able to come up with sustainable methods, knowing what to do and how to do it); (2) an optimistic disposition toward new experiences and change in general and toward your own ability to successfully overcome a problem at hand; and (3) a feeling that you can control or influence the stressful situation by staying calm and maintaining control (Stein & Book, 2001).

Stress tolerance included having a series of suitable responses to stressful situations. It was associated with the capacity to be relaxed and composed and to calmly face difficulties without getting carried away by strong emotions. People who had a high level of stress tolerance tended to face crises and problems rather than giving in to feelings of helplessness and hopelessness.

Anxiety was commonly known to manifest as a result of inadequate stress tolerance. This could have a negative effect on general performance as it was known to contribute to poor concentration, difficulty in making decisions and somatic problems such as sleep disturbance (Stein & Book, 2001).

2.4.2. Models and theories of occupational stress

Kahn and Byosiére (1992) argued that all models of stress consists of a basic pattern or process, in that it includes a stimulus that activates a psychological response, which in turn determine a number of complex consequences in the individual's well-being.

Essentially, there was variety of models attempted to capture the dynamics of the stress construct. Theories of Occupational Stress such as the Person-Environment (P-E) fit theory (French, Caplan, & Harrison, 1982), Lazarus' Transactional Model (Lazarus & Folkman, 1984), Karasek's Demand Control model (Karasek, 1979), Role Stress Theory (Kahn, Wolfe, Quinn, Snoeck & Rosenthal, 1964), Stress Cycle Model (McGrath,

1976), Facet Model (Beehr & Newman, 1978) and Edwards' Cybernetic Model (Edwards, 1992) were familiar stress models.

In the study, occupational stress of prison officers was related to the Role Stress Theory by Kahn et al (1964) and Job Demand-Control-Support model (Karasek, 1979) where the earlier theory emphasized occupational stress centers on role expectations, which translated into role pressures. These role pressures then interacted with certain aspects such as the individual's personality, job overload, role conflict and role ambiguity, which then resulted in pressure being experienced by the individual. Such pressure often resulted in the activation of defense mechanisms and coping responses. The latter theory emphasized on the role of work content as the major sources of stress.

2.4.3. Previous studies on occupational stress and wellness

An individual's life was the result of a process in which one defined oneself while responding to demands from the social and physical environments (Adler, 1927/1954; Bowles & Gintis, 2003). The ability to cope effectively with stress was a major determinant of one's physical and mental well-being, and the personality variables were said by some to be the most important influences in appraising stress and coping methods (Diener, Oishi, & Lucas, 2003; Kobasa, 1979; Matheny & McCarthy, 2000).

Susan Folkman and Richard Lazarus (1980), however, found the influence of stressful situations overpowered the influence of personality traits in processing life demands. Employees working in modern organizations were frequently required to deliver

services and executed their functions in an increasingly complex, rapidly changing, and often competitive environment. Together with the increased national and international competitiveness, companies were constantly faced with shifting political, social and economic conditions as well as rapid technological developments and growing volumes of information.

Stressful work environments such as excessive workloads and responsibility without considering employees' skills plus low sense of control and lack of participation in decision-making were among the warning signs of increasingly stressful work environments.

Together with this, the employees' stress was often further compounded by the challenge of balancing work demands with the pressures of personal and family obligations, especially in the dual income home. According to Berridge, Cooper and Highley-Marchington (1997), work stress was a feature of current economic activity from which most individuals suffer at times and to different extents. In a positive sense, work stress could be a source of excitement and stimulus to achievement. In a negative sense it could seriously impair quality of work life, and reduced personal and job effectiveness.

Stress negatively affected sleeping patterns, communication effectiveness, and the ability to focus, overall mental clarity and decision-making ability (Cartwright & Cooper, 1997; Jex, 1998; Rees & Redfern, 2000). Previous research revealed the

inability to manage stress could jeopardize an employee's immune function to the point of increasing vulnerability to a variety of diseases (Bourey & Miller, 2001). There are a number of studies which aimed to explore the relationship between occupational stress and employee wellness (Bar-on, Brown, Kirkcaldy & Thorne, 2000; Gardner & Stough, 2003; Slaski & Cartwright, 2002).

2.4.4. Concluding remark on occupational stress and wellness

According to a national survey pertain to American workers (Spielberger and Vagg, 1999) individuals who report stress testify to reduced productivity, sought job changes, and experienced stress related illnesses (as opposite to wellness). Spielberger and Vagg (1999) describe those persons who felt their jobs were stressful indicated experiencing burnout and thought about quitting twice as often as those who did not report stressful jobs. In 1992, Sauter (1992) found that almost 600,000 workers were disabled due to psychological disorders, costing employers over five billion dollars annually.

Stress has also been shown to impair performance in the workplace due to wellness and health problems, absenteeism, job turnover, accidents, substance abuse, and other counterproductive behaviors. In such cases, the Prison Department may have to recruit and train replacements for prison officers who leave positions due to stress-related difficulties.

Whereas much attention has been given to the nature, causes and consequences of police officer stress, significantly fewer efforts have been targeted toward officers in prison

facilities. Specifically in closed isolated and “in constant danger” kind of workplace, prison officers are faced with a myriad of job-related stressors. Finn (1998) has categorized these stressors into three domains: organizational sources of stress, work-related sources of stress, and stress from outside the prison.

One organizational stressor is a high workload. It has been shown that higher workload for prison officer is related to an increased number of stress and burnout symptoms (Digman, Barrera & West, 1986).

A related stressor is understaffing, in which there are not enough officers available. Shortages in staff then result in the need for overtime among remaining staff (Finn, 1998). Many prison officers also complain of shift work, which can disrupt officers’ family lives and lead to fatigue and irritability (Cheeseman Dial and Johnson, 2008). Also, many prison officers experience a lack of autonomy, including aspects such as skill discretion and decision authority (Karasek & Theorell, 1990). In other words, prison officers who perceive themselves as having little control over the performance of job-related tasks experience fewer feelings of personal accomplishment (Schaufeli, Van den Eijnde & Brouwers, 1994).

In addition, lack of participation in decision-making has been found to be positively associated with job stress (Lasky, Gordon & Strebalus, 1986; Slate & Vogel, 1997). In fact, much research on stress in prison officers has found that administrative problems such as lack of officer participation in decision making and lack of administrative

support are more stressful than problems arising from interaction with prison inmates (Whitehead, 1989).

Another stressor faced by prison officers is underutilization of knowledge and skill. Schaufeli & Peeters (2000) state that many prison officers feel underutilized, particularly in institutions that focus on custody rather than rehabilitation.

Uncertainty is also another stressors faced by prison officers at work. Uncertainty is related to the threat of losing one's job as well as uncertain career prospects. Meanwhile, role-related difficulties such as role ambiguity and role conflict issues were another common stressors faced by prison officers. Role ambiguity occurred when prison officers were not provided with adequate information to be able to perform their job well. Role conflict occurred when prison officers were faced with conflicting demands, such as the roles of guarding prison inmates and facilitating their rehabilitation.

An additional work-related source of stress is the nature of contact with prison inmates. In a survey conducted by Whitehead (1989), revealed the number of hours per week of a prison officer's direct contact with prison inmates was positively correlated with the number of burnout symptoms reported. Digman et al. (1986), however, noted that the nature of contact was treated as the mediating factor, with more positive contact relating to feelings of accomplishment for the prison officers. Earlier, Shamir and Drory (1982) reported the threats of violent confrontation as well as other health risks were another pertinent work stressor faced by prison officers. They revealed 75% of their sample of

Israeli prison officers agreed on potential violence as the most stressful part of their work (Shamir & Drory, 1982).

In addition, many prison officers have difficulty with the unhealthy physical climate in their institution (Senol-Durak, Durak and Gencoz, 2006). Many prison officers experience stress due to the frequent demands and attempts at manipulation by prison inmates (Cheeseman Dial, and Johnson, 2008). Some prison officers may perceive their job as dull and routine (Philliber, 1987), which has increased over the past several years with the influx of other professional staff who have taken over part of the traditional role of prison officers (Fry, 1989).

Finn (1998) identified problems with co-workers as another source of stress for prison officers. Some co-workers may vent their frustration on others (Cheeseman Dial and Johnson, 2008). Also, officers may compete for limited assignments within the institution (Brodsky, 1982).

In addition, some co-workers may experience apprehension regarding whether other co-workers will protect them or back them up during confrontation (Brodsky, 1982). Grossi and Berg (1991) note the stress which stems from the dependence of officers on one another to work safely within the institution. An example of a stressor which generally originates from outside of the prison system is the low level of public recognition (Finn, 1998), as well as poor social status (Stalgaitis, Meyers & Krisak, 1982). Stress in prison officers has also been associated with low pay (Rosefield, 1981).

In recent years, several developments have resulted in increased stress for prison officers. For example, inmate crowding has increased in state prison agencies and an increasing volume of inmate assaults against staff (American Bureau of Justice Statistics, 1997). According to Martinez (1997), offenders are serving longer sentences, and therefore do not fear the punishment or authority of the prison officers. Martinez also argues that there are now more dangerous gangs in prison.

Research has developed mixed results regarding the relationship between prison setting and amount of stress experienced by prison officers. Whereas Van Voorhis, Cullen, Link, and Wolfe (1991) found that prison officers in maximum security settings tend to experience greater levels of job stress, Lasky et al. (1986) found that prison officers who were placed in various security levels did not differ in their level of distress.

2.5. Self efficacy and perceived fairness as possible mediator variables in prison setting

In this study, the researcher proposes self efficacy and perceived fairness as mediating construct variables. A mediator variable is a variable which explains all or part of the relationship between two other variables. Baron and Kenny (1986) further describe mediator variables as variables which “...explain how external events take on internal psychological significance”.

2.6. Self efficacy trait in prison setting

In this study, the researcher used General Self Efficacy concept instead of specific self efficacy as pursued by Bandura (1977) because the general self efficacy concept as proposed by Jerusalem and Schwarzer (1976) was regarded as one of the personal resource factors that counterbalance taxing environmental demands in the stress appraisal process. It was defined as a global confidence in one's coping ability across a wide range of demanding or novel situations.

Generalized self-efficacy, therefore, referred to a broad and stable sense of personal competence to deal effectively with a variety of stressful situations (Schwarzer, 1993). In relation to health and performance, personality and self efficacy contributed independently to criterion variability, and also interacted with each other. A substantial body of evidence demonstrated the incremental validity of the efficacy construct in the prediction of performance behaviors beyond ability and past experience (Bandura, 1986; 1997b). While research showing the self-efficacy performance link in the clinical and educational literatures had been established for some time, Stajkovic and Luthans (1998) had shown substantive meta-analytic evidence for the role of self-efficacy in work performance.

Behavioral change was facilitated by a personal sense of control. If people believed that they could take action to solve a problem instrumentally, they became more inclined to do so and felt more committed to this decision. While outcome expectancies referred to the perception of the possible consequences of one's action, perceived self-efficacy

pertained to personal action control or agency (Bandura, 1992). A person who believed in being able to cause an event could conduct a more active and self-determined life course. This "can do"-cognition mirrored a sense of control over one's environment. It reflected the belief of being able to master challenging demands by means of adaptive action. It was also regarded as an optimistic view of one's capacity to deal with stress. In this sense, self-efficacy was clearly an individual's expectation or belief that he/she would successfully complete a specific task or job, based on the judgment of his/her ability to bring into action the necessary cognitive, emotional and behavioral requirements to complete the task or job.

Meanwhile task-related efficacy beliefs influenced the choices people make, their aspirations, how much effort they mobilized in a given endeavor and how long they persevered in the face of difficulties and setbacks (Bandura, 1991). These beliefs also determined the ability to cope with stress and depression. In a nutshell, self efficacy predicted performance and coping behavior (Bandura, 1986) and, as such, operated as a mediating variable between environmental demands and performance, and might therefore serve as a mediator between occupational stress, personality and employee wellness.

The extent of self-efficacy perceived by the individual would determine how much effort the person would expend and for how long he/she would persist with his/her effort in order to attain a specific outcome. Hence, self-efficacy affected the way the person felt, his thought and action (Bandura, 1992). Feelings of depression, state anxiety and

helplessness, pessimistic thoughts, low self-esteem, and poor motivation, proneness to self-doubts, threat appraisals and perception of coping deficiencies, were often associated with low self-efficacy (Jerusalem & Schwarzer, 1992; Schwarzer, 1992).

High self-efficacy was related to a strong sense of competence, which was motivating and encouraged the person to invest more effort into more challenging tasks. A strong sense of self-efficacy had also been associated with better health, higher achievement, and better social integration (Schwarzer, 1992). Self-efficacy could vary along three dimensions, namely (1) magnitude, the perceived difficulty or threat of the task to be attempted; (2) generality, the range of the tasks and contexts affected by a particular expectancy; and (3) strength, the extent to which the person would persevere in his effort, despite disconfirming experiences, based on the resoluteness of his conviction that he could do it (Bandura, 1977).

Individuals with high self-efficacy chose to perform more challenging tasks. They set themselves higher goals and stick to them (Locke & Latham, 2002). Actions were pre-shaped in thought, and people anticipated either optimistic or pessimistic scenarios in line with their level of self-efficacy. Once an action had been taken, high self-efficacious persons invested more effort and persisted longer than those with low self-efficacy.

When setbacks occurred, they recovered more quickly and maintained the commitment to their goals. Self-efficacy also allowed people to select challenging settings, explored

their environments, or create new environments. In other words, Bandura (1982) referred to self-efficacy as the individual's conviction of being able to master specific activities, situations or aspects of his or her own psychological and social functioning. From this perspective, self-efficacy was seen as being domain specific; referring to the fact that one could have more or less firm self-beliefs in different domains or particular situations.

Also, according to the social cognitive theory, a person's motivation to perform within a job that entailed increased responsibilities for decision-making (both in respect of operational control and the selection and application of appropriate knowledge and skills) would be influenced by beliefs about one's ability to exercise self-regulatory responsibilities. Burr (2001) referred to this set of self-regulatory beliefs as self-management efficacy. There was some empirical evidence to support the assertion that self-management efficacy beliefs mediated the relation between job design perceptions and performance.

2.6.1. The generalized self efficacy

Basically, self-efficacy was commonly understood as being domain-specific; that was, one could have more or less firm self-beliefs in different domains or particular situations of functioning. However, some researchers had also conceptualized a generalized sense of self-efficacy that referred to a global confidence in one's coping ability across a wide range of demanding or novel situations. The concept of generalized self-efficacy was formulated by Schwarzer (1992, 1993) and it was regarded as one of the personal

resource factors that counterbalance taxing environmental demands in the stress appraisal process.

Generalized self-efficacy, therefore, referred to a broad and stable sense of personal competence to deal effectively with a variety of stressful situations (Schwarzer, 1993). As stated previously, generalized self-efficacy differed from self-efficacy as conceptualized by Bandura (1977) in the sense that it took a global view of one's coping abilities in a wide variety of situations whereas self-efficacy was more domain-specific looking at one's coping ability in specific situations. In the current study, self-efficacy would be conceptualized from Schwarzer's (1992) perspective.

This meant the stronger the sense of self-efficacy, the bolder the behavior of the individual would be. An individual who was strong in self-efficacy was more likely than someone with a weak perception of self-efficacy to be motivated to do things competently and be spurred on to great efforts in the face of adversity. The person also would withstand failures by viewing tasks as challenges and deployed attention and effort to the demands of the situation. Being a uni-dimensional scale, the overall score reflected the general level of self efficacy. A high score indicates a low sense of self-efficacy, whereas a low score represents a high degree of self-efficacy.

2.6.2. Previous studies on self efficacy and wellness

While the researcher found limited empirical studies investigating the relationship between self-efficacy and wellness, both theory and literature suggest a significant

relationship. Bandura (2005) wrote that self-efficacy was a requisite of self-regulatory behavior, the foundation of physical health. This is based on the assumption that health practices stem from one's belief in his or her ability to exercise control of overall personal well-being. Bandura (1986) also proposed that individual's attribution of their physical status to their own locus of control assisted in self-regulation based on perception of ability to change.

Locus of control—a component of wellness according to Hattie and colleagues (2004) was core to both efficacy and self-regulatory behavior. Self-regulation was necessary for initiating and maintaining healthy behaviors and lifestyle habits such as exercise, nutritional intake, and stress management. It was also shown to mediate physiological coping of stressors and threats (Wiedenfeld et al., 1990). In pain management studies, individuals received instruction designed to raise self efficacy such as pleasant imagery, attention diversion, and muscular self-relaxation.

The results showed an increase in efficacy for dealing with pain and consequently increased individuals' pain threshold and pain tolerance (Bandura, 1986). Bandura (1986) noted numerous studies depicting the increased promotion of health (such as lower cholesterol, exercise and cardiovascular capacity, lower arterial plaque concentration) for individuals who had been trained for self-regulation through a self-management system model.

In this model, Bandura described the process of teaching individuals how to establish goals, identify behaviors that would support the goals, and then regulate and monitor themselves in order to attain the health goals. The self-management trainees were then compared to individuals in control groups not receiving the intervention, but receiving medical care. Bandura (1986) then revealed the self-management system was more effective in reducing risk factors and increasing cardiovascular functioning than the common medicinal care. He (1986) also ascertained that this regulatory functioning was impossible without the efficacy expectations of the individual underlying their ability to set goals and self-manage.

Wiedenfled and colleagues (1990) explained that stressors impair the individual's immune system over time, increasing the likelihood of illness, fatigue, or stress related disorders. In relation to self-efficacy and immune functioning enhancement versus compromise, they contended that people who believed they could exercise control over potential threats did not conjure up apprehensive cognitions and were not stressed by them. But those who believed they could not manage threats experienced high levels of stress.

After perceived coping self-efficacy was strengthened to the maximal level, coping with the previously intimidating tasks no longer elicits differential physiological activation. Bandura (1986) also concluded that individuals with low self-efficacy experience greater stress, despondency, depression, and anxiety, while those with high self-efficacy were more able to cope with stress and reduced displayed autonomic response. Bandura

(1986) further described the effects of perceived self-efficacy in relation to pain relief, especially for persons suffering from chronic pain. He contended that individuals with high self-efficacy used skills that they possessed for pain amelioration, and because they believed they could cope with the pain they had a reduction in anticipatory reactions that exacerbated pain.

Self-efficacy might further help with pain management as the individual became more focused on problem-solving and utilizing skills rather than focusing on discomfort (Bandura, 1986).

In another study of Black college students' readiness to be physically active, Kelley and colleagues (1998) found that women and freshman were less likely to be physically active. The researchers suggested reasons for students to be physically inactive. They stated that low or no activity was the possible result of multiple factors, or a combination thereof, beginning with individual's confidence in the ability to engage in regular physical activity namely self efficacy (Kelley et al, 1998). Strategies indicated by the authors for increasing physical activity included increasing efficacy expectations for exercise (Kelley et al., 1998).

In 2003, Bandura and colleagues posited that self-efficacy fostered positive affective and behavioral functioning that enhanced individual's ability to connect with others and conveyed a welcoming attitude facilitative of positive relationships. The relationship between social wellness and self-efficacy demonstrated that emotional self-regulation

was tied to the ability to establish supportive relationships, a further mediator of stress (Myers & Sweeney, 2004; 2005; 2008).

Meanwhile, Martin, Easton, Wilson, Takemoto, and Sullivan (2004), found that emotional intelligence (a third order factor under the second order factor of creativity), was a significant predictor of counseling self-efficacy in counseling graduate students. Emotional intelligence was described as being able to identify one's own emotions, expressing emotions adaptively, and using emotions in effective problem solving. Emotional intelligence promotes interpersonal and intrapersonal understanding—skills inherently necessary to counselors (Martin et al., 2004).

Another interesting study by Fernandez-Ballesteros and colleagues (2002) linked self-efficacy to gender (a third order factor in the Indivisible Self Model) when they found that women have had historically lower self-efficacy. The study authors proposed that this may be due to females being afforded less political access historically. This is of particular importance in the counseling profession because the majority of counselors in training are female (Fernandez- Ballesteros et al., 2002).

2.6.3. Concluding remarks on self efficacy and wellness

In this study, the researcher examined self efficacy as putative mediation between employee personality, occupational stress and employee wellness. Self-efficacy construct implied a defending result during and when muddling through various difficulties at work. Self efficacy as the belief in an individual's competence in

confronting with daily challenges would motivate to engage in constructive ways of coping.

Thus, self-efficacious prison officers would perceive the objective demands of daily work as being less threatening than those prison officers did who harbor self-doubts about their professional performance. Successful adaptation to stressful demands, in turn, would prevent the emergence of excessive stress and enhance health and wellbeing of prison officers. Although this theoretical assumption of mediation was generally accepted by most authors, one found hardly any formal tests of mediation in the literature specifically in prison work setting in Malaysia.

2.7. Perceived fairness in prison Setting

Perceived fairness was a core value in organizations (Bernerth, Field, Giles and Cole, 2005). Organizational justice referred to fairness in the workplace (Greenberg, 1990), and in particular, employees' perceptions of fairness and how fair treatment influenced other employee work-related variables (Moorman, 1991). "Research on organizational fairness had been guided by the notion that employees who believe they were treated fairly would be favorably disposed toward the organization and engage in prosocial behavior on behalf of the organization" (Barling & Phillips, 1993).

Brockner and Siegel (1996) described three major waves of justice research over the past three decades. The initial wave focused on distributive justice, in which the concerns were related to the fairness of outcomes of resource allocation such as pay and

promotions. Procedural justice was the thrust of the research during the second wave. Procedural justice concerned the fairness of the process in distribution of outcomes and the interpersonal behavior accorded to the recipients by those who implemented distribution decisions (Brockner & Siegel, 1996).

Thibaut and Walker (1975) described process control as input or voice by recipients into the process and decision control as input regarding how the decision was carried out. “The second wave of research sought to disentangle the effects of procedural and distributive justice. Recent research had shown distributive justice was more important than procedural justice in influencing people’s satisfaction with the result of the decision, whereas procedural justice was more important than distributive justice in determining their evaluations of the parties or the institution that enacted the decision (Brockner & Siegel, 1996, p. 391). The third and current wave evaluated the joint interactive effects of distributive and procedural justice on people’s reactions to a decision (Brockner & Siegel, 1996).

2.7.1. Previous research on perceived fairness

Three separate meta-analyses concerning fairness and organizational justice studies were reported in the literature in 2001. Results from each of the studies offered synopsis of the justice research over the past three decades. Cohen-Charash and Spector (2001) conducted a meta-analysis of 190 studies of the correlates of organizational fairness. They defined organizational fairness as distributive, procedural, and interactional

justice. The investigation was “guided by the topics that occupied organizational justice researchers thus far” (Cohen-Charash & Spector, 2001).

Justice perceptions were influenced by the outcomes one received from the organization, organizational practices, and perceiver characteristics. Work performance, extra-role behavior, counterproductive behavior, and attitudes and emotions were considered to be outcomes of justice perceptions.

The relationship between these outcomes and organizational justice was examined in a variety of ways. Results of the outcomes that influenced justice perceptions were: a) organizational outcomes influenced justice perceptions positively or negatively depending upon the organization’s fairness in distribution (distributive justice); b) organizational practices affected justice perceptions through the fairness of procedures used by the organization (procedural justice); c) organizational practices also affected justice perceptions through the quality of treatment and explanation one received from organizational authorities (interactional justice) (Cohen-Charash & Spector, 2001).

However, perceiver characteristics were found to have little effect on justice perceptions where regardless of age, gender, race, education level, and tenure, people tend to perceive justice similarly (Cohen-Charash & Spector, 2001). Also, negative affectivity was negatively related to procedural and interactional justice (Cohen-Charash & Spector, 2001). Results of outcomes were influenced by justice perceptions include: a) work performance was related to procedural justice but not distributive justice; b) work

performance showed a weak relationship with interactional justice; c) distributive, procedural, and interactional justice were all related to organizational citizenship behaviors; d) distributive and procedural justice were related to counterproductive work behavior; e) job satisfaction was related to all three justice types as was trust in management; and f) trust in supervisor was better related to procedural justice than distributive justice (Cohen-Charash & Spector, 2001).

Finally, the distributive, procedural, and interactional justice was strongly related yet distinct constructs (Cohen-Charash & Spector, 2001). Colquitt, Conlon, Wesson, Porter, and Ng (2001) conducted a meta-analysis of 183 studies in which they selected studies published beginning in 1975. Thibaut and Walker (1975) were credited with introducing procedural justice in 1975 through their work in the legal arena with dispute resolution procedures. They suggested that dispute resolution occurred in two stages, a process stage and a decision stage. “Disputants viewed the procedure as fair if they perceived that they had process control (i.e., control over the presentation of their arguments and sufficient time to present their case). This process control effect was often referred to as the ‘fair process effect’ or ‘voice’ effect (Folger, 1977; Lind & Tyler, 1988) and it was one of the most replicated findings in the justice literature” (Colquitt et al., 2001).

Leventhal, Karuza, and Fry (1980) extended the procedural justice research into organizational settings by adding six criteria as determinants of fair procedures—accuracy, representativeness, bias suppression, consistency, ethicality, and correctability (Colquitt et al., 2001). Colquitt et al. (2001) examined organizational justice as a four-

dimensional construct consisting of distributive, procedural, interpersonal, and informational justice.

Some researchers viewed interpersonal justice and informational justice as two separate dimension of interactional justice (Greenberg, 1990). Interpersonal justice referred to personal treatment such as politeness, dignity, and respect, while informational justice was the explanations provided about why certain procedures were followed (Colquitt et al., 2001).

Hauenstein, McGonigle, and Flinder (2001) conducted a meta-analysis that examined the relationship between procedural and distributive justice. Since procedural justice was introduced in 1975, only studies occurring from that date forward reporting a correlation between procedural and distributive justice were included. Ninety-four correlations from 63 qualifying justice studies were examined in the meta-analysis. Results of the meta-analysis showed a strong correlation between procedural and distributive justice (Hauenstein et al., 2001).

2.7.2. Concluding remarks on unfairness at work and wellness

Outcomes associated with perceived fairness or organizational justice inclusive of deviant behavior (employee theft), organizational commitment, organizational citizenship behavior, employee withdrawal behavior (absenteeism and turnover), job performance, job satisfaction (Cohen-Charash and Spector, 2001, Colquitt et. al., 2001). Two meta-analysis study found that distributive justice, procedural justice and certain

interactional justice were all associated with many of the outcomes listed above (Cohen-Charash and Spector, 2001; Colquitt, et. al., 2001).

Associations were in predicted directions: high level of perceived fairness high job satisfaction, high performance, low withdrawal, fewer counterproductive behavior, high organizational commitment and more organizational citizenship behavior. These findings indicated that exposure to organizational injustice is associated with consequences similar to those resulting from occupational stressors.

Exposure to various types of occupational stressors had been found to affect employees' performance (Beehr, Jex, Stacy, & Murray, 2000), job satisfaction (de Jonge, Bosma, Peter, & Siegrist, 2000; Tetrick, Slack, Da Silva, & Sinclair, 2000; Zivnuska, Kiewitz, Hochwarter, & Perrewew, 2002), and withdrawal behaviors (Bakker, Demerouti, de Boer, & Shoufeli, 2003; Zivnuska et al., 2002). These findings suggested that low levels of organizational justice acted as an occupational stressor and had detrimental effects on employee health and well-being.

While an extensive literature had documented the impact of justice on employee attitudes, there was virtually no systematic understanding of its impact on employee health. It should be noted that organizational justice research focused predominantly on employees' perceptions of injustice.

As discussed above, organizational justice research identified various criteria against which individuals evaluate the fairness of their situations. For distributive justice, employees compared their own input-to-output ratio to similar others (Adams, 1965). For procedural justice, employees perceived a procedure to be fair if they had an opportunity to voice their opinions (Thibaut & Walker, 1975) and considered that rules were applied consistently, personal biases were suppressed, all relevant parties were involved in the process and so on (Leventhal, 1980). Interactional justice was in place if employees were treated with respect and sincerity (Bies & Moag, 1986). Ronald Cohen (1986) pointed out the dangers of defining justice exclusively as a matter of perception or, the opposite position, as solely an objective condition.

Since the justice/injustice of a particular situation could only be known through individual experience, pursuing “objective” injustice risked replacing the focal person’s experience with that of an observer’s. On the other hand, assuming that injustice existed only in the eyes of the beholder could easily discount the harm done by social forces. In this study, the researcher did not intend to identify the existence of absolute or universal criteria for justice. However, it was assumed that individuals had their own standards of fairness and that they were able to indicate how much their standards were violated.

Fairness, as used in this study, measured the extent of this violation from personal standard. Although study participants were not explicitly asked to indicate their standards of fairness, they were asked to assess the extent to which certain behaviors

and conditions existed at their workplace. These behaviors and conditions were identified as the important components of fairness at the workplace.

2.8. Underpinning theories of the proposed framework

Several psychological theories address the promotion of wellness or to some extent stipulated the way towards wellness. The main psychological theories to relate frontline employees' wellness, their personality, their experience of work stress, their inner strength of self efficacy and their perception of fairness in prison / correctional work setting are Ludwig von Bertalanffy's (1968) the General System Theory, Alfred Adler's the Theory of Individual Psychology (1931, 1954) and theories on Positive Psychology (Psychology of Positive Human Functioning by Martin Seligman and Mihalyi Csikszentmihaly (2000).

All of these theories are used to understand the epistemological, ontological and ethical inclusive of the philosophical foundations and paradigm perspectives of this research. Essentially, Ludwig von Bertalanffy's (1968) General System Theory (GST) is the underpinning theoretical structure of this study. The GST explains comprehensive and complex interaction process between all subparts of the whole system and any possible interaction emerges from the interaction may affect one another in the system. Meanwhile Alfred Adler's (1931 1954) Individual Psychology Theory explains the prison officers' the systemic concept of wellness. Meanwhile theories and paradigms on Positive Psychology explain on how people stay healthy from the perspective of human strength (Antonovsky, 1987; Seligman, 2000; Wissing and Van Eden, 1997).

2.8.1. The General System theory

Friedman and Allen (2011) insinuated that biopsychosocial assessment and relevant intervention strategies for a particular client should entail consideration of the individual with regard to larger social context specifically in social work and psychology studies. Relevant to this outlook, General Systems Theory principles and concepts as proposed by Ludwig von Bertalanffy (1968) were utilized to explain the increasingly complex systems that encompassed the individual-in-environment (Friedman and Allen, 2011).

In this study, the General Systems Theory principles and concepts were employed to investigate individual frontline prison employee's wellness with regard to prison workplace as the environment. Through General Systems Theory, the researcher anticipated to grasp and appreciate the components and dynamics of prison officers as the individual in the prison workplace as the systems in order to interpret problems and develop balanced intervention strategies, with the goal of enhancing the "goodness of fit" between these individuals and their environments.

The General Systems Theory as described by Ludwig von Bertalanffy (1968) was an approach to reflect interactions within a system. This theory contradicted to Newtonian method where the Newtonian method separated an object into its component parts and trying to understand the behavior of the object by understanding the properties of the individual parts while ignoring their relations. General System Theory was expanded

based on the notion of holism and theological derived from Aristotle's concept of cosmos quoting "the whole is more than the sum of its parts" (Hofkirchner, 2005).

Principles of the theory were established from the notion that entities could not be described or understood from their separate parts but only when regarded as an entire unit. Bertalanffy named the idea as "Allgemeine Systemlehre" translated as the General System Theory (Hofkirchner, 2005). The theory that applied the idea of general organization rules applicable to diverse phenomena was born. Therefore, the appropriateness of applying General Systems Theory as a theoretical structure in explaining the comprehensive and complex interaction process in real world was obvious since it cut across "weltanschauung" concept where the theory viewed epistemological, ontological, and ethical implications altogether (Hofkirchner, 2005).

The foundation of GST stood on the 3 main principles which were i) "arrangement of certain components so interrelated as to form a whole" (Hofkirchner, 2005) and ii) "unity through diversity" and iii) "each part reflects the whole". These grounds described Bertalanffy (1968) structural and dynamic assumptions that served as the unifying theoretical construct for all of the sciences.

Since, Bertalanffy's (1968) idea and interest were fixated on the interconnectedness between humanity and the surroundings, thus accordingly, this theory was regarded as an appropriate theory in dealing with complexity in human studies (Hofkirchner, 2005). Obviously this theory that highly professed inherent humanistic and ethical qualities

through positive reception of human beings and their inter-dependency with one another and the surrounding environment (Hofkirchner, 2005). Therefore this theory was definitely relevant with wellness research that promoted holistic approach where it recognized a person as subsystem that always interacted constantly with other subsystem in greater contextual environment.

In fact, previous researchers (Jasnoski & Schwartz, 1985; Seeman, 1989) had comprehensive models of health incorporating the principles of system theory. These researchers also indicated that people were whole units inclusive of themselves and their environment. The psychological state of an individual could not be separated from emotional, social or cultural contexts (Pettit, Kline, Gencoz, Gencoz, and Joiner, 2001).

Humans (as a system) had a drive toward, and wisdom regarding their own health, and they reacted to feedback to maintain a range of homeostasis. Since human were able to lead harmonious internal and external lives, psychology needed to help individuals found and released those constrains that blocked access to their inner resources and wisdom. When individuals tapped into these inner resources, they enhanced their internal systems, causing movement towards more effective interactions with their external environments and, ultimately, towards total wellness. When the individual system functioned well (when the parts are relating harmoniously) the individual parts still existed, each with its own identity, but they were so coordinated in that they functioned as a unit.

Bearing in mind the general system theory, it might be argued that the wellness of the individual interacted with (or depend on) the bigger context in which the person functioned. It implied that one dimension or subsystem(s) of the individual, like work for instance, interacted with all other dimensions like the physical or emotional ones in its functioning (Adams, Bezner and Steinhardt, 1997). This indicated individual wellness needed to be approached from a holistic and systemic view.

Therefore the research incorporated the philosophical foundation of the general system theory. It made researchers realized the fact that wellness should incorporate all dimensions of humanness within the bigger contextual system. In this study, prison officers' wellness was researched in a prison workplace as contextual setting that implied the influence of other systems as well.

2.8.2. Individual psychology theory, positive psychology and psychofortology paradigm

i) Individual psychology of Adler

This present study used theory of Adler (Adler, 1931) because its aims, structure and paradigms were in accordance to the optimization of human development. Adler (as cited in Myers & Sweeney, 2004) believed strongly in the importance of society. He also believed that an individual was free and responsible and was able to contribute to the good of society. Besides, according to Adler, the demands of society were indivisibly bound up with the logic of humanity's communal life. Basis of communal life was equality of all individuals (Myers & Sweeney, 2004).

Adler strongly advocated on the individual functioned as an integrated whole when he acknowledged the unity, coherence and uniqueness of the personality and human functioning in question (Corsini & Wedding, 2005). He affirmed on the optimum manner to comprehend and explain individual functioning and personality was through looking at it as a whole (Myers & Sweeney, 2004).

Sweeney's (1998) statement corresponded to Adler's when he declared ways to promote equality and social interest was through co-operation, responsibility and social democracy. Therefore the interest of the individual and the group should be considered to promote optimal health. The viewpoint that a person could only be a person through others and that a person's existence was relative to society was central to the humanistic paradigm (Jung, 1960). Adler viewed a sense of competence and belonging was the key to happiness (Adler, 1927 as cited in Myers & Sweeney, 2004). Each person was born with the natural desire to belong to a group and to contribute to the growth and well-being of that group (Adler, 1927 as cited in Myers & Sweeney, 2004).

The ability to pursue meaningful relationships and contribute to society was not automatic and it had to be consciously developed (Adler, 1927). Therefore promoting and developing social interest was important in studies of wellness. Creating feelings of belonging and social relationships (sense of community) at work was equally important as it incorporated the wellness of individuals in the organization as the community. The individual psychology of Adler (1927, 1931) could be applied to understand the

intellectual climate for studies on wellness. The paradigm perspective of this theory provided the conceptual framework to develop wellness models.

Since Adler's viewpoint on human behavior was the result of the interaction between a person (in this study, prison officers) and his/her environment (in this study, prison as work setting); therefore it was pertinent to regard the person fully through his/her interpersonal and social contexts and how he/she interacted through the surroundings. Adler's viewpoint was conceptualized, supported and materialized through the Indivisible Self Model by Myers and Sweeney (2004). The wellness model considered, integrated and embedded the social environment of a person as affirmed by Adler (1931). Considering of its relevance, it was therefore used in the present study on prison officers' wellness in prison setting model.

ii) Positive psychology and psychofortology paradigm

Positive psychology was about the paradigm of human strengths as coined by Martin Seligman. As part of this movement, the underpinning of wellness theories was based on salutogenesis paradigm. The first research perspective of the salutogenic paradigm was traced back to the work of Antonovsky (1979, 1987). As the pioneer of salutogenesis (Latin *salus* = health combined with Greek *genesis* = to produce) meaning the origins of health, he proposed the study of health instead of disease. Antonovsky (1974) realized that there must be something, in experiencing disaster that might hold the development of pathological responses in check. Despite being bombarded by many stressors and

undergoing severe traumatic experiences, some individuals coped well and stayed healthy.

This stimulated Antonovsky (1987) to investigate what was called the general resistance resources that helped to make sense of countless stressors. This could be any physical, biochemical, cognitive, emotional, value-adding, interpersonal and macro-socio-cultural attribute of individuals, sub-cultures or society that helped with effectively coping with a wide variety of stressors (Antonovsky, 1974). Theory assumed stress producing experiences were ubiquitous and individuals had access to an array of resistance resources enabling them to cope with stress resulting in undue harm (Antonovsky, 1994; Coetzee, 2004, Strümpfer, 2002).

Antonovsky thought of it in terms of a continuum of dis-ease/health-ease. The approach promoted movement toward the healthy end of the continuum. It was a disposition that presumes to engender, sustain and enhance health as well as strength, at other endpoints. Various researchers introduced constructs in support of the development salutogenic orientation such as health locus of control (Wallston, Wallston, Kaplan and Maids, 1976); self-efficacy (Bandura, 1977); potency (BenSira, 1985); hardiness (Kobasa, 1979); stamina (Thomas, 1981; Colerick, 1985) and learned resourcefulness (Rosenbaum, 1989).

Later, Strumpfer (1995) followed Antonovsky idea but expanded the paradigm to focus on the strengths of human beings. The paradigm termed as fortigenesis (Latin fortis =

strong and genesis = to produce) was proposed to include sources of strength (Strumpf, 1995). The sources or origin of strengths was viewed from the holistic perspective to study positive human behavior than only focus on the physical health of individuals.

Another follower of the paradigm, Wissing and Van Eden (1997) refined the application of fortology to be used in psychology and named it psychofortology, the science of psychological strengths. These researchers also contended on the nature, manifestations and consequently the ways to enhance well-being need to be studied. The science of positive psychology contributed to the enhancement of the quality of life of normal people, or of people who lived under relatively normal circumstances, but also to the lives of people suffering, by consciously recognizing, respecting and helping them with their pain and sadness.

Furthermore, it enhanced people's lives by identifying those marvelous strengths people had, and by amplifying and nurturing these so that their strengths could help them to buffer and protect them in difficult times. Seligman and Csikszentmihalyi (2000) were of the opinion that major strides in prevention will be made from the intervention of systematically building competence, rather than only trying to correct weaknesses.

2.9. Concluding remarks of the study

In order to ensure prison officers' wellness remained intact in stressful environment of prison setting, they as individuals should sensibly handle or conduct themselves

accordingly. With specific personality domains (explained through neuroticism, extraversion, openness to experience, agreeableness and conscientiousness domains), these officers should make plausible full use of their own individual characteristics or personality so that they would survive working in the prison.

These prison officers should also hold particular attribute which was self efficacy as booster to enhance the relationship between prison officers' personality, their occupational stress and wellness. Furthermore, another pertinent component, prison officers' perception of fairness also was featured in this present study. Perceived fairness functioned as "the conciliator" on the relationship connecting personality, occupational stress and wellness. Within stress situation at work, prison officers as individuals were reliant on their self efficacy character and their perception of fairness towards Prison Department of Malaysia to ascertain untainted wellness.

Thus this present study indicated that organizations that lack people high in certain psychological dispositional characteristics might have difficulty to successfully implement organizational development interventions that should improve the health and wellness status of the employees. Therefore, before the organization used in this research specifically implements health and wellness programs for prison officers on a broader basis or in more departments in their organization, it might prove useful to first consider the non-work factor (personality) and psychological disposition characteristics (such as self efficacy) of the employees in the rest of the organization as well.

Nevertheless, it was not suggested that the psychological disposition characteristics and personality of the individual were the only determinants in ensuring high level of wellness. Other factors such as perceived fairness would be useful in planning and implementing any intervention to enhance and maintain high wellness level among prison officers.

2.10. Hypothesized model integration

2.10.1. Research framework

The research framework of the study was developed to conclude the literature review discussion on prison officers' wellness model as explained in earlier section. In the light of the argument in the literature review, a hypothetical model was developed to answer the research questions.

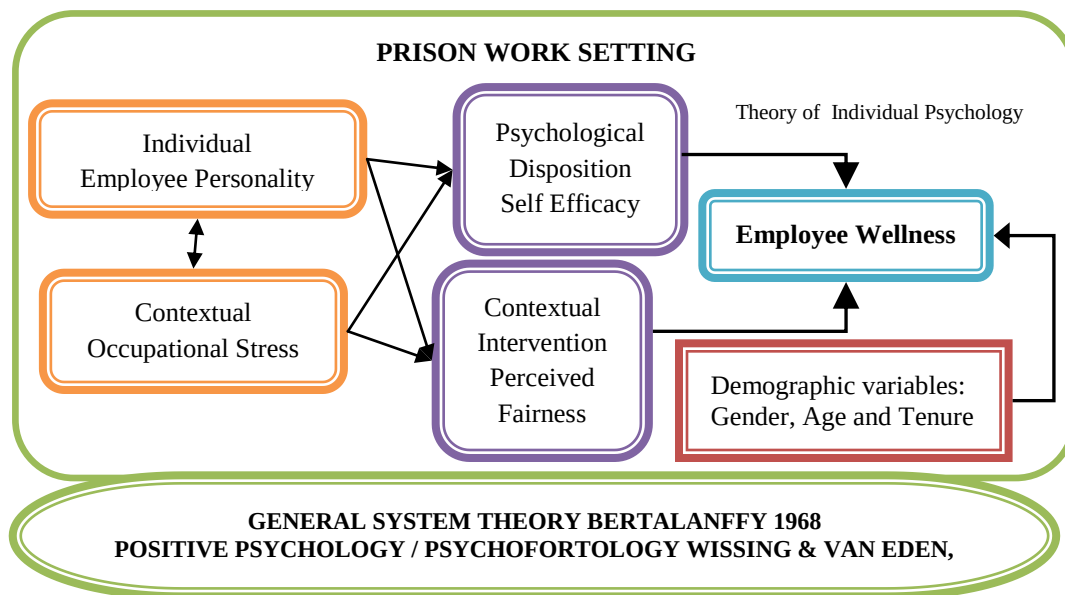


Figure 2.1. Research framework

2.10.2. Research hypotheses

From the empirical objectives mentioned in Chapter One, the following hypotheses for the empirical investigation were formulated. Different sub-hypotheses were formulated first to test correlation between independent variable, mediating variable and dependent variable on a bi-variate level. Then an integrative hypothesis was ultimately formulated where a multivariate approach was followed in predicting employee wellness at work model. Based on previous research and theory as presented before, hypotheses of the research were divided into three sections namely, Section A (hypotheses from Differential aspect), Section B (hypotheses from Correlational aspects), Section C (hypotheses from Mediating aspect) and Section D (hypothesis on Effect).

Section A: Hypotheses from differential aspect

While the major focus of the study centered on the wellness of prison officers as criterion variable, occupational stress and personality as independent variables whilst psychological disposition (self efficacy) and management intervention (fairness) variables as mediating variables, it was recognized that the relationship between employee wellness, personality and occupational stress could differ based on the demographic variables (those of not major focus). These demographic variables included gender, age, and tenure. In previous studies, some researchers considered a number of demographic variables such as age, gender, tenure, department and location size (Shurts, 2004).

Marini (1990) revealed there were differences of roles, personality, attitude and behavior between male and female due to biological and social influences. Subsequently, researchers found female prison officers reported more work related stress than their male counterparts thus might deteriorate their wellness (Cullen, et al., 1985; Zupan, 1986). However, other study revealed mix results when they demonstrated no significant gender differences for prison officer stress (Triplett, Mullings and Scarborough, 1996; Walters, 1992). It was noteworthy that earlier studies conducted in the 1980's demonstrated gender differences, but more recent studies found no gender differences.

Morgan et al. (2002) asserted that female officers had learned how to cope better with working in a prison environment in recent years that would help to boost their level of wellness.

Notwithstanding these inconsistent results, the experience of prison work appeared different for male and female prison officers. Thus, it was hypothesized that there were differences of wellness, occupational stress and personality between genders.

Meanwhile Foley (2007) and Ryff and Keyes (1995) suggested age factor influenced personality, stress coping resources, and wellness. Thus their disclosure supported the hypothesis of the study on viewing at the difference of prison offices' wellness, stress and personality according to their age. As for tenure, Lambert, Cluse-Tolar and Hogan (2007) showed age and tenure had statistically significant positive correlations with

stress. The longer the officer worked, the higher their stress compared to officers with lower tenure at the prison. In view of the previous literature, therefore, objective two of the study was deemed relevant and appropriate.

Accordingly, this discovery strengthened the hypotheses relevant to objective two of the study on viewing the difference of prison officers' wellness, stress and personality according to their tenure.

Therefore relevant hypotheses looking at differential aspect of wellness, occupational stress and personality according to prison officers' gender, age and tenure were initiated. These hypotheses aimed to fulfill Research Objective 2 were highlighted next. One main and eight sub-hypotheses were initiated.

H1 There were significant differences of prison officers wellness, occupational stress and personality according to their age, gender, tenure.

H1a There were significant differences between male and female prison officers' wellness level.

H1b There were significant differences of prison officers' wellness level according to prison officers' age group.

H1c There were significant differences of prison officers' wellness levels according to their tenure.

H1d There were significant differences of prison officers' occupational stress between male and female prison officers.

- H1e** There were significant differences of prison officers' occupational stress level according to their age group.
- H1f** There were significant differences of prison officers' occupational stress levels according to prison officers' tenure.
- H1g** There were significant differences between male and female prison officers' personality type.
- H1h** There were significant differences of prison officers' personality type according to their age group.
- H1i** There were significant differences of prison officers' personality type according to their tenure.

Section B: Hypotheses from correlational aspect:

These hypotheses were developed based on dimensions to depict direction, level and form of relationship between Prison Officers' Wellness, their Personality, Occupational Stress, Self Efficacy and Perceived Fairness. These hypotheses were aimed to fulfill Research Objective Three as stated in Chapter One.

