



MONASH University

**Workplace health and safety for nurses
in Hong Kong Hospitals: An
Occupational Health Service study**

by

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SUMMARY

Working in a healthy and safe environment is a basic right for workers and is governed by local and international law with various levels of compliance in different countries and industries. In Hong Kong (HK) Occupational Health and Safety (OH&S) is governed by local and international laws. Compliance is a complicated issue encompassing the employer - employee relationship, the level and type of risk and the legal requirements. Some industries are at higher OH&S risk than others, for example health services. Health services also tend to have more invisible risks in the working environment compared with other industries and this presents a great challenge for those responsible for ensuring the OH&S of health care workers. The Avian Influenza epidemic in 1997, and later the severe acute respiratory syndrome (SARS) outbreak in 2003, lead to a public questioning of existing OH&S practices within HK. Following the avian influenza, the Occupational Safety and Health Ordinance (OS&HO) (Chap 509) was enacted in 1997 and together with Occupational Health Service Providers (OHSPs) had begun to play a key role in establishing healthy and safe work environments.

The purpose of this study is to explore, in the aftermath of the OS&HO, how HK hospitals are meeting the health and safety needs of nurses. This is the first study of workplace safety of nurses in HK hospitals, and the findings will present a significant first step in understanding current Occupational Health Service (OHS) concerns and current practices within hospitals in HK. Data collection was undertaken in two phases. Phase I Stage I employed a quantitative approach. A paper survey was used to collect the data on views of the OHSPs. The results then informed a qualitative approach in Phase I Stage II, a follow-up interview with a subset of OHSPs. Phase II Stage I also employed a quantitative approach and a paper survey to collect the data on the views of the registered nurses (RN) working in hospitals. The results informed Phase II Stage II which was a qualitative approach, a follow-up focus group study on the views of the Occupational Health Service Consumers (OHSCs) for further clarification and explanation of the Phase II and Stage I result.

The Phase II results reflecting HK OHSCs' voices echo the OHSP feedback on the provision of OHS. Concern was raised about OHS and related policies and procedures. However, the most significant findings from the OHSC at Phase II Stage II revealed that nurses experienced a range of OHS concerns; most commonly work stress, workplace harassment and back strain without formal or official report to their supervisor. The lack of

reporting was mainly due to past experience with the management incident handling attitudes and practices. This study reveals that HK hospitals are willing to invest resources into OH&S, which focus on providing a service such as an OHSP. However, the study found that OHSPs in the sample were not adequately meeting the needs of nurses or ensuring their workplace safety. This was demonstrated by the study's major findings: lack of personal communication by OHSPs with nurses, failure to ensure accurate and complete reporting of OH&S incidents, and workplace safety and rehabilitation programs which lacked relevance for nurses. The most common OH&S issues for nurses have not been captured or reported in official reports due to under-reporting by nurses for a range of reasons.

Recommendations are made for developing a real working, workplace culture where OH&S competence for nurses is prioritised equally with clinical competence to advance the intentions of the OS&HO for this workforce at significant risk. The OHSPs are the key to success as the conduit between nurses with workplace health and safety risks, and employers prepared to spend money on programs of improvement. Yet OHSPs work in a complex environment where employers are perceived by nurses as uncaring and untrustworthy on OH&S matters and they are reluctant to provide data which may compromise their relationship with their employer. OHSPs therefore, need to be better prepared and supported in their complex role in affecting workplace culture change where stakeholders can have very different views on OH&S. They need to become dual qualified in Occupational Health (OH) and Occupational Safety (OS), with skills in research, communication, empowerment, rehabilitation and cultural awareness. Nurses, OHSPs and employers must also take ownership of their OHS competence to ensure nurses' confidence in their workplace health and safety in Hong Kong hospitals.

Declaration

This thesis contains no material which has been accepted for the award of any other degree or diploma at any university or equivalent institution and that, to the best of my knowledge and belief, this thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

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Dedication

This thesis is dedicated to my Principal Supervisor Dr. Ken Sellick (22 July 1944 to 23 Aug 2012) who supported my study journey even in his last steps of his own life journey.

List of Abbreviations

Abbreviation	Meaning
A&E	Accident and Emergency
AAOHN	American Association of Occupational Health Nurses
ACTU	Australian Council of Trade Unions
AOM	Administration of Medication
APN	Advanced Practice Nurses
BBV	Blood Borne Virus
BOHS	Basic Occupational Health Service
CCOHS	Canadian Centre for Occupational Health and Safety
CCTV	Closed-Circuit Television
CEE	Central Eastern Europe
CEO	Chief Executive Officer
DH	Department of Health
DOSH	Department of Occupational Safety and Health
EC	Employees' Compensation
ECO	Employees' Compensation Ordinance
EFT	Equivalent Full Time

ESBL	Extended Spectrum Beta Lactamases
EU	European Union
F&IU	Factories Industries and Undertaking
FI	Factory Inspectorate
HA	Hospital Authority
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HIV	Human Immunodeficiency Virus
HK	Hong Kong
HSE	Health and Safety Executive
HKEC	Hong Kong East Cluster
HKHA	Hong Kong Hospital Authority
HKHO	Hospital Authority Head Office
HKLD	Hong Kong Labour Department
HKSAR	Hong Kong Special Administrative Region
HREC	Human Research Ethics Committees
HRPS	Human Resource Payroll System
HSE	Health, Safety and Environmental

IC	Infection Control
ICU	Intensive Care Unit
ILO	International Labour Office
IOD	Injury On Duty
ISTC	Industrial Safety Training Centre
KCC	Kowloon Central Cluster
KPI	Key Performance Indicators
KWC	Kowloon West Cluster
LD	Labour Department
LV	Lateral Violence
MRSA	Methicillin-Resistant Staphylococcus Aureus
MUHREC	Monash University Human Research Ethics Committee
N	Newton
NIOSH	National Institute for Occupational Safety and Health
NO	Nursing Officer
NT	New Territories
NTWC	New Territories West Cluster
ODs	Occupational Diseases

OH	Occupational Health
OHC	Occupational Health Clinics
OHDD	Occupational Hygiene Development Division
OHM	Occupational Health Manager
OHN	Occupational Health Nurse
OHOD	Occupational Hygiene Operations Division
OHP	Occupational Health Promotion
OHS	Occupational Health Services
OHSC	Occupational Health Service Consumers
OHSP	Occupational Health Service Provider
OHSPACC	Occupational Health Safety Policy Awareness Culture and Competence Assisted Learning Package
OH&S	Occupational Health and Safety
OH&SS	Occupational Health and Safety Services
OI	Occupational Injury
OM	Occupational Medicine
OMCS	Occupational Medicine Care Service
OMD	Occupational Medicine Division

OS	Occupational Safety
OS&H	Occupational Safety and Health
OS&HO	Occupational Safety & Health Ordinance
OS&HC	Occupational Safety and Health Council
OSHC	Occupational Safety and Health Centre
OSHA	Occupational Safety and Health Administration
OSS	Occupational Safety Service
PHC	Primary Health Care
PMA	Positive Mental Ability
PPE	Personal Protective Equipment
QA	Quality Assurance
QWL	Quality of Work Life
RN	Registered Nurses
RSI	Repetitive Strain Injury
RTW	Return-To-Work
SARS	Severe Acute Respiratory Syndrome
SARSEC	Severe Acute Respiratory Syndrome Expert Committee
TB	Tuberculosis

TUCCIOH	Trades Union Congress Centenary Institute of Occupational Health
UM	Unit Manager
UN	United Nations
WHA	Work Health Activity
WHO	World Health Organization
WRI	Work Related Injuries

Summary of Commonly used Abbreviations in this Thesis

OH&S	Occupational Health & Safety
OHS	Occupational Health Service
OHSC	Occupational Health Services Consumers
OHSP	Occupational Health Safety Provider – most commonly used in this thesis as registered nurses in this role
OS&HO	Occupational Safety & Health Ordinance
OS&H	Occupational Safety & Health

Glossary of Terms

Hong Kong Hospital Authority

A statutory body under the Hospital Authority Ordinance to manage public hospitals in Hong Kong. It is an independent organization, accountable to the government through the Secretary for Food and Health, responsible for the formulation of health policies and monitoring the performance of the Authority (The Health Department, 2004).

Hong Kong Private Hospital

A hospital operated in an independent mode and monitored under Hospitals, Nursing Homes and Maternity Homes Registration Ordinance (Chapter 165) (The Health Department, 2004).

Nursing Officer

A senior nurse with administrative responsibility.

Occupational Disease

“An ailment that results from the characteristic conditions or functions of one's employment rather than from the ordinary risks to which the general public is exposed and that renders one eligible for workers' compensation compare disability” (Merriam-Webster, 1996).

Occupational Hazard

A working condition that can lead to illness or death. Often, people in jobs which pose a high level of risk are paid more than similar but less risky jobs to compensate for the danger involved.

Occupational Health

The main focus in occupational health is on three different objectives: (i) the maintenance and promotion of workers' health and working capacity; (ii) the improvement of working environment and work to become conducive to safety and health and (iii) development of work organizations and working cultures in a direction which supports health and safety at work and in doing so also promotes a positive social climate and smooth operation and may enhance productivity of the undertakings. The concept of working culture is intended in this context to mean a reflection of the essential value systems adopted by the undertaking concerned. Such a culture is reflected in practice in the managerial systems, personnel policy, principles for participation, training policies and quality management of the undertaking" (Joint ILO/WHO Committee on Occupational Health 2013).

Occupational Health and Safety

Protection and promotion of the health of workers by preventing and controlling occupational diseases and by eliminating occupational factors and conditions hazardous to health and safety at work.

Occupational Health Service

Services entrusted with essentially preventative functions and responsible for advising the employer, the workers and their representatives in undertaking the requirements for establishing and maintaining safe and healthy working environments which will facilitate optimal physical and mental health in relation to work and the adoption of work to the capabilities of workers in the light of their state of physical and mental health" (International Labor Organization, 1985a, 1985b; Kopias, 2001, p. 3).

Occupational Health Service Consumer

A person who uses the Occupational Health Service in a workplace.

Occupational Health Service Provider

A key person to co-ordinate Occupational Health Service in a workplace.

Occupational Injury

(Including industrial accidents) Injury cases arising from work accidents, resulting in death or incapacity for work of over three days and reported under Employees' Compensation Ordinance (The HK Labour Department, 2012).

Occupational Safety

To foster a safe work environment.

Occupational Safety and Health

Protection and promotion of the safety of workers by preventing and controlling occupational accidents and by eliminating occupational factors and conditions hazardous to safety in order to achieve health at work.

Registered Nurse ("RN")

A nurse who has graduated from a basic general nursing program and has registered with the Nursing Council of Hong Kong (The Nursing Council of Hong Kong, 2012, p. 3).

CHAPTER ONE

Introduction

1.1 Introduction

Working in a healthy and safe environment is a basic right for workers and is governed by local and international law with various levels of compliance in different countries and industries. Compliance is a complicated issue encompassing the employer - employee relationship, the level and type of risk and the legal requirements. Some industries are at higher OH&S risk than others, for example health services. Health services also tend to have more invisible risks in the working environment compared with other industries and this presents a great challenge for those responsible for ensuring the OH&S of health care workers.

The International Labour Organisation (ILO) and the World Health Organization (WHO) first discussed and defined the concept of occupational health in 1950 and revisited it again in 1995, stating that it focuses on “three different objectives: the maintenance and promotion of workers’ health and working capacity; the improvement of working environment and work to become conducive to safety and health and development of work organizations and working cultures in a direction which supports health and safety at work and in doing so also promotes a positive social climate and smooth operation and may enhance productivity of the undertakings (Joint ILO/WHO Committee on Occupational Health, 2003). In Hong Kong (HK), a famous international financial city, with significant influence from Western culture, a healthy and safe workplace for health care workers is a reasonable expectation by health care workers and the public, as it would be for similar developed cities elsewhere in the world. The HK community first publicly questioned the function of existing OHS after the severe acute respiratory syndrome (SARS) epidemic 2003 in HK and following the death and long term physical impairment of health care workers. This followed similar concerns after the outbreak of the Avian influenza epidemic in 1997. The OS&HO (Chap 509) had been enacted in 1997 and OHSP had already begun to play key roles to establish healthy and safe environments for the employee under the OHS system. The HK OHS movement has been

growing and adopting safer practices in order to fulfill the local legislation requirements and provide the related services to their employees.

Eighteen years after the OS&HO was enacted and OHS in HK would be expected to be growing and maturing, with a holistic approach to OH&S in the workplace including physical, mental, social and spiritual well-being and engagement by the health workforce. The question is “How are Occupational Health Services in Hong Kong hospitals ensuring a safe and healthy working environment for nurses?” This study was designed to explore the issue for the first time, to empirically analyse the views of those who work in the system. The study employed a mixed method approach and an explanatory sequential design to collect various data from OHSPs and Registered Nurses (RNs), OHSC working in hospital settings.

In this chapter, the background to the study will be introduced, followed by the main aim of the research, the research question together with the significance of the research. This is followed by an overview of the OHS movement in HK and history of the OHS legislation, the impact on the hospital sector, OHS in hospitals and the health industry and a review of health care workers’ hazards. The chapter concludes with the thesis overview and how the thesis will be developed.