The prison work environment was stressful for prison personnel (Finn, 2000; Huckabee, 1992; Lasky et al., 1986; Lindquist & Whitehead, 1986; Schaufeli & Peeters, 2000). The shortage of officers in many facilities was among major contributing factors for the level of stress suffered among officers especially in bigger jails holding death row prison inmates, prison inmates serving life, and HIV prison inmates. According to Prison Department of Malaysia (2008), the inadequacy of officers and lack of resources to

protect them from harm were some of the factors causing significant stress among officers. As a result, many of the officers had shown signs of stress and negative behaviors such as grievance, backstabbing, disciplinary problems, absence without leave, resign, opting for early retirement and seeking other jobs. Chronic stress associated with working with others was likely a precursor to burnout that would deteriorate their wellness (Cheek & Miller, 1982; Maslach, 1976). Nevertheless, it all depended on the personality of the officers on their level of tolerance of stress that might influence their wellness.

This statement has been confirmed by previous researchers suggested that there might actually be a healthy personality (Marshall, Wortman, Vickers, Kusulas, & Hervig, 1994); thus, this indicates that personality might play a role in health maintenance and promotion. Meanwhile Marshall and colleagues (1994) confirmed on the five personality domains of neuroticism, extraversion, openness, agreeableness, and conscientiousness could furnish satisfactory and important preliminary research framework at comprehending connections between personality and health.

The usage of Five Factor Model (FFM; Costa & McCrae, 1992a) was accepted by a significant consensus as the research framework on the relationships between personality and health. The resulting research demonstrated how the FFM incorporated most of the research results generated from other theoretical models and associated with the dimensions of Extraversion, Neuroticism, and Openness to Experience. Likewise, this research showed that the dimensions of Agreeableness and Conscientiousness were

relevant for the development of healthy behavior and the achievement of higher levels of health and well-being (Costa & McCrae, 1980; McCrae & Costa, 1990). Thus, in accordance to previous research findings, it was hypothesized that prison officers' personality were significantly correlated with their wellness. Accordingly, based on previous research, a hypothesis to investigate the association between personality and wellness was developed as shown below:

H1j₁ Employee wellness was related to personality.

Next hypothesis looks at the relationship between prison officers' occupational stress and their wellness. When the prison officers experienced environmental demands as exceeding his/her coping resources, he or she might experience reduction in psychological and physical well-being, resulting in possible illness (Senol-Durak, Durak & Gencoz, 2006; Lazarus & Folkman, 1984).

The prison work environment itself was stressful for prison personnel (Finn, 2000; Huckabee, 1992; Lasky et al., 1986; Lindquist & Whitehead, 1986; Schaufeli & Peeters, 2000). Chronic stress associated with working with others was likely a precursor to burnout that would deteriorate their wellness (Cheek & Miller, 1982; Maslach, 1976). Therefore, it was hypothesized that prison officers' occupational stress was related to their wellness to deteriorate due to the increased stress associated with employment in a prison setting.

H1j₂ Employee wellness was significantly related to Occupational Stress.

Subsequently, the continued empirical self-efficacy research in organizational and educational settings was of immense practical value because self-efficacy had several positive as well as negative outcomes. Past findings showed that a strong sense of personal efficacy was related to better health, higher achievement, and more social integration (Bandura, 1997; Schwarzer, 1992). It was argued that human accomplishments and positive well being required an optimistic sense of personal efficacy. This was because ordinary social realities were filled with difficulties, adversities, setbacks and frustrations.

According to Schwarzer (1997; 2008), people needed to have a healthy sense of personal efficacy to sustain the perseverant effort needed to succeed. An affirmative sense of efficacy contributed to psychological well being as well as to performance accomplishments. Furthermore, a person who believed in being able to cause an event could carry out a more active and self-determined life course (Schwarzer, 1997). Judge (1997) viewed self-efficacy as a type of self-evaluation, specifically regarding how well one could perform across a variety of situations (Schwarzer, Luszczynska, Ziegelmann, Scholz, and Lippke, 2008). In this study, the researcher proposed that prison officers' wellness is correlated with self efficacy because self efficacy was able to enhance prison officers' wellness although they experienced a high level of stress at prolonged time. Thus, self efficacy was proposed as the potential mediating variable that interrupted the relationship between prison officers' wellness, their personality and occupational stress.

H1j₃ Employee wellness was significantly correlated to self efficacy.

Next, a correlation between wellness and perceived fairness was postulated. The postulation was based on several pertinent studies made by previous researchers.

A group of researchers in Finland undertook the first large-scale, longitudinal study examining the relationship between fairness at work and health (Elovainio, Kivimäki, Steen, & Vahtera, 2004; Elovainio, Kivimäki, & Vahtera, 2002; Kivimäki, Elovainio, Vahtera, & Ferrie, 2003; Kivimäki, Elovainio, Vahtera, Virtanen, & Stansfeld, 2003; Kivimäki et al., 2004). Using a common organizational justice measure developed by Moorman (1991), Kivimäki and Elovainio's group showed that procedural justice and interactional justice predicted self-rated health status and minor psychiatric disorders among over 4000 Finnish hospital employees.

These results suggested that fairness impacted employee health over and above the effects of job control, social support, certain aspects of work organization (i.e., workload, pay), and some potential coping responses (i.e., smoking, alcohol consumption). This hypothesis was proposed in accordance to the equity theory and also supported by Vermunt and Steensma (2001), exploring the role of fairness as a moderator that remained important because moderator effects suggested the possibility that intervention reduced the detrimental effects of stressors that were difficult to modify.

Meanwhile, Janssen (2005) examined whether distributive justice and procedural justice had a two-way interaction effect in the relationship between occupational stress and employee wellness among managers in healthcare organizations. Janssen (2005) found that high levels of job demands were associated with high job-related anxiety and burnout only when distributive justice and procedural justice were both perceived as low. Then, one of the two types of organizational justice was perceived as high, the level of demands was not associated with anxiety or burnout.

This suggested that fair procedures in the workplace protected health of employees who were exposed to high job demands and who perceived that their compensation was not fair. When job demands and compensation were difficult to change, fair procedure would be easier to achieve. Thus, it was proposed that perceived fairness was positively related with employee wellness.

H1j₄ Employee wellness was significantly related to perceived fairness

Then, postulation pertaining to the interrelation between prison officers' personality and their occupational stress was explicated. The postulation was in accordance to several relevant previous studies.

Vulnerability to stress might be a function of personal or social characteristics, individual differences and environmental effects (Matteson and Ivancevich, 1982). Individual needs, values and personality played a role in the outset of physical, psychological and organizational problems (Aldwin, 1994). Personality characteristics

primarily determined how people cope with stress. Behaviors, feelings and cognitions evoked by a stressful situation are determined by the individual's personality structure. People could become characterized by their predominant use of a particular mechanism (Matteson and Ivancevich, 1982). Personality styles characterized the everyday manner with which people approached the events of their lives. These typical, preferred ways of coping, contributed to the way individuals deal with stressors (Aldwin, 1994).

The impact of personality dimensions in co-determining stress and stress resistance differed according to the perception of the situation as stress-inducing, the person officer himself or herself and how specific the personality trait was. The subjective influence of environmental appraisal resulted in different circumstantial performance reactions by different people. The ability to cope with normal daily challenges varied in accordance with difference in personality (Jung, 1960). Folkman and Lazarus (1980) suggested that overall personality trait measures were not sound predictors of how the individual would cope with stress. Later, in another study, Folkman et al. (1986) emphasized on the insufficient evidence that personality characteristics influenced the coping process in the individual.

Fleishman (1984) however postulated that certain personality characteristics might relate to certain coping styles. Meanwhile research done by Amirkhan (1994) showed only sporadically significant relationships between coping behavior and personality. Everly (1990) proposed that personality type was related to stress- related disease and that treatment planning for stress- related diseases should acknowledge personality

factors in the individual if treatment was to be completely successful. Therefore it was hypothesized that employee personality was significantly related to occupational stress.

H1j₅ Employee personality significantly related to occupational stress.

Subsequently, the next hypothesis postulated the relationship between personality domain and self efficacy trait. This hypothesis was build in line with several previous findings. First, Lent, Brown and Hackett (2000) insinuated that the Social Cognitive Career Theory (SCCT) positioned self efficacy as a primary mediator of global personality affected vocational interests. While another research by Chen, Gully and Eden (2001) showed that general self efficacy was positively related to other personality traits, including conscientiousness and the need for achievement.

Meanwhile Smith (2002) suggested that powerful efficacy beliefs and basic learning tools by formal education resulted in students with appropriate skills for social and economic stability. As these three findings confirmed on the relation between personality and self efficacy, therefore it was postulated that employee personality was significantly related to self efficacy.

H1j₆ Employee personality was related to self-efficacy.

This hypothesis was postulated based on several previous findings. As indicated by Elovainio, Kivimäki, Vahtera, Virtanen and Keltikangas-Järvinen (2003), not just the consequences of justice perceptions, but also the justice perception itself might be dependent on individual differences, such as personality and socioeconomic status. In

their study, personality correlated with justice perceptions. Another important aspect of working life, job control, was found to be related to personality and socioeconomic status (Fried et al., 1999), as well as to justice evaluations (Lind and Tyler, 1988). Therefore it was hypothesized that employee personality was significantly related to perceived justice.

H1j₇ Employee personality was related to perceived justice.

In accordance of social cognitive theory (Bandura, 1986, 1988b), the self efficacy trait to exercise control over potentially threatening events played central role in stress reactions. People's perceptions of their self-efficacy predicted the level of their cardiac acceleration and blood pressure on stressful tasks that would influence their health and wellness (Bandura, Reese and Adams, 1982). On the negative side, efficacy beliefs influenced the amount of stress and anxiety individuals experience as they engaged in an activity (Pajares & Miller, 1994; Bandura, 1997). Also there various research indicated general self-efficacy was negatively correlated with anxiety, negative effect, anger, and physical symptoms (Syed Sohail Imam, 2007; Luszczynska, Gutiérrez-Donã, & Schwarzer, 2005) resulting interference of their health and wellness. In this study, self-efficacy was proposed as the mediating variable on the relationship between occupational stress and prison officers' wellness.

H1j₈ Occupational Stress was negatively related to self-efficacy.

The hypothesis was proposed based on literature review research. The interest in stress and justice seemed to be growing not only among psychologists and health researchers

but also among organizational justice researchers. From a study of 174 university faculty members, Judge and Colquitt (2004) found that the extent to which employees perceived the university's work-family policies (i.e. assistance to reduce work-family conflicts) as fair predicted stress levels six months later. Using the transactional model of stress (Lazarus & Folkman, 1984) as a template, Greenberg (2004) proposed the Justice Salience Hierarchy, in which he described distributive injustice as a stressor, procedural justice evaluation as the primary appraisal, and interactional justice evaluation as the secondary appraisal and coping resources.

The hierarchy offered both way of linking justice and stress and potential intervention approaches. Most studies reviewed demonstrated that organizational injustice was associated with stress that instigated employee well-being (Fujishiro and Heaney, 2007). Thus it was hypothesized that organizational stress was significantly related to perceived fairness.

H1j₉ Occupational stress was related to perceived fairness.

Cohen-Charash and Spector (2001) conducted a meta-analysis of 190 studies of the correlates of organizational fairness. The investigation was "guided by the topics that occupied organizational justice researchers thus far" (Cohen-Charash & Spector, 2001). They concluded that justice or fairness perceptions were influenced by the outcomes one receives from the organization, organizational practices, and perceiver characteristics (Cohen-Charash & Spector, 2001). The perceiver characteristics were inclusive of

his/her personality trait such as self efficacy. Therefore, this study postulated that there was a correlation between perceived fairness and self efficacy.

H1j₁₀ Self efficacy was related to perceived fairness

Section C: Hypotheses on mediating aspect:

As indicated by Baron and Kenny (1986), a mediator path model was a three-variable system where two causal paths feeding into the outcome variable; which were the direct impact of the independent variable (Path C) and the impact of the mediator (Path B) as well as path from the independent variable to the mediator (Path A). They (1986) also maintained that a variable functioned as a mediator when three terms were met which were (a) the variations in the levels of the independent variable significantly accounted for variations in the presumed mediator (Path A), (B) the variations in the mediator significantly accounted for variations in the dependent variable (Path B), and (C) when Path A and B were controlled, the previous significant relation between the independent and dependent variables was no longer significant. The strongest evidence for a single, dominant mediator was evidenced when Path c was reduced in strength to zero.

In accordance to Baron and Kenny (1986), several researchers substantiated that self efficacy was an important mediator of health (Bandura, 1997; Schwarzer, 2008; Schwarzer, Luszczynska, Ziegelmann, Scholz, & Lippke, 2008). Meanwhile, Bandura (1997) postulated self-efficacy played a mediational role in the judgments of self-efficacy beliefs. He posited performance constraints and disincentives might limit performance in highly skilled and self-efficacious individuals. He believed these

individuals might choose to produce at a level of which they were capable of due to their lacking of incentive or necessary resources, or social constraints in their envisioned path or outcome (Pajares, 2002). In this study, the researcher proposed that prison officers' wellness is correlated with self efficacy because self efficacy was able to enhance prison officers' wellness although they experienced a high level of stress at prolonged time (Schwarzer, 2008). Thus, self efficacy was proposed as the potential mediating variable that interrupted the relationship between prison officers' wellness, their personality and occupational stress.

Meanwhile, Fujishiro and Heaney (2007) insinuated that perceived fairness mediated the relationship between role conflict and job-related wellbeing, whilst Zohar (1995) described fairness as a moderator of wellbeing. Zohar (1995) suggested that the effect of stressors on employee wellbeing were dependent on the level of fairness. His fairness-moderator model suggested that if employees perceived higher level of fairness in their supervisors, the impact role stressors on their wellbeing would be alleviated.

Thus, these findings gave different conclusion of perceived fairness as possible mediating or moderating variable of employee wellness. In accordance to the evidences, the researcher attempted to validate possible findings on perceived fairness.

Based on previous research, hypotheses relating these variables were presented. These hypotheses were developed to look at the mediating effect of self efficacy and perceived fairness on the relationship between personality and occupational stress and prison

officers' wellness. These hypotheses were aimed to fulfill Research Objective Four. The hypotheses were:

H1k₁ Self efficacy mediated the relationship between occupational stress and prison officers' wellness.

H1k₂ Self efficacy mediated the relationship between personality and prison officers' wellness.

H1l₁ Perceived fairness mediated the relationship between occupational stress and prison officers' wellness.

H1l₂ Perceived fairness mediated the relationship between personality and prison officers' wellness.

Section D: Hypothesis on effect:

Current research did not study the overall impact of personality, stress, self efficacy and perceived fairness on wellness. Previous study considered these variables on wellness separately (Fujishiro & Heaney, 2007; Schwarzer et. al, 2008; Kivimäki et. al, 2003; The postulation is based on the literature review in the previous section.

In this section, the researcher listed hypothesis looking at simultaneous dependence relationship aspect. This hypothesis was aimed to fulfill Research Objective Five. This hypothesis was as below:

H1m Prison officers' personality, occupational stress, self-efficacy and perceived fairness significantly contributed towards their wellness.

2.11. Chapter summary

In this chapter, wellness is defined as the opposite of illness on the health continuum as well as it deals with employee wellness in an organizational context. The important theories (Individual Psychology, General system theory and Positive Psychology) are discussed to indicate the intellectual climate that defines wellness research. The Indivisible Self: an Evidence Based Model of Wellness is referred to and its factors explain wellness in greater detail. The IS-WEL conceptualizes wellness from a holistic point of view that incorporates all relevant wellness factors to the benefit of this study. It clarifies wellness theories and models and answers some of the research questions from the literature.

The application of clinically researched wellness is shifted towards wellness at work. Therefore work-wellness in prison setting applications forms the centre of this study. A hypothesized framework model that focuses on stress-personality-wellness is constructed out of the literature incorporating wellness, psychological disposition and management intervention, work and non-work factors. A hypothesized model is postulated as a conceptual and theoretical model out of the literature. The stress-personality-wellness model serves as conceptual understanding from the literature as to what important constructs that need to be considered in this study are. These constructs correlate with wellness as well as with each other. Parts of the model are empirically tested to further understand the relevance of it. The statistical results thereof will be documented in Chapter Five. Empirical research methodologies are addressed in Chapter Four.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Introduction

This chapter explains the research methodology, the research design and the methods that were utilized in order to accomplish research objectives as enclosed in Chapter One. Essentially, this chapter is detailed according to four main sections namely i) the research methodology to explain the philosophical idea underlying the research methods employed; ii) the research design and activities; iii) the conducted research activities and iv) data analysis process.

3.2. Research philosophy

Research philosophy in social sciences suggests various assumptions of research approach standards and criteria to generate reliable and valid information about the social phenomena under investigation. Generally, social scientists will assess the best approach that could generate reliable and valid information about the social phenomena under investigation. Burrell and Morgan (1979) have contended on three types of philosophical assumptions to explain social phenomena which are ontology, epistemology and methodology.

The underlying philosophy of this research is rooted to the positivist objectivism paradigm (Kerlinger, 1986). Therefore, all research process, procedures and activities were derived from this paradigm. Thus, in accordance with objectivist paradigm and

ontologically assumed view, the researcher considers reality as the actual and present phenomena, waiting to be discovered (Smith, 1998). Then, through objectivist viewpoint and epistemological assumption, the researcher comprehends and interprets the particular phenomena through understanding and absorbing the theories of knowledge of the particular phenomena under study (Smith, 1998).

Since objectivists profess knowledge is objective; thus they view phenomenon as standalone, factual and free from prejudices. Accordingly, the researcher studies the promptness of particular phenomenon to assess whether the theoretical statement on causal relationship can be accepted as true or not. Lastly, through objectivist's view and methodology assumption, the researcher performs quantitative method of inquiry to measure the relationship between variables based on regularities and pattern systematically and statistically such as research hypotheses, and identifies reliable and valid measures prior to data collection being implemented. The empirical evidence gathered is accepted as a general law to explain and predict the investigated phenomena (Nursiha Alias, 2008).

This research stood on the objectivist's viewpoint where the knowledge already existed. Thus, this research sought to extend and re-evaluate existing theoretical human wellness at high-risk workplace setting. In doing so, research hypotheses were developed, explored and tested. Given the fact that this study focused on testing established theories, therefore results could be used to compare whether there were similarities, differences, strengths and limitations as with the existing studies.

3.3. Research design

The selection of research design was highly dependent on the availability of existing constructs or variables. If the variables had been widely used in variety of contexts, specifically in social sciences research, these would confirm on the validity and reliability of measurements as previously tested by other researchers. Since there was no requirement for the development of new measures, qualitative or exploratory methods could not be justified.

Weighing the line of reasoning, quantitative survey method was deemed more appropriate for the research. Through the outcomes of factors assessment, cross-sectional survey design was used, equated with quantitative method in mind. The correlational study was used to test the theory-driven model through multivariate statistics such as structural equation modeling. The main reason to choose quantitative method with cross-sectional correlational survey design was due to the required degree of generalization of result.

Quantitative research that commonly involves larger respondents would allow a higher degree of generalization of the results. Moreover, in survey research, larger respondents enhanced allowance of model testing through multivariate statistical tools. This was supported by various studies utilizing structural equation modeling as statistical tool (Boomsma and Reinecke, 2007; Hair et al 2010; Tabachnick and Fidell, 2007).

Therefore, cross-sectional correlational survey design was most appropriate for this research because the design facilitated the examination of stable, long-term states or conditions and allowed the researcher to make inferences from a sample to a population.

3.4. Research location and population

The study population used in the research consisted of front-liner uniformed-based prison employees from the Prison Department of Malaysia. There are about 39 locations of Prison Department of Malaysia including head quarters in Kajang and East Malaysia (Prison Department of Malaysia, 2008) as indicated in Figure 3.1. The prison officers that directly look after prison inmates are approximately 12,536 employees. Participants who are at the uniform-based staff that directly guard prison inmates are represented in terms of gender, marital status, qualifications and years of service.

State	Prison Locations	Prison Officers	Vacant	Inmates	Actual Capacity of Inmates
Perlis	Arau	-	-	-	-
Kedah	Alor Setar	456	-14	1164	1000
	Pokok Sena	445	-24	1885	2000
	Sungai Petani	225	-16	381	600
Penang	Pulau Pinang	578	2	1682	1300
Perak	Taiping	628	74	1681	1700
	Tapah	456	6	1989	2000
	PPA Batu Gajah	202	-16	486	500
	TTP Taiping	315	-76	68	350
	KEMTA	47	-9	258	200
Selangor	Kajang	1077	305	4276	3500
	Kajang Women	334	-123	1686	800
	Sungai Buloh	759	36	5462	3000
Melaka	Banda Hilir	132	-17	238	200
	Agro Dusun Dato' Murad	122	-25	164	200
	Teluk Mas	236	-31	327	500
Negeri Sembilan	Seremban	253	11	744	800
	Jelevu	256	11	285	400
Johor	Simpang Renggam (incl PPA)	723	229	93	1300
	Kluang	589	-127	3285	2000
	Johor Bahru	228	80	1106	1000
	PPA Muar	139	-22	184	200
Pahang	Penor	386	24	1586	1600
	Bentong	235	489	TM	TM
Kelantan	Pengkalan Chepa	412	-51	1161	1000
Terengganu	Marang	367	-28	1336	1300
Sabah	Kota Kinabalu L	328	-31	1178	700
	Kota Kinabalu W	74	-21	141	100
	Tawau	267	-41	815	500
	Sandakan	155	-36	519	250
	Keningau	79	-5	91	100
Sarawak	Kuching	195	46	221	400
	Sri Aman	70	-11	356	150
	Sibu	127	-5	120	300
	Miri	168	-12	200	300
	Limbang	135	24	411	500
TOTAL		12536	546	35527	30750

Prison Department of Malaysia, 2008

Figure 3.1: Prison locations in Malaysia

In this study, appropriate locations for the study were selected based on i) number of inmates – higher number of detained inmates would increase more stress on prison officers due to the difficulties to effectively manage these inmates; ii) remand inmates, sentenced inmates or inmates detained based on Kementerian Dalam Negeri requirement; iii) prison institutions that had an extensive vacancy due to intense turnover problem caused by stress and lastly iv) highest number of prison officers in these locations.

In accordance with the prison officers' population (totaled 12,536) and approach of choosing appropriate location for the survey, the researcher decided to conduct survey research in 8 main prison locations namely Alor Setar, Penang, Taiping, Sungai Buloh, Penjara Utama, Wanita Kajang, Simpang Renggam and Kluang whilst Pokok Sena and Tapah (population of 681; sample size of 248) were selected for pilot study.

These locations are incredibly challenging in terms of work environment and job tasks because they are constantly facing prolong and intense stress from various groups of people especially in the prison (prison inmates, peers and the management) and external parties such as the watchdogs, the public, the media, SUHAKAM as well as the family and relatives of the inmates (Prison Department of Malaysia, 2008).

3.5. Sample size

Lenth (2001) stated that sample size determination was pertinent in planning statistical study despite its intricacy. Before deciding on sample size consideration, the researcher

considered various issues that influenced the sample size decision. When utilizing multivariate statistic tools such as multiple regressions, most appropriate ratio of observations to each independent variable should not fall below 5:1 as the findings become sample specific causing reduced generalizability. Consistent with Lenth (2001), Hair, Anderson, Tatham and Black (2010) have also stringent opinion on appropriate sample size. They assert the desirable sample size must range between 15 to 20 observations per predictor.

Meanwhile, in structural equation modeling analysis, determining sample size is dependent on five considerations namely i) multivariate normality of data, ii) estimation technique, iii) model complexity, iv) amount of missing data and v) average error variance among the reflective indicators (Hair et al., 2010). Hair et al (2010) recommends that decision on minimum sample sizes to be based on model complexity and basic measurement distinctiveness.

Since the research model has more than seven constructs (of five personality domain constructs, one occupational stress construct, one self efficacy, one perceived fairness construct and one wellness construct), with some lower communalities, Hair et al (2010) recommends 500 samples as the appropriate minimum size sample. This assertion is fairly analogous with Chou and Bentler (1995). Chou and Bentler (1995) point out that the larger the sample size in confirmatory factor analysis in structural equation modeling, the more accurate parameter estimates will result in. However, Chou and Bentler reiterate on adequate number of subjects should be at least 200 subjects as

general recommendation to ensure more accurate parameter estimates (Chou & Bentler, 1994).

Similarly, various other researchers have proposed minimum number of 200 respondents appropriate for structural equation analysis (SEM) (Gerbing & Anderson, 1985; Tanaka & Huba, 1984). Then again, Tanaka (1993) cautions on samples more than 400 will influence structural equation modeling analysis to be more sensitive because almost any difference will be detected causing goodness of fit measures suggest poor fit. Thus, Tanaka (1993) recommends the best sample size would be between 100 to 400 samples.

However, Tanaka's (1993) statement contradicts with Hair's et al (2010) opinion of minimum 500 samples due to relevant conditions of the present data as elaborated in the previous section. In considering the highlighted views on appropriate sample size, the researcher established proper sample size calculation from totaled population size of prison officers (of 12,536 prison uniformed staff) via sample size calculation website. According to Dean, Sullivan and Soe at Rollins School of Public Health, Emory University (www.openepi.com retrieved on 31 January 2009), sample size formula used is depicted as:

Sample size, $n = \frac{[Deff * Np (1-p)]}{[d^2 / Z^2_{1-\alpha/2} * (N-1) + p * (1-p)]}$
 Where d = desired absolute precision or absolute level of precision
 n = sample size
 $deff$ = design effect
 N = population size
 p = the estimated proportion
 $^q = 1 - ^p$

The results of the calculation, using the default values, are shown in Figure 3.2 next:

Population size(for finite population correction factor or fpc)(N):	12536
Hypothesized % frequency of outcome factor in the population (p):	50%+/-5
Confidence limits as % of 100(absolute +/- %)(d):	5%
Design effect (for cluster surveys-DEFF):	1
Sample Size(n) for Various Confidence Level	
Confidence Level (%)	Sample size
95%	373
80%	163
90%	265
97%	454
99%	631
99.9%	997
99.99%	1352

Figure 3.2. Prison officers' sample size

Where the four values are i) population size – 12,536; ii) anticipated % frequency (p) – 50% of the population with the outcome of interest; iii) confidence limits as +/- percent of 100 – 5% of confidence interval and lastly iv) design effect – if simple random sampling is to be used to select individuals (or whatever the element of analysis is), then the design effect (DEFF) is left as one.

Referring to Figure 3.2., in the middle section are sample sizes for various confidence levels, from 80% to 99.99%. In most situations, the 95% confidence level is used, therefore in this example, the sample size is 373.

The sample size is in line with Krejcie and Morgan (1970) and Cohen (1969) where they have recommended that sampling size for the population size is approximately at 375. Nevertheless, actual sample size is 417. Therefore, sample size somewhat satisfied the

proposed minimum size by Krejcie and Morgan (1970), Cohen (1969), calculated sample size and Tanaka (1993).

However, the size did not achieve minimum 500 as suggested by Hair et al (2010). This is because the researcher had deep concern on effectual goodness of fit as recommended by Tanaka (1993). Besides, the researcher considered Nunnally's (1978) advice on appropriate sampling calculation should be based on subject to measure variable (in this research, parceled items) of 10:1. Therefore, the researcher settled for the actual sample size because the number was between recommended sample size and suitable for item parceling purposes.

3.6. Sampling method

The most appropriate sampling method of the research was multistage sampling where the researcher combined two sampling techniques which are the stratified random sampling and simple random sampling. The rationale of using multistage random sampling was because the method enabled the researcher to address prison officers' samples in the most effectual approach possible.

Firstly, the researcher used stratified random sampling where the researcher divided prison officers' sample into homogenous subgroups and then took a simple random sampling in each subgroup (Cavana, Delahaye and Sekaran, 2001).

In the beginning, the researcher identified relevant locations as stratum. Then the researcher used simple random sampling to select sufficient number of respondents from each location (stratum). Referring to Scheaffer, Mendenhall, and Ott (1986), they suggest that the usage of stratified random sampling should include the implementation of simple random sampling within each stratum. The authors (1986) report that the number sampled is determined by the proportional allocation formula. A proportional sample requires that the sample be allocated in proportion to the size of each stratum. Hence, larger strata would require larger samples, and smaller strata would require smaller samples (Scheaffer et al., 1986).

The samples for this study were the prison officers who were directly involved in the daily operations of the prisons ranging from the management level (grade KX52, KX48, KX44 and KX41 with positions such as, Chief Inspector, Assistant Superintendent, Deputy Superintendent, Superintendent, Senior Superintendent, Director of Prison), supervisory level (KX38, KX32, KX27, KX26, KX24 with positions such as Inspector, Sub-inspector, Corporal, Sub-sergeant, Sergeant) to Prison Officers (KX17 Prison Warders) who directly guarded and facilitated rehabilitation programs for prison inmates in selected prison locations in Peninsular Malaysia.

Questionnaire survey was conducted and questionnaires were distributed to the uniform-based prison officers based on the ratio between prison officers: supervisory: management of 10: 5: 1 respectively as listed in the payroll as the sampling frame. The payroll list was obtained from the administration unit for each institution.

3.7. Questionnaire rate of return

The researcher distributed 670 questionnaires to eight selected prison facilities of 4,783 prison officers. According to various authors such as Krejcie and Morgan (1970), Cohen (1969) and Dean, Sullivan and Soe (2009), required respondents as samples for the population are between 354 and 356. Meanwhile, McMillan (2004) has suggested distributed questionnaires' rate of return should be at least at 60% from the total.

In accordance to these statements, the returned questionnaires were totaled at 570 whilst usable returned questionnaires were at 420 as elaborated in Figure 3.3. This has indicated acceptable returned questionnaires are at 62.68% and they have met the suggested samples for population and rate of return (Krejcie & Morgan, 1970; Cohen, 1969, Dean, Sullivan & Soe, 2009; McMillan, 2004). Details are shown in Figure 3.3.

Locations	Distributed Rate	Returned Rate	Usable Rate	%
Alor Setar	70	61	50	12%
Penang	70	69	50	12%
Taiping	70	63	50	12%
Kajang Utama	120	111	100	24%
Kajang Wanita	120	104	100	24%
Sungai Buloh	120	86	50	12%
Kluang	50	34	10	2%
Simpang Renggam	50	42	7	2%
Total	670	570	417	100%

Figure 3.3 *Percentage of respondents according to prison locations*

3.8. Questionnaire development for research instrument

The researcher acknowledges the importance of good instrument to effectively ensure best result and minimize Type I and Type II error. After an extensive literature review,

the researcher shortlisted a few instruments that measured these five construct. The researcher selected the most suitable instruments that best suited the respondents.

3.9. Research instruments and scoring

In this section, the instruments for the research are explained. Five utilized instruments are i) 5F-WEL Inventory (Myers & Sweeney, 2005) to describe prison officers wellness, ii) NEO-FFI Form S (Costa & McCrae, 1997) to explain prison officers' personality, iii) Work Stress Scale for Correctional Officers (WSSCO) (Durak, Senol-Durak & Gencoz, 2003) to depict prison officers' occupational stress, iv) General Self Efficacy Scale (GSES) (Schwarzer & Jerusalem, 1992) to describe their level of self efficacy personality trait as well as v) Distributive, Procedural and Interactional Justice Questionnaire (DPIJ) (Niehoff & Moorman, 1993) to explicate prison officers' level of perceived fairness at work. These instruments were adapted to suit the current context of this research.

3.9.1. Employee wellness – 5F- Wel

The Five Factor Wellness Inventory (5F-Wel) is designed to assess the characteristics of wellness as a basis for helping individuals to make choices toward healthier living (Myers & Sweeney, 2005).

Myers and Sweeney (2007) emphasize wellness as the integration between the dynamic process of physical, mental and spiritual optimization assimilation and the outcome of the process. The instrument, the Five Factor Wellness (5F-Wel) measurement consists

of one first order, five second order and seventeen third order factors viewing at optimal health and wellbeing through the holistic approach in which mind, body and spirit integrate in a purposeful manner with a goal of living life fully as according to Adlerian Individual Psychology (Adler, 1931) and The General System Theory (Von Bertalanffy, 1968).

The 5F-Wel Inventory contains 73 items of total 91 items that are scored on scales representative of the higher-order total wellness, the five factors of the self, and the seventeen third-order factors. The first higher order factor is called Wellness; whilst the five second-order factors are i) Creative Self that includes third-order factors which are intelligence, control, emotion, work, positive humor of the individual; ii) Coping Self that inclusive of third-order factors which are leisure, stress management, self-worth, realistic beliefs of the individual; iii) Social Self that involves third-order factors such as individual's friendship and love and iv) Essential Self that contains third-order factors which are spirituality, gender identity, cultural identity, self-care of the individual and v) Physical Self that comprises of third-order factors such as the nutrition and the exercise of the individual.

Meanwhile the remaining 18 items used to assess the contextual factor as second order with third-order factors inclusive of local, institutional, global and chronometrical factors were tested although the norms for items were not yet available (Myers & Sweeney, 2005). Responses were obtained through a 4-point Likert-type response format where 1 = strongly disagree and 4 = strongly agree. Responses were summed up

to yield the final composite score with a range from 10 – 40. The higher the score means increasing individual wellness level. Since the instrument was quite lengthy, respondents took approximately half an hour to complete. Demographic variables such as gender, age, length of service as well as educational background were included as monitoring purposes for possible bias effects. There were six negative items which were 8, 12, 28, 39, 46 and 56. In this present study, the items were re-coded accordingly.

In a research facilitated by Myers and Sweeney (2004), the result of the internal reliability of 5F-WEL instrument indicated alpha coefficients were high for the first and second-order factors. Specifically cronbach's alpha for total wellness was at 0.90; whilst creative self dimension was at 0.92 with thinking, emotions, control, work and positive humor at .70, .72, .78, .72 and .75 respectively. Meanwhile cronbach's alpha for coping self was at .85 with leisure, stress management, self worth and realistic beliefs at .82, .83, .77 and .68 respectively. Next, social self dimension was at 0.85 with friendship and love at .73 and .77 accordingly. Another dimension, the essential self was at .88 with spirituality, gender identity, cultural identity and self care at .84, .78, .72 and .66 accordingly. Physical self was at 0.88 with exercise and nutrition at .80 and .87 accordingly. As for contextual scale, only local context dimension's Cronbach alpha was at .62 while institutional, global and chronometrical context internal reliability results were not available as these were experimental scales.

In parallel, the 5-F WEL instrument was used in various research in various settings (Els, 2005; Connolly & Myers, 2003; Curry, 2007) thus having provide empirical

evidence for both convergent and divergent validity of scales relative to other constructs such as self efficacy, mattering, spirituality and job satisfaction.

Meanwhile, in another study, Hattie, Myers, and Sweeney (2004) examined validity by selecting several instruments that claimed to measure characteristics of wellness similar to the 5F-Wel and administered these instruments over a 4 year period to 299 graduate students in counseling courses. These instruments were Testwell, Coping Resource Inventory (CRI), Measures of Psychosocial Development (MPD), Inventory of Self-Actualizing Characteristics (the ISAC) and lastly Developmental Counseling and Therapy (DCT). The results on correlations ranging from .28 to .74 ($p < .05$ or $p < .01$) were reported on the third order factors.

Overall, this instrument has demonstrated satisfactory reliability and validity coefficients in previous studies (Els, 2006; Curry, 2007; Connolly & Myers, 2003; Roach & Young, 2007; Hattie, Myers & Sweeney, 2004) that reinforce and support the measurement of holistic wellness of an individual. Sample of instrument is highlighted in Figure 3.4. The content validity of the instrument is discussed in later section.

BW2	Saya berpuas hati dengan cara saya mengatasi tekanan.
BW3	Saya memakan sejumlah makanan kesihatan seperti vitamin, mineral dan serat setiap hari.
BW4	Saya kerap kali berjenaka walaupun ketika melakukan tugas berat.

Figure 3.4 *Example of translated 5F-WEL items*

3.9.2. Employee personality - NEO-FFI

NEO-FFI is a shortened version of the NEO Personality Inventory (NEO-PI; Costa & McCrae, 1992a) used to portray prison officers' personality based on five personality domain namely i) Neuroticism, ii) Extraversion, iii) Openness, iv) Agreeableness, and v) Conscientiousness. NEO-FFI is created as truncated version of NEO-PI with a total of 60 items (Costa & McCrae, 1997). There were 27 negative items (1, 16, 31, 46, 12, 27, 42, 57, 3, 8, 18, 23, 33, 38, 48, 9, 14, 24, 29, 39, 44, 55, 59, 15, 30, 45 and 55) and were re-coded accordingly in this present study.

The instrument as a self report format contained 60-items that take 10-15 minutes to answer. Responses are obtained from 5-point Likert-type scale where 1 = strongly disagree and 5 = strongly agree. The higher the score indicates the stronger the individual's personality based on the dimensions. The internal consistency of NEO-FFI ranges from $r = 0.68$ to 0.86 . Because the NEO-FFI is essentially a short form of the NEO-PI, it is appropriate to consider the psychometric qualities of the NEO-PI.

In this research, NEO-FFI instrument was used to collect data in order to examine the 5 personality domains of prison officers. The instrument was deemed appropriate for the study because it was a brief yet comprehensive measure of the five domains of individual's personality (Costa & McCrae, 1992a). According to Costa and McCrae (1992a), NEO-FFI is altered for speed and convenience of respondents. The evidence of convergent validity was demonstrated through the high level of correlation between the

NEO-FFI and the domain scales of the NEO-PI. Costa and McCrae (1992a) affirms on the reliability and validity of NEO-FFI.

The NEO-FFI domain scores prove good concurrent validity with the NEO-PI-R, correlating .92, .90, .91, .77, and .87 (N, E, O, A, C respectively; Costa & McCrae, 1992a). The NEO-FFI scales show correlations of .75 to .89 with the NEO-PI validimax factors. Internal consistency values range from .74 to .89 (Costa & McCrae, 1992a). Translated items are depicted in Figure 3.5.

BPN1	Saya bukan seorang perisau.
BPE2	Saya suka dikelilingi orang ramai.
BPO3	Saya tidak suka membuang masa dengan berangan-angan kosong.

Figure 3.5 *Example of translated NEO-FFI items*

3.9.3. Occupational stress –WSSCO

Occupational stress has put a major impact on one's life. Individuals who are exposed to work-related stress will put a tremendous influence on individual's mental and physical health. Thus, comprehensive understanding on the sources and causes of occupational stress are crucial to increase job satisfaction, job performance and wellness of the individual. Specific characteristics of the particular job also influence the level of occupational stress of an employee such as police officers (Patterson, 2003; Taylor & Bennell, 2006) and prison officers (Armstrong & Griffin, 2004; Pollak & Sigler, 1998).

Therefore occupational stress among prison officers is termed as the occupational hazard in prison environment. In addition, prison officers have reported to endure

prolong and greater stress due to cultural diversity, increased negative perception towards the occupation and shift of expectations from the mere punitive institution to treatment facility (Senol-Durak, Durak & Gencoz, 2006). According to Chen, Wong and Yu (2001), occupational stressors of members from different occupations are quite distinct from one another due to different working condition and environments. Hence, considering the respondents of the research were prison officers, thus, the usage of Work Stress Scale for Correctional Officers (WSSCO) as developed by Senol-Durak, Durak and Gencoz (2003) was deemed appropriate because the instrument was specifically targeted to employees working in prison and correctional facilities.

WSSCO is developed in particular for prison officers. It is a self report instrument with 35 items on the effects of given conditions upon the prison employees (Senol-Durak, Durak & Gencoz, 2006).

Responses were obtained from 4-point Likert type scale ranging from 1 = it has no effect at all to 4 = it has a very strong effect. Item dimensions are: i) work overload, ii) role conflict and role ambiguity, iii) inadequacies in physical conditions of prison, iv) threat perception and v) general problems. The overall internal consistency of the WSSCO instrument was at .94 and inter-item correlations ranged from .31 to .75 (Senol-Durak, Durak & Gencoz, 2006).

The first dimension, work overload internal consistency was .75 whilst inter-item correlation was between the ranges of .34 to .58. The internal consistency for second

dimension of WSSCO, role conflict and role ambiguity was .87 while its inter-item correlations were between the ranges of .43 to .68. Next, the internal consistency for the inadequacies in physical conditions in prison dimension was .70 and inter-item correlations were between the range of .41 and .54. The internal reliability of fourth dimension namely threat perception was .83 whilst the inter-item correlations were between the range of .43 and .61.

Lastly, the internal reliability general dimension subscale was at .86 whilst inter-item correlation ranged between .32 and .75. Test and retest were also performed with results at .77 for overall instrument reliability and test retest reliability of subscales were at .73, .71, .68, .68 and .78 respectively. Findings through the criterion validity analysis reveals all dimensions have successfully discriminated high versus low depressive symptomatology group. The example of translated WSSCO items is shown in Figure 3.6.

BS11 Dipertanggungjawabkan ke atas salah laku pekerja lain di tempat kerja.
 BS12 Terlibat dalam pertengkaran dan pergaduhan dengan penghuni penjara.
 BS13 Kerja saya menyebabkan saya mengalami masalah kesihatan.

Figure 3.6 *Example of translated WSSCO items*

3.9.4. Self-efficacy – GSES

The General Self-Efficacy Scale (GSES) is developed by Schwarzer and Jerusalem (1993) is a 10-item scale intended to capture the broad and stable sense of individual competence in dealing with stressful situations. This scale is to evaluate the general sense of self-efficacy where successful outcomes are dependent on one's actions. This

measurement aims to predict individual's coping level in handling daily problems as well as individual's adaptation after experiencing stressful life events.

According to Schwarzer and Jerusalem (1993), general self efficacy indicates general confidence in one's coping ability across broad range of situations, and reflects an optimistic self-belief. Schwarzer (1993) also adds that self efficacy implies the belief of being able to control challenging demands by taking adaptive action. Thus the Generalized Self-Efficacy Scale (GSES) is meant at measuring the general sense of competency and not competency in specific domains of functioning. GSES was adapted to 26 languages in various researches. It is a self-administered, 10-items questionnaire and unidimensional. The total score implies general level of self-efficacy.

Responses were made on a 4-point Likert-type scale. Final composite score was yielded through the summing up of all 10 items; with score ranging from 10 – 40. GSES was used in numerous research projects where it yielded internal consistencies between $\alpha = 0.75$ and 0.90 . In more recent studies, the reliability of the scale was confirmed as seen in the findings of alpha values ranging from 0.74 to 0.92 (Schwarzer & Jerusalem, 1993).

Criterion-related validity was also documented in numerous correlation studies when positive coefficients were found with favorable emotions, dispositional optimism, and work satisfaction. Negative coefficients were found with depression, anxiety, stress, burnout, and health complaints. The satisfactory reliability and validity of GSES also

contribute to GSES as a sound research instrument. GSES has also been translated into a variety of languages such as Indonesian, Chinese, Korean, Hindi and Italian. Example of translated GSES is illustrated in Figure 3.7.

BSE1	Saya berupaya menyelesaikan masalah yang sukar jika saya benar-benar berusaha.
BSE 2	Jika ada sesiapa menentang saya, saya berupaya mencari cara dan jalan untuk mendapatkan apa yang saya mahu.
BSE3	Adalah mudah bagi saya untuk tidak berganjak dalam melaksanakan sasaran dan matlamat saya.

Figure 3.7 *Example of translated GSES items*

3.9.5. Perceived fairness – DPIJ

Perceived fairness is a 20-items instrument measured through organizational justice (Distributive, Procedural, and Interactional Justice) developed by Niehoff and Moorman (1993). These items are divided into 3 dimensions, namely i) distributive justice (of 5 items); ii) procedural justice (of 6 items) meant to gauge the extent of formal procedures and iii) interactive justice (of 9 items).

The distributive justice describes the extent to which an employee believes that his or her work outcomes, such as rewards and recognition, are fair. The outcomes include pay level, work schedule, workload and job responsibilities. A procedural justice subscale (6 items) describes the extent to which formal procedures exist and whether these procedures are implemented in a way that takes employees' needs into consideration. An interactive justice subscale (9 items) covers the extent to which employees perceive that their needs are taken into account in making job decisions and that employees are provided with adequate explanations when decisions are finalized.

The instrument is self-administered with responses made on a 7-point Likert-type response format ranging from (1) “Strongly Disagree” to (7) “Strongly Agree”. The higher the score, the greater the individual’s perceived fairness. Coefficient alpha for distributive justice ranged from .72-.74 (Aquino, Lewis & Bradfield, 1999). Coefficient alpha for formal procedures was .85 and alpha for interactive justice was .92. The example of translated instrument is illustrated in Figure 3.8.

BJDJ1	Jadual kerja saya adalah adil dan berpatutan.
BJDJ2	Saya rasa pembayaran gaji saya adalah setimpal.
BJDJ3	Beban kerja saya adalah setimpal.

Figure 3.8 *Example of translated DPIJ items*

3.10. Instrument reliability

The decision to use instruments as described in the previous section was due to their reliability and validity in previous studies and their suitability to be adapted for use among prison officers in Malaysia. These instruments are listed as in Figure 3.9.

Variable	Items	Measurement Scale
Employee Wellness	BW1 - BW91	5F-WEL (Myers and Sweeney, 2004)
Employee Personality	BPN1 – BPC60	NEO-FFI (Costa and McCrae, 1992a)
Work Stress for Correctional Officers	BS1 – BS35	Work Stress Scale for Correctional Officers (WSSCO) (Senol-Durak, Durak, Gencoz, 2003)
Self Efficacy	BSE1 – BSE10	General Self Efficacy Scale (GSES) (Schwarzer and Jerusalem, 1992)
Perceived Fairness	BJDJ1 – BJIJ20	Distributive, Procedural and Interactional Justice (DPIJ) (Niehoff and Moorman, 1993)

Figure 3.9. *Instruments used in the research*

In the study, the researcher has incorporated five individual instruments which were Employee Work Wellness (5F-WEL) (91 items), Personality – NEO FFI (60 items), Work Stress Scale for Correctional Officers (WSSCO) (35 items), General Self-efficacy (GSE) (10 items) and Distributive, Procedural and Interactional Justice (Fairness) (20 items) and Demographic data (10 items) to establish an appropriate questionnaire for the study.

Cronbach's alpha results from previous studies are highlighted in the Figure 3.10. The items of the instruments: 91 items of employee wellness (Myers, Sweeney & Witmer, 2005), 20 items of distributive, procedural and interactive scale (Niehoff & Moorman, 1993), 60 items of NEO-FFI (Costa & McCrae, 1992a), 10 items of general self-efficacy (Jerusalem & Schwarzer, 1979) and 35 items of Work Stress Scale for Correctional Officers (WSSCO) (Durak, Senol-Durak & Gencoz, 2003) were previously tested and validated.

Measurement	Items	Comparison Alpha Value of Previous Study / Past Reliability	Scale
Prison Officers' Wellness (Myers and Sweeney, 2005)	91	r value First & second- order factors: Total wellness 0.90 Creative self 0.92 Coping self 0.85 Social self 0.85 Essential self 0.88 Physical self 0.88 Third order factor for all :0.7 – 0.8 Only 2 scales: Self care 0.66 Realistic beliefs 0.68	Likert type format 4 point; Strongly agree - strongly disagree
Employee Personality (Costa and McCrae, 1992a)	60	NEO-FFI form S r = 0.68 – 0.86	Likert type format 5 point; Strongly disagree - Strongly agree
Work Stress Scale for Correctional Officers WSSCO (Durak, Senol-Durak, Gencoz, 2003)	35	WSSCO .94 Work overload .75. Role conflict and role ambiguity .87 Inadequacies in physical conditions in prison .70 Threat perception .83 General dimension .86 WSSCO test and retest .77 Test retest reliability of subscales .73, .71, .68, .68 and .78 respectively.	Likert type format 4 point; Never - true most of the time
Self Efficacy (Schwarzer and Jerusalem, 1993)	10	r = 0.76 – 0.90	Likert type format 4 point; Not at all true - exactly true
Perceived Fairness (Niehoff and Moorman, 1993)	20	r value: Distributive Justice 0.72 – 0.74 Procedural Justice & Interactive Justice 0.92	Likert type format 7 point; Strongly disagree - Strongly agree
Demographic	10		

Figure 3.10 Reliability of instrument measurement from previous study

3.11. Research procedure

Next, the researcher explicates on the research procedure and data collection method of the study. The research procedure began with a thorough review on the literature for the study. Constructs such as prison officers' wellness, their personality and their occupational stress as well as self efficacy and perceived fairness as the possible mediators were conceptualized into a prison officers' wellness model in prison setting. Subsequently, research instrument battery was compiled, ascertained from literature study pointing to respective respondent samples.

The questionnaire then had gone through a proper instrument translation procedure. After the research instrument (questionnaire) had been set, the instrument was tested on its goodness of measure through pilot test. In the meantime, the researcher informed particular representatives of the respondents on the purpose of the research, the method and the procedure that would be followed and their consent to participate in the research.

After that, the questionnaires were distributed and administered twice; for the pilot study and actual study. Later, following the procedure were the data analysis and evaluation before exhaustive and detailed data discussion was made and integrated into prison officers' wellness in prison model. Based on the results of the data analyses, certain conclusions would be made regarding the goodness of fit of the data to the model. Finally conclusions and recommendations would be made to the organization and for future research.

Overall, the data was gathered via questionnaire. Since the unit of analysis of this research was individual prison officers, the researcher distributed questionnaires to the relevant respondents. Information given was self-rated; a common method in behavioral research such as personality that was widely held in social science studies (Podsakoff, McKenzie, Lee and Podsakoff, 2003).

3.11.1. Gaining approval for research from Prison Department of Malaysia and data collection method

Getting approval and cooperation from Prison Department of Malaysia to participate in this research was straightforward because they encouraged outside parties to study their organization due to their new “open system” policy. Basically, prison department encourages academic and medical research as long as it is for the benefit of their organization. The researcher applied formally to seek for their formal approval. An application letter through the College of Arts and Sciences at Universiti Utara Malaysia was sent to the Director of Prison to request for their approval and cooperation to conduct research within their organization.

After 2 months of application, the organization reverted with positive feedback. Soon after the approval, the researcher contacted selected branches for appointment. An early set up of appointment at each location was crucial because these locations must be arranged with at least one on-duty higher ranking officer (KX27 or KX32) and at least

two lower ranking officers (KX17) to escort the researcher everywhere within these locations.

The researcher spent an extended time at each location. Each location had given tremendous cooperation to the researcher. After data collection was settled in one location, the researcher proceeded with data collection at the next location.

3.12. Instruments validity

3.12.1. Translation validity: face and content validity

The research instrument was slightly adapted to fit the Malaysian application through language translation to suit the language proficiency and ability as well as academic background of the respondents. Furthermore, the 5F-Wel and WSCCO instruments were primarily tested and used on Malaysian population. Although other instruments had been previously translated into Malay, the researcher chose to perform own paraphrasing on the research instrument to suit present respondents.

According to Lynn (1986), survey research begins with assessing translation validity of the selected research instrument. The importance of thoroughly appraised research instrument used to gauge constructs is irrefutable; otherwise the percentage of measurement error of the construct will be overwhelming. Accordingly, the researcher used systematic process to establish the translation validity of the research instrument as recommended by Lynn (1986) and Brislin, Lonner and Thorndike (1973) through face and content validity assessments.

The systematic process of content validity was inclusive of translation and back translation of the instrument as suggested by Brislin (1970) and Brislin et al (1973). Accordingly, the instrument was translated from the origin language (source language) to Malay (target language); then the translated version was evaluated. Next, the translated Malay version was back translated to English by two bilingual experts and the translation was evaluated. Later both translated and back translated version were compared and evaluated by the researcher and the bilingual experts. Then the translated version was tested on selected prison officers to test its expediency.

Initially, the original researcher was contacted for permission to use the instrument for academic purposes only. Next, reviewing literature evidence of content validation studies and reported reliability statistics from published studies that used the instrument was carried out. Since the original instrument mostly was used in the western country and not yet in own country, the researcher sought four practitioner experts' advice and opinions to re-evaluate and reword as needed. These experts are the representatives of the research population.

The researcher ensured that the rewording of the instrument was based on the feedback from the experts. Lastly, the researcher selected content experts inclusive of academicians and practitioners for relevance and clarity (Lynn, 1986). Since Lynn (1986) recommends two to twenty content experts, the researcher contacted four experts (two from academic sector and the other two from the practitioner).

Prior pilot test, face validity was also performed to signify the suitability of the instrument for the study. Assessment sheets were distributed to three prison officers to assess wording clarity, grasp of meaning capability as well as questionnaire style and layout. However face validity was not sufficient because it shallowly assessed the instrument based on its practicability, arrangement and style constancy and language simplicity (Trochim, 2006). Thus, as a standing-alone assessment, face validity lacked of accurate judgment. Nevertheless, performing face validity might support content validity assessment.

3.12.2. Construct validity

As elucidated by Brown (1996), a construct or psychological construct is an attribute, proficiency, ability, or skill that happens in the human brain and is defined by established theories. It exists in theory and has been observed to exist in practice. Construct validity is explained as the extent to which a measure is measuring a construct it claims to be measuring. Trochim (2006) affirms the reason of construct validity is to evaluate the agreement between a theoretical concept and a specific measuring device or procedure of the instrument.

Bagozzi (1980) proposes six criteria to achieve construct validity of an empirical research which are i) theoretical meaningfulness of concepts, ii) observation meaningfulness of concepts, iii) the internal consistency of operationalization, iv) convergent validity, v) discriminate validity and vi) nomological validity. The first and

second criteria refer to the internal consistency of the language used in representing construct as well as conceptual relationship between a theoretical concept and its operationalization. The third, fourth, fifth and sixth criterions are strictly empirical. The third criterion is the internal consistency of measurement – Cronbach alpha's consistency coefficient. The fourth and fifth criteria are Multi-trait multi method matrix (MMTM). Lastly the sixth criterion is nomological validity. The fourth, fifth and sixth criterions are explained later in this section.

In this study, the researcher facilitated various ways to demonstrate construct validity such as factorial validity, correlation coefficient and multi-trait multi-method approach.

3.12.3. Convergent and discriminant validity

Essentially, construct validity involves providing psychometric evidence of convergent validity, discriminant validity as well as trait and method effects (Pedhazur & Schmelkin, 1991). Consistent conclusion is made by Eid (2000) as he construes that the technique is utilized when multiple traits are concurrently studied when each of them is evaluated through a set of measurement methods namely convergent validity coefficients, discriminant validity coefficients and reliability coefficients.

Basically, convergent validity coefficients are correlations between measures of the same construct using different methods (instruments) and should be in the range of .85 to .95 or higher (Schumacker & Lomax, 2004).

Meanwhile, discriminant validity coefficients are correlations between measures of different constructs using the same method (instrument) and should be lower than convergent validity coefficients and the instrument reliability coefficients (nomological validity).

To substantiate discriminant validity, average variance extracted (AVE) is compared to correlation squared of the interrelated variables of concerned (Fornell & Larcker, 1981). The AVE is derived from the calculation of variance extracted using the following equation:

$$\text{Variance Extracted (VE)} = \frac{\sum S(\text{standardized SMC}_j)^2}{\sum S(\text{standardized SMC}_j)^2 + \sum e_j^2}$$

From the variance extracted, AVE was then calculated by averaging the two variances extracted of the variables. For discriminant validity to be upheld, the value of AVE must be more than correlation squared.

3.12.4. Nomological validity

Nomological validity is performed to examine whether the correlations between constructs in the measurement theory make sense such that correlations must be positive or negative according to theory stipulated (Hair et al., 2010). In this research, nomological validity was performed simultaneously with convergent and discriminant validity.

3.13. Data analysis

In order to accomplish research objectives, the researcher used SPSS 14 and AMOS version 6 as statistical tools to facilitate data analyses. Before proceed with inferential analyses, the researcher initiated data screening on various issues: i) response bias, ii) missing data, iii) outliers (mahalanobis distance), iv) normality, v) linearity, vi) homoscedascity / heteroscedascity, vii) correlated error and lastly viii) validity of measurement.

Should the data was normally distributed, then only the researcher proceeded with parametric tests: using Pearson correlation, T-test, ANOVA, hierarchical regression as well as structural equation modeling. Next, the data was tested for its validity and reliability requirements using exploratory factor analyses and reliability analysis. Descriptive statistic analyses were then performed to assess demographic data of the respondents. Later, inferential analyses were carried out corresponding with research questions by utilizing various tests such as Pearson correlation, one-way ANOVA and independent t-test in SPSS as well as confirmatory factor analysis (CFA) in structural equation modeling (SEM).

According to Suhr (2006), exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) are both powerful statistical techniques; with EFA is performed prior to CFA. EFA helps to determine underlying constructs for a set of measured variables especially if the factor structure is not confirmed. Meanwhile CFA allows for test of

hypothesis of the relationship between observed variables and their underlying latent constructs.

The first research objective was fulfilled through mean comparison to get the level of each variable. Next, research objective two examined possible and degree of correlation between variables of study. To fulfill this objective, the researcher used Pearson correlation test as the statistical tool to obtain results. Next, the research objective three was accomplished via independent t-test and ANOVA analyses where these analyses were used to test the difference between two sample means against each other and to test multiple mean equalities. Meanwhile for research questions four and five, the researcher performed structural equation modeling technique to obtain the upshot. The researcher also used exploratory factor analysis to determine the actual number of factors underlying each constructs.

3.13.1. Two-step approach in structural equation modeling

The hypothesized model was tested via the two steps model-building in structural equation modeling as advocated by Anderson and Gerbing (1988). Via the method, confirmatory factor analysis (CFA) was facilitated to investigate validity measures of items of the hypothesized latent constructs. In the beginning, measurement model of each latent constructs were stipulated where the relationships between observed variables and latent constructs was scrutinized. Initial step was taken to assure acceptable condition of measurement model.

This first step was to ensure satisfactory specification of measurement model that was a compulsory prerequisite for testing substantive hypotheses. Later, the second step was carried out. This step required a hypothesis-driven assessment of the structural relationships between the latent constructs themselves. This step was essential to achieve the most meaningful and parsimonious model of the research.

Goodness of fit indices was utilized to assess the sufficiency of measurement and structural models. Should the result contradict where the initial theoretical model did not fit observed data, then an alternative structural model was suggested. Any modifications of the structural model was based on theory rather than empirically driven. Accordingly, structural models that varied in the number of constraints utilized were alleged to be nested. The goodness of fit test was used to compare the fit of hypothesized and modified models focusing on the most fitting model. Tests such as chi square fit, GFI, AGFI, TLI, RMSEA were used to test the goodness of fit of the model.

3.13.2. Item parceling

Since total items in this research measurement was large (items = 217 items); the researcher decided to apply item parceling technique as proposed by Bandalos and Finney (2001). These researchers (Bandalos, 2002; Bandalos & Finney, 2001) suggest on item parceling on these items to reduce convergence problems.

In addition, Bagozzi and Edwards (1998), emphasize that the parceling technique may result in less parameter estimations that initiate a better variable to sample size ratio.

Therefore Bandalos' (2002) suggestion to analyze instrument items in parcels instead of individual items is appropriate.

According to Bandalos and Finney (2002), the popularity of item parceling technique is acceptable and expanding. Nowadays, parceled items technique is a commonly used technique; and is applied in exploratory factor analysis (specifically for instruments with large items), confirmatory factor analysis and structural equation modeling (Bandalos, 2002; Bandalos & Finney, 2001).

During confirmatory factor analysis of SEM, there must be adequate evidence on strong relationship between the observed variables and hypothesized latent constructs. At its most basic level, this issue can be examined by testing whether individual scale items load on the appropriate latent construct. Using item-level indicators is essential when developing a new measure.

However, investigators frequently use an item parceling strategy (combining items from the same scale into common indicators) when using an established measure with many items and multiple constructs. There are two advantages to this strategy. Firstly, item parcels commonly exhibit higher reliability than individual items (West, Finch, & Curran, 1995). Secondly, using parcels reduces the number of estimated parameters in the measurement model; because model fit estimates are more stable when the respondent-to-parameter ratio is high, it is frequently preferable to combine indicators into parcels (Hall, Snell, & Foust, 1999).

For these reasons, and because the measures used in this study had been previously validated, item parcels were used in the present investigation. Details on parceled items are elaborated later in next section before and after the finalizing item numbers based on exploratory factor analysis.

3.13.3. Evaluation of model fit

According to Byrne (2010), the evaluation of model fit through SEM is comprised of measurement model and structural model of the research. Meanwhile, the evaluation process was focused on two pertinent areas which were the goodness of fit of the structural model as well as the goodness of fit of measurement model (Byrne, 2010). Alas Hoper, Coughlan and Mullen (2008) alert that the common or universal technique to signify model fit remains elusive. They caution on the abundance of fit indices available causing researchers to be confounded by the conflicting information available.

Nevertheless, both Brown (2006) and Byrne (2010) have endorsed a variety of fit indices by several experts such as comparative fit index (CFI) by Bentler (1990), root mean square error of approximation (RMSEA) by Steiger (1990), Tucker-Lewis index (TLI) by Tucker and Lewis (1973), normed chi square (χ^2 / df) by Wheaton, Muttén, Alwin and Summers (1977), standard root mean residual (SRMR) by Hu and Bentler (1999) and goodness of fit index (GFI) as well as adjusted goodness of fit index (AGFI) by Joreskog and Sorbom (1993). In order to avoid engulfment due to the abundance of fit indices, the researcher resorted to Marsh, Balla and McDonald's (1988) and in

accordance to findings from Sivo, Fan, Witta and Willse (2006) study, recommendation to rely on three conditions in choosing fit indices, specifically i) relative independence of sample size, ii) accuracy and consistency in evaluating different models and iii) simplicity of interpretation. The fit indices are exemplified in Figure 3.11.

Fit Index	Acceptable Threshold Levels
Chi square χ^2	Low χ^2 relative to df with insignificant p value ($p > 0.05$)
Relative χ^2 (χ^2/df)	2 : 1 (Tabachnick and Fidell, 2007) 3 : 1 (Kline, 2011)
RMSEA	Values less than 0.07 (Steiger, 2007); Value less than 0.03 represent excellent fit.
GFI	Values greater than 0.95 or 0.90
AGFI	Values greater than 0.90 or 0.80
RMR	Good models have small RMR (Tabachnick and Fidell, 2007)
SRMR	SRMR less than 0.08 (Hu and Bentler, 1999)
NFI	Values greater than 0.95 or 0.90
NNFI (TLI)	Values greater than 0.95 or 0.90
CFI	Values greater than 0.95 or 0.90
NNFI (TLI) and SRMR	NNFI of 0.96 or higher and SRMR of 0.09 or lower
RMSEA and SRMR	RMSEA of 0.06 or lower and a SRMR of 0.09 or lower
CFI and SRMR	CFI of 0.96 or higher and SRMR of 0.09 or lower

Referred from Hooper, Coughlan & Mullen (2008)

Figure 3.11 Fit indices

After adequate measurement and structural models had been established, significance levels of individual path coefficients were inspected to test specific hypotheses.

3.14. Pilot study

Next, the researcher deliberates on the pilot study. A pilot study employing cross sectional survey was performed on May 2009 to assess on the goodness of measure of the instrument.

The survey questionnaires were distributed at various locations such as Sungai Petani, Pokok Sena and Tapah through simple random sampling technique on 200 respondents. Rate of return was 100%. The reliability of measurement instruments were observed through internal consistency of cronbach's alpha values. Results of the pilot study are highlighted in Figure 3.12.

The cronbach's alpha values ranged between 0.61 and 0.96. Cronbach's alpha for self efficacy, perceived fairness, occupational stress, wellness and personality were 0.82, 0.96, 0.90, 0.89 and 0.90 respectively. While internal reliability results for neuroticism, extraversion, openness, agreeableness and conscientiousness personality domains were 0.76, 0.63, 0.67, 0.73 and 0.71 respectively.

Table 3.1. Pilot study: reliability of instruments

Constructs / Domains / Dimensions	Mean	Standard Deviation	Cronbach Coefficient Alpha Value α	No of Items
Wellness	269.70	17.38	0.89	73
Coping Self	39.91	3.28	0.68	18
Creative Self	46.41	3.75	0.63	18
Social Self	24.73	2.49	0.67	10
Essential Self	32.31	3.15	0.68	17
Physical Self	25.92	2.99	0.63	10
Personality	184.59	23.91	0.90	60
Neuroticism	34.56	6.86	0.76	12
Extraversion	28.62	4.49	0.63	12
Openness	23.26	4.80	0.67	12
Agreeableness	21.26	5.29	0.73	12
Conscientiousness	23.65	4.33	0.71	12
Self Efficacy	28.98	4.40	0.82	10
Perceived fairness	94.30	23.81	0.96	20
Distributive Justice	24.94	5.13	0.91	5
Procedural Justice	28.83	6.12	0.89	6
Interactive Justice	44.53	8.60	0.93	9
Occupational Stress	96.68	14.80	0.90	35
Work Overload	17.06	3.03	0.64	6
Role Conflict and Role Ambiguity	28.21	5.12	0.79	10
Inadequacies of Physical Conditions in Prison	8.07	8.07	0.61	4
Threat Perceptions	20.20	4.08	0.75	7
General Problems	20.60	4.26	0.73	8

3.15. Chapter summary

This chapter elaborates on methodology of the research facilitated specifically the research design, sampling technique, data collection procedure, data analysis technique and pilot test results that enabled the researcher to answer all research questions posted earlier in the previous chapter.

The main aim of the study was to test the hypothesized model that postulated self efficacy and perceived fairness as plausible mediating factors that could link between prison officers' wellness, their personality and occupational stress in prison environment. In order to test this theoretically driven model, structural equation modeling (SEM) was recognized as possible tool. The pilot study was conducted among prison officers in selected locations. Data was analyzed using SPSS 14. Further analyses, specifically those involving the testing of models (measurement models and structural model) involved the use of the AMOS version 16.

CHAPTER FOUR

PRELIMINARY ANALYSES

4.1. Introduction

This chapter explains the preliminary analysis performed prior to hypothesis testing of the hypothesized model. Preliminary analyses are detailed according to various sections inclusive of the data screening and treatment as well as the measurement reliability and validity analysis (internal consistency reliability, item parceling, exploratory and confirmatory factor analysis of measurement). Basically, inter-item reliability and exploratory factor analyses are used prior to full structural model testing to purify the multi-item scale based on parceled items. Only indicators exhibiting satisfactory loadings on the intended factor and indicators with no cross-loadings are retained.

4.2. Present study

Basically, the researcher followed the outline as explained by Tabachnick and Fidell (2007); they recommend data cleaning to enhance end result through proper data screening process involving assessing data in a few phases which are i) the accuracy of data input, ii) missing values treatment, iii) checking on normality and univariate and multivariate outliers and iv) statistical assumptions for multivariate analysis such as linearity, multicollinearity, heteroscedasticity and singularity.

4.2.1. Accuracy of data input

The researcher gathered raw data from the returned questionnaires. Raw data were keyed in Statistical Package for Social Sciences (SPSS) version 14. Descriptive and inferential statistical results were obtained through Statistical Package for Social Sciences (SPSS) version 14 and AMOS version 6. Generally, the data was within the Likert-type format scale. Prior statistical analysis raw data were cleaned and screened. Concurrently, negative items were re-coded. The results of measured constructs were reasonable.

4.2.2. Treatment of missing data

The researcher discovered only a few missing numbers at random, affecting 18 from total cases; of three to four missing values for personality items. The researcher treated the missing data according to Personality Instrument Manual (Costa & McCrae, 1992a). There are various ways of treating missing data and one possible way is to recode the “not answered” response as neutral (value at the middle). This approach reduces the variation in responses to questions since more responses would be grouped near the middle of the scale. As a result, the significance of the strong opinions of those who did express an attitude may be reduced. Accordingly, the researcher put in value “neutral” in all the missing data (Phillips, Butt & Blaszczyński, 2006). Overall, the case of missing data was not alarming.

4.2.3. Normality assumption for multivariate analysis

The most fundamental assumption in the data analysis is the normality of data, referring to the shape of data distribution, and how it will correspond to the normal distribution which is symmetrical bell-shaped curve characterized by the mean (average) and variance (variability) of data. Normality is very critical in many statistical methods because it significantly influences the result of the data.

Cramer and Howitt (2004) has affirmed that normality of data is the foremost among three assumptions of data suitable for parametric testing; abutting interval / ratio quality and equality of variance between groups. Cramer and Howitt (2004) also reprimands that any serious violations of assumptions will immensely influence researchers' choice of using suitable statistical tests: non-parametric or parametric test. Hun Myoung Park (2008) supports Cramer and Howitt (2004) when he affirms that one common assumption of statistical methods is that a random variable is normally distributed. Any assumption violation will cause interpretation and inference not reliable or valid.

Correspondingly, positivist researchers prefer conducting parametric tests simply because i) the chances of finding significant results are greater (more powerful) and ii) generalizing the result to population is possible (Tabachnik & Fidell, 2007). Embarking on normality test is a prerequisite before any inferential statistics are performed. Thus, data normality is the most critical factor in parametric analysis (Hair et al., 2010; Hun Myoung Park, 2008; Tabachnik & Fidell, 2001; Cramer & Howitt, 2004). Parametric statistical analyses such as factorial analysis, independent and dependent analysis in

multivariate analysis are contingent on data normality assumptions (Tabachnik & Fidell, 2007; Hair et al, 2010).

There are various ways to test normality. Normality test is realized through either graphical methods to visualize the distribution of random variables or through differences between an empirical distribution and theoretical distribution or through numerical representation of summary statistics such as skewness and kurtosis or conduct statistical test of normality (Hon Myoung Park, 2008; Hair et al. 2010; Tabachnik & Fidell, 2007). Graphical methods are easy to interpret whilst numerical methods provide objective ways of determining normality (Hon Myoung Park, 2008). Methods of normality tests are as shown in Figure 4.1:

	Graphical Methods	Numerical Methods
Descriptive	Stem and Leave Plot	Skewness
	Box Plot	Kurtosis
	Histogram	
Theory Driven	P-P plot	Shapiro-Wilk,
	Q-Q Plot	Shapiro-Francia test
		Kolgomorov-Smirnov test (Lillefors test)
		Anderson-Darling / Cramer-von Mises tests
		Jarque-Bera test
		Skewness-Kurtosis Test

Figure 4.1. Graphical methods compare to numerical methods

Initially, the basic indicator of normality test is to look at the skewed value. Skewness is the symmetry of the distribution where normal shape graph is a perfectly symmetric distribution. Positively skewed distribution has scores clustered to the left, with the tail

extending to the right whilst negatively skewed distribution is in contrast to the positively skewed.

According to Tabachnick and Fidell (2007), skewness and kurtosis must not be more than + or – 2 standard deviations from the mean; scores above + or -2 must be eliminated. In the present study, the researcher assessed normality mainly through Z-skewness test. The formula used is:

$$\text{Z-skewness} = \text{Skewness} / \sqrt{\sigma/N}$$

Based on Table 4.1., the researcher divided skewness with standard error of skewness to get Z-skewness value. The result in Table 4.1 shows that the data for these variables were normally distributed because the value obtained fell within ± 1.00 , indicating that the distribution of data was normal at 95% confidence level. Thus, this indicates that these variable scores were symmetrically distributed. Although it was slightly skewed (positive or negative) these scores were still in between the range of normal distribution (+2 and -2) (Tabachnick & Fidell, 2007). Hence the data set was considered appropriate for parametric analysis.

Table 4.1. Results of Z skewness for normality test

Variables	Skewness	Std Error of Skewness	N	Z Skewness
Employee Wellness	0.119	0.120	420	0.991 (*)
Personality	0.009	0.120	420	0.075 (*)
Occupational stress	0.055	0.120	420	0.458 (*)
Self Efficacy	-0.122	0.120	420	-1.016 (*)
Perceived Justice	-0.083	0.120	420	-0.692 (*)

* Z value falls within ± 1.96 ; it indicates that the distribution is normal at 95% confidence level.

4.2.4. Mahalanobis distance test

According to Hair et al (2010), should maximum Mahalanobis distance exceeds chi-squared value with degrees of freedom equal to number of predictors and alpha =.001, then there is a case of outliers in the data. Cohen and Cohen (1983) support Hair's et al (2010) statement when they declare that as the rule. The assumption is as follows:

Outlier Multivariate => Mahalanobis Distance > Chi-Square value

Table 4.2. Result of Mahalanobis distance test

	Minimum	Maximum	Mean	Std. Dev	N
Mahal. Distance	.883	23.259	8.978	3.974	417

a Dependent Variable: EMPLOYEE WELLNESS

Table 4.2 depicts Mahalanobis Distance value at minimum = .883 and at maximum = 23.259, Chi-square value = χ^2 (>100items, at critical value of 0.001) = 149. In this present study, there was no trace of mahalanobis distance effect when Outlier Multivariate = 23.259 < 149 on 417 respondents. Thus Mahalanobis distance analysis confirmed that present data was normally distributed (Hair et al., 2010).

4.2.5. Test of homogeneity of variances

The test of homogeneity of variance was conducted. Levene statistic result indicated variance of variables (employee wellness, self efficacy, perceived justice, occupational stress, neuroticism, extraversion, openness to experience, agreeableness and conscientiousness) were equal across groups (gender, age, tenure). Overall, the probability values were more than .05 level of significance ($p > .05$) (Hair et al. 2010). Hence there was an evidence of homogeneity in the data.

4.2.6. Test of linearity

The test of linearity was made via scatterplot of residuals against predicted values of each independent variable on dependent variable. All scatterplots revealed zilch trend of relationship between residuals and predicted values indicating positive assumption of linearity. Then, normal P-P plot of regression standardized residual plot was also assessed. In addition, normal probability plot of regression standardized residuals for dependent variable also showed that normal distribution was met. The Figure of P-P plot is illustrated in Figure 4.2.

Normal P-P Plot of Regression Standardized Residual

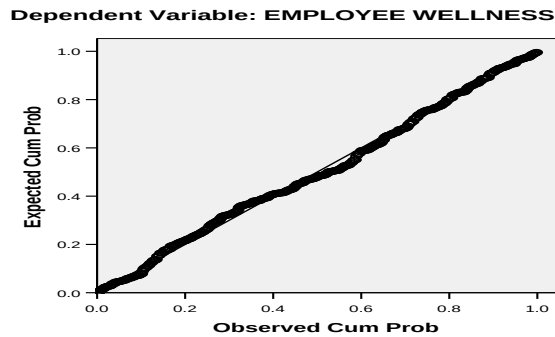


Figure 4.2 *Normal probability plot of regression standardized residual*

4.2.7. Multicollinearity test

Multicollinearity testing among independent variables was highly recommended prior testing hypothesized model (Hair et al. 2010). Multicollinearity implies that setback in correlation matrix arises when one independent variable is too highly correlated with another independent variable. Again, according to Hair et al (2010), multicollinearity is detected when correlation value exceeds 0.90 (Hair et al. 2010). The test of

multicollinearity is facilitated through looking at the tolerance value and variance influence factor (VIF).

Hair et al (2010) defines the tolerance value as to the amount of variability of selected independent variable not explained by the other independent variables whilst variance influence factor (VIF) is tolerance's inverse. The cut-off points for tolerance value and variance influence factor (VIF) are 0.10 and 10 respectively; suggesting VIF value to be close to 1.00 that implies little or no multicollinearity and a cut-off value of 10.00 is regarded as an acceptable VIF.

Table 4.3 highlights collinearity statistics for all the variables. Basically, the correlations between all the variables were below 0.90 denoting zilch problem of multicollinearity. Tolerance values ranged between .391 to .970 while VIF values range was within an acceptable limit between 1.031 and 3.128. Thus the result signified multicollinearity was not significant.

Table 4.3. Result for test of multicollinearity

Variables	Collinearity Statistics	
	Tolerance	VIF
Wellness	0.729	1.372
Self Efficacy	0.713	1.402
Perceived Justice	0.794	1.259
Occupational stress	0.970	1.031
Neuroticism	0.374	2.676
Extraversion	0.320	3.128
Openness to Experience	0.466	2.144
Agreeableness	0.464	2.156
Conscientiousness	0.391	2.560

4.3. The reliability analysis result of the measurement

Both Cavana et al (2001) and Hair et al (2010) signified the importance of reliability test of a measure where the test reflected the measurement's stability and consistency in measuring particular concept and it was error-free with consistent measurement across time and across items in the instrument.

Most researchers concurred on the necessity of performing reliability analysis in any scientific research and the analysis was simultaneously performed with validity analysis (Cavana et al, 2001; Hair et al, 2010; Gliem & Gliem, 2003). Gliem and Gliem (2003) verified the essentiality of measuring and reporting internal reliability (cronbach's alpha coefficient) for any scales in any research especially when utilizing Likert-type formatted scales. Otherwise, it would deliver flawed statistical repercussion.

Most common and widely accepted internal consistency reliability was Cronbach's alpha (Cavana et al., 2001). In consistent with the aforementioned statements, all construct variables for this present study were tested on their internal consistency to indicate that individual items of the scale measured the same construct and therefore would be highly correlated (Churchill, 1979; Nunnally, 1978).

The internal consistency of variables and dimensions are as illustrated in Table 4.4.

Table 4.4 Result of internal consistency reliability

Measurement Battery	No of Items	Mean	Std Dev	Cronbach Coefficient Alpha Value
5F WEL (Overall)	91	274.60	15.034	0.891
Dimensions:				
Coping Self	18	53.93	4.624	0.702
Creative Self	18	53.00	4.686	0.721
Essential Self	17	51.07	4.840	0.723
Physical Self	10	29.64	3.475	0.700
Social Self	10	27.88	3.084	0.725
Contextual Factor	18	55.83	5.453	0.795
Personality (NEO FFI) (Overall)	60	185.11	21.447	0.895
Domain:				
Neuroticism	12	34.22	6.435	0.749
Extraversion	12	28.62	4.489	0.646
Openness	12	31.11	5.125	0.670
Agreeableness	12	35.39	5.664	0.705
Conscientiousness	12	35.55	4.101	0.711
Self Efficacy (GSE)	10	28.70	3.923	0.778
Distributive, Procedural and Interactive Justice (DPIJQ) (Overall)	20	98.36	17.424	0.96
Dimensions:				
Distributive Justice	5	24.96	5.125	0.91
Procedural Justice	6	28.84	6.120	0.89
Interactive Justice	9	44.56	8.594	0.93
Work Stress for Prison officers (WSSCO) (Overall)	35	97.95	13.340	.885
Dimensions:				
Work Overload	6	17.33	2.732	0.614
Inadequacies in Physical Conditions of Prison	4	10.77	2.361	0.602
Role Conflict and Role Ambiguity	10	28.77	4.518	0.755
Threat Perception	7	20.44	3.766	0.722
General Problem	8	20.65	4.011	0.717

The least limit of acceptability for Cronbach's alpha score during pre test is at 0.60 while 0.70 is the lowest limit of score for actual study (Hair et al, 2010). However, other stance (Hair, Money, Samouel & Page, 2003) on cronbach alpha coefficient size of 0.60 is still acceptable (moderate). Referring to the table, overall cronbach's alpha coefficient for each measurement battery was adequate.

Nevertheless, two dimensions of Work Stress Scale for Correctional Officers scale namely Work Overload and Inadequacies in Physical Conditions of Prison revealed the least cronbach's alpha value of 0.614 and 0.602 respectively. Additionally, Cronbach alpha values of two personality domains, extraversion and openness to experience were at 0.646 and 0.670. Albeit low alpha values, they were still acceptable (Hair, Money, Samouel and Page, 2003).

4.4. Item parceling, exploratory factor analysis and confirmatory factor analysis of constructs

This present study applied exploratory factor analysis (EFA) to objectively trace natural groupings of factors (variables). EFA was also used to investigate the factor structure of measurement battery as well as to look into component structure for ultimate use in Confirmatory Factor Analysis (CFA) later in the research. Prior to EFA, this present study carried out item parceling technique on items of all variables. This was mainly due to the total number of items of the two variables was large; 91 items for wellness (5F-WEL) and 60 items for personality (NEO-FFI). Two out of five variables which were wellness and personality items were parceled prior to EFA because the measurements were quite intricate and they instigated factor cross loadings.

Meanwhile, another three variables, namely self efficacy and perceived justice and occupational stress of 10, 20 and 35 items respectively, were parceled later in confirmatory factor analysis (CFA). Again these five variables were parceled according to dimensions during structural modeling.

Costello and Osborne (2005) reveal that exploratory factor analysis (EFA) as the most commonly utilized statistical technique in social sciences where over 1,700 studies had used some form of EFA. Costello and Osborne (2005) also caution its complicity despite of its popularity; because it is a complex procedure with several options and guidelines to choose appropriate extraction method, rotation method, number of factors to retain for rotation and adequate sample size. Other researchers' (Hair's et al., 2010; Tabachnick & Fidell, 2007) stance on EFA also are comparable to Costello and Osborne's (2005).

Basically, EFA takes into account the number of constructs and the fundamental factor structure for identification and clarification of components. However, EFA should be used with caution; considering Steven's (1996) warning on the limitation of EFA. He (1996) reprimands on the limitations of EFA are inclusive of i) correlation in EFA describes relationship but not causal inferences; ii) accuracy of correlation is influenced by sample size; iii) factors are sample specific and not generalizable to larger population. Moreover, there is constant debate on appropriate extraction method in EFA.

Tabachnick and Fidell (2007) elucidate that there are two most common extraction method; PCA (principal component analysis or component factor) and common factor analysis (or principal axis factoring) (Hair et al, 2010; Costello & Osborne, 2005). Principal components analysis (PCA) focuses on data reduction method whilst factor

analysis detects any latent variables that cause the manifest variables to covary (Costello & Osborne, 2005).

Common factor analysis is theoretically based and it has more restrictive assumptions compared to principal component analysis (Costello & Osborne, 2005). Tabachnick and Fidel's (2007) stance supports Costello and Osborne's (2005) statement when they identify common factor analysis as the last solution for problem solving approach in data analysis. The complicity of the exploratory factor analysis has contributed to the extensive usage of component factor analysis or principal component analysis.

Since the difference is commonly debated among statisticians, therefore choosing the most appropriate method is deemed confusing. Nevertheless, Hair et al (2010) mentions on selection of methods depend on the objectives of the factor analysis with prior knowledge pertaining to the variance of variables and some basic characteristics of the relationship between constructs. In other words, there are several pertinent factors prior to selecting appropriate method, which are the goals and objectives of the research, the data set and the assessment of the fit between the methods (Tabachnick & Fidell, 2007).

Tabachnick and Fidell (2007) explain that should the researcher is interested in a theoretical solution uncontaminated by unique and error variability and has designed the research on the basis of underlying constructs that are expected to produce the scores of observed variables, then common factor analysis will be appropriate. Otherwise, principal component analysis should be chosen if the researcher only wants an empirical

summary of the data set. In a study by Costello and Osborne (2005), they elucidate on fierce arguments between statisticians in choosing the best method.

Some statisticians' stance are fixed on no difference between principal component analysis and common factor analysis while some strongly restrict to the use of principal component factor in favor of common factor analysis. Costello and Osborne (2005) are in favor of common factor analysis than principal component analysis because PCA does not separate shared and unique variance.

This condition will produce inflated values of variance accounted for by the components when factors are uncorrelated and communalities are moderate. Therefore, factor analysis has an advantage of avoiding the inflation of estimates of variance accounted for since factor analysis only analyzes share (common) variance (Costello & Osborne (2005).

Therefore in this study, common factor analysis was chosen instead of principal component analysis whilst varimax rotation with Kaiser Normalization was used to generate rotated component matrix for item loading and determine final factor grouping for CFA analysis.

4.4.1. Employee wellness item parceling for exploratory factor analysis, item parceling of constructs and confirmatory factor analysis – 5F-WEL

Wellness items were parceled via twenty parceled items that identified six common factors which were coping self, creative self, essential self, social self, physical self and contextual factor (Little, Cunningham, Shahar & Widaman, 2002). The coping self as the first second-order factor was parceled according to four which were realistic beliefs, leisure, self worth and stress management. Creative self as the second second-order factor was parceled according to five which were intelligence, control, work, emotion and positive humor.

Essential self as the third second-order factor was parceled under four namely spirituality, gender identity, culture identity and self care. Physical self as the fourth second-order factor was parceled according to two which were nutrition and exercise. Later, social self as the fifth second-order factor was bundled based on two which were friendship and love. Lastly, additional second-order factor which was the contextual factor was parceled according to three namely local, institutional and global and chronometrical.

First and foremost wellness items were parceled prior exploratory factor analysis as the measurement items were significant (overall items = 91). Significant number of items in wellness measurement was regard as convoluted especially during exploratory factor analysis (Els, 2006; Tengku Faekah, 2010). Thus to reduce convergent validity problem (cross loadings of items), the researcher has utilized item parceling technique as

recommended by Bandalos and Finney (2002), Bandalos (2001) and Els (2006). After parceling, exploratory analysis is carried based on parceled items. After exploratory factor analysis, wellness construct is ready for confirmatory factor analysis (CFA). Details on 5F-WEL item parceling is demonstrated in Appendix D.

Since this was the first time 5F-WEL was adapted into Bahasa Melayu and was tested in Malaysia, an exploratory factor analysis was performed to investigate the factorial validity of the translated instrument measurement. After parceling, these parcel items were then applied in exploratory factor analysis using principal axis factoring extraction method and varimax rotation.

The parceled items for each domain were forced to load on one factor at one time. Item parcels with loading values of .30 and higher were deemed to have significantly contributed towards describing each second-order and third-order of wellness (Tabachnick & Fidell, 2007). According to the EFA results, Kaiser-Meyer-Olkin value was at .830; above minimum .60 as implied by Tabachnick and Fidell (2007). Meanwhile Bartlett's Test of Sphericity tests was at significant level of $p = .000$ thus supporting correlation matrix factorability.

The loaded parceled items are in accordance to the five second-order factors specifically creative self (third-order factors are intelligence, control, work, emotion and humor), coping self (third-order factors are realistic beliefs, leisure, self worth and stress management), essential self (third-order factors are spirituality, gender identity, self care

and culture identity), social self (third-order factors are love and friendship) and physical self (third-order factors are exercise and nutrition). Meanwhile additional second-order factor, contextual factor was loaded on local context, institutional context and global and chronometrical context as third-order factors.

According to the result, factor loadings of creative self parceled items were at .528, .521 and .385 for work, intelligence and control respectively. Meanwhile, factor loadings for emotion and humor were lower than .3 indicating insignificant loadings. Next, factor loadings for coping self parceled items indicated significant factor loadings at .652, .574, .342 and .338 for leisure, self worth, stress management and realistic beliefs respectively.

Subsequently, significant factor loadings of parceled items for essential self dimensions namely spirituality, culture identity, gender identity and self care were at .531, .525, .522 and .453. Next, parceled items dimension of social self specifically love and friendship were at .613 and .613 respectively. Meanwhile, factor loadings of physical self dimensions explicitly exercise and nutrition were at .525 and .525. Finally, factor loadings for contextual factors namely global and chronometrical, institutional and local were at .722, .659 and .542.

The exploratory factor analysis results described eighteen dimensions with significant factor loadings whilst the other two dimensions specifically emotion and humor were of insignificant loadings. Detailed description of factor loadings is depicted in Table 4.5.

Table 4.5 Factor loadings 5F-WEL according to dimensions

	Factors					
	Creative Self	Coping Self	Essential Self	Social Self	Physical Self	Context Factor
Work	.528					
Intelligence	.521					
Control	.385					
Emotion	-					
Humor	-					
Leisure		.652				
Self Worth		.574				
Stress Management		.342				
Realistic Belief		.338				
Spirituality			.531			
Culture Identity			.525			
Gender Identity			.522			
Self Care			.453			
Love				.613		
Friendship				.613		
Exercise					.525	
Nutrition					.525	
Global and Chronometrical						.722
Institutional						.659
Local						.542

Extraction Method: Principal Axis Factoring.

Rotation Method: Varimax with Kaiser Normalization.

Next, twenty parceled items according to sub dimensions were then loaded into one wellness factor. These parceled items were loaded well in single factor with factor loadings ranging between .337 to .680, indicating 18 of 20 parceled items (measured variable) signified the concept of wellness as proposed by Myers and Sweeney (2004).

Whilst factor loadings of two parceled items which are positive humor and emotions were lower than .3 indicate insignificant loadings. Result of EFA is as illustrated in Table 4.6. This result has supported earlier EFA result in Table 4.5.

Table 4.6 Factor loadings under one wellness factor

Variables / Items	Factor Loadings of Wellness Factor
Global and Chronometrical Context	.680
Exercise	.583
Culture Identity	.577
Love	.570
Intelligence	.544
Self Worth	.542
Leisure	.528
Local Context	.521
Institutional Context	.511
Gender Identity	.507
Spirituality	.497
Stress Management	.444
Work	.413
Friendship	.371
Self Care	.367
Realistic Belief	.365
Nutrition	.351
Control	.337
Humor	-
Emotion	-

The result showed 18 of 20 measure variables were loaded on wellness construct. The factors range exceeded the cut-off point of .30 as initiated by Nunnally (1978) and Hair et al, (2010). Percentage of total variance of factor explained by measured variables (parceled items) was at 49.84%. Kaiser-Meyer-Olkin (KMO) value was at .864.

Meanwhile Bartlett's significant value was at .000 indicating that the correlation matrix was not an identity matrix (Hair et al., 2010). As demonstrated in Table 4.5, wellness items were parceled according to the sub dimensions, each representing the composite score of each dimension of wellness. Using parceled items as grouping criteria, this

technique enabled multidimensionality of the construct as demonstrated in Figure 4.2a and Figure 4.2b.

According to the exploratory factor analysis results, the parceled items represented the composite score of each factors of wellness. After exploratory factor analysis and items parceling of 5F-WEL measurement were performed, the parceled items were then analyzed via confirmatory factor analysis. CFA is illustrated in Figure 4.2a and 4.2b (hypothesized and modified measurement model). Confirmatory factor analysis on wellness was elucidated according to the second-order factors when the first-order factors were explained by a higher order factor structure.

In reference to the modified measurement model result as illustrated in Figure 4.2b. (The modified wellness measurement model), there were fifteen parceled items that identify six common factors, namely coping self, creative self, essential self, physical self, social self and contextual self. These six common factors indicated a second-order factor, namely Wellness.

The goodness of fit test of the model was stated as chi square value, $\chi^2/df = 2.379$ ($\chi^2 = 199.839$, $df=84$, $p=.000$, $n=417$), $TLI=.876$, $CFI=.901$, $GFI = .941$, $AGFI = .916$ and $SRMR = .0496$. Test of goodness of fit showed satisfactory results with RMSEA value

of .058 represented moderate fit (Steiger, 2007). Five deleted parceled items were stress management, self worth, emotion, humor and local context. Factor loadings for the six common factors were between $\beta = .73$, $t = 5.358$ and $\beta = .99$, $t = 9.642$, significant at $p = .000$. Whilst, factors loadings of fifteen parceled items were between $\beta = .36$, $t = 5.039$ and $\beta = .771$, $t = 13.409$, significant at $p = .000$. Hence, convergent validity of the second-order factor model was established. Details are as highlighted in Figure 4.2a and 4.2b.