The impetus for this research was observation of the May 1997 enactment of the OS&HO (Chapter 509), which applied to a range of workplaces including health services in Hong Kong (HK) and still remains in place. Prior to this ordinance, only factories and construction sites were protected from OH&S workplace related diseases and accidents under the Factories and Industries Undertaking (F&IU) Regulation Cap. 59, Employees' Compensation Ordinance (ECO), Cap. 282, and Pneumoconiosis and Mesothelioma (Compensation) Ordinance, Cap. 360 (The Government of the Hong Kong Special Administrative Region, 2014). For this reason, OHS was limited in its functionality.

This study explores the extent to which OHSs have been applied in HK hospitals and the experience of nurses. Today, OS&H principles are widely applied in a variety of workplaces and sound OS&H practices are essential in preventing work-related diseases and accidents. Yet, although OS&HO includes both OS

and OH services, OS practices receive much more attention in HK than do OH practices. The Occupational Safety and Health Council (OS&HC) is a statutory body under the Occupational Safety and Health Council Ordinance 1988. The Council's mission is to foster safe and healthy working environments in HK (The Occupational Safety and Health Council, 2012).

In health services nurses are currently witnessing a trend whereby an OHSP can play an increasingly important role in motivating, educating and supporting people regarding not just safety, but also health, in the workplace. The designated OHSP has a responsibility to promote health standards. The OHSP may include multi-disciplinary teams or sub-contracted providers within an organization and are led by an OS&H committee. Further, the significant role of nurses in the OHSP team was acknowledged as far back as at the Tenth Asian Conference on OH, Singapore 1982 (Apker, 2005; Batawi, 1982). However, the role of the OHSP is influenced by many factors, including administrative support, employees' attitudes, the OHSP's autonomy and resource allocation (Whitehead, 2006, 2013). OS&H issues are legislated and all health professionals, particularly nurses have a responsibility to abide by the rules and regulations. For these reasons, it is important to evaluate a hospital's OHS system and obtain feedback from this group of employees in order to determine their views of current OHSPs.

1.2 Background to the Study

A clear definition of the OHS cannot be found in any HK legislation, but it has been applied through the objectives of the OS&HO Chapter 509 and the duties of employers and employees (Chan, 2005; Finlay, 2006). For example, the first two mentioned objectives of the OHS are vague: the goal of the OHS is to protect and promote the safety and health of workers by preventing and controlling Occupational Diseases (ODs) and accidents (CCH, 2009; The Hong Kong Labour Department, 2009a). However, frontline staff, especially health care workers, are increasingly becoming victim to limited resources and knowledge. An example of this shortcoming in staff protection is the SARS outbreak of 2003, following which nearly 600 people became ill, including one-third of hospital staff, and approximately 160 died (of which, approximately 1/16 were hospital staff). The aim of OHS legislation is to "ensure the health, safety and welfare of individuals in the workplace while undertaking work activities" (Work Cover NSW,

2001, 2012). According to the United Nations (UN), the WHO, and the ILO, every worker has the right to a healthy and safe workplace.

Work-related illnesses and injuries increase the production costs of employers and the community. Cheung (2000) states that employers spend HK \$1.02 billion (approximately US \$130.8 million) each year on all types of occupational accidents, such as slips and falls, back injuries and respiratory disease. Thirteen years after Cheung's report, a related concern was brought to the Legislative Council. Cheung, (2013) further described occupational injury with 4,000 per year in aggregated form without official break down for the health industry compared to other industries such as construction. The Hong Kong Labour Department (HKLD) enforces the law if employers fail to provide a safe workplace. Convictions increased from 1447 in 2011 to 1651 by Nov 2012 (Cheung, 2013).

Fifty-one per cent of the total HK population are employed, which equates to approximately 3.6 million workers (The Hong Kong Special Administrative Region Government of Hong Kong, 2012). HKLD aims to improve OH and enforce OS&H legislation; however, this will have limited success if the HKLD does not receive full cooperation from employers and employees. To realize this goal in the OHS, dependence on the co-operation of stakeholders, including employers, employees, relevant statutory and non-governmental organizations, and OHS professional bodies and medical practitioners is required (Kong, 2006a).

The goals of the mandatory OSH over the past eighteen years have been to protect the health of workers and to minimize work hazards. In order to accomplish these goals, the general approach has been to implement a disease surveillance strategy, intervene where there are risks, treat ill health/injury when required, monitor workplace compliance with OSH policies, promote healthy practices and raise awareness of OS&H through education. A general advisory service to the public is also available. In addition, medical examinations are provided for government employees working with radiation or involved in hazardous work, e.g. diving, asbestos and pest-control work. The Occupational Safety and

Health Center (OSHC) offers these services to the public and government servants free of charge (The Hong Kong Special Administrative Region Government, 1999; 2012).

In 2003, the HKLD launched a pilot program in the construction industry, the early return to work initiative. The program was effective in speeding up the process and enabling injured workers to achieve better and faster recovery. The most valuable outcome of this initiative was strengthening employees' sense of belonging in the company (Cheung, 2006).

The HKLD operates an active OHS promotion campaign. Marketing the active Occupational Health Promotion (OHP) initiative highlights the potential for organizations to promote themselves as a safe place to work, and demonstrates that an active OHS program can reduce costs incurred by organizations in handling absenteeism resulting from sickness and injury. In general, OHP utilizes a variety of methods to raise awareness, including health literature, OH talks, OH clinics, promotional visits, and mass media publicity and campaigns (The Hong Kong Special Administrative Region Government, 2012; Wan and Lo, 2002)

1.2.1 Employees have the Right to Know

In 1983, the Australian Council of Trade Unions (ACTU) Congress endorsed an OS&H policy with the principal objective of ensuring that the fundamental right of workers is to have a safe and healthy workplace (Barrett and Thomson, 2012; Johnson, 2004; Olszewski, Parks and Chikotas, 2007). This principle is reinforced in the OS&H Objectives of Healthy People 2010's agenda (Olszewski et al. 2007), which states that workers have the right to know what hazards they are exposed to at work and employers have an obligation to provide this information. This principle has also been applied in HK since the OS&HO was established in 1997 (The Government of the Hong Kong Special Administrative Region, 2005).

The employees' 'right to know' is the key to the development of a preventive strategy that recognizes the fundamental right of every worker to a safe and healthy working environment. There is a desire not to promote confrontation between unions and employers, but employers must recognize that the provision of

adequate information to workers and their representatives is a prerequisite for making informed decisions (Barrett and Thomson, 2012; The Government of the Hong Kong Special Administrative Region, 2005).

1.2.2 Cost to Employers, Employees and Society

To provide an indication of the cost of OH&S issues to employers, employees and Hong Kong society, the following examples are provided. The Permanent Secretary for Economic Development & Labour in HK reported that the working population overall suffered from work-related health problems leading to a productivity loss of about 37 workdays per case in 2006 (Cheung, 2013). A total of 46,620 employees' compensation cases were noted in 2005, with 208 recorded fatalities (Cheung, 2006). More than HK \$1.02 billion (approximately US \$130.8 million) was spent in the same year in compensation (Cheung, 2006). In 2006, workplace accidents cost the Hong Kong Special Administrative Region (HKSAR) government more than HK \$694 million (approximately US \$89 million) in compensation pay-outs. More than 260 cases, all relating to occupational-related illness, were confirmed in 2006 as work-related. Nearly two-thirds of employees had to have time off work as a result of these illnesses. From 2000 to 2006, on average, 30 workers per month suffered from traumatic death at work (Cheung, 2006; Lord, 2005; The Government of the Hong Kong Special Administrative Region, 2007). By 2011, the Occupational Fatality rate recorded was 29/month, which increased 61.1% compared with 2010 (The Hong Kong Labour Department, 2012c). The financial cost, the pain and distress of the victims, and the effect on their families and the community cannot be fully or adequately measured (Lather, 2007). Moreover, the worsening quality of life and general welfare, pain, suffering, family worry and grief and incapacity were immeasurable in many of these cases (Cheung, 2013; Lord, 2005).

The cost of poor OH&S is not only an emotional and financial burden on the victims and their families, but also a cost to employers and society. The Employees' Compensation (EC) net claims amounted to around HK \$1,866 million (US\$239 million) and net outstanding claims remained at HK\$6,161 million (US\$789.8 million) until 2006 (Cheung, 2013). In addition, the net outstanding general liability increased to HK\$2,887 million (US\$370 million), whilst there were 2,044 net claims to be paid in 2006 (Office of the Commissioner of Insurance, 2006). The employer has to bear the consequences of poor OHS, not only

in terms of financial compensation, but also loss of reputation (Cheung, 2013; Cheung, 2006; Lord, 2005; The Government of the Hong Kong Special Administrative Region, 2006).

1.2.3 The Hong Kong Hospital Authority's Occupational Health & Safety Plan

When the OS&HO (Chapter 509) was enacted and all workplaces were covered under this Ordinance related to OS&H issues, including hospital settings, the Hong Kong Hospital Authority (HKHA, hereafter Hospital Authority (HA)) issued a press release entitled 'Work Health and Safety Campaign' on 11 November 1997 and the HA signed a safety charter in 1998 (The Hong Kong Hospital Authority, 1997; The Hong Kong Hospital Authority, 1998b). According to the press release, HA's plan was to enhance OHS in order to achieve the requirements of the ordinance. In addition, the agency planned to assume a proactive role related to assessing the working environment, looking into work designs and procedures, identifying potential occupational hazards and carrying out rectification to improve safety standards in hospitals (The Hong Kong Hospital Authority, 1997). Through 2010, the HA staff strength was 57,672 full-time equivalents with nursing manpower at 20,032 (34.4%) (The Hong Kong Hospital Authority, 2010a); in other words, the nursing staff is a major part of the manpower in the HA setting. Since 2003 the SARS expert committee reported the HA has room to improve OHS for frontline staff, especially nursing staff who is the high risk group in terms of Occupational Disease (OD) (SARS Expert Committee, 2004). The HA has attempted to focus on this issue in various official documents such as annual reports and strategic service plans. After reviewing the related information, it echoes the key issue from the SARS Expert Committee's 2004 report.

According to the Strategic Service Plan 2009-2012, "HA relations with engaged staff will be reflected by an atmosphere of happiness and friendliness, attention to work, and pride in the organization" (The Hong Kong Hospital Authority, 2009, pp30). In addition, the HA acknowledges in the 2010-11 Annual Report that their major challenge is hospital-acquired infection and medical incidents, both of which serve as focal points for their plan to foster a culture of safety among staff; further, more "People First Culture" to promote staff health and wellness is stressed in the 2010-11 annual plan. The goal is to develop Key

Performance Indicators (KPIs) to measure HA's OS&H and employees' compensation claims and to reduce nurses' work pressure (The Hong Kong Hospital Authority, 2010b).

The cost of insurance premiums, lost time, absenteeism, staff replacement and re-training, equipment breakage and workflow interference is a real and often substantial economic cost. Practically, they are only overshadowed by the personal costs to the injured. An institution's account of economic and personal losses affects its overall ability to achieve its goals and add to the costs of goods and services produced (The Hong Kong Special Administrative Region Government, 2006). It is important to understand about the health and safety of nurses in HK hospitals.

1.3 The Occupational Safety and Health Movement in Hong Kong

Mandatory OH & S practice has been in existence in HK since 1997. The first traceable OH & S legislation in HK was in 1922, the Employment of Children Ordinance (The Hong Kong Labour Department, 2000). Similar legislation has been enacted in relation to OS&H, such as the 1955 Factories and Industries Undertaking Ordinance (F&IU) Regulation, enacted to protect factory workers, since small-scale factories were growing rapidly in the early 1950s (The Hong Kong Labour Department, 2000). From the 1960s to the 1970s, HK industry changed gradually, moving from the early stage of 'basic necessities' to fast-moving consumer goods, such as plastic commodities, toys, wigs, electrical equipment, watches and merchandise, as well as construction work. Due to this change, work-related injuries were typically attributed to asbestosis, silicosis, chrome ulcers, industrial dermatitis, poisoning by solvent or metal, loss of hearing, back injury, amputation of limbs, blindness, falls, scalds, and even death (The Chinese University of Hong Kong, 2000). The key contributing factor to these work-related injuries was the lack of public awareness and understanding of the concept of labor protection (The Chinese University of Hong Kong, 2000). In addition, only a few fatalities were reported in the 1970s and 1980s, such as the Jumbo Floating Restaurant, which saw 34 people killed in a fire due to the use of methyl ethyl ketone peroxide in fibreglass moldings in decorative maintenance; the death of a HK telephone worker inside a manhole on September 19th, 1984 at Kwok Shui Road, caused by an in-rush of hot water from a broken drain; the San Po Kong factory 'Mabuchi Industry Limited' incident in January 1983, with almost

200 workers exposed to ozone and phosgene emissions generated from the ultra violet (UV) decomposition of perchloroethylene vapor during a printing process; and the explosion in ‘Cipel Marco Fur Processing Co. Ltd.’ in Kwai Chung on the night of October 8th, 1986, due to the use of hydrocarbon solvents, that cost 14 people their lives and seriously burnt many others (The Chinese University of Hong Kong, 2000). Following the latter two accidents, enquiries into measures to prevent further chemical injuries and explosions in factories were made in the Legislative Council, which led to the enactment of the F&IU (Dangerous Substances) Regulations in late 1988. In subsequent years, OS became a major concern.