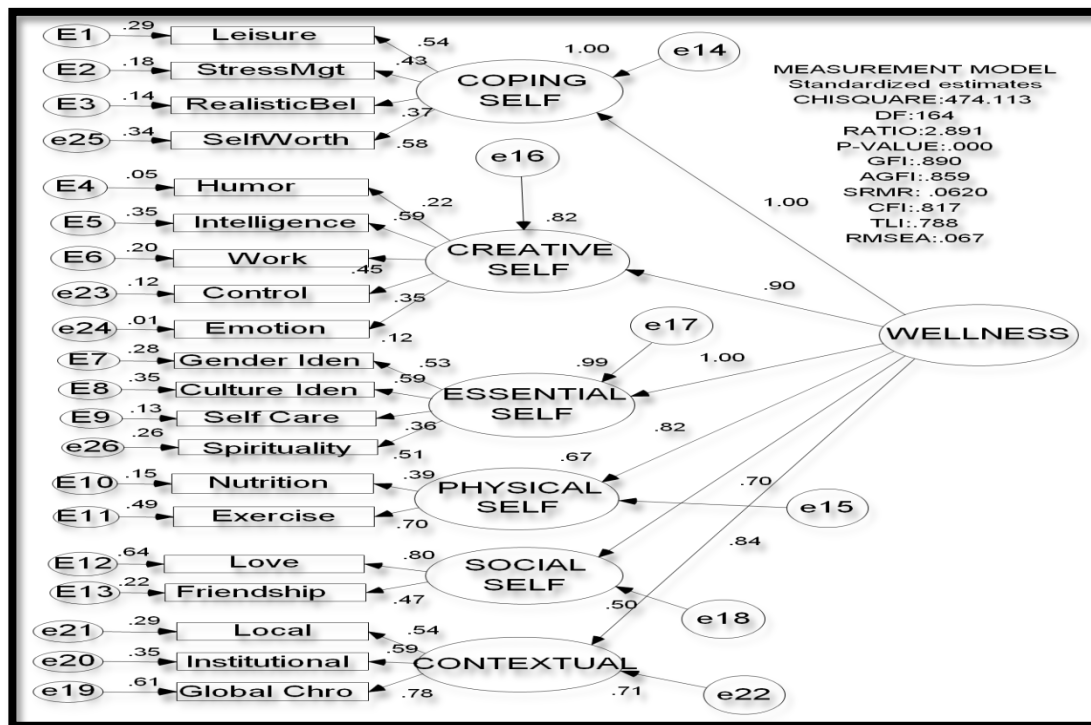


Figure 4.2a Hypothesized wellness measurement model

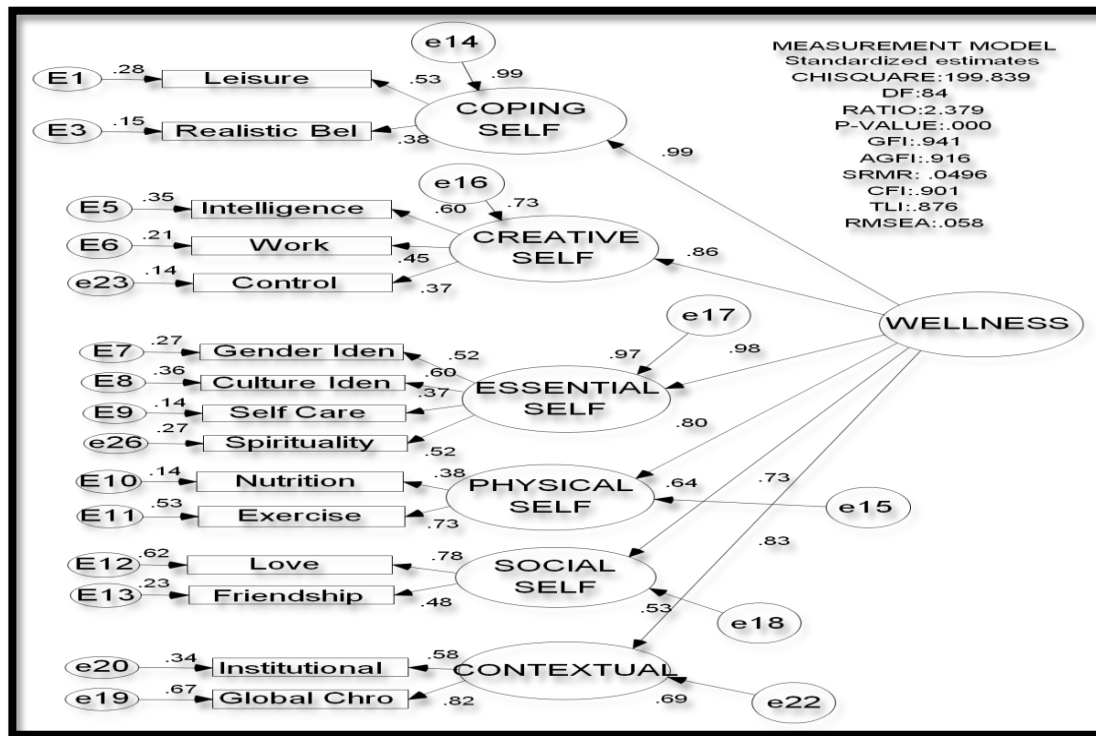


Figure 4.2b *Modified wellness measurement model*

Discriminant aspect between each factors were evaluated. Details on goodness of fit result were depicted in Figure 4.2c. The correlations between the wellness factors ranged from the lowest value, $r = .55$, $t = 5.199$, $p = .000$ (between essential self and physical self) to the highest $r = .80$, $t = 6.262$, $p = .000$ (between essential self and creative self). As a general rule, beta values of less than .90 indicated zilch multicollinearity thus it was proven that wellness factors were discriminant between one another (John-Benet-Martinez, 2000; Tengku Faekah, 2008).

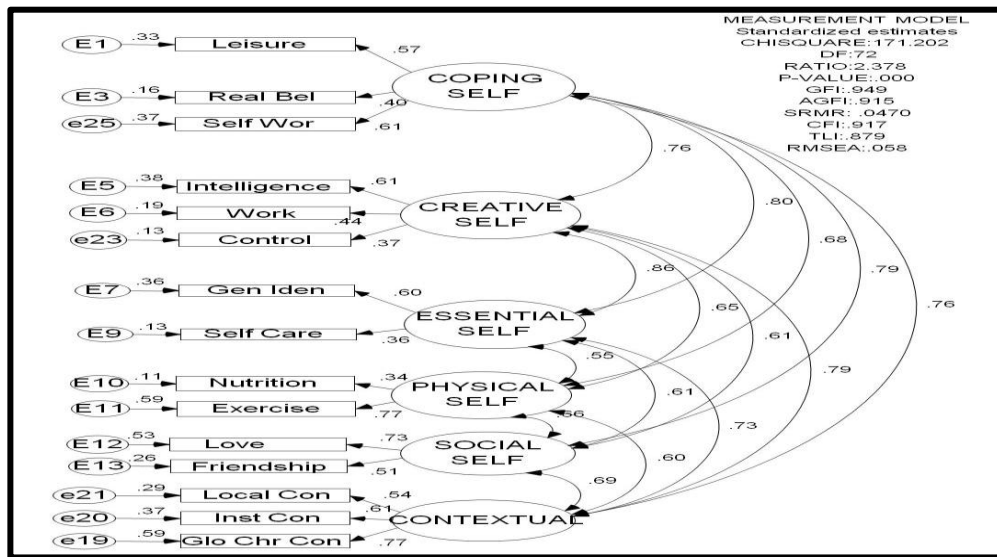


Figure 4.2c. Modified wellness measurement discriminant validity

4.4.2. Personality item parceling for exploratory factor analysis, item parceling of constructs and confirmatory factor analysis

The prime reason why item parceling process of personality items was performed prior to exploratory factor analysis process was due to its significant items of 60. Furthermore, the measurement of personality was a considerably complicated process causing cross loading of items during exploratory factor analysis.

Among scholars who conformed to the idea of item parceling for personality items are Aluja and Blanch (2004) when they performed item parceling on Cattell's 16-primary factor personality model and it is considered as major contribution to the complex area of personality research.

Most researchers utilized item parceling technique to personality variable in order to reduce convergent validity problem (Bandalos & Finney, 2001; Bandalos, 2002; Tengku

Faekah Tengku Ariffin, Rosna Awang-Hashim & Khulida Kirana, 2010). Personality items were categorized under 5 domains namely Neuroticism, Extraversion, Openness to experience, Agreeableness and Conscientiousness with 12 items in each domain. The 12 items were randomly flocked into three four-item parcels. Entirely there were 15 four-item parcels for personality variable.

Personality items were parceled differently compared to other constructs. This was because few scholars recommended random assignments of items as method of parceling such as Bandalos (2002) and Tengku Faekah Tengku Ariffin, Rosna Awang-Hashim, Khulida Kirana, Yahya (2010).

As cited in Tengku Faekah Tengku Ariffin, Rosna Awang-Hashim and Khulida Kirana Yahya (2010), Feldt, Metsapelto, Kinnunen and Pulkkinen (2007) also applied similar technique of bundling four items at random per parcel for NEO-FFI personality items.

Later exploratory analysis was carried out on the parceled items and personality construct was ready for confirmatory factor analysis (CFA). Details on NEO-FFI item parceling is demonstrated in Appendix D.

The exploratory factor analysis (EFA) was tested on parceled items using principal axis factoring method of extraction and varimax rotation. Parceled items according to their domain were pushed to load on one factor at a time. Item parcels with loading values of

.30 and higher were deemed to have significantly contributed towards describing each personality domain construct.

EFA results for each dimension are demonstrated in Table 4.7. Result of Kaiser-Meyer-Olkin values for each dimension exceeded minimum .60 as the suggested value by Tabachnick and Fidell (2007). Meanwhile Bartlett's Test of Sphericity for each dimensions were at significant level of $p = .000$ thus supported correlation matrix factorability. Detailed results are as shown in Table 4.7.

Table 4.7. Factor loadings of NEO-FFI

Variables / Items	Factor Loadings				
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
N2	.830				
N1	.732				
N3	.618				
E1		.884			
E3		.462			
E2		.438			
O2			.733		
O1			.693		
O3			.579		
A1				.772	
A2				.771	
A3				.616	
C1					.934
C2					.657
C3					.317

After exploratory factor analysis and item parceling of NEO-FFI measurement were performed, the parceled items were ready for confirmatory factor analysis. CFA factor loadings of NEO-FFI are illustrated in the Figure 4.3a and 4.3b.

After modification as highlighted in Figure 4.3b, factor loading of neuroticism, extraversion, openness to experience, agreeableness and conscientiousness were .87, .86, .99, .68 and .93 accordingly. Parcel item loadings were reasonable with loadings ranged between .48 and .98.

Test of goodness of fit showed adequate results with RMSEA value of .062 representing acceptable fit; where RMSEA values less than 0.07 indicated moderate fit while value less than 0.03 represented excellent fit (Steiger, 2007). Although p value was at .000 indicating inadequate fit where chi square χ^2 value was at 74.663 with degree of freedom at 29 (Hooper, Coughlan & Mullen, 2008) and the relative χ^2/df was less than 3 at 2.575: 1 (Tabachnick & Fidell, 2007 and Kline, 2011). Thus, this value indicated acceptable fit.

Moreover, other goodness of fit tests appeared fit. The Goodness of Fit Index (GFI) and Adjusted Goodness of Fit Index (AGFI) values were of .965 and .934 respectively. The GFI was obviously greater than .95 indicating satisfactory fit (Hooper, Coughlan & Mullen, 2008) while AGFI was more than .90 indicating sufficient fit. The Tucker-Lewis Index (TLI or NNFI) value also indicated acceptable goodness of fit with .947 (greater than 0.90) and Comparative Fit Index (CFI) value was at .966. Lastly, SRMR value was at .0353; indicating satisfactory fit. Details on goodness of fit result are as depicted in Figure 4.3a and 4.3b.

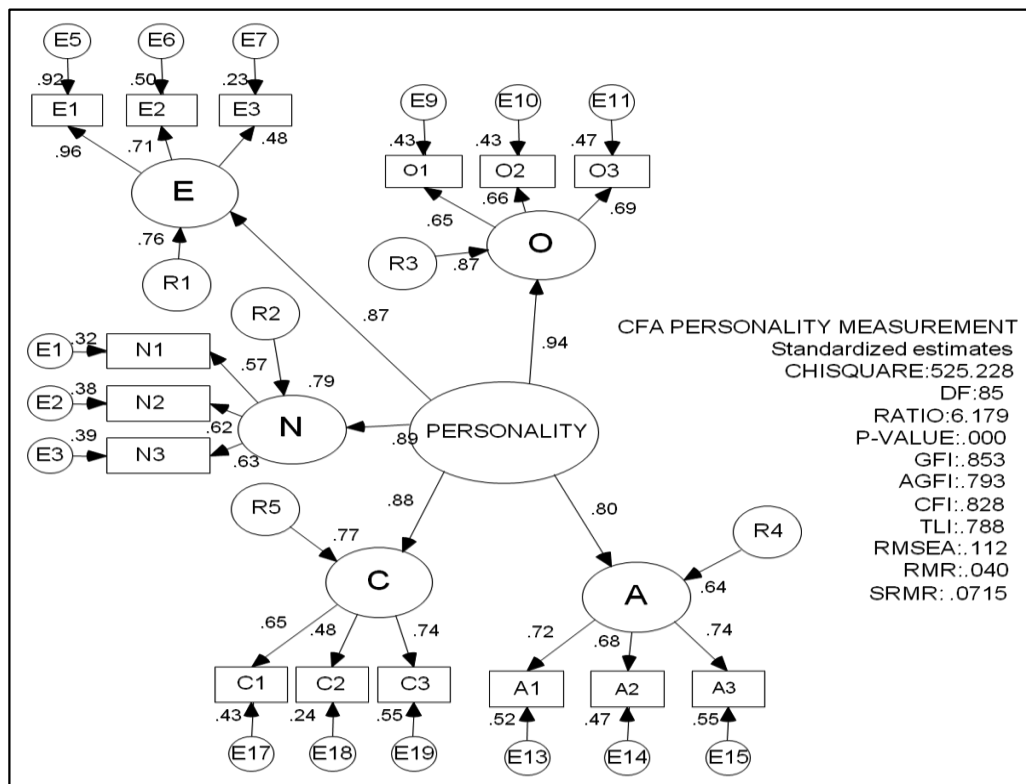


Figure 4.3a. Hypothesized personality measurement model

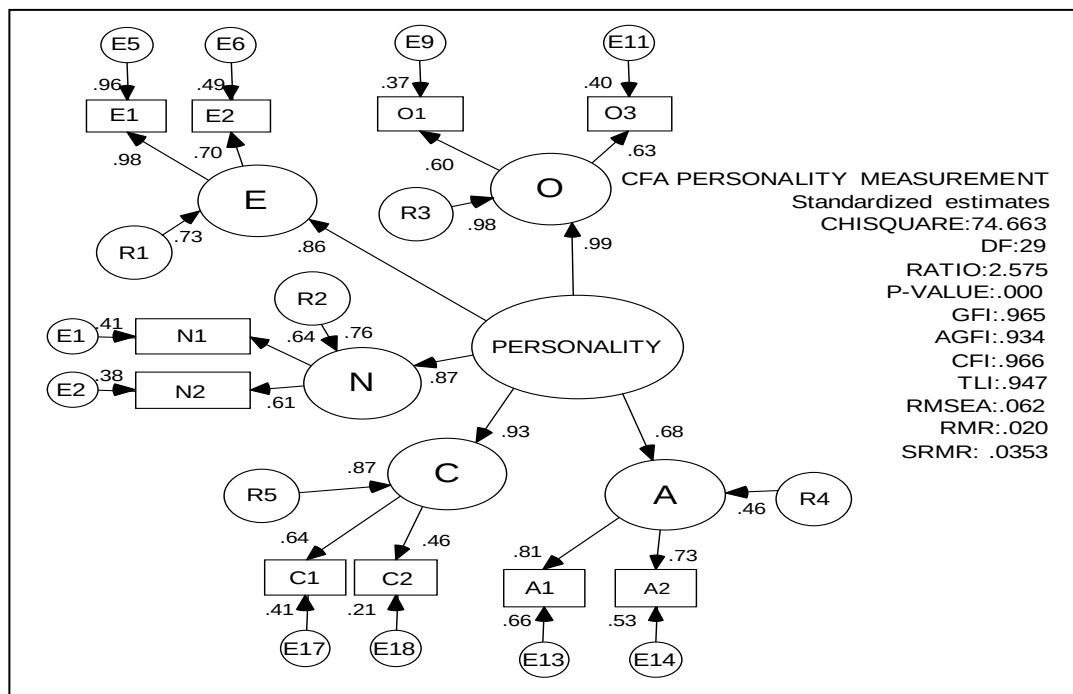


Figure 4.3b. Modified personality measurement model

4.4.3. Occupational stress item parceling for exploratory factor analysis, item parceling of constructs and confirmatory factor analysis

Item parceling for occupational stress construct was performed after exploratory factor analysis procedure. Items to parcel were based on factor loadings of each occupational stress dimension.

Occupational stress items were categorized under five dimensions specifically, work overload, role conflict and role ambiguity, inadequacies of physical conditions in prison, threat perception and general problems of 6 items (two three-items parcels), 10 items (two three-items parcels and one four-items parcel), 4 items (two two-items parcels), 7 items (one three-items parcel and one four-items parcel) and lastly 7 items (one four-items parcel and one three-items parcel) respectively.

EFA results for each dimension are demonstrated in Table 4.8. The values of Kaiser-Meyer-Olkin for each WSSCO dimensions exceeded minimum .60 as suggested value by Tabachnick and Fidell (2007).

Meanwhile Bartlett's Test of Sphericity tests of each dimension were at significant level of $p = .000$, thus supporting correlation matrix factorability. The total variance explained of each dimensions specifically work overload, role conflict and role ambiguity, inadequacies of physical conditions in prison, threat perception and general problems were at reasonable percentage value of 36.48%, 31.70%, 44.08%, 37.8% and lastly 38.77% respectively.

Factor loadings were ranged between .321 at the least and .681 at the maximum.

Detailed results are as shown in Table 4.8.

Table 4.8. Factor loadings of WSSCO

Variables / Items	Factor Loadings				
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
BSGP17	.648				
BSGP20	.598				
BSGP10	.580				
BSGP13	.563				
BSGP33	.495				
BSGP5	.433				
BSGP28	.404				
BSRCA22		.609			
BSRCA9		.589			
BSRCA21		.582			
BSRCA11		.529			
BSRCA14		.499			
BSRCA19		.491			
BSRCA31		.424			
BSRCA27		.398			
BSRCA15		.398			
BSRCA4		.348			
BSIPC25			.681		
BSIPC24			.517		
BSIPC7			.432		
BSIPC34			.321		
BSTP12				.639	
BSTP32				.604	
BSTP18				.580	
BSTP8				.572	
BSTP23				.442	
BSTP30				.422	
BSTP16				.382	
BSWO2					.575
BSWO3					.529
BSWO29					.449
BSWO6					.443
BSWO35					.364
BSWO26					.347

*p<.05; only loadings >.30 are displayed

Items for occupational stress were parceled based on Landis, Beal and Tesluk's (2000) single factor (S) procedures where after factor analyzing a scale forced into one factor,

the items with the highest loading and the items with the lowest loading were grouped into the first parcel, the items with the second highest loading and the items with the second lowest loading were grouped into the second parcel, and this continued until all items were exhausted. After item parceling and EFA, occupational stress construct was ready for CFA.

Details on WSSCO item parceling are demonstrated in Appendix D. After exploratory factor analysis and items parceling of WSSCO measurement were performed, the parceled items were ready for confirmatory factor analysis. CFA factor loadings of WSSCO are illustrated in the Figure 4.4a and 4.4b.

After modification, factor loadings of inadequacies of physical conditions in prison, work overload, general problems, threat perception and role conflict and role ambiguity were .26, .96, .94, .90 and .80 accordingly. Parcel item loadings were reasonable with loadings ranged between .37 and .88.

Test of goodness of fit showed satisfactory results with RMSEA value of .055 representing moderate fit as recommended by Steiger (2007) where RMSEA values less than 0.07 indicated moderate fit while value less than 0.03 represented excellent fit. Chi square χ^2 value was at 68.337 with degree of freedom at 30, with p value less than 0.05; indicating inappropriate fit (Hooper, Coughlan & Mullen, 2008). However, other Goodness of Fit indices were fitting. The relative χ^2/df (ratio) was less than 3; at 2.278: 1, showed an indication of fit (Tabachnick & Fidell, 2007; Kline, 2011).

Goodness of Fit Index (GFI) and Adjusted Goodness of Fit Index (AGFI) values of .970 and .945 respectively were also fit since both values were obviously greater than .90 indicating satisfactory fit (Hooper, Coughlan & Mullen, 2008). The Tucker-Lewis Index (TLI or NNFI) value also indicated satisfactory goodness of fit with .917 (greater than 0.90) and Comparative Fit Index (CFI) value was at .945. Lastly, SRMR value was at .0413; indicating reasonable fit. Details on goodness of fit result are depicted in Figure 4.4a and 4.4b.

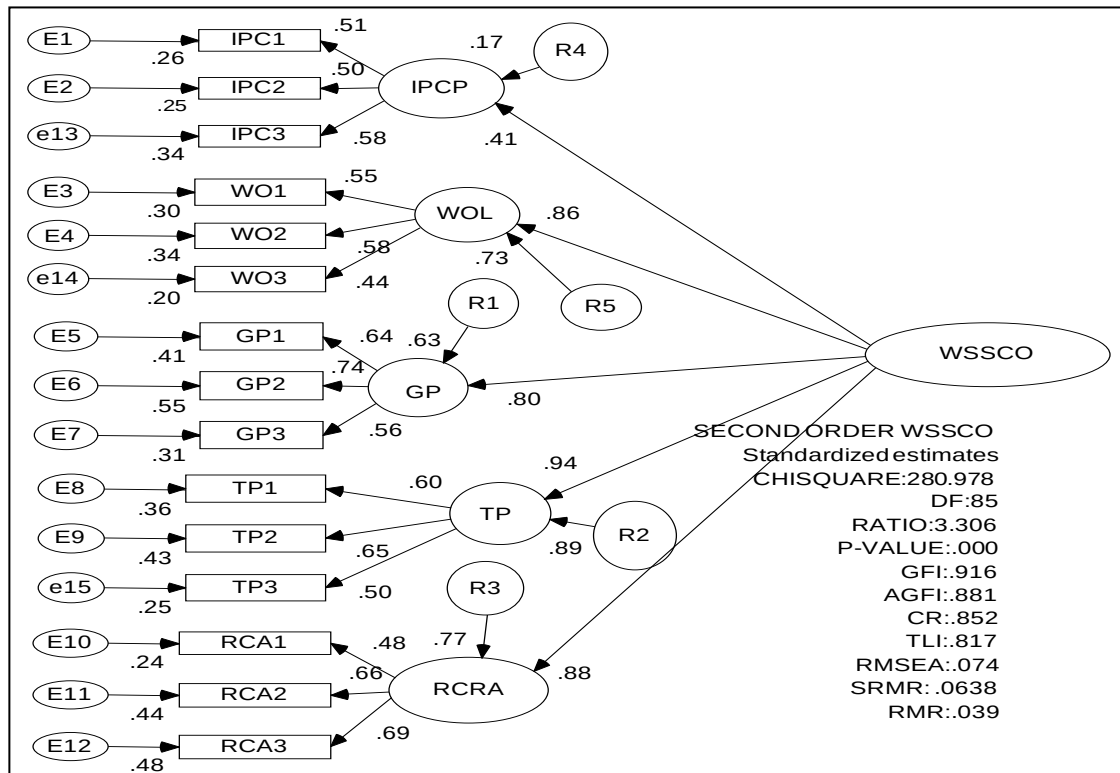


Figure 4.4a Hypothesized occupational stress model

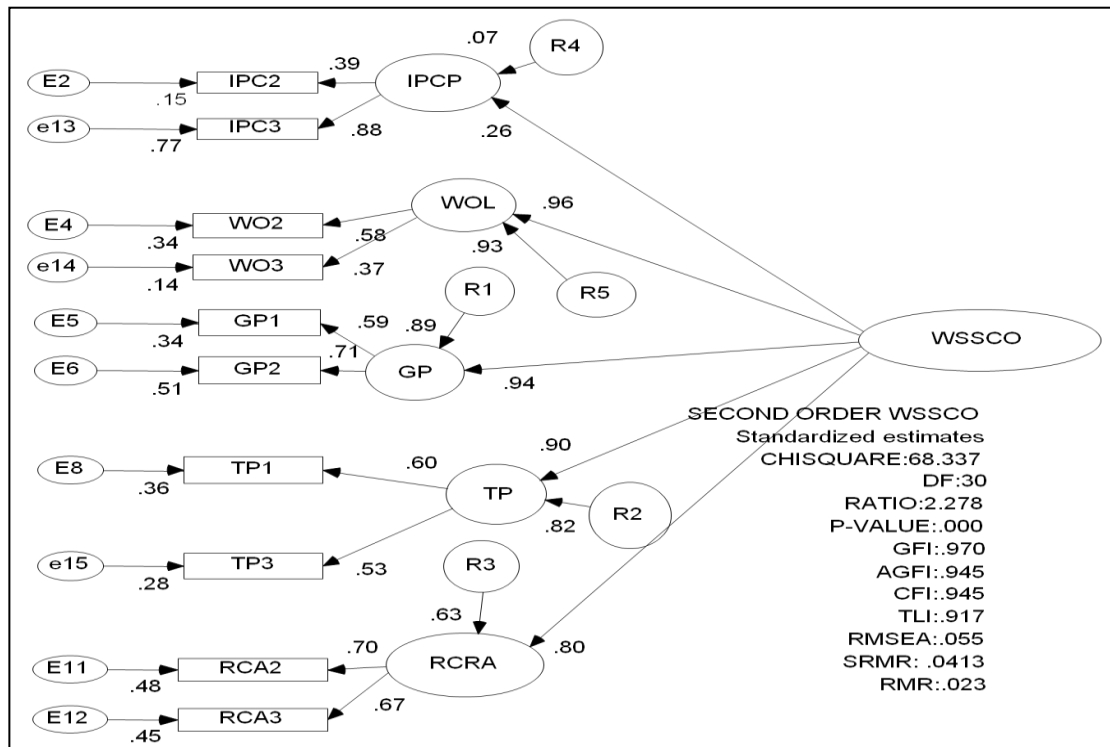


Figure 4.4b *Modified occupational stress model*

4.4.4. Perceived justice item parcelling for exploratory factor analysis, item parcelling of constructs and confirmatory factor analysis : DPIJQ

Items parcelling for perceived justice construct was performed after EFA analysis procedure. Items to parcel were based on factor loadings of each perceived justice dimension. Perceive justice items were categorized under 3 dimensions specifically, distributive justice, procedural justice and interactional justice of 5 items (one three-items parcels and one two-items parcels), 6 items (two three-items parcels) and 9 items (three three-items parcels) respectively.

EFA results for each dimension were demonstrated in Table 4.9. The results of Kaiser-Meyer-Olkin value for each dimension exceeded minimum .60 as the suggested value by Tabachnick and Fidell (2007).

Meanwhile, Bartlett's Test of Sphericity tests of each dimension were at significant level of $p = .000$ thus supporting correlation matrix factorability. The sum of square loadings for each dimension namely distributive justice, procedural justice and interactional justice were at reasonable percentage value of 65.69%, 58.35% and 59.35% respectively.

Factor loadings were ranged between .502 and .873. Detailed results are as shown in Table 4.9. Items for perceive justice were parceled based on Landis, Beal and Tesluk's (2000) single factor (S) procedures where after factor analyzing a scale forced into one factor, the items with the highest loading and the items with the lowest loading were grouped into the first parcel, the items with the second highest loading and the items with the second lowest loading were grouped into the second parcel, and this continued until all items were exhausted.

After item parceling and EFA, perceived justice construct was ready for CFA. Details on DPIJQ item parceling are demonstrated in Appendix D. After exploratory factor analysis and items parceling of DPIJQ measurement were performed, the parceled items were ready for confirmatory factor analysis. CFA is illustrated in Figure 4.5a and 4.5b.

Table 4.10. Factor loadings of DPIJQ

Variables / Items	Factor Loadings		
	Factor 1	Factor 2	Factor 3
BJIJ17	.795		
BJIJ18	.790		
BJIJ15	.787		
BJIJ16	.787		
BJIJ14	.779		
BJIJ19	.777		
BJIJ13	.776		
BJIJ12	.726		
BJIJ20	.714		
BJDJ4		.873	
BJDJ3		.868	
BJDJ2		.826	
BJDJ5		.765	
BJDJ1		.709	
BJPJ9			.860
BJPJ8			.860
BJPJ7			.803
BJPJ10			.785
BJPJ6			.713
BJPJ11			.502

*p<.05; only loadings >.30 are displayed

Based on the modified model in Figure 4.5b., factor loading of distributive justice, procedural justice and interactional justice were at .73, .98, .86 respectively. Test of goodness of fit showed satisfactory results. Although the Chi square χ^2 value was at 12.524 with degree of freedom at 4, p value of .014 (Hooper, Coughlan and Mullen, 2008) and its' relative χ^2/df at 3.131: 1; indicating inappropriate fit (Tabachnick and Fidell, 2007 and Kline, 2011); however other tests appeared fit.

The GFI and AGFI values were .990 and .948; greater than .90 indicating satisfactory fit (Hooper, Coughlan and Mullen, 2008). NNFI or TLI value also indicated satisfactory goodness of fit with .980 (greater than 0.95) and CFI value was at .995. Lastly, RMSEA value was at .072 which represents acceptable fit (Steiger, 2007). RMR and SRMR

value were at .019 and .0160 indicating satisfactory fit as well. Details on goodness of fit result are depicted in Figure 4.5a and 4.5b.

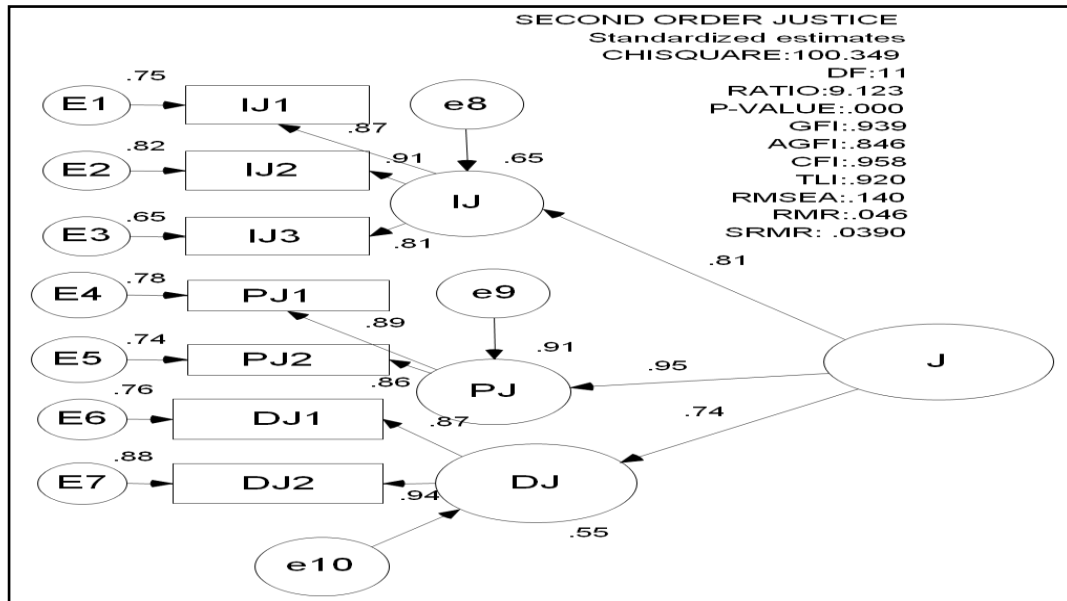


Figure 4.5a. Hypothesized perceived fairness model

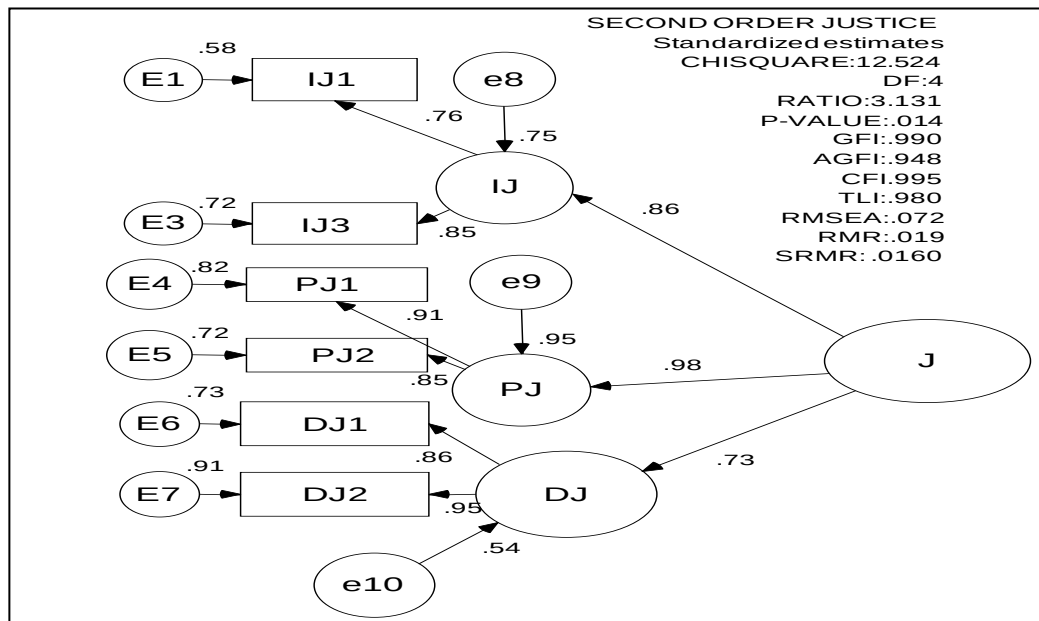


Figure 4.5b. Modified perceived fairness model

4.4.5. Self efficacy exploratory factor Analysis, item parceling of constructs and confirmatory factor analysis : GSES

Self efficacy measurement was unidimensional with 10 items. EFA results for each dimension are demonstrated in Table 4.10. Results for unidimensional self efficacy's Kaiser-Meyer-Olkin value was at .821 exceeding minimum .60 as the suggested value by Tabachnick and Fidell (2007). Meanwhile Bartlett's Test of Sphericity tests of each dimension were at significant level of $p = .000$ thus supporting correlation matrix factorability. Total variance explained was at reasonable percentage value of 40%. Factor loadings were range between .335 and .679. Detailed results are as shown in Table 4.10.

Table 4.10. Factor loadings of GSES	
Factor Loadings	
Variables / Items	Factor 1
SE9	.679
SE7	.678
SE5	.634
SE8	.631
SE6	.627
SE10	.593
SE1	.444
SE4	.425
SE3	.335
*$p < .05$; only loadings $> .30$ are displayed	

Items for self efficacy were parceled into three which were SES1, SES2 and SES3. Before item parceling process was performed, the researcher removed item SE2 because its factor loadings coefficient did not achieve minimum .30. Then only item parceling was carried out. After item parcels and EFA completed, self efficacy construct was ready for CFA. Details on GSES item parceling is as demonstrated in Appendix D.

After exploratory factor analysis and items parceling of GSES measurement were performed, the parceled items were analyzed via confirmatory factor analysis. CFA is illustrated in Figure 4.6. Factor loadings of GSES parceled items SES1, SES2 and SES3 were reasonably strong at .68, .67, .63 respectively.

Overall, test of goodness of fit showed satisfactory results. Chi square χ^2 value was low at .270 to degree of freedom at 1 with insignificant p value ($p > 0.05$) of .603 (Hooper, Coughlan & Mullen, 2008). Meanwhile, relative χ^2/df was at .207: 1, indicating an excellent fit (Tabachnick & Fidell, 2007; Kline, 2011). GFI and AGFI values were 1.0 and .997; greater than .95 indicating satisfactory fit (Hooper, Coughlan and Mullen, 2008). NNFI or TLI value also indicated satisfactory goodness of fit with 1.0 (greater than 0.95) and CFI value was at 1.0. Lastly, RMSEA value was at .000 which represented excellent fit (Steiger, 2007). Details on goodness of fit result are as depicted in Figure 4.6.

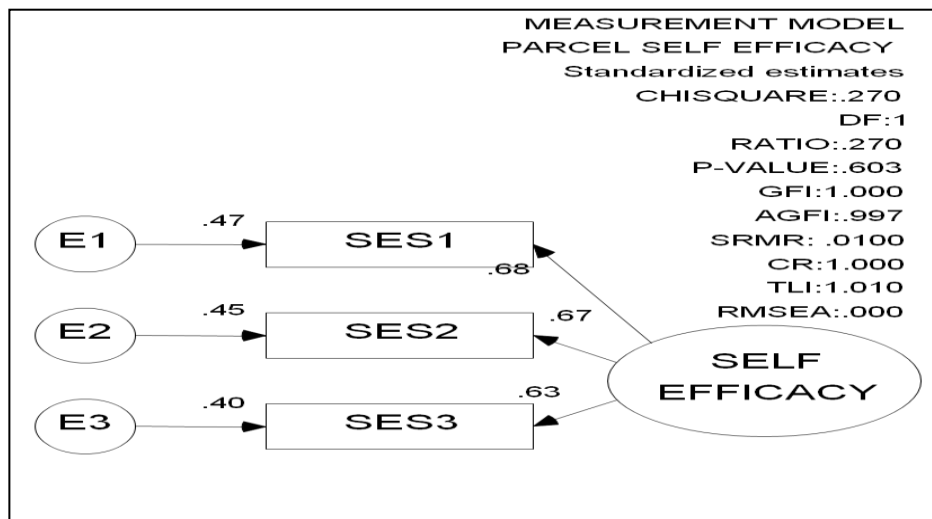


Figure 4.6. Hypothesized self efficacy model

4.5. Overall measurement

Next, findings on the overall measurement model were put forward before advancing to the structural model analyses in the next chapter. The model was comprised of the concoction of measurements used to gauge constructs in the study. To verify the fitness of the overall measurement model as well individual models with data, various “Goodness-of-Fit” Indices were used which comprised of GFI (goodness-of-fit) Index, TLI (Tucker-Lewis) Index, CFI (Comparative Fit) Index, SRMR (standardized root mean residual) Index, RMSEA (root mean square error of approximation) as well as the relative chi-square index. Furthermore, the disattenuated correlations between the constructs were also verified in order to establish discriminant validity of the instruments. Details are as illustrated in Figure 4.7a, 4.7b and Table 4.12. Figure 4.7a and 4.7b showed the overall measurement model with all parameter estimates resulted from the test carried out through confirmatory factor analysis (CFA) prior to modification and after modification using modification indices of the result.

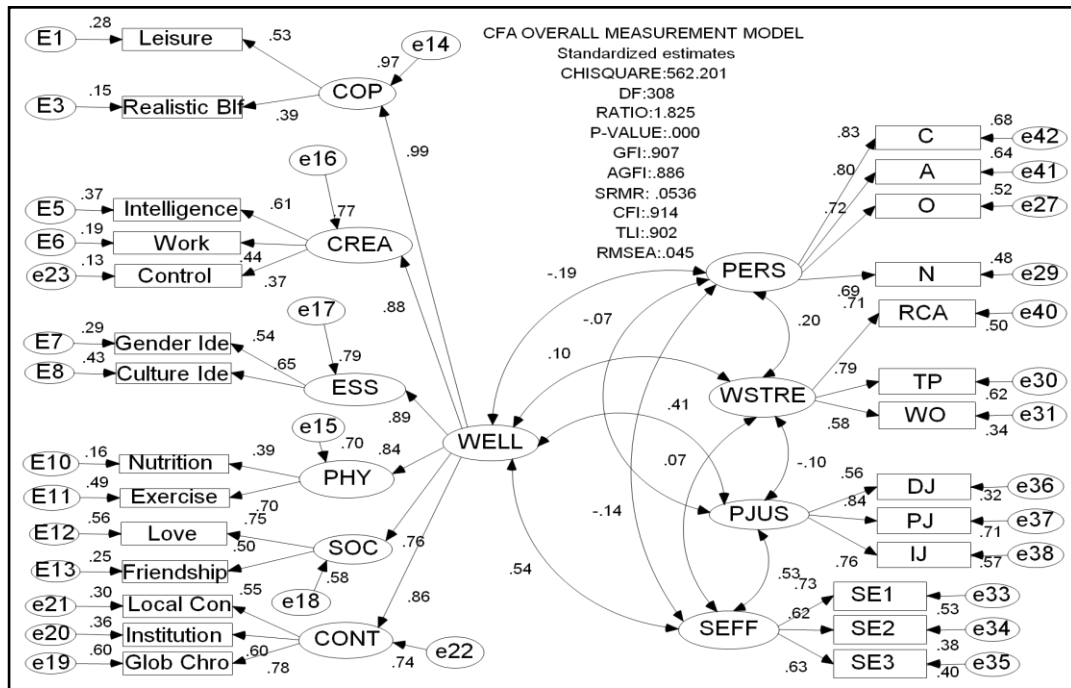


Figure 4.7b. Modified overall measurement model

4.6. Convergent and discriminant validity of overall measurement

The convergent and discriminant validity results of the overall measurement are as shown in Table 4.11 and Table 4.12. Table 4.11 highlights the result of internal reliability and convergent validity of overall measurement for model constructs. Internal reliability was assessed by Cronbach's alpha where the values are ranged between 0.746 to 0.894, indicating above the acceptable threshold point of 0.70 as suggested by Nunnally and Bernstein (1994). Meanwhile, convergent validity was used when different items were utilized to measure the same construct. It could be empirically evaluated through factor loading, composite reliabilities and variances extracted (Hair, et al., 2010). According to Kline (2011), factor loadings value of greater than 0.50 were considered adequate.

In accordance to Kline (2011), factors loadings for items as shown in Table 4.11 exceeded the recommended level of 0.50 except for IPC where it loaded on 0.320. Although the loading was lower than 0.50, IPC was not removed since it was considered significant to the interpretation of construct. Furthermore, the results of overall constructs internal reliability, composite reliability and variance extracted were considered as adequate values (Hair et al., 2006). Next, the composite reliability as suggested by Fornell and Larcker (1981) estimated the extent to which set of construct indicators shared in their measurement of the construct. Nunnally and Bernstein (1994) suggest that threshold value of .70 is appropriate to ensure adequate composite reliability of the construct.

Correspondingly, all constructs exhibited acceptable validity ranging from 0.767 to 0.948. Lastly, to confirm the adequacy of convergent validity, average variance extracted (AVE) was calculated to evaluate overall measurement's convergent validity. The minimum value of 0.50 was an evidence of convergent validity (Fornell & Locker, 1981). In view of that, four constructs met the threshold value of 0.757 (wellness), 0.600 (personality), 0.527(self efficacy) and 0.650 (perceived justice). However, occupational stress construct was exceptional at 0.412 which was close to the cut-off value. Although it might be an indicator of weak convergent reliability, previous researchers still argued that it was possible to have poor variance extracted, yet had high construct validity (Bagozzi, 1991; Hair et al., 2010). The measurement model was further evaluated to determine the construct reliability.

Results showed adequate reliability with all constructs exceeded 0.70 thresholds (Nunnally & Bernstein, 1994). In view of that, the desired convergent validity of the constructs had been achieved. Details are as shown in Table 4.11.

Table 4.11. Results of CFA for overall measurement

Constructs	Item	Internal Reliability Cronbach alpha	Convergent Validity		
			Factor Loadings	Composite Reliability ^a	Average Variance Extracted ^b
Wellness	ES	0.851	0.992	0.948	0.757
	PS		0.846		
	SS		0.698		
	CONT		0.855		
	CPS		0.980		
	CRS		0.924		
Personality	O	0.894	0.767	0.882	0.600
	E		0.816		
	N		0.691		
	A		0.777		
	C		0.814		
	TP		0.744		
Occupational Stress	WO	0.892	0.624	0.767	0.412
	IPC		0.320		
	GP		0.690		
	RCA		0.724		
Self Efficacy	SE1	0.861	0.736	0.769	0.527
	SE2		0.750		
	SE3		0.690		
Perceived Justice	DJ	0.746	0.680	0.846	0.65
	PJ		0.920		
	IJ		0.800		

a Composite reliability = (square of the summation of the factor loadings)/{(square of the summation of the factor loadings) + (square of the summation of the error variances)}

b. Composite reliability = (summation of the square of the factor loadings)/{(summation of the square of the factor loadings) + (summation of the error variances)}.

Subsequently, Table 4.12 illustrates the discriminant validity of the overall measurement. Discriminant validity was revealed through cutoff value of .90 to explain distinctness in construct content (Hair et al, 2010; Gold, Malhotra & Segars, 2001). In order to assess the discriminant validity, the shared variances between factors were compared with the average variance extracted of the individual factors as indicated in

Table 4.12. The inter-construct correlations off the diagonal of the matrix are as shown in the table.

The results showed the shared variances between factors were lower than the average variance extracted of the individual factors, confirming discriminant validity (Fornell & Larcker, 1981). Accordingly, the measurement model demonstrated discriminant validity.

Table 4.12. Discriminant validity of constructs

	Wellness	Personality	Occupational Stress	Self Efficacy	Perceived Justice
Wellness	0.757				
Personality	0.035	0.600			
Occupational stress	0.011	0.038	0.412		
Self Efficacy	0.288	0.019	0.005	0.527	
Perceived Justice	0.172	0.006	0.011	0.285	0.650

Note: Diagonals represent the square root of the average variance extracted while the other entries represent the squared correlations

4.7. Chapter conclusion

In a nutshell, having met all the measurement issues such as convergent, discriminant and nomological validity, a structural model was then analyzed to determine the structural relationship between occupational stress and personality as exogenous variables and self efficacy, perceived justice and employee wellness as endogenous variables within the revised model in the next chapter of hypothesis testing results.

CHAPTER FIVE

RESEARCH FINDINGS

5.1. Introduction

This chapter reveals the result of data analysis. The data finding contained pertinent analyses of results which were descriptive and inferential analyses – hypothesis testing on correlation, differences and effects between employee wellness, their occupational stress and personality as well as mediating variables which were self efficacy and perceived fairness as explained in the previous chapters. Data was analyzed using SPSS14 and AMOS6. Results were aimed at answering the research objectives:

- i) To investigate the level of wellness, personality, occupational stress, self efficacy and perceived fairness of prison officers at Prison Department of Malaysia.
- ii) To determine any difference on prison officers' wellness, occupational stress and personality according to their gender, age and tenure.
- iii) To indicate the degree of relationship between prison officers' wellness, independent constructs which are personality and occupational stress and mediating constructs which are self efficacy and perceived fairness.
- iv) To analyze the mediating effect of self efficacy and perceived fairness on the relationship between prison officers' wellness, employee personality and occupational stress at the Prison Department of Malaysia.
- v) To determine the best fit model of this present study.

5.2. Respondents' demographic profile

In this section, table 5.1 revealed prison officers' profile according to their gender, age, marital status, education, ethnic group, rank, tenure, department and location as illustrated in Table 5.1.

Table 5.1. Respondents' demographic profile

Gender	Frequency	Percent
Male	233	56%
Female	184	44%
Age	Frequency	Percent
20-29years	197	47.2%
30-39 years	117	28.1%
40-49 years	88	21.1%
50-59 years	15	3.6%
Marital Status	Frequency	Percent
Single	125	30.0%
Married	287	68.8%
Divorced / Widowed	5	1.2%
Highest Qualification	Frequency	Percent
PMR/SRP	22	5.3%
SPM/STAM	286	68.6%
STPM	53	12.7%
Diploma	34	8.2%
Degree	19	4.6%
Others	3	0.7%
Ethnic Group	Frequency	Percent
Melayu	393	94.2%
Cina	7	1.7%
India	8	1.9%
Others	9	2.2%

Position	Frequency	Percent
Prison officer KX17 / KX20 / KX22 / KX24 / KX26	334	80.1%
Supervisory Level KX27 / KX32	76	18.2%
Management KX41 / KX44/ KX48/ KX52/ KX54	7	1.7%
Tenure	Frequency	Percent
Less than 3 years	120	28.8%
4-10 years	164	39.3%
11-20 years	69	16.5%
21 years and above	64	15.3%
Department	Frequency	Percent
Urusetia / tugas am / Kawalan Keselamatan / UKP/ Layanan	86	20.6%
Detil/ Rekod Perusahaan / Statistik/ Parol	84	20.1%
PPI/ Kebajikan/ Halaqah/ Kawad/ Latihan	82	19.7%
Blok/ Bengkel/ Dobi/ Hospital/ Kantin/ Pengiring	165	39.6%
Prison Location	Frequency	Percent
Alor Setar	50	12.0%
Penang	50	12.0%
Taiping	50	12.0%
Utama Kajang	100	23.9%
Wanita Kajang	100	23.9%
Sungai Buloh	50	12.0%
Kluang	10	2.4%
Simpang Renggam	7	1.8%

As shown in the table, 56% were male and 44% were female prison officers. The difference in gender sample of 12% occurred since male prison officers outnumbered female prison officers in actuality. A larger number of female prison officers were concentrated at Penjara Wanita Kajang (female prison) with 334 female prison officers.