The OS issue has remained a most significant issue in HK. For example, the Factory Inspectorate (FI) has had legal authority, issued by the HKLD predecessor, Labour Department (LD), since 1964. The responsibility of the FI is to enforce the law to attempt to prevent any potential accidents from occurring by inspecting the factory hardware: the machinery guards, the provision of fire-fighting equipment and health in the workplace (Wolf, 2007). Industrialization was the most significant change in HK in the late 1960s, and for this reason, safe work systems, instruction, training, supervision, and programs aimed at changing attitudes, were emphasized. Hence, through safety training conducted by the Industrial Safety Training Centre (ISTC), the FI encourage large industrial establishments and construction companies to develop and implement safety policies, safe work systems and form safety committees to overcome OS problems in the worksite (The Hong Kong Labour Department, 2000).

The core development of OHS was initiated by the HKLD, a government agency that responds to issues related to labor policies and the administration of labor laws in the HKSAR. The HKLD plays an important role in OHS and has responsibilities in the following areas: education and training, consultation, legal enforcement and related claims and also operates Occupational Health Clinics (OHCs) and OSHCs (The Hong Kong Special Administrative Region Government, 2010). According to a LD paper issued in 1998, the Panel on Manpower stated that the purpose of the OHS is to focus on the prevention and control of health hazards in the workplace and minimization of the incidence of ODs (The Hong Kong Labour Department, 1998). Related services are provided by the Occupational Medicine

Division (OMD), the Occupational Hygiene (Development) Division (OHDD) and three regional Occupational Hygiene (Operations) Divisions (OHODs). According to the nature of the job, the OMD is subordinate to the Department of Health (DH). This division is responsible for the investigation of OD, and the medical examination and assessment of workers in relation to risks of workplace-related disease hazards. In addition, advice on employee compensation and advice and counselling provided to injured workers prior to their return to work are other key roles of the Occupational Health Clinic (OHC) (The Hong Kong Labour Department, 1998; 2012a).

The OHDD has the responsibility of identifying OH hazards and advising proprietors on improvements to the workplace environment in order to minimize workplace-related disease. In addition, this team must also set occupational hygiene standards for the employer and employee to follow, enforce the relevant standards in the industrial and non-industrial sectors, draft the OH-related legislation, and conduct publicity and promotional programs (The Hong Kong Labour Department, 1998; 2012a).

Since 1997, the OHS has expanded to cover a broader spectrum of occupations in various types of workplaces. As a result, besides employee protection from Factories and Industries Undertaking Ordinance (F&IU) Regulation (The Hong Kong Special Administrative Region Government, 2014) an additional 1.8 million employees were covered by the new law. Based on this new legislation, the HKLD proposed introducing mandatory pre-employment and periodic post-employment medical examinations for employees who are at risk of exposure to lead, mercury, arsenic, manganese and excessive noise (The Hong Kong Labour Department, 1998; 2012a).

The HKLD (1998) suggested that a new “Good Health is Good Business” campaign be launched and that a “train the trainer” approach be adopted. The demand for services arising from this campaign resulted in a requirement for reorganization of the OHS. A total of 24 professional posts were created, which included one Occupational Health Consultant for all businesses generally in 1998/99. In addition, OHSP staffing levels increased significantly, from 38 full time in 1996/97 to 124 in 1998/99 up to 2012 (The Hong Kong Labour Department, 2012a). During the reorganization, the Occupational Health Consultant

was responsible for a range of areas including formulating policies and strategies related to physical health hazards and ergonomic issues in the workplace. The Occupational Health Consultant has authority to stop work to improve the workplace health issue under the related ordinance. According to the official report of 2009, 26% of inspections resulted in suspension of trading or improvement notices based on the OH&SO. Furthermore, in 2009, 27% of workplaces were found to have suspected occupational diseases on regular investigation (The Hong Kong Labour Department, 2009c).

1.4 The Legislation and Hong Kong Health Services

It is evident that many legislative changes covering factories, industry and construction have been added to Chap. 282 (ECO) and Cap. 59 (F&IU Ordinance), both of which are still in the stages of development of OH-related legislation. This legislation has been applied for example to workshops, construction sites and canteen kitchens. Due to limitations, some areas, such as hospitals, are not covered by this legislation (The Chinese University of Hong Kong, 2003). Prescribed OD is classified into types – I to III. According to the Employee Compensation Ordinance ECO, Cap. 282, Group I is further divided into sub-groups A to D (The Hong Kong Labour Department, 2009c, pp.1-19). For further detail, refer to Appendix 1.

Type I – Under Employees (Compensation) Ordinance

- Group A: Diseases caused by physical agents, e.g. dysbarism and tenosynovitis of the forearm or hand
- Group B: Diseases caused by biological agents, e.g. tuberculosis and streptococcus infection
- Group C: Diseases caused by chemical agents, e.g. lead or benzene poisoning
- Group D: Diseases categorised as caused by miscellaneous agents, e.g. contact dermatitis and occupational asthma

Type II: OD under the Pneumoconiosis and Mesothelioma (Compensation) Ordinance, Cap. 360.

Type III: OD under the Occupational Deafness (Compensation) Ordinance, Cap. 469 (Kong et al., 2006b).

Since 1997, the number of notifiable ODs has changed from 49 (The Hong Kong Department of Health, 2001) to 51 (Kong, Wa and Leung 2006b). Since the avian influenza outbreak in 1997 and the SARS outbreak in 2003, hospitals, clinics, and homes for the elderly are required to have adequate infection control measures in order to take early preventive action (Cheung, 2006). SARS and avian influenza A have been classified as notifiable ODs since 2005. In the meantime, the number of cases of OD dropped by 73.5%, from 948 cases in 1998 to 251 in 2004 (Cheung, 2005), and the number of reported ODs decreased from a total of 504 cases in 2000 to a total of 256 cases in 2005, according to the DH of HK (Cheung, 2005).

This trend of reduction in reported ODs is significant; the reason for this improvement is the HKLD's OHS efforts related to promotion, such as services in the prevention of OD, which includes investigation of notified cases, provision of clinical services and OH promotion, and reinforcing the legislation (Cheung, 2005. The Hong Kong Special Administrative Region Government, 2012). The most significant effect on hospital employees is the reduced number of reported cases of tuberculosis (Kong et al., 2006b, The Hong Kong Special Administrative Region Government, 2012).

Strictly speaking, HK has no legislation specifically designed for OH, but appropriate applications can be found. For example, under Cap. 509 s15 medical practitioners are to notify the Commissioner of the occurrence of any OD; also, under Cap. 509 s30, it is an offence for a person to interfere with or misuse articles provided for the safety or health of employees as mandated by Cap. 509 Schedule 2, which covers notifiable OD. The Secretary for Labour and Welfare, Mr. Matthew Cheung Kin-Chung, in his response to the Legislative Council in October 2008 regarding OD legislation argued that any health-related compensation is mandatory and therefore is to be reported to the Commissioner for the HKLD to be noted

in the relevant records (The Hong Kong Special Administrative Region's Legislative Council, 2008, The Hong Kong Special Administrative Region Government, 2012).

1.5 The Impact on Occupational Health and Safety in the Hospital Sector

The National Institute for Occupational Safety and Health (NIOSH) Health Care Worker Research 2001 states that it has various health and safety concerns about hospital staff. The report classifies four groups of hazards: biological (blood-borne pathogens, tuberculosis), chemical (ethylene oxide, latex), physical (ergonomics, ionizing and non-ionizing radiation, violence) and psychosocial (work stress, workplace injury impact) (Department of Health and Human Services, 2001). Wilburn and Eijkemans (2004) and Talamanca (2000) had more detail than the NIOSH in classification of four groups of hazards in the hospital staff.

Thomas et al. (2006) study reported that hospital workers aged 25 to 54 account for more than 73% of work-related injuries (WRIs), and direct caregivers, which refers to nurses and ward attendants, are particularly vulnerable to over-exertion from lifting and falls. In addition, direct caregivers have a higher risk of needle-stick injury. Lower back injury is likely to be reported by shift rotation direct caregivers aged over 45. Health care workers experience a high risk of work-related injuries compared to other service industries (Franché, Murray, Ostry, Ratner, Wagner, and Harder, 2010; Fischer et al., 2006; Li, Wolf, and Evanoff, 2004). Three decades ago, it was recorded that 11.6 per 100 full-time nursing staff experienced work-related injuries or sickness, and workday loss was 121 per 100 full-time employees (Clever and Omenn, 1988). In Australia, the health care sector experiences heavier OI claims than any other industry (Franché et al., 2010). Lipscomb and Rosenstock (1997) pointed out that the health industry used a curative rather than a preventive attitude toward OH&S, and this opinion is supported by Brandt et al. (2012).

An example of a condition causing health and safety concern for hospital staff of each of the four major groups of hazards now follows;

1.5.1 Psycho-social- Stress

In Western countries, “psychosocial hazard” refers to workplace stress, which has been recognized in health and safety legislation as a workplace hazard (D'Aleo, Stebbins, Lowe, Lees, and Ham, 2007). Some 50 to 80% of employees' disease is related to workplace stress (Muhammed, and Vishwanath, 2000). According to Muhammed and Vishwanath (2000), workplace stress-related claims are increasing daily. D'Aleo et al. (2007) further reported that workplace stress claims increased from 5% to 21% from 2005 to 2006 and similar findings were supported by Efe & Ayaz's study (2010). According to Piko and the International Labour Organization, the health industry has the lowest job satisfaction among other service industries (Applebaum, Fowler, Fiedler, Osinubi, Robson, 2010; International Labor Organization, 2006; Piko, 2006). The intended turnover rate and absenteeism are higher when self-reported job satisfaction is low (Applebaum et al., 2010; Piko, 2006). This is corroborated by Irvine and Evans, who studied job satisfaction and intention to leave, finding that $r = -0.53$, which showed they were significantly related to each other (Irvine and Evans, 1995). In addition, the risk of burnout in health care workers is significant due to role conflicts (Applebaum et al., 2010; Piko, 2006), poor working environment (Applebaum et al., 2010; Chan & Chan, 2004) and job dissatisfaction (Applebaum et al., 2010; Grunfeld, Coristine, Whelan, Aspelund and Evans, 2005). Burnout is a symptom of emotional exhaustion, which is an occupational hazard for service industries such as health care (Applebaum et al., 2010; Piko, 2006).

The challenges that health care workers face in today's health service environment are becoming more difficult because of limited human resources, shift work, increased patient activity, tight routines, and high patient turnover rates (Lim et al., 2010; Pick, 1991; World Health Organization, 2001a). Since the SARS outbreak of 2003, studies have shown that health care workers, especially nurses, experience significant psychological impacts at work (Chau et al., 2004; Lim et al., 2010). Muhammed and Vishwanath (2000) claimed that 5% of the nurses reported suffering an acute stress disorder after the SARS outbreak due to being stigmatized by the public, risk of infecting family members and uncertainty

regarding the disease's outcome. In addition, mistrust is another factor causing nursing staff stress at work (Laschinger, Finegan and Shamian, 2002; Lim et al., 2010).

In contrast, a study by Liu et al. (2010) reported the nurse-patient relationship to be one of the greatest stressors in the nursing staff, since nurses may be treated unreasonably either by patients or senior staff (Grunfeld, Cristine, Whelan, Aspelund and Evans, 2005; Lim et al., 2010). If problems could not be solved, the nursing staff would suffer burnout due to negativity and low self-esteem. Overall poorer well-being was associated with increased stressors by Siu, Lu and Spector, (2007). Eventually the nurses either change their careers to part-time (Applebaum et al., 2010; Grunfeld et al., 2005) or leave the field altogether (Liu, Siu, Sgi, 2010). Psychosomatic indicators reflect the stress levels in health care workers (Applebaum et al., 2010; Muhammed et al., 2000), for example, lower back pain, tension headaches, sleeping problems, stomach discomfort, gastrointestinal upset and chronic fatigue (Applebaum et al., 2010; Clever & Omenn, 1988). Also menstrual periods were often altered and the abortion rate increased (Applebaum et al., 2010; Talamanca, 2000). In addition, Piko (2006) reported that female registered nurses under the age of 40 who were married and had spent over 21 years on rotating night or permanent morning work schedules experienced higher burnout rates due to job dissatisfaction.

The job content is the major source of stress in the work environment (D'Aleo et al., 2007). For example, the duration of patients' hospitalization tends to be shortened due to the use of advanced technology, better pain and nausea medicines, better processes, community resources and better pre-admission procedures, (Hinchliff, Norman and Schober, 1989; Lim et al., 2010), which can lead shorter periods of hospitalization. In clinical practice it is increasing the workload for the frontline due to the increase in admission and discharge rates and fewer, lower acuity or convalescence days. Also, the nature and increasing demands of health care, e.g. oncology care (Grunfeld et al., 2005; Lim et al., 2010), lead to stress and burnout. The increased workload and workload complexity consequently creates stress for health care workers, as they are required to provide what is necessary for a patient with limited time and resources (Carson, 1989; Grunfeld et al., 2005; Lim et al., 2010; Moloney, 1992).

Job context (relationships, role and change) is the second source of stress in the work environment (D'Aleo et al., 2007; Lim et al., 2010). For example, internal and external stress factors within the health care sector generally include organizational problems, health care budget cuts and levels of training (Grunfeld et al., 2005; Lim et al., 2010; Muhammed et al., 2000). Inter-personal relationships with colleagues and increased health overloads, deaths and illness of family and friends, home or work conflicts, workload, organization restructuring and career decisions (Anderson, Cooper & Willmott, 1996; Clever & Omenn, 1988; Grunfeld et al., 2005; Lim et al., 2010) are also sources of stress. Additionally, high levels of staff turnover create further stress within the workplace, as newcomers perceive anxiety more acutely (Lim et al., 2010; Marsella, 1994).

D'Aleo et al. (2007) reported that the chronic stress in the nursing industry involved either physical, psychological or social issues. Workplace stress is reflected in depression, anxiety, burnout, increase in alcohol consumption, smoking behavior, aggression, anger, violence, poor family interactions and even declining material cohesion (D'Aleo et al., 2007). Additionally, Luthans, Lebsack and Lebsack (2008) used self-esteem, internal-external control and powerlessness to measure nursing staff's optimism concerning their performance. The results showed a strong relationship between nurses' optimism and their supervisors' positive attitude. Luthans et al. (2008) stated the nursing industry is considered "emotional labor", which could be affected by various internal and external factors in the nurses themselves. A suitable way to regulate unstable emotions could enhance the stress threshold in order to maintain a sense of well-being in the work environment (Grunfeld et al., 2005; Lim et al., 2010; Luthans et al., 2008; Muhammed et al., 2000). Those nurses supported by their supervisors, colleagues and family through a clear communication channel are able to minimize workplace stress in a constructive way (Beaton, Hogg-Johnson and Bombardier, 1997; Lim et al., 2010).

As previously mentioned, research related to workplace stress has been conducted in other countries (Embree and White, 2010; Hegney, Plank and Parker, 2003; Kamchuchat, Chongsuvivatwong, Oncheunjit, Yip and Stangthong, 2008) and in HK. Ten stress-related local articles highlight this as a significant issue. A study of anaesthetic trainees in HK and Victoria Australia, demonstrated higher

occupational stress due to lack of resources and less job satisfaction in HK trainees compared to overseas (Chia et al., 2008). Callaghan, Shiu and Wyatt (2000) reported that the HK nurse's average sick leave was 5.4 days per year which is higher than a similar study from US, Canada and Japan (Heymann, Rho, Schmitt and Earle, 2010), which recorded less than 5 days. Yeung (2009) reported that more than one-third of HK nurses were considered to have poor mental well-being. The general presentation of the midwives stress was sick leave, which often showed the symptoms: headaches, upper respiratory tract infections, gastro-intestinal upsets and general fatigue. In addition, headache was most reported in relation to shift work.

In HK nursing, significant stress results from work overload, poor communication with colleagues, the erratic nature of the work, frequent patient deaths, especially in the neo-natal setting (Lim et al., 2010; Yam et al., 2001), and hospital administration (Callaghan, 2000; Lim et al., 2010). The leading cause of absenteeism was the organizational climate, with limited and less effective communication between nurse managers and the frontline staff (Lim et al., 2010; Siu, 2002; Shiu, 1998). This concern, according to Yeung (2009) was because the key stressors came from "patient care issues", workload and time issues (Yeung, 2009). The HK nurses acknowledged that their stresses came from work overload since the 1990 health care reforms in HK, which aimed at patient-centered care (The Hong Kong Hospital Authority, 2012; Yam and Rossiter, 2000).

1.5.2 Biological -Respiratory Problems

The health service sector is at the highest risk of developing occupational respiratory problems such as tuberculosis (Foster, 2011; Lipscomb and Rosenstock, 1997; Occupational Safety and Health Council, 2000), respiratory infections such as influenza (Possamai, 2007; Fischer et al., 2006; Lipscomb and Rosenstock, 1997) and SARS in this decade (Possamai, 2007). Multidrug-resistant tuberculosis was reported in Lipscomb and Rosenstock's (1997) study of health care workers. Hospital-acquired respiratory infection is another occupational hazard, one that has been on the rise since the SARS Expert Committee conducted its OHS review in 2004 (SARS Expert Committee, 2004). The reason for this increase in SARS cases is that for health care workers who work in a hospital setting, there is a risk of

transmitting various bacteria from different sources during the working process via human contact or through the environment (Ayliffe, Bobb and Taylor, 1999; Tran, 2013). Latex-related respiratory diseases have been reported in addition to lower back disorders among health care workers, both of which are considered ODs in Germany (Allmers et al., 2004; Weisshaar et al., 2006). Latex-related respiratory problems present with coughing, wheezing and dyspnea while exposed (Filon et al., 2001; Lan et al., 2011). Possamai (2007) suggested that Infection Control (IC) and OH personnel should listen to the employee's concerns on respiratory problems in order to establish a healthy and safe culture in the workplace.

Another feature of nursing work is dealing with diseases which may be life-threatening not only to the nurse but also to the family and/or friends, as for example, SARS in 2003 (Yeung, 2004). In addition to the SARS experience, Tam et al. (2004), Yeung (2004) and Ho et al. (2005) examined the psychological impact of nurses in dealing with SARS and showed that they experienced isolation, loneliness, stigmatization and anxiety due to the high morbidity. It is reported that 20 to 30% required Intensive Care Unit (ICU) care and the fatality rate was between 5 and 27% and with an uncertain prognosis in its initial phases. According to Tam et al. (2004), 68% of participants reported high levels of stress, while 57% stated that they experienced psychological distress after the SARS experience (Tam et al., 2004). However, the stress was eased slightly when the SARS was brought under control and the HK nurses were recognized by society. In addition, nurses with social support from peers, from other disciplines and an informal network of mutual telephone contacts and support by family and friends were better able to release the stress during the SARS crisis (Mak, Chu, Pan, Yiu, Ho and Chan, 2010; Yeung, 2004).

A study by Chau et al. (2004) reported that positive feedback was noted after SARS outbreak among HK nurses, such as enhanced hygiene awareness and focus on current affairs, unity and awareness of danger (Chau et al., 2004). Another positive outcome of the SARS outbreak was the legislative amendments on SARS, which is now considered an OD. In addition, the HKHA was to pay more into the employee health fund (SARS Expert Committee, 2004). Siu discovered that HK nursing staff with higher job satisfaction also experienced better work-life balance and better quality of life (Siu, Hui, Philips, Lin, Wong and Shi,

2009; Siu, Chow, Philips and Lin 2006). Liu et al. also found that staff well-being was a means of fighting burnout in a positive way (2010).

Pulmonary TB is an infectious disease health care workers are required to report; it is also considered an OD if the contact is specifically or strongly related to work (The Hong Kong Special Administrative Regional's Legislative Council, 2008). A report in 2000 from the HKHA showed that 66 incidents in health care workers were reported from a HA staff of 50,207 (Seto, 2010). Since the 2003 SARS outbreak in HK, the health care sector has been more alert about respiratory personal protective equipment (PPE); a study by Gomersall, Joynt, Ho, Yap and Leung (2006) reported that HKICU nurses had a low risk of infection with SARS if firm infection control was applied, despite long staff exposure times and a sub-standard physical environment (Gomersall et al., 2006). Although Gomersall et al. (2006) provided clear and firm advice related to infection control, the OS&HC introduced various procedures for application in the clinic in order to minimize health care worker's risks in handling respiratory patients in their nursing management (The Occupational Safety and Health Council, 2004). Lau et al. reported an over 50% infection rate among health care workers during the 2003 SARS outbreak. It was necessary to improve the infection control and suitable PPE to minimize the related risk (Lau, Yang, Leung, Chan, Wong, Fong and Tsui, 2004). However, spot fitness tests showed in 2004 that 7% of those using the respiratory PPE failed the test and 50% of these were reported by RNs (Seto, 2010). This report caused some nervousness about the reliability of the existing PPE, although the HK Center for Disease Control and Prevention had recommended PPE standards (Center for Disease Control and Prevention, 2003).

1.5.3 Physical - Occupational Violence

Occupational or workplace violence is considered an OH issue since the outcome of the incident causes the victim post-traumatic stress (Jackson, Clare and Mannix, 2002; Yang, Spector, Chang, Gallant-Roman and Powell, 2012). Workplace violence has been reported in the literature as significant and its incidence has increased gradually from 1999 to the present (Hahn et al., 2008; Smith-Pittman and McKoy, 1999; Yang et al., 2012), contributing to reports of post-traumatic stress (Rippon, 2000; Yang et al., 2012) in nursing (Jackson et al., 2002; U.S. Department of Labour, Occupational Safety and Health

Administration, 2004). Smith-Pittman and McKoy (1999) emphasized that nursing faced a sixteen times greater risk than other service industries of experiencing workplace violence.

This issue threatens nurse retention. Jackson et al. (2002) reported 19.6% of resignations were due to bullying and Embree and White (2010) noted that around 60% of new nurses leave their positions due to workplace violence. It increases the likelihood of nurses' absenteeism (Brook et al., 1996; Jackson et al., 2002; Yang et al., 2012), loss of confidence, lower self-esteem, job dissatisfaction (Brook et al., 1996; Yang et al., 2012), poor work performance, physical or mental illness such as blood pressure problems (Efe and Avaz, 2010; Fernanders et al., 1999; Hahn et al., 2008; Rippon, 2000; Brook et al., 1996), burnout (Jackson et al., 2002) and even resignations (Cleary, Hunt and Horsfall, 2010; Fernanders et al., 1999; Jackson et al., 2002; Moustafa, Lamiaa, Amira, Abdel and Ayman, 2010). Some scholars have pointed out that this is not a healthy working environment (Cleary et al., 2010; Miranda, Punnett, Gore & Boyer, 2010; Cooper, Walker, Winters, Williams, Askew & Robinson, 2009; Jackson et al., 2002; Fernanders et al., 1999; Moustafa et al., 2010). Miranda et al. (2010) reported the prevalence of low back pain was 70%, which was three times more than in the non-assault cases. Workplace violence could cause significant financial loss in a health care system (Hahn et al., 2008). According to Smith-Pittman and McKoy (1999) some 14.4 million to 3.3 million working hours (Jackson et al., 2002) are lost annually in the US and the UK, respectively. In addition, Smith-Pittman and McKoy (1999) reported US \$4.3 billion is lost annually in the nursing industry due to workplace violence. The greatest concern was the slow reaction of administrators to escalating workplace violence (Rippon, 2000; Yang, 2012).

Although workplace violence was first reported in the literature as an issue of concern 15 years ago, the definitions used since then have been unclear and inconsistent. For example, some definitions refer to assaults that actually caused bodily harm or threats of assaults, while others include subjective perceptions of potential threats or verbal abuse" (Rippon, 2000, pp.454). This problem has been pointed out by numerous studies in different decades (Hahn et al., 2008; Jackson et al., 2002; Miranda et al., 2010; Rippon, 2000; Smith-Pittman and McKoy, 1999). The inconsistent and fragmented definitions have led to under-reporting of workplace violence (Jackson et al., 2002; Moustafa et al., 2010). Official

workplace violence could be as definite as abuse, threats or assault in any circumstances related to work (International Labour Office, 2002). However, Smith-Pittman et al. recognize that workplace violence should be defined as “any act of physical or psychological abuse against a health care provider designed to harm, injure, and/or damage” (1999, pp. 8). The frequency of occurrence of workplace violence may be widespread, the impact on nurses may be significant and under-reporting routine, particularly in areas where the perpetrator is a fellow employee or senior staff member.

For example, nurses experienced some kind of workplace violence in the following frequencies in the international studies:

- UK 44- 85% (Durdock, 2009; Jackson et al., 2002)
- Canada 46% - 53% (Duncan, Esrabrooks and Reimer, 2000)
- Thailand 39% (Kamchuchat, Chongsuvivatwong, Oncheunjit, Yip and Stangthong, 2008)
- Egypt 27.7% (Moustafa et al., 2010) (excluding verbal abuse)

These percentages may also be over or under reported from country to countries due to inconsistent definition. A 1999 a study from Canada showed that 97% of nurses experienced verbal abuse and 94% experienced physical threats (Smith-Pittman et al., 1999), which was similar to Efe and Avaz’s (2010) findings. In Egypt, verbal abuse was significant at 69.5% (Moustafa et al., 2010) with 18% in the UK (Durdock, 2009), 73% in Hong Kong (Kwok, Law, Ki, Ng, Cheung and Fung, 2006). Night shifts showed higher risk than morning shifts because of the limited human resources and tight routines (Moustafa et al. 2010).

The major sources of workplace violence are patients, relatives and friends of patients (Jackson et al., 2002; Moustafa et al., 2010). However, Jackson et al. (2002) pointed out that the nurse managers contributed to 61% of workplace violence in the UK. Further studies have suggested that peer nurses (Durdock, 2009; Hegney, Plank and Parker, 2003) and medical practitioners in the acute private and aged-care sectors are also sources of workplace violence (Hegney et al., 2003). Cleary, Hunt, and Horsfall

(2010) and Embree and White (2010) used the term lateral violence (LV), which refers to aggressive verbal behavior towards people of whom nurses may be aware or unaware, for example; internal gossiping, this was experienced by more than 50% in nursing, (Durdock, 2009; Hegney et al., 2003; Jackson et al., 2002).