Next respondents' demographic profile was age. Most respondents were mostly at the age of 20-29 years old which comprised of 47.2%, whilst 28.1% of the total respondents are at age between 30-39 years old. Eighty-eight respondents were at the age of between 40 to 49 years old while another 3.57% of respondents were at the age between 50-59 years old. Details on age profile were as illustrated in Table 5.1. The youngest respondents were at 21 years old while the oldest respondent was 56 years old. In addition, the mean age of respondents was at 32.8 years, while the age mode was at 25 years and the median age was at 30 years. Details on mean, standard deviation and variance of age are as shown in Table 5.2.

Table 5.2 Mean, standard deviation and variance for age of respondents

Variable	N	Mean (x)	Std Dev (s)	Var (s ²)	Mode	Med
Age	417	32.84	8.462	71.603	25	30

Further as shown in Figure 5.1., there was a surplus of 49 male respondents compared to female respondents. The number of male respondents at the age between 20 to 29 years was 109 while female prison officers were 88 persons. The surplus of male respondent condition was also similar in the other age groups. The male respondents between the ages of 30 to 39 years were 66 whilst the female respondents were only 51 (surplus of 11 male respondents). Meanwhile, the female respondents between age group 40 to 49 years were less than male respondents by 12 respondents. Lastly male and female respondents for the age group between 50 to 59 years were almost equal in numbers (of 8 and 7 respectively). In fact, considerable difference between male and female

respondents actually depicted the true picture regarding prison department employees where majority of employees are males.

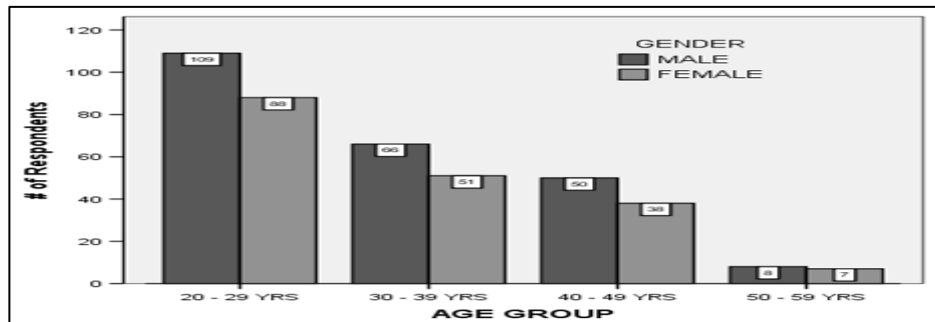


Figure 5.1 Respondents according to gender and age

Next, the marital status of respondents is also exhibited in Table 5.1. Based on the table, a majority of the respondents were married. The statistics showed 68.82% respondents were married, followed by 29.98% for single respondents and others were widows or divorcees who were of 1.2%.

Meanwhile, the table also illustrated the respondents' education level. It showed 68.59% of the respondents were SPM/STAM holders. While STPM holders, Diploma, PMR/SRP were 12.71%, 8.15% and 5.28% of the total respondents. Degree holders were 4.56% and others were 0.72% from the total respondents.

Figure 5.2 depicts respondents' education level according to gender. Most male and female respondents obviously were SPM/STAM holders (164 and 122 respectively).

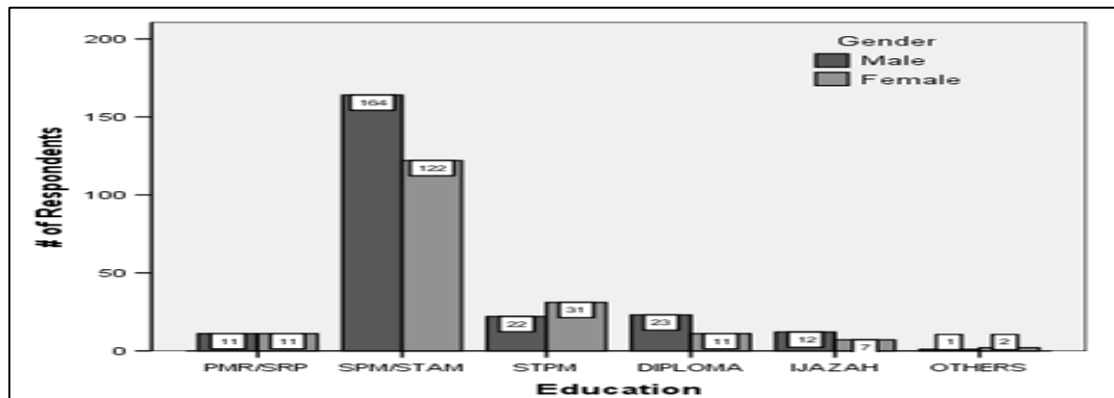


Figure 5.2 Respondents according to education level and gender

The table also highlighted on the ethnic groups of the respondents. Malay was the largest with 94.24% (n=393). Other ethnic groups which were Chinese, Indian and others were only 5.76%.

Next, details of prison officers' position according to their rank as shown in the table revealed lower ranking officers were 80.10% (n = 334) of the total respondents, while supervisory level and management level staff were of 18.23% (n = 76) and 1.68% (n = 7) respectively.

Subsequently, prison officers' tenure revealed most respondents had worked for between 4-10 years with 39.3% (n=164) whilst 28.8% (of 120 from the total respondents) respondents had worked in Prison Department for between 3 years and below. Those prison officers who had worked for between 11 to 20 years were only 16.5% (n=69) of the total respondents while another 15.3% (n=64) had served for between 21-30 years.

Meanwhile, most respondents worked at blocks, workshops, laundramatte, hospital, canteen, or as escorts of the offender to the court who were 39.6% from the total respondents. Meanwhile another 86 (20.6%) respondents worked at various divisions particularly operation office, general duty, security guards and prison security unit. Another 84 (20.1%) respondents were from detailing, record, statistic, parol and industrial unit whilst 82 (19.7%) respondents were from rehabilitation and training unit. The detail is as highlighted in Table 5.1.

Lastly, information on prison locations as emphasized in Table 5.1 revealed most respondents were from two major locations which were Wanita Kajang Prison and Utama Kajang Prison (both 23.9%, n = 100). Four other prisons with 50 respondents each, namely were Alor Setar Prison, Penang Prison, Taiping Prison and Sungai Buloh Prison (12.0% each). Kluang and Simpang Renggam Prison each contributed to 10 and 7 respondents (of 2.4% and 1.8% respectively).

5.3. Prison officers' wellness, their personality, occupational stress, self efficacy and perceived fairness

In this section, descriptive statistic analysis is facilitated to achieve Objective One of the research which was to investigate the level of prison officers' wellness, personality domain, occupational stress, self efficacy and perceived fairness.

5.3.1. Central tendencies and measures of dispersion

Descriptive statistics such as minimum, maximum, mean, standard deviation and variance values were obtained for all the variables which were employee wellness, their personality domain, occupational stress, self efficacy trait and perceived justice. The analysis looked at the mean and standard deviation of the variables of the study. All variables used Likert-type formatted scale. The results are as shown in Table 5.3.

Table 5.3 Central tendencies and dispersion of variables

Variables	Sum	Range	Mean	Std Dev	Var
Wellness (73)	276.74	High	3.04	0.167	0.028
Self efficacy (10)	29.74	Medium High	2.97	0.436	0.190
Perceived justice (20)	98.71	Medium High	4.94	0.879	0.773
Occupational stress (35)	99.64	Medium High	2.85	0.369	0.173
Personality (60)	170.26	Medium Low	2.84	0.477	0.227
Neuroticism (12)	33.69	Medium Low	2.81	0.588	0.345
Extraversion (12)	35.73	Medium Low	2.98	0.600	0.360
Openness (12)	33.21	Medium Low	2.77	0.643	0.414
Agreeableness (12)	29.38	Medium Low	2.44	0.688	0.474
Conscientiousness (12)	33.86	Medium Low	2.82	0.544	0.296

Note:

Calculation for the analysis is based on sum score. Average of Total Mean Score is based on Likert-type scale; where wellness, self efficacy and occupational stress are based on 4-points Likert-type scale; personality, neuroticism, extraversion, openness, agreeableness and conscientiousness are based on 5-point Likert-type scale and perceived justice is based on 7-point Likert-type scale.

According to the table, analysis results on the variables in the research showed that sum score ranged between 29.38 and 276.74 while average mean score ranged between 2.44 and 4.94 as well as standard deviation score ranged between at .167 and .879. Calculated based on the sum scores on Likert-type scale (as highlighted in Chapter Four), the mean score and standard deviation score of each variable were 3.04 and .167 (wellness), 2.97 and .436 (self efficacy), 4.94 and .879 (perceived justice), 2.85 and .369 (occupational stress), 2.80 and .477 (overall personality), 2.81 and .588 (neuroticism), 2.98 and .600

(extraversion), 2.77 and .643 (openness to experience), 2.44 and .688 (agreeableness) and 2.82 and .544 (conscientiousness) respectively.

The mean and standard deviation score for prison officers' wellness was high while occupational stress, self efficacy and perceived justice were at medium high level. The mean scores for personality and each personality domains were at medium low level. Agreeableness personality domain was the lowest score.

5.3.2. Variables mean and standard deviation comparison between gender

The researcher also facilitated another analysis that focused on differences between genders as indicated in Table 5.4. The mean and standard deviation scores for wellness of female employees were at 3.02 and .160 respectively compared to male scores at 3.04 and .172 respectively. This suggested that female respondents had slightly lower wellness level compared to male respondents.

Next, the mean and standard deviation scores for occupational stress of female respondents were at 2.84 and .388 respectively compared to male respondents' scores at 2.94 and .426 respectively. This signified that female respondents had slightly lower occupational stress compared to male respondents.

Subsequently, the mean and standard deviation scores for self efficacy and perceived justice of female respondents were at 2.99 and .385 and 4.93 and .828 respectively compared to male scores at 2.94 and .483 and 4.92 and .899 respectively.

This revealed that female respondents had slightly higher self efficacy and perceived justice level compared to male respondents. The overall mean and standard deviation scores for personality of female respondents denoted that female respondents had different personality level at 3.06 compared to male scores at 2.88. Meanwhile, the results for each personality domain indicated similar results where female prison officers scored higher compared to their male counterparts as indicated in Table 5.4.

Table 5.4 Comparison of means and standard deviation based on gender

Variables	Scores	Male	Female
Wellness	Mean	3.039	3.022
	Std. Deviation	0.172	0.160
Personality	Mean	2.883	3.056
	Std. Deviation	0.314	0.379
Neuroticism	Mean	2.78	2.84
	Std. Deviation	0.566	0.614
Extraversion	Mean	2.94	3.03
	Std. Deviation	0.591	0.608
Openness	Mean	2.72	2.83
	Std. Deviation	0.631	0.656
Agreeableness	Mean	2.36	2.54
	Std. Deviation	0.651	0.723
Conscientiousness	Mean	2.78	2.85
	Std. Deviation	0.651	0.557
Occupational stress	Mean	2.939	2.841
	Std. Deviation	0.426	0.388
Self Efficacy	Mean	2.940	2.985
	Std. Deviation	0.483	0.385
Perceived Justice	Mean	4.919	4.934
	Std. Deviation	0.899	0.828

Note:

Calculation for the analysis is based on sum score. Average of Total Mean Score is based on Likert-type scale; where Wellness, Self Efficacy and Occupational stress are based on 4-points Likert-type scale; Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness are based on 5-point Likert-type scale and Perceived Justice is based on 7-point Likert-type scale.

5.4. Inferential statistics – hypotheses testing

The development of research hypotheses was established according to the literature review and conceptual framework of the research. The present study questions were converted into alternative hypotheses to enable statistical testing analysis to be conducted. Basically, hypothesis testing is the rational framework for applying statistical tests where statistic is used to confirm whether sample data of the research is significant or not (Cavana et al., 2001) The purpose of hypothesis testing is to confirm the postulated relationship between various constructs through appropriate statistical technique in order to obtain satisfactory explanation for research questions (Cavana et al., 2001).

5.4.1. Difference of wellness, personality and occupational stress based on gender, age and tenure of prison officers

In this section, inferential statistical analyses were facilitated to achieve Objective Two of the research. Hypothesis One focused on differential aspect and corresponded to Question Two of the research which was to determine the differences of wellness, occupational stress and personality of prison officers according to their demographic factors which are gender, age and tenure. Independent t-test and ANOVA were conducted to compare two and three groups accordingly. Detailed results of the analyses are shown according to hypotheses dissections as explained next.

Wellness differences based on prison officers' gender

H1a: There are significant differences between male prison officers' wellness and female prison officers' wellness.

According to Table 5.5 result showed that the difference of mean and standard deviation between male prison officers' wellness and female prison officers' wellness was relatively small; (3.04 compared to 3.02). The findings showed that there was no significant difference ($p > .05$) of wellness between both gender, with $p = 0.332$. As a result, Hypothesis H1a was rejected, indicating that there was no significant difference of wellness level between male and female respondents as depicted in Table 5.5.

Table 5.5 Summary of t-test result on wellness between genders

	Gender	N	Mean	Std. Dev	t	Sig.
Wellness	Male	233	3.04	.172	1.455	0.332
	Female	184	3.02	.160		
p<.05						

Wellness differences based on prison officers' age

H1b There are significant differences of prison officers' wellness level according to their age group.

One Way ANOVA was performed to determine the differences of wellness according to respondents' age group. The analysis was facilitated to test Hypothesis H1b whether to reject or not the alternate hypothesis that there was significant difference of wellness according to their age group. The mean of wellness for every age group was obtained through the descriptive analysis as depicted in Table 5.6.

Table 5.6 Mean and standard deviation of wellness according to age group				
Wellness	N	(%)	Mean	Std Dev
20 – 29 yrs	197	47.2	3.060	0.166
30 – 39 yrs	117	28.1	3.120	0.165
40 – 49 yrs	88	21.1	3.008	0.154
50 – 59 yrs	15	3.6	2.997	0.216

From the result, respondents whose aged between 30 to 39 years produced the mean score of 3.120 followed by the respondents whose aged between 20 to 29 years old with the mean score of 3.060. Respondents aged between 40 to 49 years scored at 3.008 and those aged between 50 to 59 years scored at 2.997. Result from one-way ANOVA is shown in Table 5.7.

Table 5.7 Summary of ANOVA result on wellness according to age					
	Sum of Squares	Df	Mean Square	F	Sig.
Between groups	.237	8	.079	2.901	0.035
Within groups	11.247	413	.027		
Within groups	11.484	416			

p<.05

Table 5.7 showed that wellness significantly differed between the four age groups at p<.05 level of $F(8,413) = 2.901$, $p = 0.035$. Since there was a significant difference between these four groups on their wellness level, the researcher examined where the difference of wellness level existed. Since the F-ratio was found to be significant a Post Hoc analysis using Tukey HSD test was performed to check which age group showed significant difference on their wellness level. Results were as depicted in Table 5.8.

The result revealed that there was statistically significant difference of respondents' wellness level between the age group of 20-29 years and 40-49 years. The result also indicated that wellness of respondents age between 20-29 years were vastly lower than respondents aged between 40-49 years.

Table 5.8 Summary of multiple comparison result of four age groups

Age Grp		Mean Diff	Std Error	Sig.
0-29 yrs old	30-39	.040	.019	.168
	40-49	.052	.021	.046*
	50-59	.065	.044	.461
30-39 yrs old	20-29	.040	.019	.168
	40-49	.013	.023	.949
	50-59	.025	.045	.946
40-49 yrs old	20-29	-.052	.021	.046*
	30-39	-.013	.023	.949
	50-59	.012	.046	.993
50-59 yrs old	20-29	-.065	.044	.461
	30-39	-.025	.045	.946
	40-49	-.012	.046	.993

*p< 0.05.

Wellness differences based on prison officers' tenure

H1c There are significant differences of prison officers' wellness according to their tenure group

One-way ANOVA was performed to test this hypothesis. The main aim was to test Hypothesis H1c whether to reject or not alternate hypothesis that there was significant difference of wellness level according to prison officers' tenure. Table 5.9 described wellness based on tenure.

Table 5.9 Descriptive of wellness according to tenure

Wellness	N	(%)	Mean	Std Dev
3 year & below	120	28.8	3.08	0.165
4 – 10 years	164	39.3	3.04	0.163
11 – 20 years	69	16.5	2.98	0.151
21 years & above	64	15.3	2.99	0.162

From the result, wellness score for respondents who had worked for 3 years and below and respondents worked 4-10 years were at minimal difference at 3.08 and 3.04 respectively. Meanwhile, the mean score for both respondents who had worked for 21 years and above and who had worked for between 11 to 20 years had also very minimal difference. Summary results of one-way ANOVA are shown in Table 5.10 and 5.11.

Table 5.10 Summary of ANOVA result on wellness according to tenure

	Sum of Squares	Df	Mean Square	F	Sig.
Between groups	.635	3	.212		
Within groups	10.848	413	.026	8.064	0.000
Within groups	11.484	416			

p<.05

Table 5.10 showed that wellness levels were significantly different between the four tenure groups at $p < .05$ of $F(3,413) = 8.064$, $p = 0.000$. Since there was a significant difference between these four tenure groups on their wellness level, the researcher examined where the difference of wellness level existed. According to the result, F-ratio signified that population means were probably not all equal. The alternate hypothesis was not rejected which suggested that any pair of means was unequal and where the significant differences needed to be worked out through post hoc test using Tukey HSD.

The result is as depicted in Table 5.11. The result signified that there was significant difference of respondents' wellness level between groups. The wellness levels of the respondents who had worked for 3 years and below was lower compared to the respondents who worked for 11 to 20 years as well as 21 years and above. Meanwhile, the wellness level of respondents who had worked for 4-10 years were also lower compared to respondents who had worked for 11-20 years.

Table 5.11 Summary of multiple comparison result of four tenure groups

Tenure		Mean Diff	Std Error	Sig.
3 yrs and below	4-10 yrs	.041	.019	.152
	11-20 yrs	.102	.025	.000*
	21 yrs & above	.097	.025	.001*
4-10 yrs	3 yrs & below	-.041	.019	.152
	11-20 yrs	.061	.023	.045*
	21 yrs & above	.056	.024	.094
11-20 yrs	3 yrs & below	-.102	.025	.000*
	4-10yrs	-.061	.045	.045*
	21 yrs & above	-.005	.998	.998
21 yrs and above	3 yrs & below	-.097	.001	.001*
	4-10yrs	-.056	.094	.094
	11-20yrs	.005	.998	.998

*p< .05 level.

Occupational stress differences based on prison officers' gender

H1d There are significant differences between male prison officers' occupational stress level and female prison officers' occupational stress level.

T-test was used again to determine the existence of significant difference between genders on their occupational stress level. According to the results as displayed in Table 5.12, Hypothesis H1d was not rejected as the significance value was at .022 (p<.05);

indicating that there was significant difference of occupational stress level between male and female respondents.

Table 5.12. Summary of t-test result on occupational stress between genders

	Gender	N	Mean	Std. Dev	t	Sig.
Occupational stress	Male	233	2.94	.426	1.875	0.022
	Female	184	2.84	.388		

p<.05

Occupational stress differences based on prison officers' age group

H1e There are significant differences of occupational stress level according to prison officers' age group.

One way ANOVA was conducted to investigate the difference of occupational stress level between four age groups. Table 5.13 showed the description of result revealing no significant difference of occupational stress level between four age groups.

Table 5.13 Summary of ANOVA result on occupational stress according to age

	Sum of Squares	Df	Mean Square	F	Sig.
Between groups	.522	3	.174	1.168	0.322
Within groups	61.512	413	.149		
Within groups	62.034	416			

p<.05

Table 5.13 showed that there was no significant difference of occupational stress at p<.05 between the four groups [F (3,413) = 1.168, p = .322]. Thus, hypothesis H1e was rejected.

Occupational stress differences based on prison officers' tenure

H1f There are significant differences of occupational stress level according to prison officers' tenure group

Again one way ANOVA was carried out to examine the difference level of occupational stress according to respondents' four tenure groups. Table 5.14 showed the description of the result revealing no significant difference of occupational stress level based on respondents' tenure groups.

Table 5.14 Summary of ANOVA result on occupational stress according to tenure

	Sum of Squares	df	Mean Square	F	Sig.
Between groups	.248	3	.083		
Within groups	61.786	413	.150	.552	0.647
Within groups	62.034	416			

p<.05

Table 5.14 showed that there was no significant difference of occupational stress at $p<.05$ between the four groups [$F(3,413) = .552$, $p = 0.647$]. Thus hypothesis H1f was rejected.

Personality differences according to prison officers' gender

H1g There are significant differences between male prison officers' overall personality and female prison officers' personality.

The significance value was at .000 ($p<.05$), indicating Hypothesis H1g was not rejected. The result revealed there was significant difference of personality between male and female respondents. Detailed result is as in Table 5.15.

Table 5.15 Summary of t-test result on personality between genders

	Gender	N	Mean	Std. Dev	t	Sig.
Personality	Male	233	2.88	.314	2.10	0.000
	Female	184	3.06	.379		

p<.05

Next, hypothesis 1g was separated according to their personality domain. Hypotheses H1g (g₁, g₂, g₃, g₄, g₅) were developed to examine the significant difference of personality domains between male and female respondents.

Neuroticism personality differences based on prison officers' gender

H1g₁ There are significant differences of neuroticism between male and female prison officers.

From the t-test, it was found that the significant value was at 0.001 (p< .05); indicating that there was significant difference of neuroticism personality between gender. This result indicated that the female prison officers had higher neuroticism compared to male.

Thus hypothesis H1g₁ was not rejected. Detailed result is as in Table 5.16.

Table 5.16 Summary of t-test result on neuroticism between genders

	Gender	N	Mean	Std. Dev	t	Sig.
Neuroticism	Male	233	2.78	.566	.901	0.001
	Female	184	2.84	.614		

p<.05

Extraversion personality differences based on prison officers' gender

H1g₂ There are significant differences of extraversion between male and female prison officers.

From the t-test, it was found that the significant value was at 0.000 (p< .05); indicating that there was significant difference of neuroticism personality between gender. This

result indicated the female prison officers had higher extraversion personality domain compared to male counterparts. Thus hypothesis H1g₂ was not rejected. Detailed result is as in Table 5.17.

Table 5.17 Summary of t-test result on extraversion between genders

	Gender	N	Mean	Std. Dev	t	Sig.
Extraversion	Male	233	2.94	.591	1.56	0.000
	Female	184	3.03	.608		

p<.05

Openness to experience personality differences based on prison officers' gender

H1g₃ There are significant differences of openness to experience between male and female prison officers.

Next was the mean score for openness to experience of the respondents. From the t-test, it was revealed that the value was significant at .002 ($p < .05$); indicating that there was significant difference of openness personality between gender. This result indicated that the female prison officers had higher openness personality compared to male counterparts. Thus hypothesis H1g₃ was not rejected. Detailed result is as in Table 5.18.

Table 5.18 Summary of t-test result on openness to experience between genders

	Gender	N	Mean	Std. Dev	t	Sig.
Openness to Experience	Male	233	2.72	.631	1.69	0.002
	Female	184	2.83	.656		

p<.05

Agreeableness personality differences based on prison officers' gender

H1g₄ There are significant differences of agreeableness between male and female prison officers.

Result revealed female prison officers scored higher agreeableness level at 2.54, compared to male respondents' score of 2.36. From the t-test, it showed that the significant value was 0.003 ($p < .05$); indicates that there was significant difference of agreeableness personality between male and female respondents. Thus hypothesis H1g₄ was not rejected. Detailed result is as in Table 5.19.

Table 5.19 Summary of t-test result on agreeableness between genders

	Gender	N	Mean	Std. Dev	t	Sig.
Agreeableness	Male	233	2.36	.651	2.50	0.003
	Female	184	2.54	.723		

$p < .05$

Conscientiousness personality differences based on prison officers' gender

H1g₅ There are significant differences of conscientiousness between male and female prison officers.

The result disclosed that the value was significant at .001 ($p < .05$) thus indicated that there was significant difference of conscientiousness personality between gender. This result indicated the female prison officers had higher conscientiousness personality compared to male counterparts. Thus hypothesis H1g₅ was not rejected. Detailed result is as in Table 5.20.

Table 5.20 Summary of t-test result on conscientiousness between genders

	Gender	N	Mean	Std. Dev	t	Sig.
Conscientiousness	Male	233	2.78	.651	1.30	0.001
	Female	184	2.85	.557		

$p < .05$

Personality differences based on prison officers' age

H1h There are significant differences of prison officers' personality according to their age group.

In this section, the researcher had analyzed the difference of personality according to the four age groups. The researcher had started with personality as the whole construct. One way ANOVA was conducted to investigate the personality differences of the four age groups. Table 5.21 revealed no significant difference of personality between the four groups. Thus, the hypothesis H1h was rejected.

Table 5.21 Summary of ANOVA result on personality according to age

	Sum of Squares	Df	Mean Square	F	Sig.
Between groups	.030	3	.010		
Within groups	13.99	413	.034	.292	0.831
Within groups	14.02	416			

p<.05

Next, this hypothesis was split up based on each personality domain.

Neuroticism personality differences based on prison officers' age

H1h₁ There are significant differences of prison officers' neuroticism personality according to their age group.

Again, ANOVA was performed to look into the neuroticism personality differences between four age groups. Table 5.22 revealed no significant difference on neuroticism personality based on age groups. Thus, the hypothesis H1h₁ was rejected.

Table 5.22 Summary of ANOVA result on neuroticism according to age

	Sum of Squares	Df	Mean Square	F	Sig.
Between groups	1.392	3	.464		
Within groups	142.255	413	.344	1.347	0.259
Within groups	143.647	416			

p<.05

Extraversion personality differences based on prison officers' age

H1h₂ There are significant differences of prison officers' extraversion personality according to their age group

Next, ANOVA was performed again to probe into the influence of four age groups on respondents' extraversion personality. Table 5.23 also revealed no significant difference on extraversion personality. Thus, the hypothesis H1h₂ was rejected.

Table 5.23 Summary of ANOVA result on extraversion according to age

	Sum of Squares	Df	Mean Square	F	Sig.
Between groups	1.513	3	.504		
Within groups	148.278	413	.359	1.405	0.241
Within groups	149.791	416			

p<.05

Openness to experience personality differences based on prison officers' age

H1h₃ There are significant differences of prison officers' openness to experience personality according to their age group.

Again, ANOVA was performed to scrutinize the difference of openness of experience personality between respondents' four age groups. Table 5.24 revealed no significant difference on openness to experience personality according to four age groups. Thus, the hypothesis H1h₃ was rejected.

Table 5.24 Summary of ANOVA result on openness to experience according to age

	Sum of Squares	Df	Mean Square	F	Sig.
Between groups	1.331	3	.444	1.073	0.360
Within groups	170.793	413	.414		
Within groups	172.124	416			

p<.05

Agreeableness personality differences based on prison officers' age

H1h₄ There are significant differences of prison officers' agreeableness personality according to their age group.

Next, ANOVA was performed again to probe into the difference of agreeableness personality between the four age groups of respondents. Table 5.25 revealed no significant difference on agreeableness personality according to age groups. Thus, the hypothesis H1h₄ was rejected.

Table 5.25 Summary of ANOVA result on agreeableness according to age

	Sum of Squares	df	Mean Square	F	Sig.
Between groups	.942	3	.314	.662	0.576
Within groups	196.052	413	.475		
Within groups	196.994	416			

p<.05

Conscientiousness personality differences based on prison officers' age

H1h₅ There are significant differences of prison officers' conscientiousness personality according to their age groups.

Next, ANOVA was performed again to investigate the difference of respondents' conscientiousness personality according to their four age groups. Table 5.26 revealed no significant difference on conscientiousness personality according to age groups. Thus, the hypothesis H1h₅ was rejected.

Table 5.26 Summary of ANOVA result on conscientiousness according to age

	Sum of Squares	df	Mean Square	F	Sig.
Between groups	.035	3	.012		
Within groups	123.107	143	.298	.039	0.990
Within groups	123.142	146			

p<.05

Overall personality differences based on prison officers' tenure

H1i There are significant differences of prison officers' overall personality according to their tenure groups.

In this section, the researcher analyzed the difference of personality on the four tenure groups. One way ANOVA was conducted to investigate the difference of personality according to four tenure groups. Table 5.27 revealed no significant difference on personality between these groups. Thus, the hypothesis H1i was rejected.

Table 5.27 Summary of ANOVA result on personality according to tenure

	Sum of Squares	df	Mean Square	F	Sig.
Between groups	.030	3	.010		
Within groups	13.99	413	.034	.292	0.831
Within groups	14.02	416			

p<.05

Then, this hypothesis was split up based on each personality domain as illustrated next.

Neuroticism personality differences based on prison officers' tenure

H1i₁ There are significant differences of prison officers' neuroticism personality according to their tenure groups.

Again, ANOVA was performed to look into the difference of neuroticism personality level according to four tenure groups. Table 5.28 revealed no significant difference of

neuroticism personality according to these groups. Thus, the hypothesis H1i₁ was rejected.

Table 5.28 Summary of ANOVA result on neuroticism according to tenure

	Sum of Squares	Df	Mean Square	F	Sig.
Between groups	1.392	3	.464		
Within groups	142.255	413	.344	1.347	0.259
Within groups	143.647	416			

p<.05

Extraversion personality differences based on prison officers' tenure

H1i₂ There are significant differences of prison officers' extraversion personality according to their tenure groups.

Next, ANOVA was performed again to analyze the difference of extraversion personality level between the four tenure groups. Table 5.29 revealed no significant difference of extraversion personality according to four tenure groups. Thus, the hypothesis H1i₂ was rejected.

Table 5.29 Summary of ANOVA result on extraversion according to tenure

	Sum of Squares	Df	Mean Square	F	Sig.
Between groups	1.513	3	.504		
Within groups	148.278	413	.359	1.405	0.241
Within groups	149.791	416			

p<.05

Openness to experience personality differences based on prison officers' tenure

H1i₃ There are significant differences of prison officers' openness to experience personality according to their tenure groups.

Again, ANOVA was performed to scrutinize the difference of openness personality between four tenure groups of respondents. Table 5.30 revealed no significant difference

on openness to experience personality between these groups. Thus, the hypothesis H1i₃ was rejected.

Table 5.30 Summary of ANOVA result on openness to experience according to tenure

	Sum of Squares	Df	Mean Square	F	Sig.
Between groups	1.331	3	.444	1.073	0.360
Within groups	170.793	413	.414		
Within groups	172.124	416			

p<.05

Agreeableness personality differences based on prison officers' tenure

H1i₄ There are significant differences of prison officers' agreeableness personality according to their tenure groups.

Next, ANOVA was performed again to analyze the difference of agreeableness personality between respondents' four tenure groups. Table 5.31 revealed no significant difference of agreeableness personality according to these groups. Thus the hypothesis H1i₄ was rejected.

Table 5.31 Summary of ANOVA result on agreeableness according to tenure

	Sum of Squares	Df	Mean Square	F	Sig.
Between groups	.942	3	.314	.662	0.576
Within groups	196.052	413	.475		
Within groups	196.994	416			

p<.05

Conscientiousness personality differences based on prison officers' tenure

H1i₅ There are significant differences of prison officers' conscientiousness personality according to their tenure groups.

Next, the researcher again conducted one way ANOVA analysis to probe into the difference of conscientiousness personality between respondents' four tenure groups. Table 5.32 revealed no significant difference on conscientiousness personality according to these groups. Thus, the hypothesis H1i₅ was rejected.

Table 5.32 Summary of ANOVA result on conscientiousness according to tenure

	Sum of Squares	Df	Mean Square	F	Sig.
Between groups	.035	3	.012		
Within groups	123.107	143	.298	.039	0.990
Within groups	123.142	146			
p<.05					

5.4.2. Correlation between constructs

The developed hypotheses were directed to the correlational aspect of the constructs and corresponded to Objective Three of the research which was to determine the association of constructs inclusive of employee wellness, their personality domain, their occupational stress, self efficacy and perceived justice. According to Cavana et al. (2010) and Field (2009), correlation analysis is intended in a relationship study i.e. to examine the nature, direction and significance of bivariate relationships of constructs used in a research. Correlations between constructs also confirm nomological validity of the model structure (Babin, Darden & Griffin, 1994).

Thus, in this present study, the researcher attempted to examine the correlations between employee wellness, personality, occupational stress, self efficacy and perceived justice of prison officers.

Hypotheses on correlations between these five constructs were developed to test the relationships as well as to establish nomological validity of the developed scale. The developed hypothesis is as follows:

H1j There is significant correlations between prison officers' wellness with their personality, occupational stress, self efficacy and perceived justice.

The hypothesis was broken down into 10 hypotheses as subsequently presented.

H1j₁ Wellness correlates significantly with personality

H1j₂ Wellness correlates significantly with occupational stress

H1j₃ Wellness correlates significantly with self efficacy

H1j₄ Wellness correlates significantly with perceived justice

H1j₅ Personality correlates significantly with occupational stress

H1j₆ Personality correlates significantly with self efficacy

H1j₇ Personality correlates significantly with perceived fairness

H1j₈ Occupational stress correlates significantly with self efficacy

H1j₉ Occupational stress correlates significantly with perceived justice

H1j₁₀ Self efficacy correlates significantly with perceived justice

The results of correlation are shown in Table 5.33. Overall, all constructs showed an acceptable strength of association between them at $p < .01$ level. The strength of association between constructs was between moderation to slight, almost negligible (Hair, Money, Samouel & Page, 2007). Although several constructs showed slight, almost negligible relationship, the relationship was statistically significant at $p < .01$.

The first construct, wellness showed correlations with other constructs at various levels. Wellness related significantly to self efficacy at moderation level with $r = .534$ and perceived justice at moderation level with $r = -.415$ (negative relationship). Meanwhile, wellness connected minimally to personality at $r = .186$ (negative relationship) and to occupational stress at $r = -.105$.

The second construct, personality correlated minimally to occupational stress at $r = .196$ and self efficacy at $r = -.137$ (negative relationship). Personality correlated very slightly with perceived justice at $r = .075$ (negative relationship).

The third construct, occupational stress, correlated slightly with perceived justice at $r = .104$ (negative relationship) and self efficacy at $r = -.072$. The fourth and fifth construct, which were self efficacy and perceived fairness had mediocre correlation at $r = -.534$ (negative relationship). Detailed description is as illustrated in Table 5.33.

Table 5.33. Intercorrelation between constructs

	Perceived Justice	Self Efficacy	Occupational Stress	Personality	Wellness
Perceived Justice	1.000				
Self Efficacy	-0.534*	1.000			
Occupational stress	0.104*	-0.072*	1.000		
Personality	0.075*	-0.137*	0.196*	1.000	
Wellness	-0.415*	0.537*	-0.105*	-0.186*	1.000
Mean	4.8850	2.9588	2.7260	3.0084	3.1197
Std Dev	0.9518	0.4471	0.3852	0.3651	0.1918

* $p < 0.05$ level

Overall, each construct correlated with each other at $p < .05$ level; thus validating the nomological validity of the measurement. Therefore, hypothesis H1J (H1J₁, H1J₂, H1J₃, H1J₄, H1J₅, H1J₆, H1J₇, H1J₈, H1J₉ and H1J₁₀) were accepted.

5.4.3. Goodness of fit of structural model

After the test of correlation between constructs which had proven significant relationship at $p < 0.05$ as well as had acquired reasonable fitting measurement models as shown in the previous chapter, the ultimate analysis of this study had been performed to test the goodness of fit of the structural model. In this model, it was proposed that self efficacy and perceived fairness mediated the relationship between prison officers' occupational stress, personality and their wellness. The testing of measurement model sought to fulfill research objectives four and five. Subsequently, five hypotheses were formulated which were consistent with the research questions as follows:

H1k₁ Prison officers' self efficacy significantly mediates the relationship between their personality and wellness.

H1k₂ Prison officers' self efficacy significantly mediates the relationship between occupational stress and wellness.

H1l₁ Prison officers' perceived justice significantly mediates the relationship between their personality and wellness.

H1l₂ Prison officers' perceived justice significantly mediates the relationship between occupational stress and wellness.

H1m Prison officers' personality, occupational stress, self efficacy and perceived justice significantly contribute to wellness.

The goodness of fit of the structural model to respondents was assessed using several fit indices as explained in the previous chapter. Therefore, the fitness of model was determined through observing several fit indices and not just by relying on the test of the absolute model fit (the chi square statistics) due to its rigidity and sensitive nature to large sample size. The fit indices were inclusive of goodness of fit (GFI), adjusted goodness of fit (AGFI), comparative fit index (CFI), Tucker-Lewis Index (TLI); as well as the values of root mean square error of approximation (RMSEA) and standardized root mean square residual (SRMR) used to assess the magnitude of residuals of the structural model.

Since the hypothesized model did not achieve model fit, the model was modified. The results of hypothesized and modified structural model are as shown in Figure 5.3a and 5.3b. The results of the modified model were assessed to test Hypothesis H1M. Prior modification of hypothesized model, RMSEA and SRMR results of .099 and .0812 did not support the structural model fitting the data. Even other fit indices such as the chi-square statistics ($\chi^2/df = 5.041$, $\chi^2 = 2954.31$ and $df = 586$), Tucker-Lewis Index, comparative fit index, goodness of fit index and adjusted goodness of fit of .595, .623, .794 and .766 respectively also did not support the model.

After modification, the results of the chi square statistics and other fit indices indicated that the modified model adequately fitted the data. The fit indices such as the chi-square statistics ($\chi^2/df = 2.216$, $\chi^2 = 492.03$ and $df = 222$), comparative fit index (CFI), goodness

of fit index (GFI) and adjusted goodness of fit (AGFI) of .910, .907 and .884 respectively supported the model. Tucker-Lewis index (TLI) however, did not support the model with slightly less than 0.90 of .897.

Meanwhile, RMSEA and SRMR value confirmed that the structural model had adequately fitted the data with value of 0.054 and 0.0741 respectively. The SRMR value was in accordance with Garson (2008) where the desired cut-off values agreed at the levels of .05, .08, and .10. Hu and Bentler (1998) preferred the value $\leq .08$ for model fit. Hence Hypothesis H1m was supported when the modified model achieved six acceptable Goodness-of-Fit measure values. Details are as shown in Table 5.34, Figure 5.3a and 5.3b.

**Table 5.34. Summary of fit indices for the structural model:
hypothesized and modified model**

Fit Index	Prior Modification	After Modification	Recommended values	Source
Df	586	222		
χ^2	2954.31	492.03		
χ^2/df	5.041	2.216	≤ 3.00	Gefen, Straub, Bourreau (2000)
GFI	0.794	0.907	≥ 0.90	Hoyle (1995)
AGFI	0.766	0.884	≥ 0.80	Chau & Hu (2001)
CFI	0.623	0.910	≥ 0.90	Bagozzi & Yi (1988)
RMSEA	0.099	0.054	≤ 0.08	Browne and Cudeck (1993)
NNFI (TLI)	0.595	0.897	≥ 0.90	Bagozzi & Yi (1988)
SRMR	0.0812	0.0741	≤ 0.10	Garson (2008)

Since the hypothesized model did not achieve model fit, the explanation of hypothesis results was based on the modified model as shown in Figure 5.3b. The results revealed that personality had a significant influence on self efficacy and perceived fairness which

in turn influenced prison officers' wellness. Specifically, the estimates of the path coefficients in Table 5.35 and Figure 5.3b indicated that prison officers' personality at $\beta = -.189$, $t = -2.849$, $p = .004$ influenced their self efficacy trait which affected their wellness ($\beta = .400$, $t = 5.137$, $p = .000$). Prison officers' personality at $\beta = -.155$, $t = -2.758$, $p = .006$ also influenced their perceived justice level which in turn affected their wellness at $\beta = .194$, $t = 2.993$, $p = .003$. In other words, self efficacy and perceived justice served as the mediating factor for the relationship between personality and wellness. Therefore, Hypothesis H1k₁ and H1l₁ were supported.

Meanwhile, prison officers' occupational stress ($\beta = .157$, $t = 2.289$, $p = .022$) influenced their self efficacy trait to directly affect their wellness level ($\beta = .108$, $t = 2.101$, $p = .049$). Their occupational stress was also found to influence their perceived justice level to directly affect their wellness level ($\beta = .194$, $t = 2.993$, $p = .003$). Therefore, perceived justice and self efficacy factors also served as mediators on the relationship between occupational stress and wellness. The significance of the path coefficients between occupational stress and self efficacy as well as occupational stress and perceived fairness suggested that Hypothesis H1k₂ and H1l₂ were supported.

Another test was performed through bootstrapping in AMOS6 to test and estimate confidence intervals for the indirect effect as depicted in Table 5.36. Indirect effect of wellness on personality was -0.025 (95% CI -0.057 - -0.003 at bootstrap test p value = 0.042) whilst the indirect effect of wellness on occupational stress was 0.1 (95% CI 0.06 - 0.162 at bootstrap test p value = 0.001). Since the confidence interval was a plausible

range for the true indirect effect, then the lowest plausible indirect effect of wellness on personality was 0.003, the largest plausible effect was 0.057. The lowest plausible indirect effect of wellness on occupational stress was 0.06; the largest plausible effect was 0.162.

Further test using Sobel test was facilitated to assess mediation level of self efficacy and perceived justice on the relationship between personality, occupational stress and wellness of prison officers. Results are depicted in Table 5.37. According to the result, there was partial mediation of self efficacy on the relationship between personality and wellness with Sobel Z-value at 3.89 ($p = 0.0001$). Plus, perceived justice also implied partial mediation on the relationship between personality and wellness with Sobel Z-value at 2.55 ($p = 0.01$). Also, there was partial mediation of self efficacy on the relationship between occupational stress and wellness with Sobel Z-value at 2.46 ($p = 0.0295$). Plus, perceived justice also implied partial mediation on the relationship between occupational stress and wellness with Sobel Z-value at 1.96 ($p = 0.0486$). Thus, Sobel results of self efficacy and perceived justice as mediation of the relationship between personality and wellness as well as occupational stress and wellness supported AMOS results. Details as highlighted in Table 5.37.

Next, the Figure 5.3b and Table 5.38 indicated that 5% and 9 % of the variance that explained the self efficacy and perceived justice were accounted for by its linear relationships with prison officers' personality factors and their occupational stress.

Subsequently, the result showed that 26% of variance for prison officers' wellness was explained by its relationship with all other variables of interest in this study which were prison officers' personality, occupational stress, self efficacy and perceived justice.

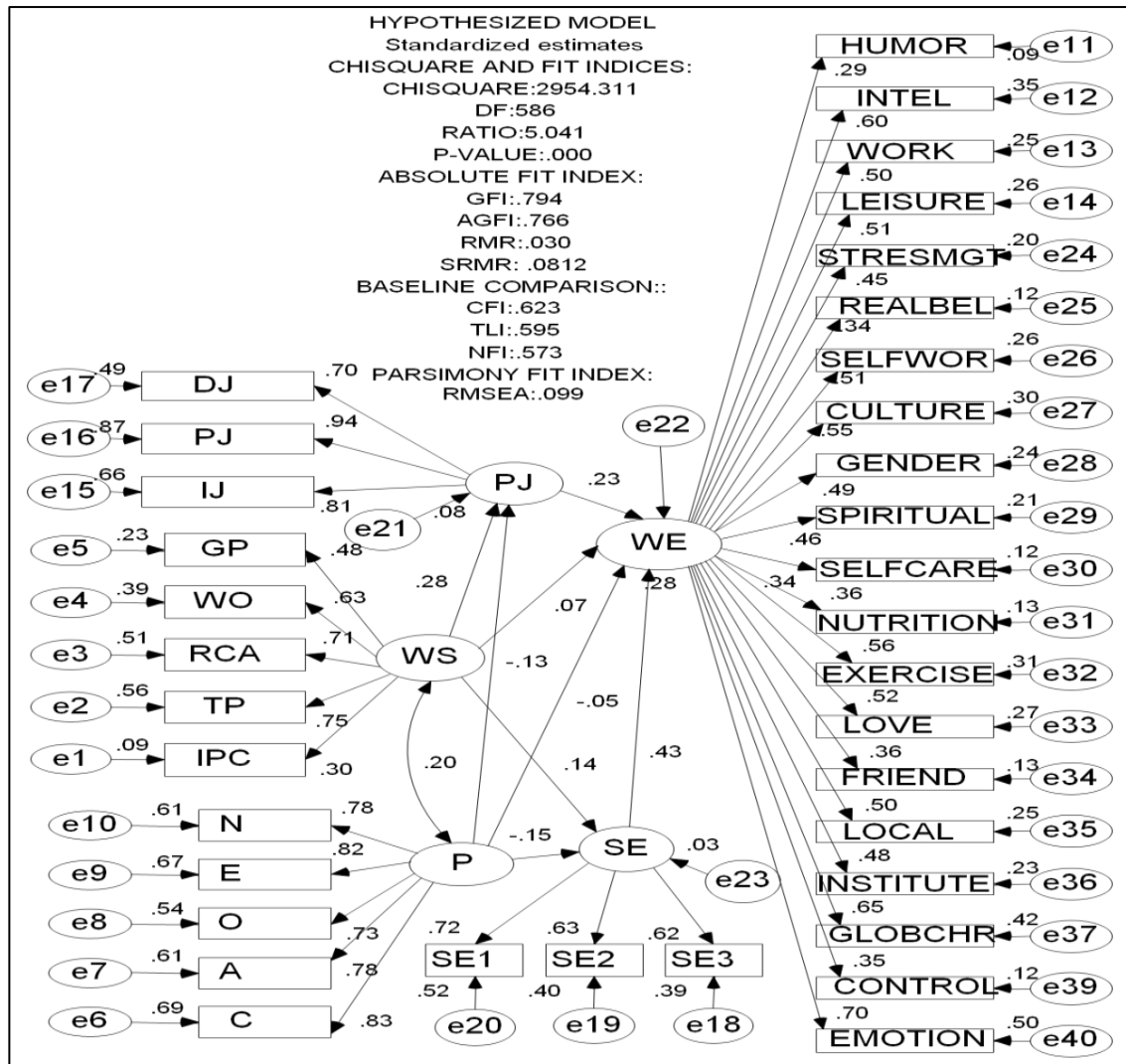


Figure 5.3a Hypothesized structural model

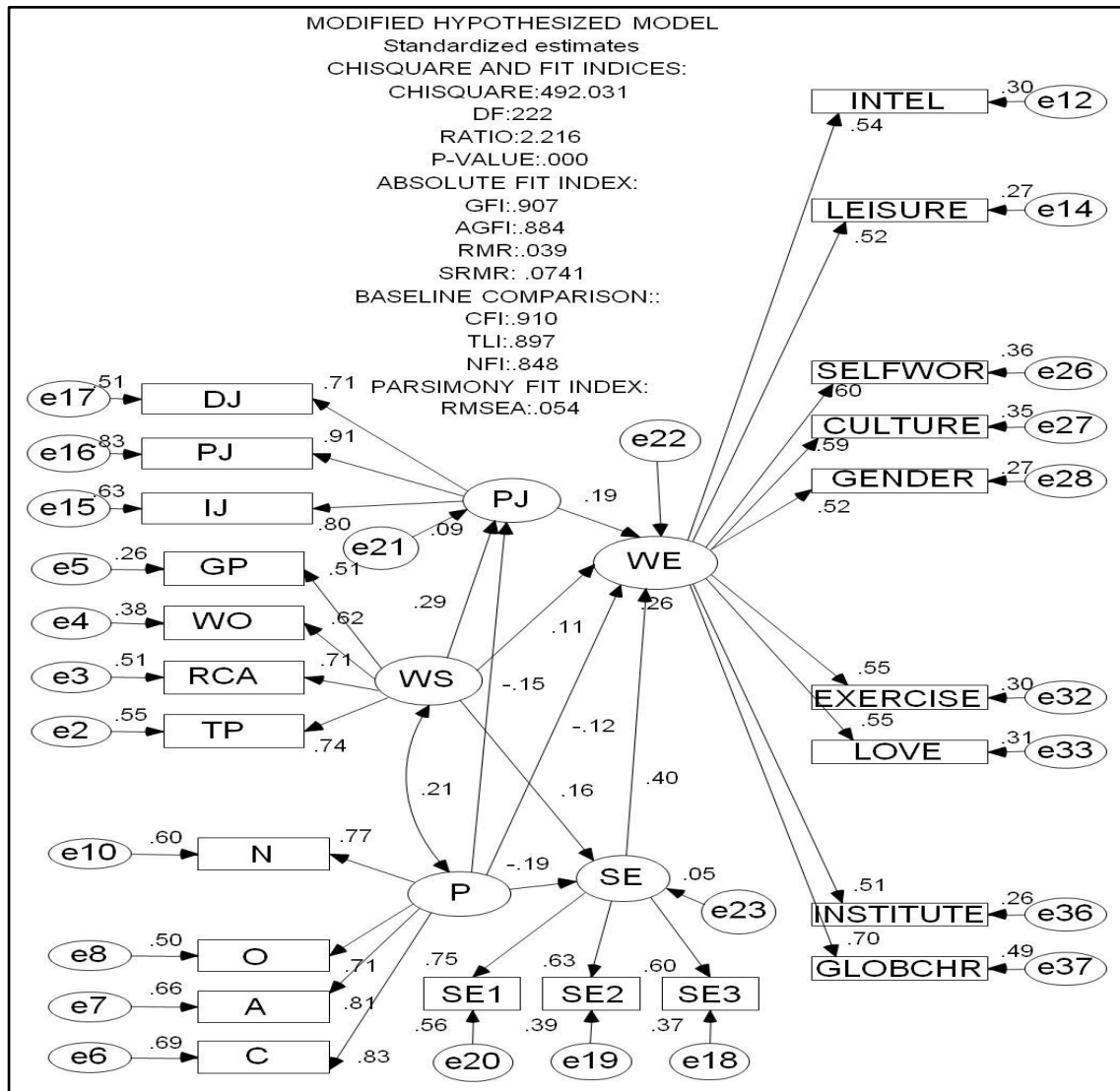


Figure 5.3b *Modified hypothesized structural model*

Table 5.35 **Path coefficients and hypothesis testing**

H	Relationship Between Endogenous and Exogenous			Estimate	SE	CR	P
1	Self Efficacy (DV1)	→	Personality	-.145	.051	-2.849	.004
2	Self Efficacy (DV1)	→	Occupational stress	.192	.084	2.289	.022
3	Perceived Fairness (DV2)	→	Personality	-.341	.124	-2.758	.006
4	Perceived Fairness (DV2)	→	Occupational stress	1.000	-	-	-
5	Wellness (DV1)	→	Self Efficacy	.174	.034	5.137	.000
6	Wellness (DV1)	→	Perceived Justice	.030	.010	2.993	.003
7	Wellness (DV1)	→	Personality	-.042	.020	-2.127	.033
8	Wellness (DV1)	→	Occupational stress	.047	.033	2.101	.049

Table 5.36 Indirect effect and confidence interval using bootstrapping

	Indirect effect		Lower bound		Upper bound		2-tailed sig	
	Personality	Occu Stress	Personality	Occu Stress	Personality	Occu Stress	Personality	Occu Stress
Wellness	-0.025	0.1	-0.057	0.06	-0.003	0.162	0.042	0.001

Table 5.37 Mediating effect using Sobel test

Model	Variables		Type of Mediation	Sobel Z-Value	SIG	RESULT	
						Std Coefficient of IV on DV	
						Std Coeff Direct	Std Coeff Indirect
K ₁	IV	Personality	PARTIAL	3.885587	0.0001	0.138	0.100
	MV	Self Efficacy					
	DV	Wellness					
K ₂	IV	Occupational stress	PARTIAL	2.464367	0.0295	0.102	-0.002
	MV	Self Efficacy					
	DV	Wellness					
L ₁	IV	Personality	PARTIAL	2.55245	0.0122	0.138	0.100
	MV	Justice					
	DV	Wellness					
L ₂	IV	Occupational stress	PARTIAL	1.964367	0.0486	0.047	0.053
	MV	Justice					
	DV	Wellness					

Table 5.38 Squared multiple correlation results

Endogenous Variable	Square Multiple Correlation Results SMC = R ²
Self Efficacy	.048
Perceived Fairness	.088
Wellness	.262

5.5. Chapter Conclusion

This chapter accounted the findings of data analyses performed to give a general overview of the profile of the respondents and answered research questions of this study. The descriptive statistics were presented to give the profile of prison officers as respondents. Then, the findings on prison officers' level of wellness and occupational stress as well as their personality domain according to their gender, age and tenure had fulfilled the research objective two. Hypotheses were formulated. Thereafter, appropriate results were obtained and presented. Most results revealed female prison officers were more dominant in terms of level of significance. After that, analyses examining the differences of wellness, occupational stress and personality according to prison officers' gender, age and tenure were facilitated to fulfill research objective two. Next, the correlation between each constructs was presented to accomplish research objective three. Correlational study was deemed appropriate prior to proceeding to advance statistical method such as structural equation modeling. Hypothesis was also formulated and appropriate findings were consequently presented. Finally for Research Questions Four and Five, the Structural Equation Modeling via AMOS was applied. Five relevant hypotheses were formulated. Results of all hypotheses were as shown in Table 5.39.

Table 5.39 Summation of research hypotheses results

	Hypotheses Statement	Results
H1	There are significant differences of prison officers' wellness, personality and stress levels according to their gender, age, and tenure.	
H1a	There are significant differences between male prison officers' wellness and female prison officers' wellness.	Not supported
H1b	There are significant differences of prison officers' wellness level according to their age group.	Supported
H1c	There are significant differences of prison officers' wellness according to their tenure group.	Supported
H1d	There are significant differences between male prison officers' occupational stress level and female prison officers' occupational stress level.	Supported
H1e	There are significant differences of occupational stress level according to prison officers' age group.	Not supported
H1f	There are significant differences of occupational stress level according to prison officers' tenure group.	Not supported
H1g	There are significant differences of neuroticism, extraversion, openness to experience, agreeableness and conscientiousness personality between male and female prison officers.	
H1g ₁	There are significant differences of neuroticism personality between male and female prison officers.	Supported
H1g ₂	There are significant differences of extraversion personality between male and female prison officers.	Supported
H1g ₃	There are significant differences of openness to experience personality between male and female prison officers.	Supported
H1g ₄	There are significant differences of agreeableness personality between male and female prison officers.	Supported
H1g ₅	There are significant differences of conscientiousness personality between male and female prison officers.	Supported
H1h	There are significant differences of prison officers' overall personality according to their age group.	
H1h ₁	There are significant differences of prison officers' neuroticism personality according to their age group.	Not supported
H1h ₂	There are significant differences of prison officers' extraversion personality according to their age group	Not supported

H1h ₃	There are significant differences of prison officers' openness to experience personality according to their age group	Not supported
H1h ₄	There are significant differences of prison officers' agreeableness personality according to their age group.	Not supported
H1h ₅	There are significant differences of prison officers' conscientiousness personality according to their age group.	Not supported
H1i	There are significant differences of prison officers' overall personality according to their tenure group.	
H1i ₁	There are significant differences of prison officers' neuroticism personality according to their tenure group.	Not supported
H1i ₂	There are significant differences of prison officers' extraversion personality according to their age group.	Not supported
H1i ₃	There are significant differences of prison officers' openness to experience personality according to their tenure groups.	Not supported
H1i ₄	There are significant differences of prison officers' agreeableness personality according to their tenure groups.	Not supported
H1i ₅	There are significant differences of prison officers' conscientiousness personality according to their tenure groups.	Not supported
H1j	There is significant correlations between prison officers' wellness with their personality, occupational stress, self efficacy and perceived justice.	
H1j ₁	Wellness correlates significantly with personality	Supported
H1j ₂	Wellness correlates significantly with occupational stress	Supported
H1j ₃	Wellness correlates significantly with self efficacy	Supported
H1j ₄	Wellness correlates significantly with perceived justice	Supported
H1j ₅	Personality correlates significantly with occupational stress	Supported
H1j ₆	Personality correlates significantly with self efficacy	Supported
H1j ₇	Personality correlates significantly with perceived fairness	Supported
H1j ₈	Occupational stress correlates significantly with self efficacy	Supported
H1j ₉	Occupational stress correlates significantly with perceived justice	Supported
H1j ₁₀	Self efficacy correlates significantly with perceived justice	Supported
H1k ₁	Prison officers' self efficacy significantly mediates the relationship between personality and wellness.	Supported
H1k ₂	Prison officers' self efficacy significantly mediates the relationship between occupational stress and wellness.	Supported
H1l ₁	Prison officers' perceived justice significantly mediates the relationship between personality and wellness.	Supported

H1l ₂	Prison officers' perceived justice significantly mediates the relationship between occupational stress and wellness.	Supported
H1m	Prison officers' personality, occupational stress, self efficacy and perceived justice significantly contribute to wellness.	Supported

Chapter Six

DISCUSSION, RECOMMENDATION AND CONCLUSION

6.1. Introduction

This chapter expounded detail discussions of the findings. This chapter embarked on reviewing research results and its deliberation according to findings of the research and discussed the findings with those in the previous research. Also, this chapter incorporates the finding inferences, its limitation, suggestions for future studies as well as the conclusion of the chapter. To recapitulate, this research tested hypotheses by looking at the correlation, differentiation and influence of independent variables, mediating variables and dependent variable.

6.2. Discussions of the findings

Prior discussion, recapitulated succinct review of research findings according to proposed research questions as described in subsequent chapter. Subsequently the findings were thoroughly elaborated. The discussions on the research findings of each construct were pointing towards answering the research questions that directly addressed the research objectives. Since pivotal concern in this study was the assessment of the theoretically-driven structural model (the prison officers' wellness in prison setting model), the discussion will be pointed to the structural model tested in the research.

6.2.1. Occupational stress, personality, self efficacy, perceived fairness and wellness of prison officers

The first objective of the study was to investigate the intensity level of prison officers' wellness, personality domains, occupational stress, self efficacy and perceived fairness. Descriptive statistical analysis was performed to answer the first research question that directly fulfilled the first research objective. Wellness, occupational stress and self efficacy were based on four-point Likert formatted scale while personality and perceived fairness used five-points and seven-point Likert formatted scale respectively.

The presence of these constructs were proved when findings of the study found the mean and standard deviation score for prison officers' wellness at high score, followed by occupational stress, self efficacy and perceived fairness at medium high scores. The results implicated regardless continuous work stress at work; these prison officers in some way were able to hold on to their wellness at an adequate level.

The manifestation of self efficacy and perceived fairness factors at medium high level confirmed on the sensibility of these constructs in shaping prison officers' wellness at work. Moreover, this finding also implied the presence of personality in foretelling the prison officers' wellness regardless of the highly work stress and demanding work environment.

Further analyses were made on personality and its domains. The mean score of overall personality and personality domains which were extraversion, conscientiousness,

neuroticism, openness to experience and agreeableness were detected at medium low scores. Agreeableness at the least score of all domains manifested the characteristic as the least sensible and utilized in this type of work setting.

The study also revealed the difference of overall personality, neuroticism, extraversion, openness, agreeableness, conscientiousness as well as occupational stress level between female prison officers and male prison officers. Female prison officers obtained relatively higher scores for these factors compared to their male counterparts. However, scores for wellness, self efficacy as well as perceived fairness indicated no significant difference between genders.

Maintaining employee wellness as well as organizational wellness in highly stressful prison work setting is definitely not an easy task especially in high-risk workplace such as in prison. Therefore managing employee health and safety in the prison would be quite complicated. How could someone working in a prison preserve their wellness? This issue was quite complicated especially if one was looking at the crises at the workplace – the understaffing, overtime, shift work, supervisor demand and not to mention closely watch and rehabilitate prison inmates.

This research disclosed quite an interesting upshot that exposed the unknown of the prison officers' world. Once they opted to work in the prison, how did they manage to deal with their daily stress and stayed sound psychologically as well as physically? Therefore question one attempted to examine the presence of wellness, occupational

stress, personality, self efficacy and perceived fairness of prison officers. Manifestation of these constructs would suggest relevance of the problem statement of the study.

The findings for objective one revealed the presence of prison officers' wellness at a reasonable degree despite the existence of occupational stress in prison as work setting. Specifically, these prison officers' coping self, essential self and social self played pertinent role in preserving their wellness level regardless of frequent stress at work when dealing directly with their clients (prison inmates). Prison officers' coping level (coping self of wellness) was adequate.

This was confirmed during interviews with several local prison officers located at several prison locations. They also agreed to the claim that occupational stress was relevant to prison work. Every officer had been prepared and experienced occupational stress up to a certain level. Therefore, they were mentally prepared to the high stress condition of prison. The longer they stayed in this profession, the more they were unaffected by the stressful condition at work.

When they experience extreme stress, they released (the coping self of wellness) their pressure at work through four workable ways such as through fully utilizing their lunch break by having good lunch out with co-workers or through solat (the essential self of wellness; acquiring high religious belief) or through sport activities (the social self of wellness) or through having good relationship between co-workers (the social self of

wellness) (Myers and Sweeney, 2004, Els, 2006, Senol-Durak, Durak and Gencoz, 2006).

These officers also indicated that inexperienced officers (newly recruits) and prison officers who guarded and rehabilitated death sentenced inmates and inmates with contagious diseases were more prone to depleting wellness due to their low ability to cope with stress at work.

Meanwhile, the existence of factors such as self efficacy and perceived justice proved that in stressful prison work setting, the perception of justice as well as prison officers' confidence level of working out any crisis at work interacted with each other as described in General Systems Theory (Bertalanffy, 1968). The general systems theory postulated that each element in the system would be interrelated with each other; changing an element would cause other element to change (Bertalanffy, 1968). In this case, prison officers' self efficacy combined with their perception of fairness in the organization uplifted their wellness level despite the considerable stress they experienced.

This finding also implied the presence of prison officers' personality such as agreeableness and extraversion at low level to assist them to sustain in the prison environment. These personality adjustments molded their wellness level regardless of demanding work stress environment. Essentially, stress level of each prison officers were interrelated to their personality type.

Personality as explained through five domains which were neuroticism, extraversion, openness to experience, agreeableness and conscientiousness were important in controlling officers' work stress and maintaining their wellness at work. Therefore, it was essential to consider potential or future prison officers' personality before assigning them to work in the prison.

Lacking of certain personality or trait such as lower self efficacy might possibly caused astronomical difficulty to the frontline prison officer in dealing with considerable strain and pressure at work. In compliance with the situation and knowing prison officers' internal strengths were embedded in their personality, Hence, the human resource of Prison Department of Malaysia were suggested to train and coach their employees on ways to reinforce and improve their personality through character building program, stress management program and religious program on potential and existing prison employees. Through this way, perhaps prison officers' wellness would be well looked after psychologically, mentally, emotionally, socially and spiritually.

As Finn (2000) clearly declared based on empirical evidences, prison officers were appallingly stressful causing excessive sick time and high turnover. Therefore, to consider wellness, the prison management should consider the unusual workplace environment in prison from a holistic perspective and looking at ways to minimize prison officers' apprehension through various employee assistance programs (Myers and Sweeney, 2004).

6.2.2. Differences according to prison officers' gender, age and tenure

These findings were meant to fulfill research objective two of the study. The study revealed that there was no difference of wellness between male and female prison officers; therefore Hypothesis H1a was rejected.

However, findings of the study discovered differences of prison officers' wellness according to their age and tenure. It was discovered that wellness significantly differed between the age groups of respondents between 20-29 years which was vastly lower than respondents aged between 40-49 years. This finding indicated Hypothesis H1b was accepted.

The study also discovered the significant difference of wellness level between tenure groups; indicating wellness levels of respondents who worked for 3 years and below was lower compared to respondents who worked for 11 to 20 years and 21 years and above. The wellness level of respondents worked for 4-10 years was also lower compared to respondents worked for 11-20 years. Accordingly, Hypothesis H1c was accepted.

In the next analyses focusing on possible difference of occupational stress according to prison officers' gender, age groups and tenure groups, the research results indicated differences of occupational stress level based on prison officers' gender. On the contrary, there was zilch difference between prison officers' age groups and tenure

groups. Therefore, Hypothesis 1d was accepted while Hypotheses H1e and H1f were rejected.

The study also analyzed on the potential difference of personality according to prison officers' gender, their age group and tenure groups. The results of the study revealed mix results. The results showed there were significant difference between male and female prison officers' neuroticism, extraversion, openness to experience and conscientiousness personality domain.

Specifically, female prison officers' mean scores on all personality domains were higher compared to their male counterparts. Accordingly, Hypotheses H1g, H1g₁, H1g₂, H1g₃ and H1g₄ and H1g₅ were accepted. However, the findings exposed no significant difference of prison officers' personality domain according to their age and tenure length. Therefore Hypotheses H1h (H1h₁, H1h₂, H1h₃, H1h₄, H1h₅) and H1i (H1i₁, H1i₂, H1i₃, H1i₄, H1i₅) were rejected.

First, findings from the study showed prison offices had reasonable degree of wellness regardless of their gender. This was due to both gender valued their health and wellbeing and took the initiative to maintain their wellness regardless of stressful surroundings in prison.

Meanwhile, findings from the study also revealed wellness level differed according to prison officers' age. New recruits and younger aged officers experienced greater stress

at work that seriously depleted their wellness (Lam, Zhang and Lam, 2001). The results indicated prison officers at younger age with less work experience might experience lower wellness level possibly due to prohibitive stress at work that gradually inflated their wellness condition compared to prison officers with more experience. At that point of time, these prison officers did not have enough experience in ways to curb or to cope with their stress depleting their wellness level. Nevertheless, their wellness level would gradually increase the moment their tenure and age increased (Lam, Zhang & Lam, 2001) due to their experience on how to manage their work stress. Their experience directly increased their coping level (Senol-Durak, Durak & Gencoz, 2006).

This finding was especially true with research on stress by Okoza, Imhonde and Aluede (2010) and Lam Zhang and Lam (2001), when they revealed that gender, age and length of service had significant interaction effect on stress as experience by prison workers that indirectly influence their health and wellbeing. As occupational stress in prison environment was a major problem, no one could escape from experiencing stress during work that would continually depletes health and wellbeing of prison officers especially at early work year. Therefore, wellness level did not discriminate between genders.

Subsequently, prison officers' experience of occupational stress differed between genders but not between age and tenure (Okuza, Imhonde and Aluede, 2010). According to the results of the present study in general, prison officers were experiencing moderate occupational stress level at work. However, male prison officers experienced higher occupational stress compared to female counterparts. This finding might indicate male

officers were more prone to stress compared to female officers. According to the interview with various local prison officers, the possible reason for higher stress was due to the extensive work burden and expectation from their immediate superior to perform well. This was especially relevant to male prison officers; since it was considered as a norm. The pressure weight to perform well was highly placed on the male prison officers' shoulder compared to women otherwise their performance would be underrated by their tough male supervisors. Male prison officers also constantly faced and threatened by incarcerated male criminals (with variety of sentenced degree) who were more aggressive and violence leading to massive stress. These officers were also facing financial burden due to low salary to support and sustain their family despite of excessive stress at work.

The pressure weight to perform well was also highly placed on female prison officers though not as much as their male counterparts. This finding was supported by Farnworth (1991) when he pointed pertinent findings pertaining to this issue. Farnworth (1991) reported that due to the nature of work as a prison officer was highly male-stereotyped, it created several integration problems for female prison officers. In that situation, female prison officers performed differently compared to male officers. Nevertheless, the female prison officers were not disadvantaged promotionally because the prison management recognized them as competent prison officers.

This finding contradicted with previous research where female prison officers in Nigeria were reported to have higher stress than their male counterparts (Okuza, Imhonde and Aluede, 2010). This was because women had a lot to contend with roles as a worker, housewife and mother. Therefore it was considered normal for women to be more stressful compared to male prison officers. On the contrary, Savicki, Cooley and Gjesvold (2003) concluded that female prison officers developed a variety of effective coping skills to enable them to manage their working environment compared to their male counterparts.

Nevertheless, although some previous researches suggested that gender might be an important demographic characteristic to consider in the experience of stress; then again some research revealed no differences between women and men in relation to occupational stress (Martocchio and O'Leary, 1989). Other research had noted on differences on stressors and severity of stress between the sexes (Decker and Borgen, 1993). It had also been reported that although women and men were exposed to the same stressors, women also faced unique stressors (Cooper, Dewe and O'Driscoll, 2001; Palmer, Cooper and Thomas, 2003).

However, based on the research findings, although female prison officers also played similar role as an employee, wife and mother, it was interesting to note that their stress level did not succumb to natural "highly stressful" circumstances of working women. These results also indicated that both men and women have the same perception of their environment in prison institutions.

Nevertheless, the research findings had somewhat proved the existence of occupational stress among prison officers without gender difference. This supported previous research by Deaux (1984) and Martocchio and O'Leary (1989). In an analysis of psychological research on sex and gender, Deaux (1984) concluded that in most research little variance was accounted for by sex. Meanwhile Martocchio and O'Leary (1989) conducted a meta-analysis of fifteen studies that had examined gender differences in work stress, and they concluded that there were no gender differences in occupational stress.

In addition, another study by Norvel, Hills and Murrin (1993) also found that female law enforcement officers did not report higher levels of stress than did the male law enforcement officers. In another recent studies by Bradway (2009) and Clark, Martin and Martin (2009), the results supported previous studies when these researchers concluded on the negligible importance of stress adaptation between genders.

Meanwhile the findings of this study also revealed that both age and years of service did not give any differentiation on prison officers' occupational stress. This finding contradicted previous research where the combinations of gender, age and length of service gave significant interaction effect on stress as experienced by prison officers (Okuza, Imhonde and Aluede, 2010). However, the recent finding had some similarity with previous finding (Okuza, Imhonde & Aluende, 2010) when it proved that gender gave significant interaction effect on stress.

Lastly, prison officers' personality was differed according to their gender but not differed according to their age and tenure. The significant difference between genders was apparent for personality in general as well as its domains which were neuroticism, extraversion, openness, agreeableness and conscientiousness. The overall mean score for personality of female respondents was higher compared to male score. This denoted that female respondents had higher overall personality compared to male respondents.

This was true, looking at results of each personality domain where the results indicated female prison officers had scored higher compared to their male counterparts. These findings were similar compared to previous gender personality studies on neuroticism (Srivastava, John, Gosling, Potter, 2003, Abdel-Khalek and Alansari, 2005), extraversion (Else-Quest, Hyde, Goldsmith and Hulle, 2006), openness (Feldt, et al, 2007), agreeableness (Budaev, 1999; Costa et al, 2001) and conscientiousness (Else-Quest, Hyde, Goldsmith and Hulle, 2006; Zupancic and Kavcic, 2005). The disparity of mean scores for personality domains was mainly contribute to the biological and social influences that played role in gender differentiation (Mooney Marini, 1990).

Essentially, the female prison officers had scored higher especially on being helpful, supportive, talkative and tolerant (indication of agreeable and extravert); since naturally they were more trustful, tender-minded, altruistic and soft-hearted compared to male prison officers (Mooney Marini, 1990). The results of current research had also revealed higher score on neurotic personality of female prison officers, confirming previous

studies on the nature of women of easily to fear and worrying (McCrea and Costa, 1987). Therefore it would be normal for female prison officers to have higher neuroticism personality considering working in harsh and volatile condition. However, this finding was contradictory to previous findings of Srivastava, John, Gosling and Potter (2003) when they declared that neuroticism between genders only differs during earlier adulthood, and subsequently leveled off at later adulthood stage.

Meanwhile, looking at conscientiousness personality, previous research on conscientiousness revealed inconsistent results (Else-Quest, Hyde, Goldsmith and Hulle, 2006; Zupancic and Kavcic, 2005). Nevertheless, this current study has exposed another possibility when it revealed female prison officers' score higher on conscientiousness personality with characteristics such as careful, and perseverance. Female prison officers had also scored higher on openness to experience to aesthetics and feelings (Costa et al, 2001; Feldt, et al, 2007). This finding was coherent to typecasting of women of being sentimental. It was concluded that there were similarities between prison officers in this present study and previous studies on personality according to gender.

6.2.3. Correlation between occupational stress, personality, self efficacy, perceived fairness and wellness of prison officers

The results were meant to accomplish research objective three of the present study. The finding indicated present connections between constructs of the study, varied from high to slight relationship. Prison officers' wellness had significant positive correlation with their self efficacy trait and significant negative relation with their perception of justice,

personality and occupational stress level. Meanwhile prison officers' personality had significant positive relation with occupational stress and perceived justice; while was significantly negative correlated to self efficacy. Next, their occupational stress was significantly correlated to perceived justice and negatively correlated with self efficacy. Lastly, prison officers' self efficacy trait was found to have significant negative connection with perception towards justice.

Overall, the study attested that constructs of the study had connection with each other at reasonable level. Thus the hypotheses (H1j, H1j₁, H1j₂, H1j₃, H1j₄, H1j₅, H1j₆, H1j₇, H1j₈, H1j₉, H1j₁₀) relating to correlation of these constructs were accepted. This landed support to the general system theory of Bertalanffy (1968) and attenuating prerequisites prior advancing analysis on possible mediation that intervened constructs relationships in the study.

The findings for question three revealed wellness construct had negative correlation with occupational stress, personality and perceived justice constructs but positive correlation with self efficacy. The findings proved previous studies on the negative relation and impact of occupational stress on employee health and wellbeing (Senol-Durak, Durak and Gencoz, 2006; Pfeffer, 2010; Purcell, Kinnie, Hutchinson, Rayton and Swart, 2003). The present study also supported Kropp, Cox, Roesch and Eaves' (1989) study where they revealed the mentally disordered inmates as the main source of prison officers increasing stress (90%) causing them exhausting health and mental wellbeing.

In particular, work stress dimensions namely role conflict and role ambiguity, threat perception and general problems were significantly negative related with the officers' wellness. First and foremost, the findings indicated that prison officers' perception of threat issues (with aspects such as risk of being involved in arguments and fights with prison inmates and the need to be cautious all the time) were significantly related to their wellness at work. This discovery supported previous research that cited prison officers' perceived threat of inmate violence as the major cause of stress at work and caused depleting health and wellbeing (Finn, 2000; Senol-Durak, Durak and Gencoz, 2006).

Next, these officers' general problems with conditions such as health problems due to the nature of work, not having enough quality time with family due to work, ignoring the needs of family due to work were also related to prison officers' wellness (Senol-Durak, Durak and Gencoz, 2006). Eventually these problems drained off prison officers' health and wellbeing. Another relatable condition of work stress which was low salary to compensate with the high risk working in prison also instigated stress (Senol-Durak, Durak and Gencoz, 2006).

These officers' wellness was also connected to their experience of role conflict and role ambiguity at work especially during the transition period from pure custodial-oriented to rehabilitative-oriented. Role conflict occurred when prison officers' custodial responsibility (maintaining security) collided with the rehabilitation of inmates in prison

(Najib Ahmad Marzuki & Awanis Ku Ishak, 2011). While role ambiguity occurred when prison officers were expected to go by the rules and at the same time is flexible and used judgment in their interactions with inmates. In this case, these officers were often engulfed by multiplicity of job demands, role, responsibilities and array of duties that implicated ambiguous job role resulting work stress. Prolong situation would cause high strain and impairment; instigating weakening prison officers' wellness (Young & Lambie, 2007, Senol-Durak, Durak and Gencoz, 2006).

The present study also revealed contradicting and similar findings to previous research. The contradicting result was on the negative correlation between wellness and personality domains which were agreeableness and openness to experience (Booth-Kewley and Vickers, 1994). Although contradicting to the findings on the correlation of wellness and personality domains namely agreeableness and openness for general population as highlighted by previous research (Booth-Kewley & Vickers, 1994; McCrae & Costa, 1991; Gutierrez, Jimenez, Hernandez & Puente, 2005), yet this finding corresponded with Conway, Vickers, Wallston and Costa Jr., (1992) when the finding proved the existence of correlation between one personality traits and his/her health and wellbeing (in this study, wellness).

The contradicting finding on the negative correlation between agreeableness and wellness was mainly due to the prison conditions as workplace setting. The ground for negative correlation result was mainly due to the strenuous working conditions in prison. At work, they were frequently vulnerable to inmate violence and aggression.

Under major apprehension, they were assumed to be decisive in brief periods of time. They were also publicly and internally scrutinized for the choices and actions they took at work. Additionally, their jobs required shift work, long hours, and attention to strict organizational guidelines. Therefore, to effectively adjust with their kind of work, these officers had to fine-tune their personality at work. They restrained themselves from showing their true emotions and conducted themselves according to the nature of their work.

Once they were at work, they were a different person due to the exigency of the nature of their work that differed from the usual. Agreeableness personality traits such as trust, sympathy, altruism and morality were impractical in conditions that require tough or absolute objective decisions especially when they were attending the prison inmates (Mitchell & Bray, 1990). These officers did not comply with prison inmates' wants and demands. In reality, due to the nature of their work, they were low in trust, more guarded and not affected strongly by human suffering.

Alongside with negative correlation between wellness and agreeableness personality, the findings also revealed negative correlation between wellness and openness to experience personality. Although high level of openness in experience was generally advantageous to team work groups, the trait is often applicable for certain kinds of tasks or within certain contexts (McCrae & Sutin, 2009). Moreover, in some aspects, the trait interfered with the work of the group especially if the group was in closed systems such as prison

system (McCrae & Sutin, 2009). Therefore, relevant to prison officers and their nature of work, openness to experience personality would not be appropriate.

This was because prison officers worked as group should adopt low openness to enable them to deal with well-structured and conventional tasks in prison (McCrae & Sutin, 2009). Moreover, blending openness to experience personality (with factors such as openness to fantasy, aesthetics, feelings, actions, ideas and values) with prison officers' nature of work in prison as closed system, openness to experience) would fall short. Their nature of work would not require them to be imaginative, sensitive to art and beauty, emotionally differentiated, behaviorally flexible, intellectually curious, and liberal in values in order to perform. In tandem with their closed nature of work, it would be appropriate for prison officers to conduct themselves accordingly.

As closed people, they were down-to-earth, uninterested in art, shallow in effect, set in their ways, lacking curiosity, and traditional in values (McCrae & Sutin, 2009). In addition, the higher openness to experience of an individual would lead him/her to experience both more positive emotional states and more negative ones (McCrae and Costa, 1990). In this sort of environment, the possibility of prison officers to experience more negative emotional states than positive ones would be higher; implicating lower wellness level. Therefore, to protect and maintain their wellness level, these officers controlled themselves from being too open on any aspects at work and more vigilant (Mitchell & Bray, 1990).

Next, the present study discovered similarity of finding compared to previous research specifically on the positive correlation between wellness and personality domains which were conscientiousness and extraversion (McCrae & Costa, 1991). The finding also discovered the similarity of result with previous research on the negative correlation between neuroticism personality domain and wellness entity (McCrae & Costa, 1991, Gutierrez, Jimenez, Hernandez & Puente, 2005). This present study discovery insinuated previous findings by Conway et al (1992) and Salgado (1997) and was supported. Salgado (1997) explicitly defended conscientiousness as among the best predictors of performance at work based on his extension amount of personality trait research.

Meanwhile, Booth-Kewley and Vickers (1994) supported on positive correlation between health behavior and personality domains particularly conscientiousness. In addition, McCrae and Costa (1991) asserted conscientiousness would enhance the possibility of constructive encounters at work and in return linked to individual's wellness. Therefore in this case, traits under conscientiousness personality such as cautiousness, dutifulness, orderliness, self discipline were among the essentials to prison officers' wellness and performance. These traits ensured them to excel despite of strenuous working conditions in prison.

In a meta-analysis research by DeNeve and Cooper (1998), they demonstrated on numerous research studies were focused on the relation between personality and subjective wellbeing. They (1998) implied neuroticism as significant predictor of subjective wellbeing's dimensions which were negative affect and life satisfaction. They

(1998) also insinuated extraversion and agreeableness personality domains as significant prognostic for another subjective wellbeing dimension which was positive affect.

Relevant and as demonstrated by the present study, neurotic personality would increase the possibility of prison officers to easily develop massive occupational stress that shaped their wellness at work (Steel, Schmidt & Shultz, 2008). Also, extravert-prone officers would have more fulfilling social interactions directing to higher levels of wellness (Hills, Argyle, & Reeves, 2000).

Subsequently, this finding also supported previous research on the negative relation between wellness and perceived justice. This indicated the existence of perceived unfairness among prison officers. Their perception of unfairness was correlated to occupational stress that further influenced their wellness level at work (Elovainio, et al., 2002; Kivimäki, et al, 2003). The contradictory correlation between prison officers' perceived fairness and their wellness could be interpreted as stressor consequence of wellness. As cited in Fujishiro (2005), Selye (1956), explained stressors as the environmental stimuli distinguished as the destructive spark off hormones that initiated the "fight-or-flight" response of human. These hormones were related to the increasing heart rate and blood pressure (Carlson, 1998) and diminishing human immune functioning (Kiecolt-Glaser, 1999).

In long-term, these differences negatively changed prison officers' physical health. These hormones also harmed cognitive functioning, emotion, and mood of prison

officers (Checkley, 1996), that explain the association between exposure to stressors (unfairness) and depleting prison officers wellness. Self-efficacy beliefs are thought to be important determinants of other thoughts, feelings and coping responses (Turner et al., 2005), which in turn affect functioning.

Next, the positive relationship between self efficacy and wellness was evidenced in previous research (Grant and Greene, 2004). Grant and Greene (2004) indicated self-efficacy construct as the single most important factor contributing to any successful performance (in this case prison officers wellness) in every aspect of life endeavors.

This research finding was also similar to Nicholas (2007) finding when he revealed the positive correlation between self-efficacy and coping (coping self dimension of wellness). Nicholas (2007) further revealed self efficacy construct was also negatively correlated to anxiety and depression, suggesting that individuals who were confident of their ability to handle and control stress were less likely to have depression and feel helpless or hopeless at work.

Subsequently, personality construct was positively correlated with perceived justice and occupational stress but was negatively related to self efficacy. This indicated the prison officers who had negative personality such as lower conscientiousness and higher neuroticism personality and might experiencing occupational stress at work would perceive unfairness circumstances leading to wellness run down. This finding was

supported by previous research when they (Ladebo, Awotunde & AbdulSalaam-Saghir, 2008) proved similar revelation in their study on 309 employees.

Next, research finding on the positive correlation between occupational stress and perceived justice was supported by Spector and Fox (2002) study when they revealed the emotion-centered model of voluntary behavior to explain the social-stressor linkage. Accordingly, prison officers' perceived unfairness due to unfair treatment from their supervisor and co-worker was considered as negative environmental stimuli that would elicit their negative emotions. According to Francis (2005), evidence showed that unfair treatment at work was positively associated with psychological strain causing deteriorating wellness condition. Thus this indicated prison officers' negative emotion was capable of inducing their stress reactions, causing it to deplete health.

Subsequently, this finding also revealed the negative correlation between occupational stress and self efficacy. This finding supported previous research by Schwarzer (1999) and Bandura (1996, 1995). This showed prison officers with high self efficacy would experience low occupational stress at work. Schwarzer (1999) also added the low sense of self-efficacy person would often experienced depression, anxiety and helplessness. It also revealed the negative relationship between self efficacy and perceived justice. This indicated high self efficacious prison officers would perceive justice more positive than low self efficacious person.

In conclusion, this present study had proved the correlation between each constructs.

6.2.4. Mediating effect and best fit model

In this section, the researcher conferred and deliberated discussion focusing at Objective Four and Five of this present study. Objective Four aimed at proving the mediating effect of self efficacy and perceived justice constructs on wellness, personality and occupational stress relationship. While Objective Five aimed at establishing the best fit model of Prison Officers' Wellness.

The result based on the modified model revealed prison officers' personality had significant influence on their self efficacy trait and their perception of fairness which in turn influenced their overall wellness. The prison officers' self efficacy trait and perceived justice were the factors that mediated the relationship between their personality and wellness. In another instances, the prison officers' occupational stress level also influenced their self efficacy trait and perceived justice to directly affect their wellness level. Hence perceived justice and self efficacy were also mediators between occupational stress and wellness. The significance of the path coefficients between occupational stress and personality as exogenous variables and self efficacy and perceived fairness as mediating variables and wellness as endogenous variable suggested significant support for Hypotheses H1k₁, H1k₂, H1l₁ and H1l₂.

The testing of structural model of the study disclosed that the model adequately fitted the data collected after modification. Further results revealed that self efficacy and perceived fairness were mediating factors interceded the relationship between prison

officers' wellness and their personality as well as their wellness and occupational stress level.

The findings of this research had successfully established the existence of both self efficacy and perceived fairness levels of prison officers as mediators. This present study supported previous research on the importance of employees' self efficacy and their perception of fairness in maintaining their wellness (Oginska-Bulik, 2005; Fujishiro and Heaney, 2007; Lambert, Hogan, Jiang, Elechi, Benjamin, Morris, Laux and Dupuy, 2010). It supported Greenberg's (1990) assertion on perception of fairness as an essential ingredient to ensure effective and efficient functioning of an organization and personal satisfaction of employees of the organization. This study also verified Oginska-Bulik's (2005) study on self efficacy as an essential factor to ensure employees to be able to manage and cope with their work stress.

In prison, prison officers experienced significant stress at work each day to balance the larger inmate populations and decreasing budgets (Finn, 2000). Due to constant prison work stress, prison officers might surrender their work or even commit to nonattendance as they felt they were not adequately equipped with proper training and resources (Dowden & Tellier, 2004; Lambert & Hogan, 2007). However, those with high level of self efficacy would be able to endure problems encountered during work. Self efficacy acted as buffer cushioning prison officers' stress tolerance shaping their wellness.

This assertion was supported by Oginska-Bulik (2005) study when she revealed police officers as respondents disclosed high-level of self-efficacy to reduce the level of perceived job stress and protected the police officers from negative health outcomes. This finding also substantiated earlier study discovery on employees with higher levels of personal resources such as self-efficacy, optimism, and self-esteem were often better equipped to handle stress in a positive way (Xanthopoulou, Bakker, Demerouti and Schaufeli, 2007), thus, would be able to upkeep their sanity and health.

Meanwhile the finding on the significance of perceived fairness on prison officers' wellness was supported by Fujishiro and Heaney (2007) when the authors stated that unfairness at work would cause impact on employees' well-being. In a different study (Lambert, Hogan, Jiang, Elechi, Benjamin, Morris, Laux and Dupuy, 2010) the findings revealed that perceived justice was interrelated to pertinent result for prison department as well as its frontline prison employees where it had an opposite relationships with prison officers' burnout, turnover intent, job stress and positive relationship with prison officers' work attitudes such as job satisfaction, job commitment and organizational justice (Lambert, 2003; Lambert, Hogan, & Barton, 2002).

Since perceived fairness is a powerful force at work, hence it is crucial to upkeep prison officers' perception of justice because without it, prison department generally have problems in guiding and motivating their prison staff (Greenberg, 1990). The importance could not be ignored because the prison officers are the heart and soul of Prison Department of Malaysia. Prison facilities succeed or fail because of their staff. In

addition, an effective organization must emphasize the significance of being perceived as just and fair by their employees (Greenberg, 1990). As prison officers want to be treated fairly and justly at work, therefore perceived justice is pertinent factor to be emphasized. Therefore in this study, both self efficacy and perceived fairness constructs worked together to ensure prison officers as individuals maintain their wellness level despite experiencing striking stress at work.

Meanwhile Objective Five aimed at proving the fitting of hypothesized model to the data. After modification, the result indicated the model fit into the data. Result is as shown in Figure 6.1. Result displayed total variance of prison officers' wellness and was explained by their personality, occupational stress, self efficacy and perceived fairness variables. This indicated Hypothesis H1m is supported.

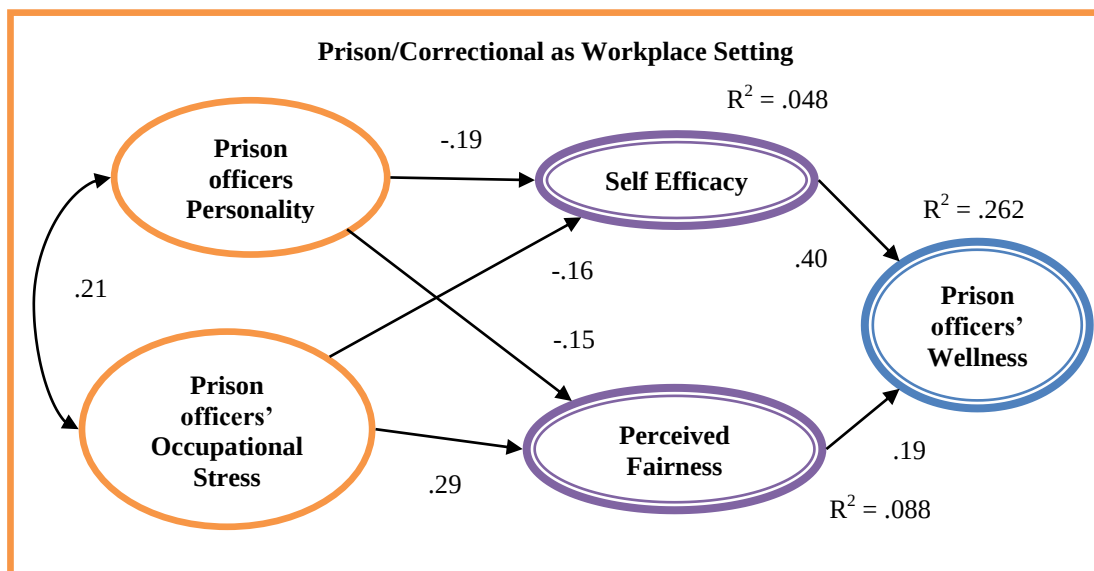


Figure 6.1 The simplified version of the model that illustrates the relationships between prison officers' wellness, their personality and occupational stress, mediated by self efficacy trait and perceived fairness in prison work setting

In order to maintain the very important role of prison services and safe custody specifically in Malaysia, it was important to the community that prison officials should be optimally functioning and well balanced. The unique working environment of these public servants, however, increasingly jeopardized the fulfillment of such expectations. An implication of this study was that in order for the management of Prison Department of Malaysia to ensure positive prison officers' health and wellness, they should include consideration of the individual characteristics, including five factor personality, self efficacy and perceived fairness that would definitely assist the officers during stressful situations. The personality characteristics of prison officers should be considered for the recruitment of new prison officers. In view of this, it is important to conduct personality test.

The unwellness condition among prison officers due to excessive stress and considering working in prison environment could lead to decreased work performance, withdrawal from or reduced quality of interactions with other employees, increased absenteeism, substance abuse and turnover.

In fact, losing prison officers would cost Prison Department of Malaysia significant problem (considering this institution' performance was dependent on its employees). The costs of retraining and losing staff would be expensive and time consuming for the Prison Department of Malaysia. Indeed it was common to have some work stress in all occupations, but prison employees went through tougher experience. These prison employees had the added factors of a perceived dangerous environment and traumatic

event components (Senol-Durak, Durak, & Gencoz, 2006) especially when they were dealing with prison inmates. These added components somehow had gradually drained their health and wellbeing (Senol-Durak, Durak & Gencoz, 2006).

The penal system can be both impersonal and unfriendly (Ortega, Brenner, & Leather, 2007). Staff may not receive accurate or prompt information from management and, on occasion, witness injury to others, death, or may be assaulted themselves. This type of experience can traumatize staff (Lambert, Cluse-Tolar & Hogan, 2007; Lambert, Hogan & Allen, 2006; Morgan, Van Haveren & Pearson, 2002).

Employees may believe they have limited resources to seek help and may use negative behaviors to cope, such as using drugs or attempting other risk related behaviors. In fact, the higher the security level, the more violent the offenders would be causing higher perception of potentiality harm towards the prison staff. Individuals that are higher in stress are likely to be lower on self-efficacy. Social learning theory believes that the more self-efficacy one has, the less one perceives the environment as stressful (Tewksbury, & Higgins, 2006).

Previously, only few studies compared the stress levels and self-efficacy of employees at different levels of security in prison. According to Childress, Talucci and Wood (1999), only little research had been done to examine security levels of prison institutions and reported stress of those employees (Childress, Talucci, & Wood, 1999).

However, Childress et al (1999) indicated both stress level and self efficacy at different levels of security in prison were interrelated.

As suggested by previous research both employees and organizations might experience problems implementing managed health and wellness care if individuals lacked essential personality characteristics. This present study indicated that organizations that lack people high in certain psychological dispositional characteristics might have difficulty to successfully implement organizational development interventions that should improve the health and wellness status of the employees such as self efficacy.

Therefore, prior Prison Department of Malaysia implemented health and wellness programs for its employees on a broader basis or in smaller basis such as in departments, it might be plausible to first consider personality and self efficacy of all prison officers especially before hiring them.

However, it was not suggested that the psychological disposition characteristics and personality of the individual were the only determinant in ensuring high level of wellness but this study indicated that it was an important variable that might prove to be extremely useful in planning and implementing such an intervention in an organization. Prison officers' perceived fairness also influenced and contributed towards their wellness level.

The deliberation on prison officers' personality consists of the instrument measurement and the prison officers' personality profile based on descriptive analyses. There are reports of high occupational stress of prison officers due to their off-putting personality causing possible depleting wellness among prison officers. Some personality domain or traits are the prime cause of occupational stress in prison causing adverse health outcomes (Oginska-Bulik, 2005). Referring to the above statement, this research had included measures of personality domains and trait as suggested by Liu, Siu and Shi, (2010) when they postulated that perceived fairness mediated the relationship between the personality of transformational leader and their health and wellbeing.

Correlation between occupational stress and negative repercussion on frontline prison officers' health and wellbeing has been extensively confirmed by considerable international researchers. Nevertheless however, scarce research has been facilitated on prison officers in Prison Department of Malaysia.

Multiple studies have connected occupational stress with physiological risk factors such as hypertension and high body weight resulting serious diseases such as heart disease and stroke as well as other physical health problems such as gastrointestinal problems, immune deficiency disorders and musculoskeletal conditions (Lambert, Cluse-Tolar, Hogan, 2007; Bourbonnais, Jauvin, Dussault and Vezina, 2007; Dowden, Tellier, 2004; Lambert, Hogan, Jiang, Elechi, Benjamin, Morris, Laux and Dupuy, 2010). Meanwhile psychologically, occupational stress may cause anxiety, depression and emotional exhaustion.