Some health care workers are prone to suffer higher risk of workplace violence (Moustafa et al., 2010). This is more common amongst males (Moustafa et al., 2010) and less experienced workers (Durdock 2009, Hegney et al., 2003). Moustafa, et al. (2010) and Duncan et al. (2000) claimed that 70% of health care workers had experienced workplace violence without reporting it to their senior, another study with a contrasting result is reported by Efe and Avaz (2010) who stressed that only 6% of victims made official complaints about emotional harassment in their study. However workplace violence is found often in the hospital setting, especially in the emergency department. It was noted that more than 80% of nurses reported experiencing verbal abuse during working time (Duncan, 2000; Yang, 2012). In addition, information from the United States Department of Labour Occupational Safety and Health Administration (2004) noted that health care workers believed workplace violence was part of the nature of their job (Rippon, 2000; Yang, 2012), which caused them not to report it to their senior. In addition, health care workers might worry that reporting workplace violence might affect their job performance, increase peer pressure (Rippon, 2000; Yang, 2012) or that the employer did not care about the reporting rate (United States Department of Labour Occupational Safety and Health Administration, 2004; Rippon, 2000) and they could nothing about it (Efe and Avaz, 2010).

Reasons for under-reporting also include the absence of, or a poor reporting system (Moustafa et al., 2010; Rippon, 2000) and bureaucratic and hierarchical structures (Anderson, 1996; Yang, 2012). It is also said to be part of the nursing culture to bully juniors, and seniors turn a blind eye when juniors report the incidents (Brook, 1996; Jackson et al., 2002; Yang, 2012). Cooper et al. (2009) reported that nursing students experienced verbal abuse and 51% reported that they were unable to manage the situation and “did nothing”. This might contribute to the existing practice in the workplace (Embree and White, 2010).

It is clear that workplace violence is not a new issue in health care settings. Historically, such violence occurred often in the mental health care setting and Accident and Emergency (A&E) Department; however, occurrence has extended to the general health care setting such as general ward or even the community setting (Lee, 2006). Based on this, the HKHA set up an in-house regulation to control related issues a decade ago (Lee, 2005) but recent studies show that it remains an issue. As mentioned previously, there have been only limited HK studies related to workplace violence. A study by Chung found that nurses were at highest risk at 59%, followed by doctors at 23%, to experience workplace violence in the health care sector (2003). The most frequent types of violence (Chung, 2003) are verbal abuse (73%), bullying (45%), physical abuse (18%) and sexual harassment (12%). In HK 82% of nurses experienced significant verbal abuse (Kwok, 2006). In the meantime, the HKHA reported that 76% of HK nurses reported various types of abuse in 2004 (The Hong Kong Hospital Authority, 2004). This result was higher than other Asian studies, such as Taiwan's 62% (Lin, 2005). In addition, horizontal violence was reported by HK nurses with peer bullying, in addition to physical violence from the patient and patient's family (Lee, 2006). The consequence of workplace violence in the nursing industry can be psychological problems, which may develop into somatic complaints and end with poor work performance, post-traumatic stress disorder, anxiety, sleeping difficulties and family disruption and even sick leave reporting if the related management was unable to handle the situation in a proper manner (Chung, 2003; Lee, 2006). In general, the type of workplace violence the HK nurses suffered and the outcome were similar to the Western countries.

1.5.4 Chemical - Cytotoxic Chemical Hazards

Potential exposure to cytotoxic drugs like antineoplastic, chemical disinfectants well-documented as affecting the health of health care workers. Formaldehyde, glutaraldehyde (Pala, 2013; Shirangi, 2008; Talamanca, 2000) and anaesthesia gases like ethylene oxide (Lipscomb & Rosenstock, 1997; Shirangi, 2008) are well-documented as affecting the health of health care workers (Clever and Omenn, 1988; Crauste-Manciet et al., 2005; Lawson, 2012; Pethran, Schierl and Hauff, 2003; Sessink and Bos, 1999; Sessink et al., 1992; Sessink, Van de Kerkhof and Anzion, 1999; Vecchio et al., 2003; Ziegler, 2002).

It has been confirmed for more than two decades that health care workers over-exposed to cytotoxic drugs have high risks of mutagenic, carcinogenic and teratogenic effects (Sessink et al., 1999). Moreover, the health care setting was indicated as a drug- contaminated workplace over a decade ago by various studies (Pethran, Schierl and Hauff, 2003, Sessink et al., 1999; Mader, Rizovski and Steger 1996; Sessink et al., 1992).

Health care workers such as nurses with a high risk of drug over exposure have shown significant dose-response mutagenic substances in their urine (Connor and McDiarmid, 2006). Adverse reproductive effects such as infertility, spontaneous abortions and congenital malformations are risks have resulted (Clever and Omenn, 1988; Schierl, Böhlandt and Nowak 2009; Sessink et al., 1999; Sessink et al., 1992; Sessink and Bos et al., 1999; Talamanca, 2000; Vecchio, Sasco and Cann, 2003), hair loss, headaches, acute irritation and/or hypersensitivity are the most significant symptoms of over-exposure to antineoplastic drugs (Connor and McDiarmid, 2006). Clever et al. (1988) and Sessink et al. (1992) reported nurses have a high risk of leukemia if over-exposed to neoplastic drugs, a finding supported by Kopjar et al. (2009) and Vecchio et al. (2003). In general, the usual route of exposure to antineoplastic drugs is via inhalation, dermal or oral routes (Connor and McDiarmid, 2006). Personal protective equipment (PPE) is required for health care workers while handling chemical agents and cytotoxic drugs; however, Ziegler et al. (2002) reported that while the majority of nurses (91%) wore gloves while handling cytotoxic drugs, only three percent used eye protection.

Besides abnormal body cell development or pregnancy problems, improper handling of chemicals/cytotoxins could cause multi-drug resistant or superbug effects such as Extended Spectrum Beta Lactamases (ESBL) and Methicillin-Resistant Staphylococcus Aureus (MRSA), which can be passed on by the health care worker (Kampf and Löffler, 2007). A 3.9% prevalence of MRSA was noted in health care workers (Albrich and Harbarth, 2008). Health care workers were the vector to carry those superbugs along the health care setting while implementing the care or procedure (Albrich and Harbarth, 2008). It is difficult to advise health care workers as to the exact dose that is too high or safe since the biological effects might differ from individual to individual (Kopjar et al., 2009). The easy and

constructive way to protect health care workers at work would be through safe handling of antineoplastic drugs, from preparation to waste disposal and including the laundry (Connor and McDiamid, 2006).

1.6 Overview of Occupational Health Services in HK Hospitals

On the basis of a review of hospital-related documents, e.g. staff handbooks, the intranet, policy and OH manuals, a brief overview of HK hospital existing OHS governance of practice is shown :-

HKLD	Hospital Authority Headquarters (Public)	Hospital Authority (Public)	Hospitals (Private)
<ul style="list-style-type: none"> • Medical examination for workers exposed to occupational hazards, • Conduct investigation of occupational diseases, • Provide occupational health education • Counselling services for workers suffering from work-related diseases • Evaluate occupational health hazards in the work environment • Workplace Inspections 	<ul style="list-style-type: none"> • Consultation work for all clusters • Follow-up the work injury, frequent near miss case • Occupational Health • Occupational Safety 	<ul style="list-style-type: none"> • Providing Occupational Rehabilitation • Data collection for the work related injury • Arrange occupational health related education 	<ul style="list-style-type: none"> • Arrange OH service to all hospital staff • Arrange health & safety education • Follow-up work injury and near miss case • Pre-employment screening

Table 1.1 Hong Kong Occupational Health Service Governance Summary

1.6.1 Public Hospitals, Private Hospitals and Nursing Services

Arranging, monitoring and governing health and safety programs is essential for HK OHS. It is also important to explore practices in other counties in order to compare them to the local situation. As outlined in Table 1.1, the HK OHS role and responsibility differs between the organizations and the public and the private sector. As HK still has no guidelines regarding OHS content, the HKLD (government sector) provides OHS content to the public that is different from that in the hospital setting.

In HK as shown the hospital is a dual system: a mix of public and private care. In brief, the public sector includes the highly subsidized HA & DH, providing primary, secondary, and tertiary care services. The HA covers 41 hospitals and institutions, which provide more than 50% of primary to tertiary medical services to the population of HK. The remaining medical services are provided by the private hospital/health sector, with services provided by general and specialist medical personnel. There are 11 private hospitals in HK (The Hong Kong Private Hospitals Association, 2015). The HKHA employs approximately 54,089 staff, of whom 19,273.3 equivalent full-time employees (EFT) are nurses (The Hong Kong Hospital Authority, 2009).

The local private hospitals' OHS practice is similar to that of the US (Guidotti, Arnold, Lukcso, Stecklow, McKenzie, Bender and Stecklow, 2013; Pransky, Benjamin and Dembe, 2001), the focus is on pre-employment screening, OS&H education and OHS for all hospital staff. The HA OHS is focused on work rehabilitation (treatment) and related work injury data management (investigation).

Although a shortage of nursing resources was addressed in 2004 in a Legislative Council debate (Hong Kong Legislative Council, 2004), according to the records, between 2003 and 2004 862 nurses left their posts due to the HA implementation of voluntary early retirement schemes. This situation is gradually increasing year by year. On average, around 600 nurses per year leave their posts in the public sector. Based on this concern, the Legislative Council proposed re-opening the seven closed nursing schools and also planned to help nurses who trained on the Mainland to become qualified for practice in HK. In addition, HA has deployed support staff to help the nurses to reduce the strain on nursing workforce (Hong Kong Legislative Council, 2004). One of the bigger local nursing associations, the Hong Kong Nurses' Association, warned the HKHA that the root cause of the shortage of nursing manpower was low salaries and long working hours, which led to poor morale in the public sector. In addition, this situation would trigger the public sector nursing manpower to shift to the private sector if the existing problem could not be fixed (RTHK, 2006).

However, the Chief Executive Officer (CEO) from the private sector reported that the HK private hospital sector was facing a nursing crisis due to inadequately trained staff to fill the posts. In addition, the nurse-to-patient ratio dropped significantly from 2001, with 6.1 nursing staff to 1000 patients to 5.3 per 1000 in 2007. Furthermore, market demand was greater than supply in relation to services, with Chinese mainlanders giving birth in HK, which increased the severity of the nursing shortage. Based on this, the private hospitals implemented different strategies to maintain their nursing service for example, at least three out of 11 private hospitals in HK re-started their nursing training programs and offered higher payment to employ the new graduate nurses in order to ease the shortage (Hong Kong Legislative Council, 2004). Despite the efforts of public and private hospitals to train more nurses, the shortage of nurses remains an issue, which creates another concern that quantity has been covered but the quality of the nurses might not have been addressed. The Director of Nursing at the Chinese University of HK recognized that the shortage of nurses was a significant problem, which added to the stress for the existing nursing staff in HK. Students with health backgrounds who were able to gain credit for the first year of nursing training, were recruited, and the Master of Science (Pre-registration) program was offered to students who obtained the first non-health care degree since 2008 in order to enlarge enrolments in nursing studies, which led to improved local nursing standards and also to reduced stress (Moy, 2008). The shortage of nursing staff is one of the key concerns in the HA, which has used various methods, e.g. promoting Advanced Practice Nurses (APNs), re-opening nursing schools and adjusting remuneration packages to solve the problem (The Hong Kong Hospital Authority, 2010c).

Although the shortage of nurses had been discussed for a decade and the public and private sectors have struggled to solve the problem, the sickness/absenteeism rate in the HA has tended to increase, which was the most significant issue in addition to injury on duty (Kwok, 2011; Ng, 2009; Patel, 2008). In 2010 it was reported that the Hong Kong public hospital sector listed 920,000 sick leave days within seven years in the nursing and allied health disciplines (Oriental Daily Newspaper, 2010). In addition to sick leave, HA staff also reported physical problems including sleep difficulty, lack of exercise, depression, and cardiac problems among HA staff, who present poor working performance (Oriental Daily Newspaper,

2010). The most concerning issue discovered in the survey and also correlated to Kwok (2011) was that sick leave was most related to respiratory problems, soft tissue injury and/or gastro-intestinal discomfort.

The Chairperson from the HK Association of Nurses stated the shortage of nurses and work overload were serious issues in the HK nursing industry. The HA needed to actively solve the problem rather than propose strategies on paper (Oriental Daily Newspaper, 2010). In 2008, the HA started an Occupational Medicine (OM) team to look after injuries to on-duty employees. This team was to gradually develop and launch the workplace health promotion activities in order to look after the HA's employees, not only in relation to on-duty injury but also their wellness in a positive approach (Kwok, 2011). The trend of the sick leave showed that 4.6 days per FTE in 2001 increased to 7.8 days per FTE in 2007. In addition, 58.3% of staff had less than 5 days' sick leave. Total working days lost in 2007 were more than 400,000. It added to the burden of presenteeism when the absenteeism and employees' disability was bigger than presenteeism (Kwok, 2011). Although the HKHA attempted through the presenteeism approach, which is a positive approach, to build up a Quality of Work Life (QWL), their efforts echoed what Krueger et al. stressed on the part of the OHS and employee retention strategies (Krueger, Brazile, Lohfeld, Edward, Lewis and Tjam, 2002) and coherence with Julliard et al. to discover the definition of health among the health care workers as previously mentioned (Julliard, Klimenko and Jacob, 2006).