Another study focusing on prison officers has revealed that extremely high job pressure dramatically increased the likelihood of employees experiencing depression and anxiety; effecting their health and wellness to the drain (Clark, Martin, Martin, 2009).

In prison setting, most common occupational stress outcomes are negative emotional and psychological states and disorders including emotional exhaustion, psychological distress, anxiety and depression. In terms of organizational consequences due to job stress that depletes health and wellbeing of employees, absenteeism is the most common. Therefore to avoid this problem, the management must strategize a systematic way to occupational stress, as the upturns only take place when intervention is being tackled from the organizational level and not solely focus on individual employee.

Occupational health also relates to health behaviors of employees such as smoking, body weight, sedentary behavior and drug and alcohol consumption (Victorian Job Survey, 2003). According to Lambert, Cluse-Tolar and Hogan (2007), prison officers' occupational stress not only affects individual job performance but their health and wellbeing as well; therefore it is suggested that prison department management and administrators to actively promote stress-reduction policies through various practical and economical ways such as initiating stress reduction programs, employee assistance programs as well as practicing open door approach and open-ended communication between supervisors and employees. The stress reduction interventions are elaborated further in the recommendation of the study section.

Therefore, based on the research findings and previous studies, perhaps Prison Department of Malaysia should closely observe and consider possible ways to curb or lessen prison officers' occupational stress so that they are able to maintain their level-headedness, sanity and wellness. These factors are crucial to ensure professional and competence performance at work that will reflect on the organization performance.

6.3. Implications and recommendations

This chapter proceeds to the discussions on the implications of the study, starting with the theoretical contributions and followed by recommendations.

6.3.1. Theoretical implications of the research

This research presents several theoretical implications to the knowledge on wellness, personality and occupational stress particularly in prison setting, self efficacy and perceived fairness. Firstly, this research proved an empirical support for the general system theory of von Bertalanffy (1968), Adler's individual psychology theory as well as positive psychology / psychofortology paradigm (Wissing and Van Eden, 1997).

Secondly, the research accomplished in revealing the reasonable relationship between prison officers' personality, and their occupational stress level with their wellness level. The research also revealed the self efficacy trait (individual disposition) and perceived justice (organizational disposition) as factors that mediated the relationship between the prison officers' personality, their occupational stress and their wellness level.

This research also demonstrated on the prison officers' model of wellness in prison/correctional setting. Last but not least, the research presented proof for the construct validity of each instrument employed in this research.

i) Evidence to support the general system theory (Bertalanffy, 1968), individual psychology theory (Adler, 1937) and positive psychology (psychofortology)

In general, the proof of the existence and interrelation of the prison officers' wellness, their work stress, personality, self efficacy trait and perceived fairness in prison setting were presented in accordance to von Bertalanffy (1968) General System Theory (GST). According to Bertalanffy (1968), each particle is integrated with each other forming as subsystem and subsystems are intertwined between one another. The correlation between each variables in the model as well as the impact of predictor and mediating variables on dependent variable had in fact proved that the theory was justifiable and applicable to the research and selected respondents.

The study also demonstrated the evidence of appropriateness of using Indivisible Self model of wellness (Myers and Sweeney, 2004) thus confirming the theory of individual psychology by Adler (1937). The prison officers' wellness model was conceptualized and supported by the individual psychology theory (Alfred Adler, 1937). Therefore the theory of individual psychology by Adler (1937) was also proven applicable in this research when the present study substantiated that the prison officers' wellness in prison

setting model fits the actual respondents. This was because the actual respondents also shared similar opinion that the welfare of both the individual (prison officers) and the group (Prison Department of Malaysia) required tolerable relationship and should be considered in order to promote optimal health.

In this sense, prison officers as individuals should justify themselves as the governing system in society through their work. The viewpoint that a person could only be a person through others and that a person's existence was relative to society was central to the humanistic paradigm as described by Adler (1937). Congruence to theories of von Bertalanffy (1968) and Adler (1937), the application of psychofortology paradigm (positive psychology) in the research was also appropriate and fits the actual respondents.

Through this paradigm, the research was able to study the psychological strengths of prison officers, its nature, manifestation and the ways to enhance wellness. The science of positive psychology contributed to the enhancement of the quality of life of normal people, or of people who lived under relatively normal circumstances, as well as to the lives of people suffering, by consciously recognizing, respecting and helping them with their pain and sadness. Seligman and Csikszentmihalyi (2000) added in this regard that the most serious behavioral problems like substance abuse and violence could not be prevented by working from the pathogenic paradigm or medical model alone. They were of the opinion that major strides in prevention would be made from the intervention of systematically building competence, rather than only trying to correct weaknesses.

ii) Impact of personality, occupational stress, self efficacy and perceived fairness on wellness

Prior to mediator analysis, this resent study has managed to attest the reasonable correlations magnitude between prison officers' personality, their occupational stress, their wellness level as well as mediating factors which are self efficacy and perceived fairness. Later, the research revealed the significant contribution of self efficacy and perceived fairness as mediating factors served to explicate the linkages between prison officers' personality and their wellness level as well as prison officers' occupational stress and their wellness level.

Essentially, this present study explicated explanations for all five questions. This research extended the knowledge in wellness, prison /correctional study and industrial /organizational psychology study when simultaneously investigated two pertinent predictors of wellness which were personality and occupational wellness and inserted another two mediating variables as possible intervention between independent and dependent variables.

This research also corresponded to earlier research that separately studied self efficacy (Strobel, Tumasjan and Sporrle, 2011) and perceived fairness (Jiayan Liu, Oi-Ling Siu and Kan Shi, 2010) as mediators between personality and health and wellbeing.

Meanwhile, in another study by Sivanathan, Arnold, Turner and Barling (2004), self efficacy construct was studied together with trust to the management construct (instead of perceived fairness) as potential mediators between transformational leadership and employee wellbeing in a conventional organization setting.

However, the study of both self efficacy and perceived fairness as potential mediators intervened the relationship between prison officers' personality, occupational stress and their wellness in prison setting was inadequate. Expectantly, these findings would contribute to the knowledge on self efficacy and perceived fairness as solid mediator variables in wellness, industrial/organizational psychology, occupational stress and prison management study. Upholding prison officers' wellness without compromising the importance of their personality, level of occupational stress, training on ways and mean on how to increase their self efficacy trait (positive personality trait) and ensuring their satisfactory level of fairness towards the management would be a sensible action.

By maintaining wellness, this might directly perk up prison officers' satisfaction and performance, boosting their loyalty towards the organization, uplifting their buoyancy and confidence of their work as well as lowering their tension and stress at work. Through refining prison officers' wellness, Prison Department of Malaysia would be able to improve its' security quality; and enabled prison officers to work in safer and more conducive environment.

Through enhancement of prison officers' wellness, Prison Department of Malaysia would be able to enhance prison officers-prisoner relationship as well as tightening up the industrial relations. In terms of recruitment and retention of prison officers, the worry would gradually lessen. This would also lessen prison officers' sickness or absence as well as early retirement due to ill-health. Prison Department of Malaysia would be able to achieve better efficiency and better cost-effectiveness. Consequently, Prison Department of Malaysia's aim to achieve the standard of International Correctional Facilitator would be realized and materialize.

iii) Implication of measurement instruments

Significant theoretical implication of the research was the validation of wellness (adapted from Myers and Sweeney, 2004), occupational stress (adapted from Senol-Durak, Durak and Gencoz, 2006), personality (adapted from NEO-FFI-2, Costa and McCrae, 1992a), self efficacy (Jerusalem and Schwarzer, 1992) and perceived fairness (Niehoff and Moorman, 1993) measurements instruments used to measure prison officers' wellness, occupational stress, personality, self efficacy and perceived fairness in Malaysia prison setting. The validation procedure of these instruments had gone through two factor analyses which are the exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) through two statistical tools which are SPSS 14 and AMOS 16.

Based on the findings, all instruments with some adaptations were proven reliable and valid instruments to be used in the setting of this current research. Despite evidence of

good psychometric properties of the instruments used in this research, validity of the instruments in similar setting needed to be further enhanced through replication of the research.

iv) The utilization of the five factor of wellness measurement in determining prison officers' wellness

Essentially, prison officers' wellness was distinguished as the spotlight of this study. Wellness was applied through the 5F-Wel instrument to assess prison officers' wellness level in accordance to the theoretical definition of wellness (Myers & Sweeney, 2005). It consisted of one highest order, five established second-order and one experimental second-order factor (17 wellness and 3 contextual factors as third-order) to encapsulate the essence of wellness. This was the first time the 5F-Wel had been used in Malaysia specifically on prison officers of Prison Department of Malaysia (extracted, adapted and revised based on Myers and Sweeney, 2005).

Based on the analyses of exploratory factor and confirmatory factor performed on the measurement, it was proven that the Five Factor Wellness (5F-Wel) had considerably fitted prison officers' data as collected.

In other words, five established factors which were coping self, creative self, essential self, physical self, and social self. Another factor under experiment was contextual factor. In this study, the contextual factor had also been tested and established. The result was practically similar and corresponds to Myers and Sweeney's (2005, 2007).

Items in parcels were loaded very well on the expected factors indicating convergent validity. Discriminant validity of the measurement had also been proven. Moreover these factors were independent yet inter-related since they still remain orthogonal. The results also proved to the strength of 5F-Wel instrument as opposed to the cross cultural and contextual elements.

Therefore, it was suggested that the replication of the research using different sample of prison officers in variety of locations and type of prison to strengthen the validity of Five Factor Wellness measurement. In exploratory factor analysis, factor loadings of eighteen parceled items from twenty parceled items were fit for prison officers which are work, intelligence, control, leisure, stress management, realistic beliefs, self worth, nutrition, exercise, friendship, love, gender identity, self care, spirituality, culture identity, global chronometrical, institutional and local safety. Emotion and humor were omitted because respondents did not find these issues relevant to their condition. This was because in this line of work, prison officers were not allowed to show their emotions. They were to obey and conformed orders given by their superiors without any hesitation. Prison officers were not empowered to make decision without consulting their superiors. In fact, they were controlled by their superiors and organization's protocols.

After exploratory factor analysis, confirmatory factor analysis was performed. Results showed acceptable goodness of fit indices for the measurement model of second-order wellness in accordance to prison officers as respondents in Malaysia. End result

indicated modified employee wellness measurement model which was then applied to actual respondents and tested through confirmatory factor analysis.

Confirmatory analysis result however indicated quite different result where fifteen parceled items of wellness that identify six second order factors of wellness were distinguished. They were (i) coping self (leisure and realistic belief); ii) creative self (intelligence, work and control); iii) essential self (gender identity, culture identity, spirituality and self care); iv) physical self (nutrition and exercise); v) social self (friendship and love) and vi) contextual factor (local factor and global chronometrical factor). Five deleted parceled items were emotion, humor, stress management, self worth and institutional context. These third-order factors were deleted because they were not relevant to the respondents (low factor loadings). This was due to the fact that the prison department organizational culture and protocols as well as the prison setting condition did not permit prison officers showing their true emotion and their self worth as unique (irreplaceable) individuals with low energy, time and limits to self regulation.

Based on the results, the wellness data had confirmed that the independent wellness model for the prison officers in Prison Department of Malaysia was fit (Browne and Cudeck, 1993). It was concluded that The Indivisible Self: An Evidence-Based Model of Wellness (and the 5 Factor Wellness Inventory) to be used as an independent model to explain prison offices' wellness in Prison Department of Malaysia. In general, the analyses results were reasonably fitting as established from the reliability analysis, exploratory factor analysis and confirmatory factor analysis. The factor analysis results

pointed to leisure, realistic beliefs, intellectual, work, control, gender identity, culture identity, self care, spirituality, nutrition, exercise, friendship, love, local, global and chronometrical as reliable factors as measured by the 5F–Wel instrument.

Goodness-of-fit statistics confirmed good fit (RMSEA) for a wellness model for use among prison employees. Comparing the present study on employee wellness in penitentiary and rehabilitation facility such as Prison Department of Malaysia with previous research in variety of areas such as in education, profit-oriented organization and medical; these results did not vary very much. The current research results were similar compared to previous research on wellness factors (Myers and Sweeney, 2004, Els, 2006, Hutchinson, 1999).

In study made by Els (2006), most of the wellness factors were statistically reliable and valid in assessing the wellness of employees in a life insurance organization in South Africa. According to Els (2006), 91 wellness items were loaded on 19 wellness factors (16 wellness factors and 3 contextual factors); and were valid and reliable. Meanwhile Hutchinson (1999) revealed wellness items were loaded into 18 wellness factors; among them were spirituality, work, friendship, love, leisure, self care and exercise. Other research also revealed almost similar results (Curry, 2007; Booth, 2005; Connolly and Myers, 2003). Therefore, this study had proved that wellness as universal issue involving human being where it could be studied in any area and situation. Its importance was irrefutable.

v) The use of work stress scale for correctional officers (WSSCO) to measure prison officers' occupational stress

To the researcher's knowledge, prior to this present study, WSSCO (Senol-Durak, Durak and Gencoz, 2006) measurement was not used to specifically measure Prison Department of Malaysia prison officers' occupational stress. An exploratory factor analysis and confirmatory factor analysis had been performed to validate the WSSCO measurement. As elaborated in chapter five, it was evident that prison officers' work stress factors consisted of work overload, role conflict and role ambiguity, inadequacies in physical conditions of prison, threat perception and general problem existed and surfaced in the data. In exploratory factor analysis, 35 items of WSSCO were loaded into 5 dimensions.

Whilst in confirmatory factor analysis, occupational stress items were parceled according to Landis, Beal and Tesluk's (2000). The results of reliability and validity were satisfactory similar to the findings of previous study (Senol-Durak, Durak and Gencoz, 2006); therefore suggested replication on using the WSSCO measurement using different sample of prison officers in variety of locations and type of prison to enhance the validity and reliability of this measurement.

vi) The usefulness of NEO-FFI to measure prison officers' personality

To the researcher knowledge, prior to this present study, NEO-FFI (Costa and McCrae, 1992a) was not used to specifically measure prison officers' personality in Malaysia. An exploratory factor analysis and confirmatory factor analysis were performed to validate

the NEO-FFI measurement. As elaborated in chapter four, it was evident that five personality factors consist of neuroticism, extraversion, openness to experience, agreeableness and conscientiousness existed and surfaced in the data. The results were similar to the findings of previous confirmatory factor analysis of NEO-PI-R and NEO-FFI (Steel, Schmidt and Shultz, 2008).

Therefore it was suggested that the replication of the research using different sample of prison officers in variety of locations and type of prison to enhance the validity of this measurement.

6.3.2 Recommendations

There are various practical implications on the study. First of all, looking at the persistent character of occupational stress in the prison setting and the importance of maintaining prison officers' wellness, expectantly this study initiates Prison Department of Malaysia towards validating Occupational Stress Scale for Correctional Officers (WSSCO) measurement and Five Factor Wellness (5F-Wel) as their official occupational stress and wellness tool to measure level of occupational stress and wellness in any prison department locations.

This aims to gauge specific prison locations that engender the highest level of occupational stress and wellness so that the human resource department will be able to observe on its magnitude and consequences of these phenomena to enhance effective and efficient human resource planning and training decision making.

Essentially the Prison Department of Malaysia is committed to achieve its vision and mission as the International Standard Correctional Service Provider (Prison Department of Malaysia, 2008). Since Prison Department of Malaysia is profoundly founded on its prison employees as their most valuable resource, it is imperative for the organization to ensure that their employees' wellness is well taken care off so that they may deliver optimal performance.

Furthermore Lambert, Cluse-Tolar and Hogan (2007) affirmed through concentrating on feedback and the reduction of role stress, prison department management and administrators can reshape the work environment to be less stressful, which in turn, can lead to a more healthy and productive workforce.

In a study by Keinan and Malach-Pines (2007), results have revealed that the respondents comprised of prison officers in various Israeli prisons have suggested possible ways to reduce their work-related stress such as “i) improve superiors' attitude, ii) increase their salary, iii) reduce workload, iv) improve prison department' public image, v) increase social cohesion, vi) eliminate extra shifts, vii) improve promotion process, viii) improve physical fitness, ix) place prison personnel close to their homes, x) increase social support, and xi) provide stress management programs”.

Therefore, Prison Department of Malaysia should seriously consider potential and existing prison officers' wellness which is inclusive of their mental, physiological and

social health. It is recommended that Prison Department of Malaysia to consider wellness and health within the context of selection of prison staff through proper prerequisite written tests; as a way to gauge their wellness level. The wellness measurement might be used in conjunction with other measures of staff selection to ensure that healthy and well employees are appointed to the organization.

Referring to the partaken prison officers in this research, the results indicated that enhancement of the wellness characteristics of current prison officers would likely to result in an increase in their productivity and the performance of Prison Department of Malaysia as well as it may enhance their ability to cope with strenuous prison environment. Thus it is suggested that potential and current prison officers be made aware of their own wellness situations so that it may assist them to develop their own coping resources to cope with the demands of harsh prison working conditions especially in hard core prisons. In the long term run, Prison Department of Malaysia's effort to consider, design and implement interventions that addressed the enhancement and development of their prison officers' wellness would reflect on prison officers' job performance.

Prison department might also enhance the development of prison officers' wellness by presenting developmental interventions in a consistent, structured and focused way. By providing employees with the necessary knowledge, skills, material, instruments, support and other resources, the staff members might experience job demands under their personal control. It could well be that employees who were allowed a degree of

independence and freedom of choice to self manage their own health status and were more likely to act autonomously while at work.

Therefore, Prison Department of Malaysia should put more focus on how to reduce prison officers' occupational stress that lead to prison officers' under performance and its highly stressed environment particularly in prison with inadequate amenities. Prison Department of Malaysia also needs to work out on how to utilize prison officers' personality as a weapon to counter strike extreme occupational stress through coping ability in order to maintain wellness. Accordingly, the researcher recommends stress management interventions programs (SMI) categorized at individual and organizational level to assist prison officers in reducing harmful consequence of stressors (Richardson and Rothstein, 2008).

The recommended stress management interventions programs in Prison Department of Malaysia aim at three distinct yet correlated aspects in the stress cycle which are the strength of occupational stressors, prison offices' judgment of strenuous conditions and their capability to deal with the consequences. Elements of stress management interventions also may cover wide selection of treatment covering prison officers, the Prison Department of Malaysia or some combination (Richardson and Rothstein, 2008). Basically the stress management interventions are intended to uplift the aptness between prison officers and the prison department.

The recommendation stress management intervention programs are also in accordance to Kompier and Kristensen's (2001) statement when they insinuated on core interventions focusing at workplace or at employees' competency in handling stress as the buttress to curtail repercussion of occupational stress on employees' health and wellbeing. Since research result has indicated prison officers' personality such as their extraversion and conscientiousness personality as well as self efficacy trait plays a big part in attending prison officers' wellness, it is prudent for Prison Department of Malaysia to pursue prison officers' stress management intervention programs attempt to reduce the severity of stress symptoms before they lead to serious health problems (Murphy & Sauter, 2003).

The stress management intervention programs focusing on prison officers' work, stress and wellness are highly recommended to improve prison officers' quality of life, lowering their health risks that directly promote their overall wellness (Frostin, 1996). These programs are considerably pertinent specifically to prison officers in prison setting since they are exposed to stress beyond the limit of typical human experience (McCraty, Atkinson, Lipsenthal & Arguelles, 2009).

The reason for recommending these programs is made after weighing the lifelong cost and benefit of these programs on prison officers. First and foremost reason, the management of prison department may reduce incurred overtime costs when prison officers take sick time or quit due to job-related stress. Another reason is these programs may improve prison officers' performance through enhancing their morale. These

programs may help to increase institutional safety by reducing distractions caused by occupational stress. In addition, the management of Prison Department of Malaysia will have an opportunity to demonstrate caring concept.

According to Richardson and Rothstein (2008), and Murphy (1988), there are three categories of stress management interventions programs which are primary, secondary and tertiary interventions. These interventions look at either the organization, the interrelation between the individual and the organization or the individual (Murphy, 1988).

Primary interventions focus on adjusting or fine-tuning the causes of occupational stress of prison officers so that they are able to deal with stress. Examples of primary interventions are redesigning prison officers' jobs to modify workplace stressors (Bond & Bunce, 2000) and providing co-worker support groups for prison officers (Kolbell, 1995).

Meanwhile, secondary interventions are meant to lessen the seriousness of occupational stress indicators that may directly cause severe health and wellbeing problems (Murphy & Sauter, 2003). Examples of secondary interventions program are cognitive structuring, conflict resolution techniques and coping strategies. However, they tend to have a minimal impact at the organizational level. The purpose is often to help the employee cope with stressors at work in order to be able to resume working. The treatment activities of tertiary interventions are initiated once the impact of stress-related

problems have come up and are intended to heal employees experiencing infirmity due to strenuous episodes at work that deplete their wellness.

The recommended secondary intervention program for prison officers of Prison Department of Malaysia corresponds to Richardson and Rothstein (2008) assertion that most organizations usually utilized secondary intervention programs meant for individual employees focusing on training and method of dealing and surviving occupational stress. The programs range from cognitive-behavioral skills training, meditation, relaxation, deep breathing, exercise, journaling, time management, and goal setting (Richardson and Rothstein, 2008). These intervention programs are recommended since these programs are most effective in forestalling employees with indication of stress causing work unfit and to boost their coping capability.

Main objectives of these secondary intervention program meant for individual prison officers are i) to recognize sources of stress and its implication on their life; ii) to distinguish and differentiate own personality, attitudes and perceptions that may affect their stress level; iii) as prison officers, they could not escape from the problems of stress at work and need to know how to handle it so as not to affect their lives; iv) able to recognize the difference between positive stress and negative stress and ways to utilize their stress to enhance and accelerate their success; v) understand the various methods or techniques to manage and reduce stress in life and at work; vi) learn how to cope with the stress and the need to express stress through speaking, writing, laughing

and crying because these expressions would promote healing; vii) learn to manage stress by practicing the teachings of Islam, including the prayers and doa recitations.

Essentially, in any intervention programs, prison officers are trained and coached to effectively change or transform their life routine as well as trained them to always be calm, patience, persistent, tolerance, realized their personal capabilities and always in control. They are also trained to approve and accept their stressful situation and teach them how to manage stressful condition. Participating prison officers also are trained on anger management as well as ways to effectively communicate emotion with others (Crawley, 2004). They are also required to be active in sports and exercise. Participants are taught on how to balance their work and life. They are trained in ways to intensify their skills and knowledge in variety of knowledge as well as are guided on spiritual healing through intensification of ibadah and taqarrub to Allah as well as perform zikr praising Allah, salawat, solat and Quran recitations.

The third category of stress management intervention program, namely the tertiary intervention programs, however, contradicts the prevention viewpoint. Tertiary intervention program is only helpful at the individual level, where qualified mental health professionals will try to assist the affected employee. Example of tertiary interventions programs such as employee assistance programs promote professional care of qualified mental health professionals as remedy to prison officers' health conditions (Richardson and Rothstein, 2008) to ensure their wellness level is within acceptable limits prior returning to work in the organization. These programs are typified through

company-initiated programs inclusive of human resource assistance program, stress counseling program, rehabilitation program and return-to-work program (Murphy & Sauter, 2003; Richardson and Rothstein, 2008).

The recommended tertiary intervention programs for the Prison Department of Malaysia are the employee assistance program (EAP) and the critical incident stress management program. Employee assistance program is a confidential tertiary stress management program; designed to encourage concerned prison officers to voluntarily seek assistance to deal with personal or work related problems that may impair their well-being and productivity as well as their family. Employee assistance program is highly recommended looking at its ability to heal shattered wellbeing and dwindling productivity of prison officers affected by personal and work-related problems.

Shattered wellbeing and productivity reduction affected by personal and work-related problems are detrimental issues to Prison Department of Malaysia because without them, Prison Department of Malaysia will not be able to function professionally. In employee assistance program, assistance, referral and short term counseling will be provided to any employee or family member who seeks it in discretion and without penalizing them.

Another recommended program is the critical incident stress management program specifically intended for prison officers who are likely to be involved in critical incidents. The program focuses on two factors which are i) prevention factor; aimed at

training and coaching prison officers to manage possible danger of being exposed to very stressful events and ii) supporting factor; giving aid, back up and monitoring services to individual prison officers who have experienced critical incidents. Assistance on critical incident stress management program also must be provided to prison officers who are likely to be involved in critical incidents, due to the nature of their work. Aid and monitor service should be offered after a critical incident. When required, further confidential assistance will be provided within the context of the employee assistance program.

However, there are several essential sources to ensure program success. Moreover, developing and maintaining a successful stress management programs or health promotion programs is certainly demanding.

Prerequisites to stress management and health promotions program success involves issues such as i) appointing talented and dedicated “stress resilient” staff to help others who experience stress through stringent job interviews and referrals; ii) acquiring enthusiastic and passionate involvement from every relevant members from top administrators, union officers, line officers, and family members; iii) keeping privacy and giving range of assistance subsequent to any critical occurrences and coach prison supervisors to recognize potential prison officers who are stressed out and refer these officers for proper attention and medication as well as transform prison organization itself in ways that will trim down prison officers’ occupational stress that may jeopardize their wellness and iv) supervise relevant stress management program and

health promotion activities as well as appraise the programs' success in lessening occupational stress and cost cutback.

In the nutshell, greater focus has to be directed at achieving overall wellness and improving the wellness dispositions of employees. Implementation of a strategic health and wellness programs (incorporating all wellness factors) that contributed to prison officers' wellness might reduce their absence due to sickness in organizations whilst increasing their profitability at the same time.

A solid foundation and good working relationships are important in overcoming any barriers in realizing an effective and workable wellness intervention program. Challenges such as the hierarchical structure of the organization where the organization has been practicing a culture that has not traditionally promoted innovative and creative solutions to problems, inadequate systems for collecting data and measuring performance, and often scarce financial and human capital resources are among barriers to be removed should Prison Department of Malaysia incline of realizing the program for prison officers. The management of Prison Department of Malaysia must highly commit to ensure program accomplishment.

6.4. Limitations

There are few shortcomings of the research that should be conceded while contemplating the findings of the research. No matter what, necessary actions were carried out to guarantee these drawbacks did not imperil the findings of the study.

First limitation of the research was related to the wellness construct and its measurement. The researcher experienced difficulty in finding available research material applicable to the study that focused on individual wellness specifically in Malaysia. Research studies and measuring instruments of individual wellbeing were found to focus only on certain aspects of wellness. Respondents of these studies were also not relevant to prison work study. Wellness research in general was also lacking in Malaysia. This resulted in a limitation of having to base local research needs on previous studies of western culture influenced individual wellness.

Thus this scientific barrier instigated the researcher to experience the shortcoming of applying wellness as opposed to well-being measurements in the study. The wellness instrument that was used, furthermore, was not validated for extensive use in Malaysia, as it was the first-ever application of it in this country. The future challenge, therefore, is to experiment with it in conjunction with the western adaptation culture of 5FWel.

In addition, the reliance on the sole use of self-report data was seen as another limitation, since it was only quantitative by nature. This might have affected or artificially inflated relationships among wellness constructs. A distinct possibility existed that more objective and explorative indicators of quality of employee wellness might yield a different set of outcomes; a combination of self-report measures and qualitative indicators of wellness might provide richer results.

Adding another limitation on the measurement of construct was regarding the occupational stress measurement specifically for prison professions. The occupational stress instrument that was used specifically for prison officers in the Prison Department of Malaysia had not been validated for extensive use in Malaysia as well, as it was also the first-ever application of it in this country. Thus the challenge was validating the instrument based on Malaysia culture and ethnic background through proper translation procedure.

Furthermore occupational stress research specifically for prison staff in Malaysia was quite scarce and in fragments; resulting limitation of referencing the study based on local needs. The statistical challenge was to carry out experiment on the adapted instrument taken and used the instrument on local prison officers as respondents.

6.5. Future research directions

Though results of this research were informative, future research is deemed necessary to enhance knowledge on employee wellness, occupational stress, personality, self efficacy and perceived fairness in prison setting. Indeed this research has the capability to introduce groundwork for future research. Several appropriate suggestions are explicated.

Replication of the research using larger sample size which represents the population of prison officers of Prison Department of Malaysia is the next essential measure. The replication of the research on prison officers at different locations and states possibly

will facilitate generalization of findings to prison officers in Malaysia. Since the current research only takes into account of certain locations in West Malaysia, it is recommended that the research be replicated to all locations in Malaysia so that will get full picture of occupational stress and wellness level in Prison Department of Malaysia.

Future studies should also use larger samples size to enhance generalizability. Larger sample sizes might provide increased confidence that study findings would be consistent across other similar groups. The replication will then, enable the findings to be generalized to prison officers in Prison Department of Malaysia and able to strengthen the validation of the instruments used in the research. Moreover, the replication of the research should consider samples from various types of prison such as prison officers working in juvenile detention schools (Henry Gurney Schools), reformatory centers, and protection detention centers (ISA detention centers) for wider generalizability in prison study.

A triangulation or mixed method employing both qualitative and quantitative approach also is recommended for future research. Triangulation method offers an advance value of data quality to enhance the researchers' knowledge regarding the occurrence under study. Integrating both the questionnaire and interview in data collection process is most preferable approach to study human behavior in the social science. Advantages for using methodological triangulation is the completeness of the research where quantitative methods can further develop findings derived from qualitative research and vice versa. The methods complement each other, providing richness or detail that would be

unavailable from one method alone. Qualitative investigation can also help organize quantitative data that has already been gathered or suggest new ways of approaching the phenomenon. Qualitative methods can clarify the results of quantitative research, such as apparently inconsistent findings. More tendentially, qualitative and quantitative results are sometimes thought to support each other. Triangulation would thus yield a stronger result than either method could yield alone (Risjord, Moloney and Dunbar, 2002).

Perhaps potential researchers need to focus on the application of *The Indivisible Self: An Evidence-Based Model of Wellness* (Myers and Sweeney, 2004) as well as the 5FWel measurement to measure the level of wellness among prison officers as the whole and validate for various demographics to provide adequate and pertinent statistical norms for Malaysian populations and conditions. Further investigation in particular on Malaysia respondents' wellness is also needed to extend employee wellness model as proposed in this research; so that norms according to Malaysia culture is recognized and acknowledged.

In terms of personality study, it is very wise to explore more on the negative relationship between agreeableness and openness to experience personality among prison officers in Malaysia.

Potential researchers also may use the Occupational stress Scale for Correctional Officers (WSSCO) (Senol-Durak, Durak and Gencoz, 2006) to measure the level of

occupational stress particularly in prison setting and validate for various demography (such as job positions) to provide satisfactory and significant statistical standard for prison officers in Malaysia.

One more suggestion for future research direction is the need to scrutinize on occupational stress among prison officers in Malaysia. Feedback from face-to face interviews during preliminary investigation have revealed that from Malaysia viewpoint there have only been a scant knowledge of the issues pertaining to wellness, occupational stress and coping among prison officers with in the literature. Therefore, another potential issue is to look at in future research is prison officers' coping ability and its measurement according to Malaysia respondents, culture and its norms. In addition, future research also needs to probe into other possible stressors in prison setting (Triplett, Mullings & Scarborough, 1999).

The comments given by the prison officers at the end of the survey and the amount of variation explained by the models, both, suggest that all the relevant sources of stress are not covered. Future research need also assess variation in the effectiveness of different coping mechanisms across different sources of stress. Finally, variation across race and gender in the use of effective coping strategies should be examined. (Triplett, Mullings & Scarborough, 1996)

6.6. Conclusion

Basically the research objectives had been realized and research questions were answered regardless of several limitations in the study. The findings answered all six research questions which directly accomplished the six objectives of the study. Although research in occupational stress, personality and wellness (health and wellbeing) were plenty in social sciences study, this research reduced the knowledge gap in wellness, industrial/organizational psychology and prison/correctional studies specifically in Malaysia through indicating self efficacy and perceived justice as significant mediating variable between personality and wellness of prison officers.

Furthermore, findings of such replication study can also strengthen the validation of the instruments used in this research. Briefly thirty-six hypotheses were formulated to test the relationships between the constructs of the study. According to the findings, sixteen of them are statistically supported.

In conclusion, to explain the mediating effect of self efficacy and perceived fairness on the relationships between prison officers' personality, occupational stress and their wellness level, the study encountered eminent results. Self efficacy and perceived fairness were statistically proven as significant mediators on the relationship between prison officers' personality, occupational stress and wellness level.

With these results, this research contributed to the boundary of knowledge in wellness research and industrial/organizational psychology, prison/correctional management

research and occupational stress research. Relating to practical contribution, the investigation of prison officers' wellness, their personality, occupational stress, self efficacy and perceived justice supported the human resource division of Prison Department of Malaysia practices and procedures.

As a whole, the results of this research contributed in manifold through the literature content and the potential outlook in researching human behavior in Malaysia prison system as well as to the improvement of the human resource practices in Prison Department of Malaysia through understanding the psychological aspects of the whole process.

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APPENDICES

Appendix A

15 June 2009

Responden yang dihormati,

Anda telah dipilih untuk menyertai satu kajian ilmiah. Kajian ini mengkaji hubungan antara personaliti, tekanan dalam pekerjaan dan kesejahteraan pekerja; juga kemungkinan hubungan tersebut diganggu oleh faktor psikologikal seperti efikasi sendiri pekerja dan tanggapan berkenaan keadilan dalam organisasi. Kajian ini bertujuan mendapatkan maklumat berkenaan sikap, pendapat, tanggapan dan penilaian anda terhadap sendiri, pekerjaan dan organisasi anda bekerja.

Saya amat menghargai jika anda dapat meluangkan masa (lebih kurang 45 minit) untuk menjawab semua soalan kaji selidik. Tiada jawapan betul atau salah untuk semua soalan berkenaan. Keputusan kajian akan digunakan untuk tujuan penyelidikan sahaja.

Penyertaan anda dalam kajiselidik ini adalah secara sukarela. Anda boleh menarik diri dari kajiselidik ini pada bila-bila masa sebelum menyerahkan borang kajiselidik. Jawapan anda tidak akan memberikan sebarang kesan ke atas sebarang aktiviti kerja dan rekod peribadi anda.

Kerjasama anda adalah amat penting kepada kajian ini. Maklumat yang diberi adalah sulit dan akan digunakan untuk tujuan kajian sahaja. Anda diminta membaca arahan dan jawab soalan setepat mungkin.

Sila hubungi saya jika anda mempunyai sebarang pertanyaan. Penyertaan anda merupakan sumbangan penting kepada kajian ini.

Akhir sekali, saya mengucapkan setinggi-tinggi penghargaan untuk masa, kerjasama dan usaha yang telah anda berikan.

Yang benar,

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Kajian Hubungan di antara Kesejahteraan, Personaliti, Tekanan Pekerjaan, Efikasi Kendiri dan Tanggapan Terhadap Keadilan dalam Persekitaran Koreksional

Anda diminta menjawab *SEMUA* soalan dalam soal selidik ini. Segala maklumat yang diberikan anda adalah dirahsiakan dan hanya digunakan untuk tujuan kajian ini sahaja. Maklumat anda juga tidak akan disalurkan atau digunakan oleh mana-mana individu atau organisasi lain.

Disebabkan setiap responden mempunyai pandangan yang berbeza terhadap soalan-soalan dalam soal selidik ini, maka tiada jawapan yang betul atau salah semasa anda menjawab. Apa yang penting ialah anda perlu menjawab kesemua soalan secara jujur dan ikhlas. Sila baca dengan teliti arahan dan soalan-soalan yang dikemukakan dalam soal selidik ini.

Bahagian A: Maklumat Peribadi dan Pekerjaan

Berikut adalah soalan-soalan berkenaan data peribadi dan pekerjaan anda. Soalan-soalan berkenaan adalah untuk tujuan analisa sahaja. Sila isi tempat kosong dan tandakan (✓) dalam petak yang sesuai.

- A1. Jantina :
 Lelaki ☐ Perempuan ☐
- A2. Kumpulan etnik :
 Melayu ☐
 Cina ☐
 India ☐
 Lain-lain: Sila nyatakan: _____
- A3. Kelayakan tertinggi :
 PMR / SRP ☐
 SPM / STAM ☐
 STPM ☐
 Diploma ☐
 Ijazah ☐
 Lain-lain: Sila nyatakan: _____
- A4. Taraf perkahwinan:
 Bujang ☐
 Berkahwin ☐
 Telah berpisah / kematian pasangan ☐
- A5. Umur anda: Sila nyatakan _____
- A6. Jawatan anda sekarang : Sila nyatakan : _____
- A7. Tempoh anda memegang jawatan sekarang. Sila nyatakan. _____
- A8. Tempoh anda bekerja di organisasi ini. Sila nyatakan: _____
- A9. Unit / Jabatan anda: (cth: unit detil) : _____
- A10. Lokasi Penjara: (cth: Taiping): _____

Bahagian B

Pada bahagian ini, pernyataan-pernyataan di bawah adalah berkenaan anda, pekerjaan anda dan juga persekitaran kerja anda. Sila jawab semua pernyataan dengan jujur kerana ianya dapat membantu kajian ini. Sila nyatakan sejauh manakah anda bersetuju dengan kenyataan-kenyataan di bawah dengan membulatkan jawapan anda mengikut skala yang diberikan.

	Sangat tidak setuju	Tidak setuju	Setuju	Sangat setuju
BW1 Apabila saya libatkan diri dalam aktiviti masa lapang, saya akan terleka dan terasa seolah masa tidak berjalan.	1	2	3	4
BW2 Saya berpuas hati dengan cara saya mengatasi tekanan.	1	2	3	4
BW3 Saya memakan sejumlah makanan kesihatan seperti vitamin, mineral dan serat setiap hari.	1	2	3	4
BW4 Saya kerap kali berjenaka walaupun ketika melakukan tugas berat.	1	2	3	4
BW5 Saya amat berpuas hati dengan kualiti dan kuantiti makanan dalam sukatan makanan saya.	1	2	3	4
BW6 Menjadi seorang lelaki / wanita adalah kepuasan dan kebanggaan saya.	1	2	3	4
BW7 Saya akan meneliti pilihan dan segala kemungkinan sebelum bertindak apabila saya ada masalah.	1	2	3	4
BW8 Saya minum alkohol.	1	2	3	4
BW9 Saya melakukan senaman selama 20 minit sekurang-kurangnya tiga kali seminggu.	1	2	3	4
BW10 Saya menilai diri sebagai seorang yang unik.	1	2	3	4
BW11 Saya mempunyai sahabat yang akan berbuat apa saja untuk saya jika saya perlukan pertolongan.	1	2	3	4
BW12 Saya rasa saya perlu mengembirakan hati orang lain.	1	2	3	4
BW13 Saya dapat menyuarakan perasaan baik dan buruk dengan sewajarnya.	1	2	3	4
BW14 Saya makan mengikut diet yang sihat.	1	2	3	4
BW15 Saya tidak merokok.	1	2	3	4
BW16 Latarbelakang budaya saya telah meningkatkan kualiti kehidupan saya.	1	2	3	4
BW17 Saya berkebolehan mengawal keadaan yang boleh mempengaruhi kerja saya.	1	2	3	4
BW18 Saya dapat mengurus tekanan saya.	1	2	3	4
BW19 Saya menggunakan tali pinggang keledar ketika menaiki kereta.	1	2	3	4
BW20 Saya berupaya mengambilalih dan mengurus sesuatu keadaan apabila perlu.	1	2	3	4
BW21 Saya boleh ketawakan diri saya.	1	2	3	4
BW22 Menjadi lelaki / perempuan memberi pengaruh positif ke atas hidup saya.	1	2	3	4

	Sangat tidak setuju	Tidak setuju	Setuju	Sangat setuju
BW23 Aktiviti masa lapang merupakan perkara penting dalam hidup saya.	1	2	3	4
BW24 Kerja saya membolehkan saya menggunakan kebolehan dan kemahiran yang sedia ada.	1	2	3	4
BW25 Saya mempunyai sahabat dan / atau saudara mara yang akan pertolongan jika saya memerlukan.	1	2	3	4
BW26 Saya ada sekurang-kurangnya satu perhubungan akrab yang kekal dan terjamin.	1	2	3	4
BW27 Saya mencari cara untuk merangsang pemikiran dan meningkat daya pembelajaran.	1	2	3	4
BW28 Kerap kali saya merasa tidak berpuas hati kerana harapan saya tidak tercapai.	1	2	3	4
BW29 Saya sentiasa menantikan kerja yang saya lakukan setiap hari.	1	2	3	4
BW30 Kebiasaannya saya dapat mencapai matlamat yang telah saya tetapkan untuk diri saya.	1	2	3	4
BW31 Saya memperolehi sumber sokongan tanpa mengira bangsa, warna kulit dan budaya saya.	1	2	3	4
BW32 Saya boleh mencari penyelesaian kepada masalah yang sukar secara kreatif.	1	2	3	4
BW33 Saya rasa saya seorang yang aktif.	1	2	3	4
BW34 Saya mengambil bahagian dalam aktiviti masa lapang yang dapat memuaskan saya.	1	2	3	4
BW35 Sembahyang atau belajar agama adalah sebahagian dari hidup saya.	1	2	3	4
BW36 Saya menerima keadaan rupa saya biarpun tidak sempurna.	1	2	3	4
BW37 Saya turut serta dalam mana-mana majlis keagamaan.	1	2	3	4
BW38 Saya selalu menyedari perasaan saya berkenaan sesuatu perkara.	1	2	3	4
BW39 Saya tergesa-gesa membuat kesimpulan tentang sesuatu yang memberi kesan negatif ke atas saya dan ianya adalah tidak benar sama sekali.	1	2	3	4
BW40 Saya berupaya memperlihatkan perasaan saya pada bila-bila masa.	1	2	3	4
BW41 Saya mencari masa untuk aktiviti masa lapang yang saya suka.	1	2	3	4
BW42 Orang lain mengatakan saya seorang yang lucu.	1	2	3	4
BW43 Saya berusaha untuk mendapatkan pandangan dari orang lain melalui pelbagai cara.	1	2	3	4
BW44 Saya percaya saya adalah seorang yang berguna.	1	2	3	4
BW45 Saya mendapat sokongan dari orang lain kerana saya seorang lelaki / wanita.	1	2	3	4
BW46 Adalah amat penting semua orang yang saya temui menyukai atau menyayangi saya.	1	2	3	4
BW47 Saya mempunyai sekurang-kurangnya seorang yang ambil berat tentang peningkatan diri dan kesihatan saya.	1	2	3	4

	Sangat tidak setuju	Tidak setuju	Setuju	Sangat setuju
BW48 Saya cekap menggunakan imaginasi, pengetahuan dan kemahiran dalam menyelesaikan masalah.	1	2	3	4
BW49 Saya boleh memulakan dan memelihara hubungan yang memuaskan saya.	1	2	3	4
BW50 Saya boleh mengatasi sebarang perasaan dan pemikiran yang boleh menyebabkan saya tertekan.	1	2	3	4
BW51 Saya amat berpegang kepada agama sebagai pedoman hidup seharian.	1	2	3	4
BW52 Saya mempunyai sekurang-kurangnya seorang yang saya rapat secara emosi.	1	2	3	4
BW53 Saya aktif secara fizikal pada kebanyakan masa.	1	2	3	4
BW54 Saya menggunakan jenaka untuk mendapat pandangan baru berkenaan masalah dalam hidup saya.	1	2	3	4
BW55 Saya berupaya mengenyepikan kerja untuk beriadah tanpa rasa bersalah.	1	2	3	4
BW56 Saya melakukan semua perkara sebaik mungkin supaya saya merasa diri saya berguna.	1	2	3	4
BW57 Saya merasa mempunyai ciri-ciri positif dengan mereka bersamaan jantina.	1	2	3	4
BW58 Saya dihargai oleh rakan-rakan sekeliling di tempat kerja.	1	2	3	4
BW59 Saya merancang ke hadapan demi mencapai matlamat hidup saya.	1	2	3	4
BW60 Saya menyukai diri sendiri walaupun saya tidak sempurna.	1	2	3	4
BW61 Saya berpuas hati dengan aktiviti masa lapang saya.	1	2	3	4
BW62 Saya melakukan aktiviti regangan sekurang-kurangnya tiga kali seminggu.	1	2	3	4
BW63 Saya makan sekurang-kurangnya tiga kali sehari termasuk sarapan pagi.	1	2	3	4
BW64 Saya tidak menggunakan dadah.	1	2	3	4
BW65 Saya percaya pada Allah (orang Islam) atau pada sesuatu yang agung (bukan Islam).	1	2	3	4
BW66 Saya berupaya mengalami pelbagai emosi; positif dan negatif.	1	2	3	4
BW67 Saya melihat perubahan sebagai peluang untuk meningkat.	1	2	3	4
BW68 Saya makan buah-buahan, sayur-sayuran dan bijirin setiap hari.	1	2	3	4
BW69 Peningkatan kerohanian adalah amat penting kepada saya.	1	2	3	4
BW70 Apabila saya perlukan maklumat, saya ada kawan-kawan yang dapat membantu.	1	2	3	4
BW71 Saya berbangga dengan warisan budaya saya.	1	2	3	4
BW72 Saya suka sihat secara fizikal.	1	2	3	4
BW73 Saya mempunyai sekurang-kurangnya seorang yang saya dapat rujuk pendapat dan perasaan.	1	2	3	4

	Sangat tidak setuju	Tidak setuju	Setuju	Sangat setuju
BW74 Saya berpuas hati dengan kehidupan saya.	1	2	3	4
BW75 Saya mempunyai wang yang mencukupi untuk melakukan perkara yang saya perlu lakukan.	1	2	3	4
BW76 Saya berasa selamat di rumah.	1	2	3	4
BW77 Saya berasa selamat di tempat kerja.	1	2	3	4
BW78 Saya berasa selamat dalam kejiranan saya.	1	2	3	4
BW79 Saya berasa selamat dalam kehidupan seharian saya.	1	2	3	4
BW80 Saya takut keluarga saya atau saya dcedera oleh penjahat.	1	2	3	4
BW81 Saya amat optimis mengenai masa depan.	1	2	3	4
BW82 Kerajaan membantu saya menjadi lebih sejahtera.	1	2	3	4
BW83 Pendidikan saya membantu saya menjadi lebih sejahtera.	1	2	3	4
BW84 Ugama saya membantu kesejahteraan saya.	1	2	3	4
BW85 Saya tahu saya boleh mendapatkan kerja yang sesuai bila saya perlukan.	1	2	3	4
BW86 Saya menonton TV kurang dari dua jam setiap hari.	1	2	3	4
BW87 Keamanan dunia adalah penting kepada kesejahteraan saya.	1	2	3	4
BW88 Budaya lain menambah kesejahteraan saya.	1	2	3	4
BW89 Saya menantikan saat tua.	1	2	3	4
BW90 Saya gemar merancang perubahan dalam hidup saya.	1	2	3	4
BW91 Perubahan dalam kehidupan adalah sesuatu yang normal.	1	2	3	4

Berikut adalah kenyataan mengenai personaliti anda. Sila jawab semua pernyataan dengan jujur kerana ianya dapat membantu kajian ini. Baca setiap kenyataan dengan teliti.