Up to March 2011 the HA implemented employees' health with certain barriers due to employee medical issues seen in staff or family clinics, under-reported cases, and sick leave data not routinely recorded (Kwok, 2011). Another source of stress for HK nurses is dealing with patient deaths, as the Chinese culture tries to avoid open emotions or discussion of their feelings related to death with people outside the family. Because of this lack of verbal expression or suppression of internal feelings, transfer to somatic complaints is well documented (Cheung, 1995; Conway, 2011). Nurses have limited channels to express and ventilate their stress and frustration while looking after the dying patient and family because they are not trained to deal with their feelings as a part of their patient-oriented nursing practice (Conway, 2011; Yam, 2000).

Attitude to work is one of the factors adding to the work-related stress of HK nurses, as traditional nursing practice focused on task-oriented rather than patient-oriented care. Traditionally, nurses were trained in the hospital to focus primarily on the task. Reforming hospital practice with limited resources to support the change would load the stress in the local nursing practice (Yam and Rossiter, 2000). Shiu (1998) mentioned that public health nurses face significant occupational stress and work and family conflicts due to the difficulties of dealing with the high demands of work and family commitments. Shiu's (1998) study was corroborated by Chia et al. (2008).

In addition, the Severe Acute Respiratory Syndrome Expert Committee (SARSEC) (2004, pp. 136) stated that "the OHS for health care workers are not well developed. They are generally focused on OS and do not offer a comprehensive package of services that address both prevention and care and psychological health of staff". The HA Chief Executive's Progress Report (The Hong Kong Hospital Authority, 2008) stated that building a people-first culture is crucial. Since 2007 an OS&H Strategy and Planning Manager has been on staff. The OS&H programs and policies have been conducted with a view to developing an HA OS&H strategy document for 2008–2011. In the meantime, the priority has been staff working in high-risk areas. Workplace violence prevention and staff psychological care are emphasized in this document.

The OHSP is a key person who co-ordinates OH&S in a workplace. The success of an OHS is also influenced by the OHSP and other factors, including for example, the resources available, employers' commitment, providers' attitude and the level of employees' participation. The OHSP plays an important role in influencing the effectiveness of OHS practice in the workplace and together with the support of senior staff and workers' understanding and acceptance of OHS culture are keys to the OHS outcome. However, the OHSP and external factors are interrelated with each other. Based on these concepts, one can investigate the effectiveness and benefit of OHSPs in the health service sector.

1.7 Aim

The primary aim of this study is to explore workplace health and safety for nurses in Hong Kong Hospitals.

1.8 Research Question

How are Occupational Health Services in Hong Kong hospitals ensuring a healthy and safe working environment for nurses?

1.9 Significance of the Problem and Justification for the Research

Society is generally aware that OH&S is essential to prevent work-related disease and injury. The nursing role is extending from bedside practice to various roles and workplaces in the community. OHSPs play an important role in motivating, educating and advocating for nurses and other workers regarding safety in their workplaces. Furthermore, OH&S issues are regulated by law and every employer and employee has responsibility for safety at work. For these reasons, it is important to explore, for the first time in Hong Kong, how OH services are meeting the needs of nurses, particularly in hospitals, where this professional group is the largest sector of the hospital workforce. There is some international literature on nurses' views of their roles in multidisciplinary and special teams (Heikkinen et al. 2007, Gibb. et al. 2010, Rogers, et al. 2014) however, it is important that Hong Kong nurses' views are explored.

This is the first study of workplace safety of nurses in HK hospitals. This research will include a review of OS&H legislation in Hong Kong (HK), a description of hospital OHS policies and practices, the range of OHS offered and types of OH problems encountered; the use of such services, and the opinions of employees of OHS provision. The findings of this research may inform OHS practice on nurses' workplaces in HK hospitals for the first time.

1.10 Framework of the Study

Florence Nightingale said "the first requirement of a hospital is that it does no harm to the people who come to it" (Finlay, 2006; Lewis, 2014). Based on this important historical statement a review of existing international hospital OH&S concerns was carried out. After reviewing the related literature and reports,

the researcher was able to draw an aggregated OHS statement: Every worker has a right to a healthy and safe workplace as per international standards from United Nations (UN) (1978), World Health Organization (WHO) (1995), The International Labour Organization (ILO) (2006), The Australian Council of Trade Unions (ACTU) Congress (Johnstone, 2004; Ross, 1986). This principle is reinforced on Occupational Safety and Health Objectives of Healthy People 2010's agenda (Olszewski, Parks and Chikotas, 2007).

The employees' "right to know" is basic to the development of a preventive strategy which recognizes the fundamental right of every worker to a safe and healthy working environment. There is a principle not to promote confrontation between unions and employers but employers have to recognize that the provision of adequate information to workers and their representatives is a prerequisite to the making of informed decisions (The Hong Kong Special Region Government, 2005). Rundmo and Hale (2003) stressed that the success of an OHS required clear ownership and identification of the key drivers of the program.

Maslow's (1954) Hierarchy Theory is anchored in this study. According to the Maslow's Hierarchy pyramid (Figure 1.1), further needs cannot be fulfilled if the lower needs are not satisfied and the needs are interdependent. The framework of Maslow's Hierarchy Theory underpins the study at all levels. First at level one where physiological needs must be met for healthy functioning; air, shelter, water, food, sleep and sex. At level two a person's physical health needs are followed by their safety needs such as personal and other types of safety and security. Level three needs are next such as family and friends, interrelationships, the sense of belongingness, for example being part of a healthy and safe organizational culture. At level four are needs for an associated sense of individual's esteem, rights and respect for a healthy and safe working environment and level five is self-actualization, nurses can be everything they want to be as far as ownership of their healthy and safe workplace. An OHS program cannot be sustained if a consumer is without ownership, in accordance with the motivation by the Maslow's Hierarchy Theory.

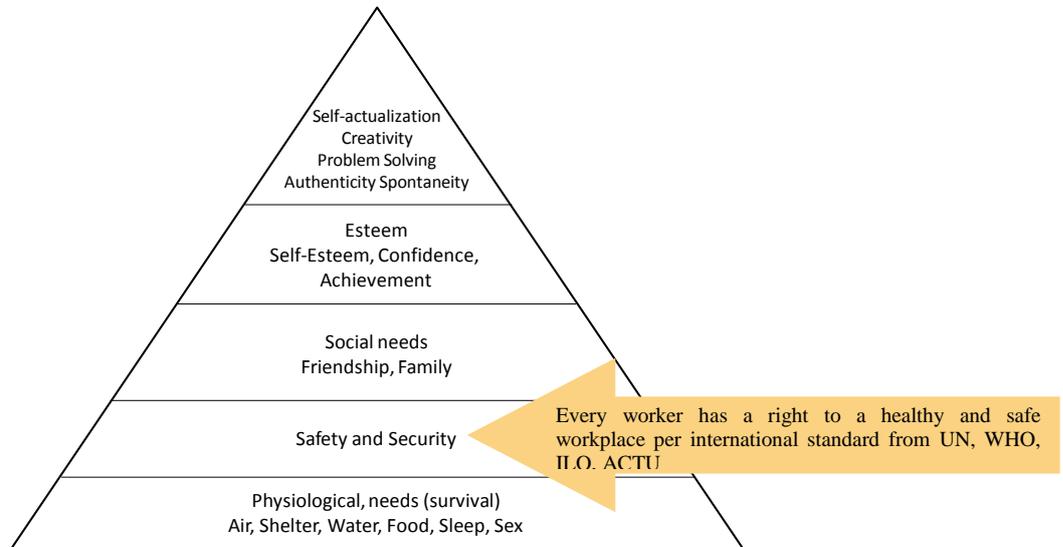


Figure 1.1 Maslow's Hierarchy Theory (Source: Maslow, 1954)

Based on this theory and aforementioned employees' right to know and right to safety, the researcher formulated a framework based on Maslow's theory as shown below (see Figure 1.2), in order to review the experience of HK nurses in existing OHS practice in hospitals. Here the right to know and the right to safety frame all the identified human needs and OHS ownership is the core.

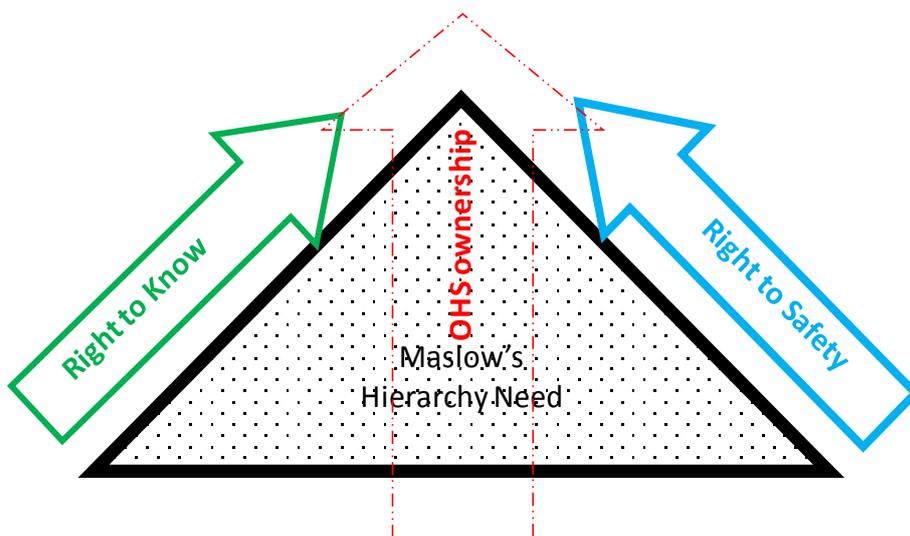


Figure 1.2 Study Framework

1.11 Development of Thesis

This chapter has provided the background to the study and an overview of Occupational Safety and Health (OS&H) development in Hong Kong (HK), to establish the function and value of OHS. OS&H concerns in HK hospital settings have been described after reviewing the record of Western countries. The research aim, question and significance of the study are outlined. In Chapter Two the literature relating to the background of OHS global development will be critiqued. World Health Organization's (WHO) Policy development, global OHS development, OHS development in HK hospitals and role of nursing in OH&S will be outlined. In Chapter Three the research design is described including design decisions made throughout the study. The rationale for using a mixed method approach is explained. Project management of each phase including ethical considerations, recruitment, instrument design, data collection and analysis, are set out. Details of the study in each phase and their results are provided in Chapter Four. An integrative discussion of the findings is presented in Chapter Five, and in Chapter Six, the thesis concludes, providing a summary of the key findings and recommendations for translation to policy, practice, education and research.

1.12 Conclusion

In conclusion, the researcher explored the existing HK OHS practice, which was enacted by the OS & HO in 1997. The OSH related legislation was reviewed and amended after major disasters. Hospitals increased their OHS awareness following the report from the SARS Expert Committee in 2004. A decade after the SARS Expert Committee's recommendation, HK hospitals should have clear and solid OHS practice. In the following chapter, the literature will be critiqued exploring OHS practice globally and how OHSs are meeting the needs of nurses in hospitals.

CHAPTER TWO

Literature Review

2.1 Introduction

In Western countries, the OHS concept has been used in practice for more than six decades. World Health Organization (WHO) provided the original blueprint as a direction for countries wishing to follow the related guidelines (World Health Organization, 1948). The genesis of the OHS definition dates back to 1950, when the International Labour Organization (ILO) and WHO announced the OHS definition. The ILO Convention No 161 defines OHS as “as services entrusted with essentially preventive functions and responsible for advising the employer, the workers and their representatives in undertaking on the requirements for establishing and maintaining a safe and healthy work environment which will facilitate optimal physical and mental health in relation to work and the adoption of work to the capabilities of workers in the light of their state of physical and mental health. Based on the original definition of OHS, different countries created their own definitions that closely reflected their practices and needs, as well as the philosophies and principles of their communities and workplaces.

The definition was amended by the Joint International Labour Organization (ILO)/WHO Committee to include: protection of employees, the prevention of disease and injury and protection, clear objectives to protect employees’ health and maintain their working capacity and emphasized the involvement of management and employees’ participation (World Health Organization, 1995c). However, various OHS model applications have emerged since based on local cultures and needs as well as various factors affecting the objectives of OHS. Based on the background and history, each country may have unique OHS practices and associated beliefs. However, allowing for specific local influences, mutual understanding between employer and the OHS ‘service provider’ is the key to success. The practical implementation of OHS principles must be provision of a healthy working environment for the employee, prevention of occupational disease and injury and protection of employee health. The OHS practical

direction and its success are thus dependent on the policy and agenda employed in practice. In Hong Kong, OHS has been in place for eighteen years it is important to study hospitals' OHS for nurses.

2.2 Search Strategy

A comprehensive and systematic search of the literature was undertaken and the following inclusion criteria was established; the evidence searched

- was published in English
- was published in 1946 – 2014
- addressed factors influencing the effectiveness of OHS services in hospitals from the perspective of nurses
- involved participants that were nurses

The search was conducted using Ovid MEDLINE (1966-2014), CINAHL plus and Google Scholar using the agreed key words. The search key words were: OH, OH&S nurses, nurses' engagement, OHS, hospital. The terms quality and evaluation were used later to refine the search. Criteria of accepted terms to be used for the review were guided by Polit and Beck's (2012) method of critiquing. See Table 2.1 for a summary of the Literature search. Google Scholar result was > 2.5- 5.4 million for each category. Although individual keywords yielded large numbers of papers, this was not the case when 'aggregated' indicating that only one study was undertaken involving nurses, a study by Chew and Yu in Hong Kong 1987, of the millions of studies of OH&S in hospitals and workshops locally (HK) and internationally. A hand search of OHS journals was carried out for recently published studies that have not been released in the electronic databases. None were found. In addition, the researcher attended various OH&S conferences, seminars in order to keep abreast of the most updated OHS practice and concepts and track relevant grey literature for reports, unpublished dissertations, studies, discussion papers, meeting minutes, booklets, policies and guidelines.

Ten articles related to HK, and a further 400 were retrieved between 1946 and 2014 and included the principles of OHS, OHS development, OHS value, overview of various OHS in different countries, cost-effective measurement in OHS practice, factors influencing the effectiveness in OHS practice and legal

systems and national legislation. This was further reduced down to 108, plus reports, after quality appraisal using the Critical Appraisal Skills Programme (CASP) system (2017). This system enables the researcher to have an evidence base to reach their own judgment on the quality of the study.

The researcher noted, different regions/countries for example Europe and United States (US), have direct terms of OHS in their official documents. The terms of OHS, OSH and OS&H are more commonly used in HK and will be used throughout this thesis. The related literature and reports were critically analyzed and addressed in chronological order by title, then abstract, or full report.

Item	Key Word search	Ovid MEDLINE	CINAHL plus
1	Occupational Health Service	436	256
2	Hospital	870,688	195,670
3	Occupational Health	43,724	32,102
4	Occupational Health & Safety	8,457	8,845
5	Nurse	136,378	166,363
	All	1	0

Table 2.1 Summary Result of Information Search

2.3 Background to the Occupational Health Service Global Movement

In 1942, during World War II, the National Health and Medical Research Council (NHMRC) was founded in the US. The Council, in association with the Medical Research School, established a Committee on Industrial Hygiene in Munitions Establishments to provide advice on OH issues. Since then, it has become the Occupational Health Standard Committee, comprised of professionals with a mandate to set safety guidelines and protocols for the various industries and institutions in order to

provide a reference for safe practice in each sector. A few larger organizations in private enterprise provide OHS as described in the guidelines from the committee.

OHS has been in existence since 1948 although as previously stated there have been numerous changes since its conception and implementation over the years. The WHO is the leading organization advocating better health conditions in work and living environments. In addition, also in 1948 the WHO set up working guidelines for countries to follow in order to achieve the health work practices, in line with the WHO's mission. The Joint International Labour Office (ILO)/ WHO Committee on OH started even before OH was defined in 1948 (World Health Organization, 1948). Before the start of the collaboration between ILO and WHO, most of the work in this field focused primarily on OS&H (International Labour Organization, 1981; International Labour Organization, 1985a, pp. 95, 1985b; United Nations, 1978).

Gradually the importance of OH was recognized and in the need for a global approach highlighted. For example, the Alma-Ata Declaration in 1978 recommended OS&H not only in the hospital setting but all work environments. In this declaration, OS&H moved from being solely the provider's responsibility to that of all employees (United Nations, 1978). Following that resolution, the OS&H national policy was passed at the 67th ILO session in 1981, highlighting that in order to prevent accident and injury in the workplace, the emphasis must be on improving safety rather than health, which was reflected in the change in the term to OS&H from OH&S (International Labour Organization, 1981).

A significant breakthrough was achieved during the ILO Convention 161, where the importance of OHS was reiterated, and the OHS approach approved. In this convention, employers in Member States were encouraged to establish OHS for all workers. Related services included occupational hygiene, ergonomics, first aid, emergency health services, vocational rehabilitation, worker health advice and health promotion, surveillance of hazardous situations and worker health. This convention resulted in the confirmation of the OHS content and uniform acceptance of the term OHS, which has been in use ever since (International Labour Organization, 1985b). Subsequently, the Ottawa Charter emphasized the need to create and support a healthy working environment. This health promotion concept is similar to the

previous Primary Health Care (PHC) approach. Encouraging people to increase their ability to control and improve their health at work was the focus of this initiative (Ottawa Charter for Health Promotion, 1986).

Currently, there are more than 60 WHO collaborating centers all over the world and a clear statement of OH has been agreed by members. It emphasizes health and safety accident prevention, including psychosocial stress (World Health Organization, 1994). To encourage the collaborating centers to adopt effective OHS approaches, a Work Health Activity (WHA) was drafted in 1996 in Beijing in order to promote “Occupational Health for All.” The key message of this draft was that workplace health hazards must be reduced in order to influence worker health. (World Health Organization, 1995a). During the period 1997 - 2007, fine-tuning workplace OHS remained the key concern; however, a holistic approach in OH was finally agreed upon in 2006. The focus was on OH&S disease prevention, health promotion and tackling social factors related to workers’ health. As a result, communities and workers’ families were finally included in the initiative (World Health Organization, 2006).

The current approach to OH dates back to 2007, and includes the Global Plan of Action on Workers Health, reinforced in the 1995 Global Strategy on OH for All (International Labor Organization & World Health Organization, 1995a). Although the OHS approach has been revisited from time to time, it needs more regular updates, given that workplaces and people are changing, due to changing community needs and social values and norms. However, OH activity remains included not only in health protection but also in health promotion by WHO Collaborating Centers in OH (Burton, 2010).

2.3.1 What is an Occupational Health Service?

Guidotti et al. (2013) suggested that the function of OHS is provision of ameliorative and preventive measures for employees. Whilst ameliorative initiatives are intended to cure disease and manage existing problems, preventive measures are required to avoid exposure to potential risks that can affect individual health and wellbeing. Thus the goal is to identify the origins of hazards, detect disorders at an early and potentially curable stage, and to limit disability. The OHS approach should deal with all risk factors at work, include the whole working population, and provide an equitable approach to the health and well-

being of all employees. To achieve this goal, a clear policy is needed in order to strengthen the enforcement of OS&H regulations, provide health insurance for all, develop attitudes on inclusive development and a harmonious society, and achieve multi-sectoral cooperation (Fu, 2010).

Since the role of OHS should ideally be preventive, the provision of advice on occupational, environmental, and product hazard control, investigation of the causes of occupational impairment of health, health promotion, treatment of work-related illness and injury, counselling, rehabilitation, and the organization of a first aid service are key measures to be carried out at the work-site (AAOHN, 2004, 2010; Guidotti et al., 2013).

Thus, OHS should include a number of services: general first aid on site, identifying factors influencing health and well-being, controlling hazards in the occupational environment, educating and counselling workers, involving workers in discussion of health hazards, and monitoring the occupational environment and the health of workers as required by circumstances (Guidotti et al., 2013; Northern Ireland Department Health, 2004).

Given these aims and functions, OHS, if implemented correctly, can bring benefits to both employers and employees. For example, promoting well-being by reducing the number of injuries and reducing absences due to sickness. Sound management of worker shortage and labor turnover benefit the employer by reducing expenses and improving productivity, whilst at the same time boosting worker morale, improving their earning potential as well as job satisfaction (Guidotti et al., 2013; Northern Ireland Department of Health, 2004).

2.3.2 Occupational Health Service Models

According to Rossi, Heinonen, and Heikkinen (2000), although there have been considerable changes to OHS content; it is the service provider's attitude that plays the crucial role in ensuring the success of the OHS implementation. As indicated in Figure 2.1 (World Health Organization, 1999, pp. 63), OH is complex due to the different stakeholder backgrounds, and various aspects of their needs and interests (World Health Organization, 1999). Interactions amongst service providers, employers and employees, as

well as relationships in the workplace, OHS institution, enterprise and government, are illustrated by the arrow heads. Thus, identifying the consumer needs and demands in OH is the key to the success of the program. Ideally, a service provider would be given an appropriate OHS model that is easy to follow and allow evaluation of service effectiveness.

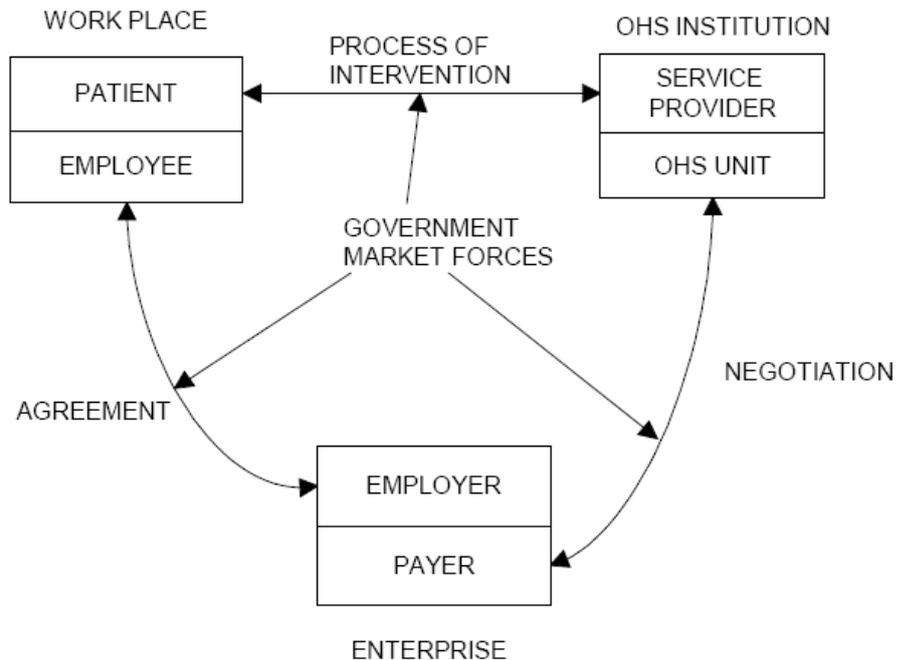


Figure 2.1 Participants in OHS and a Schematic Overview of their Interaction (Source: World Health Organization, 1999, p63)

In practice, various OHS models are in place in different countries. Indeed, in many countries, no set model for all service providers exists even at a national level, as OHS practice principles are tailor-made for local practices in order to fit the user (Guidotti et al., 2013; World Health Organization, 1999). For example, the United Kingdom Department of Health recommends three different approaches to OHS – the Chambers Model, The Verow/Sandwell Model, and The Woodroof/Longdon Model (United Kingdom Department of Health, 2001). Each model has a unique character and the choice depends on the service provider and the needs of the institution implementing OHS. For example, the Chambers Model is practice-oriented (World Health Organization, 1999), with emphasis on an independent, pro-active and

reactive approach to the OHS. Within this model, the OHS resources would include access to OH physicians and nurses to set the guidelines and provided practical support, independent psychologist support for the service, a referral system and an educationalist in charge of organizing health and safety guidance sessions and related pro-active work (World Health Organization, 1999). The Verow/Sandwell Model is a non-medical hub style self-help group including support for substance abuse, mental health and physical health needs in one centre (The Guardian, 2014).

In contrast, the Wood/Longdon Model relies on networking relationships and practical interactions amongst the stakeholders in the service (United Kingdom Department of Health, 2001). It advocates independent, relevant, competent, confidential, and respectful treatment of the consumer, whilst providing service cover that includes pre-employment health screens, immunisation policies, sickness absence advice and rehabilitation/ill health retirements, needle-stick advice, counselling/mentoring, audit, research, governance, training, and education (United Kingdom Department of Health, 2001). Telephone advice or internet support in order to provide follow-up or updated news to the consumer is also available (United Kingdom Department of Health, 2001).

Since various industries have different approaches and OHS needs, this may present a barrier when attempting to assess and compare different OHS implementations. According to the OH&S, safety and health issues in the occupation should be the key priorities, addressed through a balanced approach (Guidotti et al., 2013; Hulshof, Verbeek, van Dijk, van der Weide and Braam, 1999). However, the review of numerous articles and documents suggests that most companies focus on Occupational Safety rather than Health. In the commercial sector, Miller Health Corporate Health Solutions suggested that OH and OS should have different approaches, due to their different foci. However, traditional practice and past experience recognizes that OS mainly focuses on treating existing dysfunctions and injuries (Miller, 2010).

In contrast, the aim of the OHS is improving working lives and providing more flexible, supportive and family-friendly working arrangements for the employee (Burton, 2010; Harrison & Harrison, 2002).

Thus, OHS should be based on a primary health care approach in order to prevent health impacts, which is echoed in Miller’s mission (Miller, 2010). Toshiaki (2006) studied the Government regulations, methods of providing the OHS and the experiences of other countries in implementing the OHS. OHS should be based on the psychological approach, such as crisis management and prevention of overwork (Toshiaki, 2006).

A pilot study conducted by Frost (2005) on the OH Model in the construction industry in England, identified entry health checks, risk control, on-going health checks, and back-to-work as the four key processes in a successful OHS model. Finally, the WHO (1999) recommended a review of the different expectations and roles of various stakeholders during the OHS process using structure, process, and outcome method, as shown in Table 2.2. The content echoes Harrison and Harrison’s (2002) observation that obtaining the support of stakeholders at all levels in practice is the most challenging factor in implementing OHS in the workplace.