Sila nyatakan sejauh manakah anda bersetuju dengan kenyataan-kenyataan di bawah dengan membulatkan jawapan anda mengikut skala yang diberikan.

	Sangat tidak setuju	Tidak setuju	Sedikit tidak setuju	Neutral	Sedikit setuju	Setuju	Sangat setuju
BPN1 Saya bukan seorang perisau.	1	2	3	4	5	6	7
BPE2 Saya suka dikelilingi orang ramai.	1	2	3	4	5	6	7
BPO3 Saya tidak suka membuang masa dengan berangan-angan kosong.	1	2	3	4	5	6	7
BPA4 Saya cuba berbudi bahasa dengan setiap orang yang saya jumpa.	1	2	3	4	5	6	7
BPC5 Saya menyimpan barang-barang saya dengan rapi.	1	2	3	4	5	6	7
BPN6 Kerap kali saya berasa rendah diri dengan orang lain.	1	2	3	4	5	6	7
BPE7 Saya mudah ketawa.	1	2	3	4	5	6	7
BPO8 Apabila saya menemui cara yang terbaik dalam membuat sesuatu, saya akan sentiasa menggunakan cara tersebut.	1	2	3	4	5	6	7

	Sangat tidak setuju	Tidak setuju	Sedikit tidak setuju	Neutral	Sedikit setuju	Setuju	Sangat setuju
BPA9 Kerap kali saya bertelagah dengan keluarga dan rakan kerja.	1	2	3	4	5	6	7
BPC10 Saya cekap dalam memastikan sebarang kerja selesai mengikut masa yang ditetapkan.	1	2	3	4	5	6	7
BP11 Kadangkala perasaan saya merasa seperti melodak apabila saya amat tertekan.	1	2	3	4	5	6	7
BPE12 Saya tidak menganggap diri saya sebagai periang.	1	2	3	4	5	6	7
BPO13 Saya amat tertarik dengan hasil seni dan keindahan alam.	1	2	3	4	5	6	7
BPA14 Sesetengah orang berpendapat saya seorang yang mementingkan diri sendiri dan egois.	1	2	3	4	5	6	7
BPC15 Saya bukan seorang yang mengikut peraturan.	1	2	3	4	5	6	7
BP16 Jarang sekali saya berasa keseorangan atau di dalam kesedihan.	1	2	3	4	5	6	7
BPE17 Saya seronok berbual dengan orang ramai.	1	2	3	4	5	6	7
BPO18 Saya percaya dengan membiarkan seseorang pelajar mendengar taklimat dari penceramah berkontroversi hanya akan menyebabkannya menjadi keliru dan terpesong.	1	2	3	4	5	6	7
BPA19 Saya lebih rela memberi kerjasama dengan orang lain daripada bersaing dengan mereka.	1	2	3	4	5	6	7
BPC20 Saya cuba melaksanakan semua tugas yang diberi dengan bersungguh- sungguh.	1	2	3	4	5	6	7
BP21 Kerap kali saya berasa tegang dan gugup.	1	2	3	4	5	6	7
BPE22 Saya suka berada di tempat penuh aksi.	1	2	3	4	5	6	7
BPO23 Sajak kurang atau tidak sama sekali mempengaruhi saya.	1	2	3	4	5	6	7
BPA24 Saya cenderung bersikap sinis dan meragui tujuan orang lain.	1	2	3	4	5	6	7
BPC25 Saya mempunyai senarai matlamat yang jelas dan berusaha mencapainya mengikut kepentingan.	1	2	3	4	5	6	7
BP26 Kadangkala saya berasa diri tidak berharga langsung.	1	2	3	4	5	6	7
BPE27 Saya lebih suka melakukan sesuatu perkara secara bersendirian.	1	2	3	4	5	6	7
BPO28 Kerap kali saya mencuba makanan baru dan asing.	1	2	3	4	5	6	7
BPA29 Saya percaya orang lain akan mengambil kesempatan ke atas kita jika kita membiarkan mereka.	1	2	3	4	5	6	7
BPC30 Saya banyak membuang masa sebelum menjalankan tugas.	1	2	3	4	5	6	7
BP31 Jarang sekali saya berasa takut atau gelisah.	1	2	3	4	5	6	7
BPE32 Saya sering merasa saya amat bertenaga.	1	2	3	4	5	6	7
BPO33 Saya jarang peka dengan sebarang perasaan dan emosi terhasil dari persekitaran yang berbeza.	1	2	3	4	5	6	7
BPA34 Kebanyakan orang yang mengenali saya menyukai saya.	1	2	3	4	5	6	7
BPC35 Saya bekerja keras untuk mencapai matlamat.	1	2	3	4	5	6	7

	Sangat tidak setuju	Tidak setuju	Sedikit tidak setuju	Netral	Sedikit setuju	Setuju	Sangat setuju
BNP36 Kerap kali saya marah dengan cara orang melayan saya.	1	2	3	4	5	6	7
BPE37 Saya adalah seorang periang dan bersemangat.	1	2	3	4	5	6	7
BPO38 Saya percaya kita perlu merujuk kepada pihak yang bertanggungjawab dalam hal keagamaan dalam sebarang keputusan dan isu moral.	1	2	3	4	5	6	7
BPA39 Setengah orang berpendapat saya seorang dingin dan terlalu berkira.	1	2	3	4	5	6	7
BPC40 Apabila saya membuat komitmen, saya boleh diharap untuk meneruskan hingga ke penghujung.	1	2	3	4	5	6	7
BNP41 Kerap kali apabila terjadi kesilapan, saya akan hilang semangat dan mudah berputus asa.	1	2	3	4	5	6	7
BPE42 Saya bukan seorang optimis yang periang.	1	2	3	4	5	6	7
BPO43 Kadangkala apabila saya membaca sajak atau melihat hasil seni, saya akan berasa tersangat teruja.	1	2	3	4	5	6	7
BPA44 Saya seorang yang berperwatakan degil dan cekal.	1	2	3	4	5	6	7
BPC45 Kadangkala saya bukan seorang yang boleh disandar kepercayaan.	1	2	3	4	5	6	7
BNP46 Saya jarang berasa sedih atau murung.	1	2	3	4	5	6	7
BPE47 Kehidupan saya berjalan dengan terlalu cepat.	1	2	3	4	5	6	7
BPO48 Saya tidak berminat memikirkan alam semesta atau kondisi manusia.	1	2	3	4	5	6	7
BPA49 Secara umum, saya cuba berprihatin dan bertimbang rasa.	1	2	3	4	5	6	7
BPC50 Saya adalah seorang yang produktif yang selalu menyelesaikan tugas.	1	2	3	4	5	6	7
BNP51 Kerap kali saya merasa terlalu lemah dan mahukan seseorang membantu saya menyelesaikan masalah saya.	1	2	3	4	5	6	7
BPE52 Saya seorang yang sangat aktif.	1	2	3	4	5	6	7
BPO53 Perasaan ingin tahu intelektual saya adalah tinggi.	1	2	3	4	5	6	7
BPA54 Jika saya tidak menyukai seseorang, saya akan memberitahu orang berkenaan.	1	2	3	4	5	6	7
BPC55 Saya bukan seorang yang teratur.	1	2	3	4	5	6	7
BNP56 Ada ketika saya berasa sangat malu hinggakan saya mahu menyembunyikan diri.	1	2	3	4	5	6	7
BPE57 Saya lebih rela mengikut jalan sendiri daripada memimpin orang lain.	1	2	3	4	5	6	7
BPO58 Kerap kali saya senang bermain dengan teori atau ide yang abstrak.	1	2	3	4	5	6	7
BPA59 Saya bersedia memanipulasi orang lain untuk mendapatkan apa yang saya mahu jika perlu.	1	2	3	4	5	6	7
BPC60 Saya berusaha keras untuk cemerlang dalam semua perkara yang saya lakukan.	1	2	3	4	5	6	7

Kenyataan berikut adalah berkenaan skil efikasi sendiri. Sila jawab semua pernyataan dengan jujur kerana ianya dapat membantu kajian ini. Baca setiap kenyataan dengan teliti.

Sila nyatakan sejauh manakah anda bersetuju dengan kenyataan-kenyataan di bawah dengan membulatkan jawapan anda mengikut skala yang diberikan.

		Tidak benar sama sekali	Sedikit benar	Benar	Benar sama sekali
BSE1	Saya berupaya menyelesaikan masalah yang sukar jika saya benar-benar berusaha.	1	2	3	4
BSE 2	Jika ada sesiapa menentang saya, saya berupaya mencari cara dan jalan untuk mendapatkan apa yang saya mahu.	1	2	3	4
BSE3	Adalah mudah bagi saya untuk tidak berganjak dalam melaksanakan sasaran dan matlamat saya.	1	2	3	4
BSE4	Saya amat yakin yang saya berupaya menguruskan perkara yang tidak diduga dengan efektif.	1	2	3	4
BSE5	Dengan kepanjangan daya akal yang saya miliki, saya tahu bagaimana mengendalikan situasi yang tidak terduga.	1	2	3	4
BSE6	Saya berupaya menyelesaikan kebanyakan masalah jika saya berusaha sebaik mungkin.	1	2	3	4
BSE7	Saya berupaya bertenang apabila menghadapi masalah sukar kerana saya percaya kepada kemampuan saya mengatasi masalah tersebut.	1	2	3	4
BSE8	Apabila saya berdepan dengan masalah, biasanya saya menemukan beberapa cara penyelesaian.	1	2	3	4
BSE9	Jika saya dalam kesusahan, saya berupaya memikirkan penyelesaian.	1	2	3	4
BSE10	Saya selalu berupaya mengendalikan sebarang perkara yang mendatangi saya.	1	2	3	4

Berikut adalah kenyataan berkenaan persepsi keadilan di tempat kerja anda. Sila jawab semua pernyataan dengan jujur kerana ianya dapat membantu kajian ini. Baca setiap kenyataan dengan teliti. Sila nyatakan sejauh manakah anda bersetuju dengan kenyataan-kenyataan di bawah dengan membulatkan jawapan anda mengikut skala yang diberikan.

		Sangat tidak setuju	Tidak setuju	Sedikit tidak setuju	Neutral	Sedikit setuju	Setuju	Sangat setuju
BJDJ1	Jadual kerja saya adalah adil dan berpatutan.	1	2	3	4	5	6	7
BJDJ2	Saya rasa pembayaran gaji saya adalah setimpal.	1	2	3	4	5	6	7
BJDJ3	Beban kerja saya adalah setimpal.	1	2	3	4	5	6	7
BJDJ4	Keseluruhannya, ganjaran-ganjaran yang saya terima adalah setimpal.	1	2	3	4	5	6	7
BJDJ5	Saya merasakan tanggungjawab kerja saya adalah adil.	1	2	3	4	5	6	7

BJPJ6	Keputusan berkenaan tugas telah dibuat oleh pegawai atasan tanpa berat sebelah.	1	2	3	4	5	6	7
		Sangat tidak setuju	Tidak setuju	Sedikit tidak setuju	Neutral	Sedikit setuju	Setuju	Sangat setuju
BJPJ7	Pegawai atasan memastikan masalah pegawai penjara didengar sebelum sebarang keputusan berkenaan tugas dibuat.	1	2	3	4	5	6	7
BJPJ8	Sebelum membuat keputusan berkenaan kerja secara formal, pegawai atasan mengumpul maklumat berkaitan secara tepat dan lengkap.	1	2	3	4	5	6	7
BJPJ9	Pegawai atasan menjelaskan keputusan dan memberi maklumat tambahan apabila diminta oleh pegawai penjara.	1	2	3	4	5	6	7
BJPJ10	Sebarang keputusan digunapakai secara konsisten ke atas sebarang pegawai penjara yang terbabit.	1	2	3	4	5	6	7
BJPJ11	Pegawai penjara dibenarkan mencabar atau membuat rayuan sebarang keputusan yang dibuat oleh pegawai atasan.	1	2	3	4	5	6	7
BJIJ12	Apabila keputusan dibuat berkenaan kerja saya, pegawai atasan saya akan melayan saya dengan baik dan penuh pertimbangan.	1	2	3	4	5	6	7
BJIJ13	Apabila keputusan dibuat berkenaan kerja saya, pegawai atasan akan melayan saya dengan penuh hormat dan bermaruah.	1	2	3	4	5	6	7
BJIJ14	Apabila keputusan dibuat berkenaan kerja saya, pegawai atasan saya amat peka dengan keperluan peribadi saya.	1	2	3	4	5	6	7
BJIJ15	Apabila keputusan dibuat berkenaan kerja saya, pegawai atasan saya akan berurusan dengan saya secara jujur.	1	2	3	4	5	6	7
BJIJ16	Apabila keputusan dibuat berkenaan kerja saya, pegawai atasan amat prihatin berkenaan hak-hak saya sebagai seorang pekerja.	1	2	3	4	5	6	7
BJIJ17	Pegawai atasan akan berbincang dengan saya berkenaan implikasi keputusan yang telah dibuat ke atas kerja saya.	1	2	3	4	5	6	7
BJIJ18	Pegawai atasan saya memberikan sebab musabab yang mencukupi kenapa keputusan berkenaan kerja saya telah dibuat.	1	2	3	4	5	6	7
BJIJ19	Pegawai atasan saya telah memberi penjelasan yang munasabah semasa beliau membuat keputusan berkenaan pekerjaan saya.	1	2	3	4	5	6	7
BJIJ20	Pegawai atasan telah menerangkan secara jelas keputusan yang dibuat berkenaan pekerjaan saya.	1	2	3	4	5	6	7

Berikut adalah kenyataan berkenaan situasi kerja dan tabiat individu. Sila jawab semua pernyataan dengan jujur kerana ianya dapat membantu kajian ini. Baca setiap kenyataan dengan teliti. Sila nyatakan sejauh manakah anda bersetuju dengan kenyataan-kenyataan di bawah dengan membulatkan jawapan anda mengikut skala yang diberikan.

	Tidak memberi Kesan kepada Saya	Memberi Sedikit Kesan kepada Saya	Memberi Kesan Sederhana kepada Saya	Amat Memberi Kesan kepada Saya
BS1 Masalah ekonomi.	1	2	3	4
BS2 Kekurangan pekerja di tempat kerja.	1	2	3	4
BS3 Timbunan kerja yang melampau.	1	2	3	4
BS4 Pekerja, penghuni dan pelawat mempunyai niat melanggar peraturan penjara.	1	2	3	4
BS5 Kerja saya menyebabkan saya tidak dapat menyertai aktiviti sosial (con: wayang, bersukan, membaca, mendengar ceramah).	1	2	3	4
BS6 Terpaksa mengawal tingkahlaku penghuni penjara yang tidak elok.	1	2	3	4
BS7 Ketidacukupan persekitaran kerja yang baik untuk memenuhi keperluan pekerja seperti keperluan makanan, minuman, sembahyang, berehat dsb.	1	2	3	4
BS8 Kerja saya menyebabkan terdapatnya risiko mendapat ugutan.	1	2	3	4
BS9 Pengurus penjara tidak mempedulikan keperluan dan cetusan idea pekerja.	1	2	3	4
BS10 Kerja saya menyebabkan masa yang berkualiti bersama keluarga menjadi terhad.	1	2	3	4
BS11 Dipertanggungjawabkan ke atas salah laku pekerja lain di tempat kerja.	1	2	3	4
BS12 Terlibat dalam pertengkar dan pergaduhan dengan penghuni penjara.	1	2	3	4
BS13 Kerja saya menyebabkan saya mengalami masalah kesihatan.	1	2	3	4
BS14 Saya tidak dapat bekerja dalam bidang yang saya mahir.	1	2	3	4
BS15 Penghuni penjara, pelawat dan peguam tidak bersetuju dengan prosedur "pemeriksaan badan" yang dilakukan oleh pegawai penjara.	1	2	3	4
BS16 Saya amat kluatir jika terdapatnya laporan jenayah saya sendiri.	1	2	3	4
BS17 Kerja saya menyebabkan saya mengenyepikan keperluan keluarga saya.	1	2	3	4
BS18 Menjadi orang yang disyaki dalam kes salahlaku.	1	2	3	4
BS19 Sesuatu keputusan dibuat sewenang-wenangnya dan selalu berubah.	1	2	3	4
BS20 Saya akan memantulkan masalah kerja ke atas keluarga.	1	2	3	4
BS21 Kesamaran arahan semasa kerja.	1	2	3	4

	Tidak memberi Kesan kepada Saya	Memberi Sedikit Kesan kepada Saya	Memberi Kesan Sederhana kepada Saya	Amat Memberi Kesan kepada Saya
BS22 Tidak dapat mengungkapkan pendapat di mana-mana.	1	2	3	4
BS23 Sentiasa dalam keadaan berhati-hati sepanjang masa di tempat kerja.	1	2	3	4
BS24 Kondisi fizikal yang tidak memadai (con: pengalihan udara, kecerahan dan pemanasan) di tempat kerja.	1	2	3	4
BS25 Merasakan saya sendiri seperti dipenjarakan.	1	2	3	4
BS26 Disiasat oleh pelbagai jawatankuasa di tempat kerja.	1	2	3	4
BS27 Pengurus-pengurus penjara sendiri mempunyai perbezaan dalam sikap dan tingkahlaku mereka terhadap penghuni penjara.	1	2	3	4
BS28 Saya mengalami masalah pengangkutan sewaktu ke tempat kerja dan pulang.	1	2	3	4
BS29 Shif malam yang menyebabkan timbunan kerja bertambah.	1	2	3	4
BS30 Dalam masyarakat, pekerjaan saya lebih merujuk kepada "penjaga kunci" dari "pengawal penjara" (disebabkan oleh keadaan kerja yang kasar).	1	2	3	4
BS31 Dihalang dari melakukan tugas rutin atas arahan pihak berkuasa penjara.	1	2	3	4
BS32 Berhadapan dengan kejadian luarbiasa (con: penghuni melarikan diri, kebakaran, pemberontakan) di tempat kerja.	1	2	3	4
BS33 Kerja saya menyebabkan kekurangan masa bersama kawan-kawan saya.	1	2	3	4
BS34 Saluran komunikasi yang tidak memadai (con: TV, radio) di tempat kerja.	1	2	3	4
BS35 Tanggungjawab yang keterlaluan untuk jawatan saya.	1	2	3	4

SAYA MENGUCAPKAN BERBANYAK TERIMA KASIH ATAS KERJASAMA YANG TELAH DIBERIKAN ANDA DALAM MENJAYAKAN KAJIAN INI.

Appendix B

Reliability

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.778	.790	10

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.949	.949	20

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.885	.887	35

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.891	.899	91

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.895	.883	60

Appendix C MODIFIED STRUCTURAL MODEL REPORT FROM AMOS

Analysis Summary

Date and Time

Date: Thursday, March 24, 2011

Time: 2:18:03 PM

Title

MODIFIED STRUCTURAL MODEL: Thursday, March 24, 2011 02:18 PM

Groups

Group number 1 (Group number 1)

Notes for Group (Group number 1)

The model is recursive.

Sample size = 417

Variable Summary (Group number 1)

Your model contains the following variables (Group number 1)

Observed, endogenous variables

STP

SRCA

SWO

SGP

MCn

MPAn

MPOn

MPNn

MWCRITn

MWCLn

PMBJIJ

PMBJPJ

PMBJDJ

SES3

SES2

SES1

MWCSW

MWECIn

MWEGIn

MWPEn

MWSLn

MWXIC

MWXGCn

Unobserved, endogenous variables

PJ

SE

WE

Unobserved, exogenous variables

WS

e2

e3
e4
e5
e6
e7
p
e8
e10
e12
e14
e15
e16
e17
e18
e19
e20
e22
e23
e21
e26
e27
e28
e32
e33
e36
e37

Variable counts (Group number 1)

Number of variables in your model: 54
Number of observed variables: 23
Number of unobserved variables: 31
Number of exogenous variables: 28
Number of endogenous variables: 26

Parameter summary (Group number 1)

	Weights	Covariances	Variances	Means	Intercepts	Total
Fixed	32	0	0	0	0	32
Labeled	0	0	0	0	0	0
Unlabeled	25	1	28	0	0	54
Total	57	1	28	0	0	86

Assessment of normality (Group number 1)

Variable	min	max	skew	c.r.	kurtosis	c.r.
MWXGCn	2.800	4.000	.325	2.706	-.744	-3.101
MWXIC	2.500	4.000	.676	5.634	-.508	-2.119
MWSLn	2.250	4.000	.390	3.248	.073	.305
MWPEn	2.200	4.000	.156	1.296	.077	.319
MWEGIn	2.000	4.000	.001	.006	-.713	-2.970
MWECIn	2.667	4.000	.407	3.394	-.111	-.463
MWCSW	2.667	4.000	.110	1.421	-.016	-.069

Variable	min	max	skew	c.r.	kurtosis	c.r.
SES1	1.500	4.000	.036	.298	.058	.240
SES2	1.000	4.000	-.265	-2.213	.106	.441
SES3	1.000	4.000	-.183	-1.522	.492	2.052
PMBJDJ	3.000	7.000	-.393	-2.280	-.766	-3.194
PMBJPJ	3.000	7.000	-.065	-.540	-.552	-2.385
PMBJIJ	3.000	7.000	-.100	-.836	-.672	-2.802
MWCLn	2.250	4.000	.328	2.737	.252	1.050
MWCRItn	2.333	4.000	.271	2.258	-.229	-.955
MPNn	1.500	4.250	.149	1.244	-.615	-2.564
MPOn	1.333	4.500	.016	.130	-.467	-1.945
MPAn	1.286	4.000	.476	2.972	-.383	-1.597
MCn	1.889	4.500	.566	2.718	-.302	-1.261
SGP	1.167	3.833	.044	.366	-.549	-2.287
SWO	1.833	4.000	.057	.476	-.538	-2.243
SRCA	1.167	4.000	-.153	-1.279	-.590	-2.459
STP	1.333	4.000	-.094	-.786	-.770	-3.208
Multivariate					22.838	6.876

Observations farthest from the centroid (Mahalanobis distance) (Group number 1)

Observation number	Mahalanobis d-squared	p1	p2
271	52.431	.000	.167
247	51.527	.001	.025
317	48.732	.001	.019
234	46.434	.003	.026
173	46.121	.003	.008
158	45.733	.003	.003
311	45.385	.004	.001
375	45.134	.004	.000
253	44.629	.004	.000
109	43.137	.007	.001
200	42.469	.008	.001
328	42.288	.008	.000
367	41.735	.010	.000
365	40.795	.012	.001
175	40.188	.015	.002
276	39.586	.017	.003
172	39.407	.018	.002
228	39.263	.019	.001
150	39.042	.020	.001
203	38.937	.020	.000
265	38.604	.022	.000
141	38.085	.025	.001
400	37.659	.028	.002
291	37.600	.028	.001
43	36.970	.033	.003
361	36.620	.036	.005
350	36.180	.040	.009

Observation number	Mahalanobis d-squared	p1	p2
366	35.890	.042	.012
226	35.881	.042	.007
229	35.676	.045	.007
305	35.340	.048	.012
29	35.301	.049	.008
163	35.014	.052	.011
178	34.276	.061	.057
401	34.170	.063	.051
120	33.903	.067	.068
388	33.734	.069	.073
127	33.726	.069	.052
160	33.624	.071	.048
139	33.346	.075	.069
193	33.330	.075	.051
86	33.203	.078	.051
218	32.909	.083	.080
3	32.844	.084	.069
364	32.828	.084	.052
351	32.328	.094	.138
154	32.274	.095	.120
266	32.267	.095	.093
262	32.265	.095	.070
289	32.174	.097	.066
63	32.083	.098	.063
395	32.062	.099	.049
194	32.017	.100	.041
155	31.989	.100	.032
349	31.860	.103	.035
324	31.858	.103	.025
143	31.857	.103	.018
322	31.765	.105	.017
304	31.321	.115	.057
385	31.297	.116	.046
357	31.271	.116	.036
239	31.212	.118	.033
315	31.177	.119	.027
383	31.176	.119	.019
182	31.066	.121	.021
384	30.929	.125	.025
310	30.832	.127	.026
308	30.768	.129	.024
334	30.758	.129	.018
378	30.573	.134	.026
167	30.244	.143	.063
318	30.217	.143	.053
246	29.985	.150	.087
186	29.942	.151	.078

Observation number	Mahalanobis d-squared	p1	p2
249	29.936	.151	.062
238	29.901	.152	.053
149	29.815	.155	.055
185	29.604	.161	.087
411	29.561	.162	.078
386	29.551	.163	.064
221	29.497	.164	.059
417	29.415	.167	.062
217	29.400	.167	.050
4	29.374	.168	.043
300	29.278	.171	.047
87	29.276	.171	.036
241	29.174	.175	.041
296	29.174	.175	.031
59	29.142	.176	.027
39	29.116	.177	.023
387	29.072	.178	.020
254	29.071	.178	.015
101	29.024	.180	.014
405	28.941	.182	.015
301	28.914	.183	.012
372	28.816	.186	.014
356	28.796	.187	.012
169	28.741	.189	.011
165	28.568	.195	.019
115	28.538	.196	.016

Models

Default model (Default model)

Notes for Model (Default model)

Computation of degrees of freedom (Default model)

Number of distinct sample moments: 276
Number of distinct parameters to be estimated: 54
Degrees of freedom (276 - 54): 222

Result (Default model)

Minimum was achieved
Chi-square = 492.031
Degrees of freedom = 222
Probability level = .000

Group number 1 (Group number 1 - Default model)

Estimates (Group number 1 - Default model)

Scalar Estimates (Group number 1 - Default model)

Maximum Likelihood Estimates

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
SE	<---	WS	.192	.084	2.289	.022	par_10
SE	<---	P	-.145	.051	-2.849	.004	par_11
PJ	<---	WS	1.000				
PJ	<---	P	-.341	.124	-2.758	.006	par_26
WE	<---	WS	.047	.033	2.101	.049	par_8
WE	<---	P	-.042	.020	-2.127	.033	par_9
WE	<---	SE	.174	.034	5.137	***	par_12
WE	<---	PJ	.030	.010	2.993	.003	par_13
STP	<---	WS	1.702	.202	8.412	***	par_1
SRCA	<---	WS	1.436	.168	8.535	***	par_2
SWO	<---	WS	.991	.118	8.393	***	par_3
SGP	<---	WS	1.000				
MPOn	<---	P	1.000	.070	14.304	***	par_4
PMBJDJ	<---	PJ	.718	.050	14.329	***	par_5
SES3	<---	SE	.860	.104	8.247	***	par_6
SES2	<---	SE	1.153	.135	8.573	***	par_7
SES1	<---	SE	1.000				
PMBJIJ	<---	PJ	.750	.047	16.082	***	par_14
MCn	<---	P	.947	.057	16.617	***	par_15
MPAn	<---	P	1.148	.070	16.296	***	par_16
MPNn	<---	P	1.000				
MWCRITn	<---	WE	1.144	.140	8.154	***	par_17
MWCLn	<---	WE	1.000				
MWCSW	<---	WE	1.126	.127	8.857	***	par_18
MWECIn	<---	WE	1.136	.131	8.680	***	par_19
MWEGIn	<---	WE	1.489	.185	8.059	***	par_20
MWXGCn	<---	WE	1.408	.148	9.503	***	par_21
MWXIC	<---	WE	1.261	.162	7.771	***	par_22
MWSLn	<---	WE	1.230	.147	8.391	***	par_23
MWPEn	<---	WE	1.170	.140	8.371	***	par_24
PMBJPJ	<---	PJ	1.000				

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
SE	<---	WS	.157
SE	<---	P	-.189
PJ	<---	WS	.287
PJ	<---	P	-.155
WE	<---	WS	.108
WE	<---	P	-.124
WE	<---	SE	.400
WE	<---	PJ	.194

		Estimate
STP	<--- WS	.741
SRCA	<--- WS	.712
SWO	<--- WS	.617
SGP	<--- WS	.508
MPOn	<--- P	.705
PMBJDJ	<--- PJ	.713
SES3	<--- SE	.604
SES2	<--- SE	.626
SES1	<--- SE	.749
PMBJIJ	<--- PJ	.796
MCn	<--- P	.830
MPAn	<--- P	.813
MPNn	<--- P	.773
MWCRITn	<--- WE	.544
MWCLn	<--- WE	.524
MWCSW	<--- WE	.596
MWECIn	<--- WE	.589
MWEGIn	<--- WE	.523
MWXGCn	<--- WE	.703
MWXIC	<--- WE	.507
MWSLn	<--- WE	.554
MWPEn	<--- WE	.545
PMBJPJ	<--- PJ	.912

Covariances: (Group number 1 - Default model)

		Estimate	S.E.	C.R.	P	Label
WS	<--> P	.030	.009	3.206	.001	par_25

Correlations: (Group number 1 - Default model)

		Estimate
WS	<--> P	.210

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
WS	.090	.018	4.896	***	par_27
P	.227	.026	8.821	***	par_28
e23	.128	.020	6.582	***	par_29
e21	1.001	.095	10.500	***	par_30
e22	.019	.004	5.108	***	par_31
e2	.215	.024	8.892	***	par_32
e3	.181	.019	9.739	***	par_33
e4	.144	.012	11.534	***	par_34
e5	.260	.021	12.173	***	par_35
e6	.092	.010	9.386	***	par_36
e7	.153	.015	9.975	***	par_37
e8	.230	.019	12.199	***	par_38
e10	.153	.014	11.034	***	par_39

	Estimate	S.E.	C.R.	P	Label
e12	.080	.006	13.082	***	par_40
e14	.068	.005	13.236	***	par_41
e15	.357	.037	9.696	***	par_42
e16	.223	.050	4.489	***	par_43
e17	.549	.046	11.868	***	par_44
e18	.173	.016	10.707	***	par_45
e19	.278	.027	10.362	***	par_46
e20	.106	.016	6.780	***	par_47
e26	.059	.005	12.650	***	par_48
e27	.062	.005	12.738	***	par_49
e28	.151	.011	13.223	***	par_50
e32	.083	.006	13.063	***	par_51
e33	.088	.007	13.045	***	par_52
e36	.118	.009	13.296	***	par_53
e37	.052	.005	11.288	***	par_54

Squared Multiple Correlations: (Group number 1 - Default model)

	Estimate
SE	.048
PJ	.088
WE	.262
MWXGCn	.494
MWXIC	.257
MWSLn	.306
MWPEn	.297
MWEGIn	.274
MWECIn	.346
MWCSW	.356
SES1	.561
SES2	.392
SES3	.365
PMBJDJ	.508
PMBJPJ	.831
PMBJIJ	.634
MWCLn	.274
MWCRITn	.296
MPNn	.597
MPOn	.497
MPAn	.661
MCn	.689
SGP	.258
SWO	.381
SRCA	.506
STP	.549

Matrices (Group number 1 - Default model)

Factor Score Weights (Group number 1 - Default model)

Total Effects (Group number 1 - Default model)

	P	WS	SE	PJ	WE
SE	-.145	.192	.000	.000	.000
PJ	-.341	1.000	.000	.000	.000
WE	-.077	.110	.174	.030	.000
MWXGCn	-.108	.155	.246	.042	1.408
MWXIC	-.097	.139	.220	.037	1.261
MWSLn	-.095	.135	.215	.036	1.230
MWPEn	-.090	.129	.204	.035	1.170
MWEGIn	-.115	.164	.260	.044	1.489
MWECIn	-.087	.125	.198	.034	1.136
MWCSW	-.087	.124	.196	.033	1.126
SES1	-.145	.192	1.000	.000	.000
SES2	-.168	.221	1.153	.000	.000
SES3	-.125	.165	.860	.000	.000
PMBJDJ	-.245	.718	.000	.718	.000
PMBJPJ	-.341	1.000	.000	1.000	.000
PMBJIJ	-.256	.750	.000	.750	.000
MWCLn	-.077	.110	.174	.030	1.000
MWCRIIn	-.088	.126	.199	.034	1.144
MPNn	1.000	.000	.000	.000	.000
MPOn	1.000	.000	.000	.000	.000
MPAn	1.148	.000	.000	.000	.000
MCn	.947	.000	.000	.000	.000
SGP	.000	1.000	.000	.000	.000
SWO	.000	.991	.000	.000	.000
SRCA	.000	1.436	.000	.000	.000
STP	.000	1.702	.000	.000	.000

Standardized Total Effects (Group number 1 - Default model)

	P	WS	SE	PJ	WE
SE	-.189	.157	.000	.000	.000
PJ	-.155	.287	.000	.000	.000
WE	-.229	.206	.400	.194	.000
MWXGCn	-.161	.145	.281	.136	.703
MWXIC	-.116	.105	.203	.098	.507
MWSLn	-.127	.114	.221	.107	.554
MWPEn	-.125	.113	.218	.106	.545
MWEGIn	-.120	.108	.209	.101	.523
MWECIn	-.135	.121	.235	.114	.589
MWCSW	-.137	.123	.238	.116	.596
SES1	-.141	.118	.749	.000	.000
SES2	-.118	.098	.626	.000	.000
SES3	-.114	.095	.604	.000	.000
PMBJDJ	-.110	.204	.000	.713	.000
PMBJPJ	-.141	.262	.000	.912	.000

	P	WS	SE	PJ	WE
PMBJIJ	-.123	.228	.000	.796	.000
MWCLn	-.120	.108	.209	.102	.524
MWCRItn	-.125	.112	.217	.105	.544
MPNn	.773	.000	.000	.000	.000
MPOn	.705	.000	.000	.000	.000
MPAn	.813	.000	.000	.000	.000
MCn	.830	.000	.000	.000	.000
SGP	.000	.508	.000	.000	.000
SWO	.000	.617	.000	.000	.000
SRCA	.000	.712	.000	.000	.000
STP	.000	.741	.000	.000	.000

Direct Effects (Group number 1 - Default model)

	P	WS	SE	PJ	WE
SE	-.145	.192	.000	.000	.000
PJ	-.341	1.000	.000	.000	.000
WE	-.042	.047	.174	.030	.000
MWXGCn	.000	.000	.000	.000	1.408
MWXIC	.000	.000	.000	.000	1.261
MWSLn	.000	.000	.000	.000	1.230
MWPEn	.000	.000	.000	.000	1.170
MWEGIn	.000	.000	.000	.000	1.489
MWECIn	.000	.000	.000	.000	1.136
MWCSW	.000	.000	.000	.000	1.126
SES1	.000	.000	1.000	.000	.000
SES2	.000	.000	1.153	.000	.000
SES3	.000	.000	.860	.000	.000
PMBJDJ	.000	.000	.000	.718	.000
PMBJPJ	.000	.000	.000	1.000	.000
PMBJIJ	.000	.000	.000	.750	.000
MWCLn	.000	.000	.000	.000	1.000
MWCRItn	.000	.000	.000	.000	1.144
MPNn	1.000	.000	.000	.000	.000
MPOn	1.000	.000	.000	.000	.000
MPAn	1.148	.000	.000	.000	.000
MCn	.947	.000	.000	.000	.000
SGP	.000	1.000	.000	.000	.000
SWO	.000	.991	.000	.000	.000
SRCA	.000	1.436	.000	.000	.000
STP	.000	1.702	.000	.000	.000

Standardized Direct Effects (Group number 1 - Default model)

	P	WS	SE	PJ	WE
SE	-.189	.157	.000	.000	.000
PJ	-.155	.287	.000	.000	.000
WE	-.124	.088	.400	.194	.000
MWXGCn	.000	.000	.000	.000	.703

	P	WS	SE	PJ	WE
MWXIC	.000	.000	.000	.000	.507
MWSL _n	.000	.000	.000	.000	.554
MWPE _n	.000	.000	.000	.000	.545
MWEGIn	.000	.000	.000	.000	.523
MWECIn	.000	.000	.000	.000	.589
MWCSW	.000	.000	.000	.000	.596
SES1	.000	.000	.749	.000	.000
SES2	.000	.000	.626	.000	.000
SES3	.000	.000	.604	.000	.000
PMBJDJ	.000	.000	.000	.713	.000
PMBJPJ	.000	.000	.000	.912	.000
PMBJIJ	.000	.000	.000	.796	.000
MWCL _n	.000	.000	.000	.000	.524
MWCRI _{Tn}	.000	.000	.000	.000	.544
MPN _n	.773	.000	.000	.000	.000
MPO _n	.705	.000	.000	.000	.000
MPA _n	.813	.000	.000	.000	.000
MC _n	.830	.000	.000	.000	.000
SGP	.000	.508	.000	.000	.000
SWO	.000	.617	.000	.000	.000
SRCA	.000	.712	.000	.000	.000
STP	.000	.741	.000	.000	.000

Indirect Effects (Group number 1 - Default model)

	P	WS	SE	PJ	WE
SE	.000	.000	.000	.000	.000
PJ	.000	.000	.000	.000	.000
WE	-.035	.063	.000	.000	.000
MWXGC _n	-.108	.155	.246	.042	.000
MWXIC	-.097	.139	.220	.037	.000
MWSL _n	-.095	.135	.215	.036	.000
MWPE _n	-.090	.129	.204	.035	.000
MWEGIn	-.115	.164	.260	.044	.000
MWECIn	-.087	.125	.198	.034	.000
MWCSW	-.087	.124	.196	.033	.000
SES1	-.145	.192	.000	.000	.000
SES2	-.168	.221	.000	.000	.000
SES3	-.125	.165	.000	.000	.000
PMBJDJ	-.245	.718	.000	.000	.000
PMBJPJ	-.341	1.000	.000	.000	.000
PMBJIJ	-.256	.750	.000	.000	.000
MWCL _n	-.077	.110	.174	.030	.000
MWCRI _{Tn}	-.088	.126	.199	.034	.000
MPN _n	.000	.000	.000	.000	.000
MPO _n	.000	.000	.000	.000	.000
MPA _n	.000	.000	.000	.000	.000
MC _n	.000	.000	.000	.000	.000

	P	WS	SE	PJ	WE
SGP	.000	.000	.000	.000	.000
SWO	.000	.000	.000	.000	.000
SRCA	.000	.000	.000	.000	.000
STP	.000	.000	.000	.000	.000

Standardized Indirect Effects (Group number 1 - Default model)

	P	WS	SE	PJ	WE
SE	.000	.000	.000	.000	.000
PJ	.000	.000	.000	.000	.000
WE	-.105	.118	.000	.000	.000
MWXGCn	-.161	.145	.281	.136	.000
MWXIC	-.116	.105	.203	.098	.000
MWSLn	-.127	.114	.221	.107	.000
MWPEn	-.125	.113	.218	.106	.000
MWEGIn	-.120	.108	.209	.101	.000
MWECIn	-.135	.121	.235	.114	.000
MWCSW	-.137	.123	.238	.116	.000
SES1	-.141	.118	.000	.000	.000
SES2	-.118	.098	.000	.000	.000
SES3	-.114	.095	.000	.000	.000
PMBJDJ	-.110	.204	.000	.000	.000
PMBJPJ	-.141	.262	.000	.000	.000
PMBJIJ	-.123	.228	.000	.000	.000
MWCLn	-.120	.108	.209	.102	.000
MWCRIIn	-.125	.112	.217	.105	.000
MPNn	.000	.000	.000	.000	.000
MPOn	.000	.000	.000	.000	.000
MPAn	.000	.000	.000	.000	.000
MCn	.000	.000	.000	.000	.000
SGP	.000	.000	.000	.000	.000
SWO	.000	.000	.000	.000	.000
SRCA	.000	.000	.000	.000	.000
STP	.000	.000	.000	.000	.000

Minimization History (Default model)

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	54	492.031	222	.000	2.216
Saturated model	276	.000	0		
Independence model	23	3240.428	253	.000	12.808

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.039	.907	.884	.729

Model	RMR	GFI	AGFI	PGFI
Saturated model	.000	1.000		
Independence model	.093	.479	.431	.439

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.848	.827	.911	.897	.910
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.877	.744	.798
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	270.031	209.644	338.151
Saturated model	.000	.000	.000
Independence model	2987.428	2807.464	3174.738

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	1.183	.649	.504	.813
Saturated model	.000	.000	.000	.000
Independence model	7.789	7.181	6.749	7.632

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.054	.048	.061	.145
Independence model	.168	.163	.174	.000

AIC

Model	AIC	BCC	BIC	CAIC
Default model	600.031	606.644	817.818	871.818
Saturated model	552.000	585.796	1665.132	1941.132
Independence model	3286.428	3289.244	3379.189	3402.189

ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	1.442	1.297	1.606	1.458
Saturated model	1.327	1.327	1.327	1.408
Independence model	7.900	7.467	8.350	7.907

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	218	232
Independence model	38	40

Execution time summary

Minimization: .016
Miscellaneous: .327
Bootstrap: .000
Total: .343

Appendix D Item Parceling

Item Parceling for DPIJ

Construct	Parcel
Distributive Justice	DJ1
	DJ2
Procedural Justice	PJ1
	PJ2
Interactional Justice	IJ1
	IJ2
	IJ3

Item Parceling for GSES

Construct	Parcel
Self Efficacy	SES1
	SES2
	SES3

Item Parceling for NEO-FI

Construct	Parcel
Neuroticism	N1
	N2
	N3
Extraversion	E1
	E2
	E3
Openness	O1
	O2
	O3
Agreeableness	A1
	A2
	A3
Conscientiousness	C1
	C2
	C3

Item Parceling For WSSCO

Dimensions	Parcel As
Work Overload	WO1
	WO2
	WO3
Role Conflict and Role Ambiguity	RCA1
	RCA2
	RCA3
Inadequacies of Physical Conditions in Prison	IPC1
	IPC2
	IPC3
Threat Perception	TP1
	TP2
	TP3
General Problem	GP1
	GP2
	GP3

Item Parceling For 5F-Wel

Dimensions	Parcel As
Coping Self	COPRB
	COPL
	COPSW
	COPSM
Creative Self	CREIC
	CREIT
	CREW
	CREH
	CREEMO
Essential Self	ESPRI
	EGI
	ECI
	ESC
Physical Self	NUT
	EXE
Social Self	FREN
	LOV
Contextual Self	Institute
	Local
	Global
	Chronometrical

Appendix E Letter of Approval to Conduct Research



JABATAN PENJARA MALAYSIA
KEMENTERIAN DALAM NEGERI
IBU PEJABAT PENJARA MALAYSIA
BUKIT WIRA, 43000 KAJANG
SELANGOR

Telefon : 603-
87328000

Faks : 603-
87368545

<http://www.prison.gov.my>

MS ISO 9001:2000



Rujukan Tuan:

Your Ref :

Rujukan Kami: JP/LTH/Rd/102/3 Klt.27 (42)

Our Ref :

Tarikh 28 Oktober 2008

Date:

Penolong Pendaftar
Pejabat Dekan (Penyelidikan dan Pasca Siswazah)
Kolej Sastera dan Sains
Universiti Utara Malaysia
06010 Sintok
Kedah.
(U.P : En. Abd Rahman bin Mohd Isa)

Tuan,

PERMOHONAN MENJALANKAN KAJIAN AKADEMIK DI JABATAN PENJARA MALAYSIA

Dengan hormatnya saya merujuk kepada surat tuan UUM/CAS/PER: 91716 bertarikh 14 September 2008 berhubung perkara di atas.

Sukacita dimaklumkan bahawa permohonan tuan untuk penempatan pelajar Ijazah Kedoktoran Psikologi, Kolej Sastera dan Sains, Universiti Utara Malaysia seperti di bawah untuk menjalankan kajian bertajuk "*Hubungan Di Antara Kesejahteraan Dan Komitmen Pekerja : Kesan Faktor Psikologi dan kontekstual Sebagai Penengah*" bagi menyiapkan tesis kedoktoran bertempat di penjara-penjara berkaitan bagi jangka masa setahun mulai Oktober 2008 hingga Oktober 2009 adalah diluluskan.

2.1 Cik Awanis Ku Ishak No.Matrik : 91716

Kelulusan ini tertakluk kepada syarat-syarat seperti di lampiran 'A'. Segala urusan lanjut berhubung perkara ini hendaklah dibincangkan dengan Pengarah-pengarah Penjara berkaitan di alamat berikut :-

Pengarah
Penjara Pokok Sena

KM.24 Jalan Naka
06400 Pokok Sena, Kedah.

Pengarah
Penjara Alor Star
Jalan Sultanah,
05350 Alor Star, Kedah.

Pengarah
Penjara Sungai Petani
08600 Sungai Petani, Kedah.

Pengarah
Penjara Pulau Pinang
Jalan Goal, 10990 Pulau Pinang.

Pengarah
Penjara Taiping
Jalan Taming Sari
34000 Taiping, Perak.

Pengarah
Penjara Tapah
KM.12, Jalan Tapah
35400 Tapah, Perak.

Pengarah
Penjara Kajang
43000 Kajang, Selangor

Pengarah
Penjara Sungai Buloh
47000 Sungai Buloh, Selangor

Pengarah
Penjara Wanita Kajang
43000 Kajang, Selangor.

Pengarah
Penjara Pengkalan Chepa
Jalan Maktab
16109 Pengkalan Chepa, Kelantan.

Pengarah
Penjara Marang
21600 Marang, Terengganu

Pengarah
Penjara Penor
25150 Kuantan, Pahang

Pengarah
Penjara Seremban
70990 Seremban, Negeri Sembilan.

Pengarah
Institusi Pemulihan Dadah
71650 Titi, Jekebu, Negeri Sembilan.

Pengarah
Penjara Agro Dusun Dato' Murad
Dusun Dato' Murad
75450 Ayer Keroh, Melaka.

Pengarah
Penjara Banda Hilir
Jalan Parameswara
75000 Banda Hilir, Melaka

Pengarah
Penjara Simpang Rengam
86200 Simpang Rengam, Johor.

Pengarah
Penjara Kluang
Jalan Mersing
Batu 8, Kampung Gajah
86000 Kluang, Johor.

Sekian, terima kasih.

“BERKHIDMAT UNTUK NEGARA”
“KESELAMATAN TANGGUNGJAWAB BERSAMA”

Saya yang menurut perintah,

t.t
(TKPj HJ.ABD WAHAB BIN HJ. KASSIM)
Pengarah Kepenjaraan
b.p Ketua Pengarah Penjara
Malaysia

s.k
Y.Bhg Dato' Komisioner Penjara (Operasi)
Pengarah Keselamatan, Ibu Pejabat Penjara Malaysia

Semua Pengarah Penjara seperti di atas

Sukacita sekiranya pihak Tuan dapat membantu pelajar tersebut untuk tujuan ini dan menitikberatkan kawalan keselamatan sepanjang program ini.

Kerjasama Tuan juga adalah diminta untuk memastikan setiap penyelidik/ pelajar yang menjalankan kajian/ penyelidikan/praktikal/ soal selidik dan sebagainya menyerahkan satu salinan penghasilan mereka kepada Ibu Pejabat Penjara Malaysia untuk tujuan semakan dan rekod.