Stakeholder	Structure	Process	Outcome
OHS professionals	–Premises –Equipment –Staff	–Professional performance	–Clinical data –Morbidity –Mortality
Employee	–Accessibility –Continuity –Acceptability	–Communication –Information	–Quality of life –Satisfaction
Management of OHS	–Efficiency –Safety	–Referrals –Prescriptions –Tests	–Costs –Complaints –Incidents
Company/ enterprise management	–Cost-benefit –Validity for reimbursement or lower insurance premium	–Adaptability –Flexibility –Speed	–Good working environment and culture –Increase in productivity and quality –Reduced personnel costs related to ill health –Conforming to legal requirements
Societal stakeholders	–Cost–benefit –Coverage –Legislation	–Evidence- or evaluation-based judgements	–Effectiveness –Working culture conducive to health and safety

Table 2.2 Different Aspects of Structure, Process and Outcome of OHS (Source: World Health Organization, 1999, p67)

In 1999, the World Health Organization advised that OHS practices should follow the model outlined in

Table 2.3.

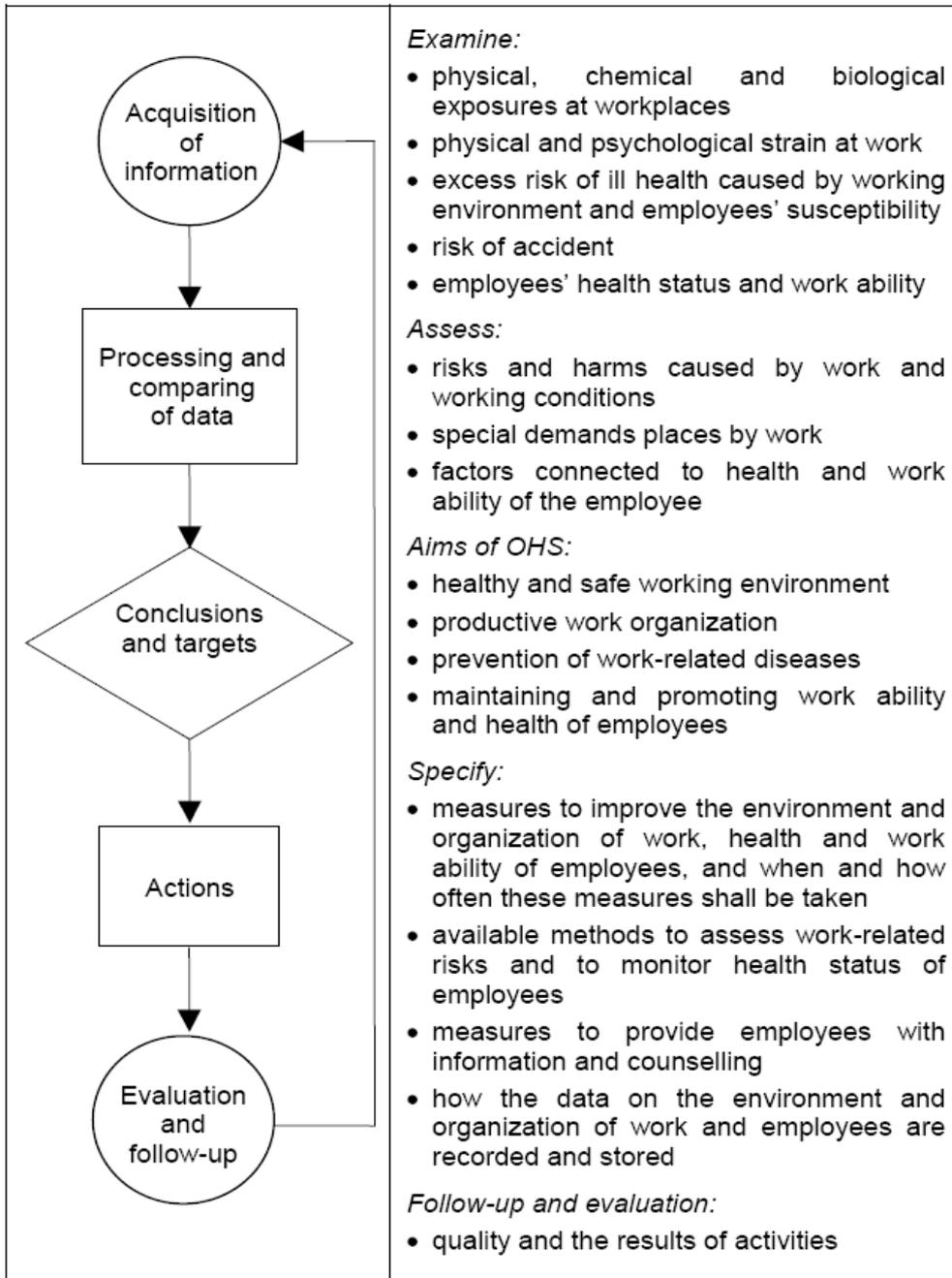


Table 2.3 World Health Organization OHS Practices Model (Source: World Health Organization, 1999, p66)

The suggested model is shown in the left column and the corresponding tasks of the OHS according to legislation are shown in the right. Harrison and Harrison (2002) suggested that any OHS model should include pre-employment and sickness absence checks. The success of this model depends on service accessibility and availability to the consumer (Guidotti et al., 2013).

The choice of OHS model reflects the direction and beliefs of an organization regarding OHS practice and should ideally reflect the needs of the organization. For example, Tobias, Burnes-Line and Pellarin (2008) conducted a study in their institution of the existing OHS. The authors reviewed the multidisciplinary team approach that included legal, administrative, risk management, workers' compensation, human resources, and nursing departments. All OHS-related reports and documents were reviewed. Based on the findings, the authors recommended changing the existing practices by adopting a multidisciplinary care delivery model, minimizing outside referrals, and involving a third-party administrative representative. Moreover, the Return To Work (RTW) program should be reinforced. During the change process, Tobias et al. proposed a strategy with five phases to be implemented within two years: implementation and development of the model, prevention and environmental safety, environmental engineering controls, program advancement, and outcome monitoring/tracking. Based on these recommendations, the organization's OHS model was changed, yielding a significant reduction in worker's compensation claims (Tobias et al., 2008).

2.4 World Health Organization's Policy Development

International Labour Organization (ILO) Convention 161 remains the OHS master document, more than six decades since its origination. This document also serves as a reference for legislative work (International Labour Organization, 1985a). Thus, suggestions for implementing OHS cover the following key points, as suggested in ILO (1985a):-

Part I: Principles of National Policy

Part II: Functions

Part III: Organization

Part IV: Condition of Operation

Part V: General Provisions

To re-cap the ILO Convention 161, the keys to OHS success are in following local laws or regulations, adopting a multi-disciplinary approach rather than isolated practices; making sure that employers and employees have the responsibility to report any health or safety concern related to work; and ensuring that environmental health, hygiene and safety are provided and maintained. Monitoring employee health using surveillance, promotion and evaluation processes is also recognized as a successful OHS measure (International Labour Organization, 1985a).

More than a decade after the announcement of ILO Convention 161, Dr. Fedotov, Coordinator of Occupational and Environmental Health, ILO Program on Safety and Health at Work and the Environment, concluded that occupational accidents and diseases still remained frequent, despite the preventive aspects if OHS emphasized by the ILO (Fedotov, 1995). In 2006, Dr. Fedotov suggested adopting the Promotional Framework for Occupational Safety and Health Convention (International Labour Organization, 2006). In what became Convention No 187, the emphasis was on endorsing and developing OHS by the highest government authorities with clear objectives, targets and indicators (International Labour Organization, 2006). It was envisaged that the OHS should play a preventive role, such as acting as a Primary Health Care (PHC) approach to OHS practice. In this approach, OHS activity should expand to adopt ILO Convention No 161, and comprehensive national policies should incorporate society in the PHC approach (Fedotov, 1995).

During the conference entitled “Health, Work and Well-being,” held in Hong Kong on 5 Nov 2010, the researcher discussed with Marilyn Fingerhurt, a coordinator from the WHO Network of Collaborating Centers in OS&H, the difference between OH and Workplace Health, as well as the OHS guidelines provided by the WHO. Ms. Fingerhurt replied as follows: OH is the same as workplace health in terms of OH and is part of the OS&H practice. In regard to the service guideline for HK, OHS has no guideline but is able to follow the Basic Occupational Health Service (BOHS) declaration in Mainland China in 1998. It basically includes prevention, risk stress and chemical assessment (Fingerhurt, 2010).

The key focus of the OHS was clearly different from that of the previous versions. In 1995, the amended OHS definition focused on the maintenance and promotion of workers' health and working capability. However, the current emphasis has shifted towards improving the working environment and developing the work organization and working cultures in order to encourage positive support of OHS implementation. Thus, as a result of various modifications, the OHS definition has been broadened. The initial concept of worker health protection and occupational disease prevention has expanded to include protection and promotion of health and ability to work for all employees (Baranski and Dam 1999; Guidotti et al., 2013).

Despite many attempts to define OHS, in 2015, it remains a debatable subject. For example, according to the review of various OHS definitions, conducted by Takashi et al. (2002), No 161 defines OHS from International Labour Organization (1985a,b) as cited by Takashi et al. (2002). The OHS definition remains unclear and a universally accepted definition is yet to be given. However, observers indicated that the OHS definition must include legal rights to access to the services. In 2010, Burton provided a definition of and direction for OHS, which refers to primary, secondary, and tertiary health prevention and promotion. In addition, the author stipulates that the employer and employee are responsible for establishing and maintaining a safe and healthy working environment, in order to enhance the physical and mental health and safety of all employees whilst at work (Burton, 2010). Furthermore, employees are given the right to expect a working environment that ensures and promotes physical and mental wellbeing. Finally, OHS should follow a medical model, involving doctors, nurses and health professionals, ergonomists, hygienists, and safety professionals in the creation of policies and procedures (Burton, 2010).

In 1985 the ILO provided a definition of OHS which most has been the cited (International Labour Organization, 1985a, 1985b). Based on this view, various countries have created their own definitions and specific approaches to OHS implementation to meet their own needs. According to the WHO (World Health Organization, 2001a) OH is a multidisciplinary activity aimed at four areas:-

- i. The protection and promotion of workers' health;

- ii. The development and promotion of health and safety in the workplace;
- iii. The enhancement of the physical, social, and economic well-being of all workers;
- iv. Enabling workers to conduct socially and economically productive lives.

This definition provides a clearer focus than the definition published by WHO in 1995, (World Health Organization Collaborating Centers in Occupational Health, 1995). The 1995 document recommended that OHS should be primarily concerned with service coverage, localization, affordability, and availability to the worker. However, Snashall suggested that the OHS should also include rehabilitation and recovery programs (Snashall, 2002).

More recent information comes from work by Pingle (2009) who states that OHS should aim to protect workers in the workplace, promote workplace health and well-being, and prevent occupational diseases and accidents. This concept is started since the “Alma Ata” declaration states that OHS should achieve, “Health for all by year 2000 through the primary health care approach” (World Health Organization, 1978).

Marcelisseni and Weel (2002) proposed that OHS should not only support employers in the working policy but also provide clear guidance for employees absent from work. Moreover, Kopias suggested that the OHS should adopt a multidisciplinary approach, which focuses on workers’ health surveillance, prevention of all occupational risks, and offers assistance to workers to adapt to the working environment, and establish and maintain a safe and healthy working environment (2001).

As an example of how different countries approach OHS, Malaysia defines OHS as a service provided by the employer for the well-being of the employee in the workplace in order to achieve physical and mental health while at work. She is using a multi-disciplinary approach in providing the service (Department of Occupational Safety and Health Ministry of Human Resources Malaysia, 2005). In PR China, OHS covers the recognition, evaluation, and control of work-related diseases in order to achieve the WHO global goal of “OH for All” in a holistic approach (Liang and Xiang, 2004). Similarly, in HK, OHS has the mission, “to prevent and control health hazards at the workplace and minimize the incidence of

occupational diseases” (The Hong Kong Labour Department, 1998), which is similar to the National Institute of Environmental Health Sciences description (National Institute of Environmental Health Sciences, 2010). They both focus on the identification and control of risks in the workplace in order to provide a healthy working environment for employee.

Based on the review of the pertinent literature and documents related to the definition of OHS, the prevalent view is that this service is aimed at promotion and prevention at three levels: primary, secondary and tertiary, within a health approach. As previously mentioned, although WHO and ILO have no set OHS policies for national practice, many countries have set their own policies and guidelines based on their needs and resources.

2.4.1 Development of OHS

According to several sources (Guzik, Menzel, Fitzpatrick, & McNulty, 2009; Kinnunen, Manninen, and Taattola, 2009), the aim of OHS is the prevention and management of occupational and environmental injuries, illnesses and disabilities in order to promote employee health. Franco et al. (2002) highlight physical environment hazards, organizational hazards, and social environmental hazards as key concerns in the health care setting. Furthermore, musculoskeletal load, biological agents, chemicals, stress, and shift work are significant workplace hazards in the health care setting and should be an integral part of OHS (Franco et al., 2002). Eijkemans (2007) and Pingle (2009) stress that OHS as a part of Primary Health Care, must be accessible, affordable, available, and accountable to the consumer. Moreover, accurate diagnosis and reporting of occupational diseases and collaboration amongst government, employers, employees and non-governmental organizations are essential requirements to implement a basic OHS (Pingle, 2009). According to Rantanen (2007), OHS has various levels of requirements for participation in the related activities, as shown in Figure 2.2.

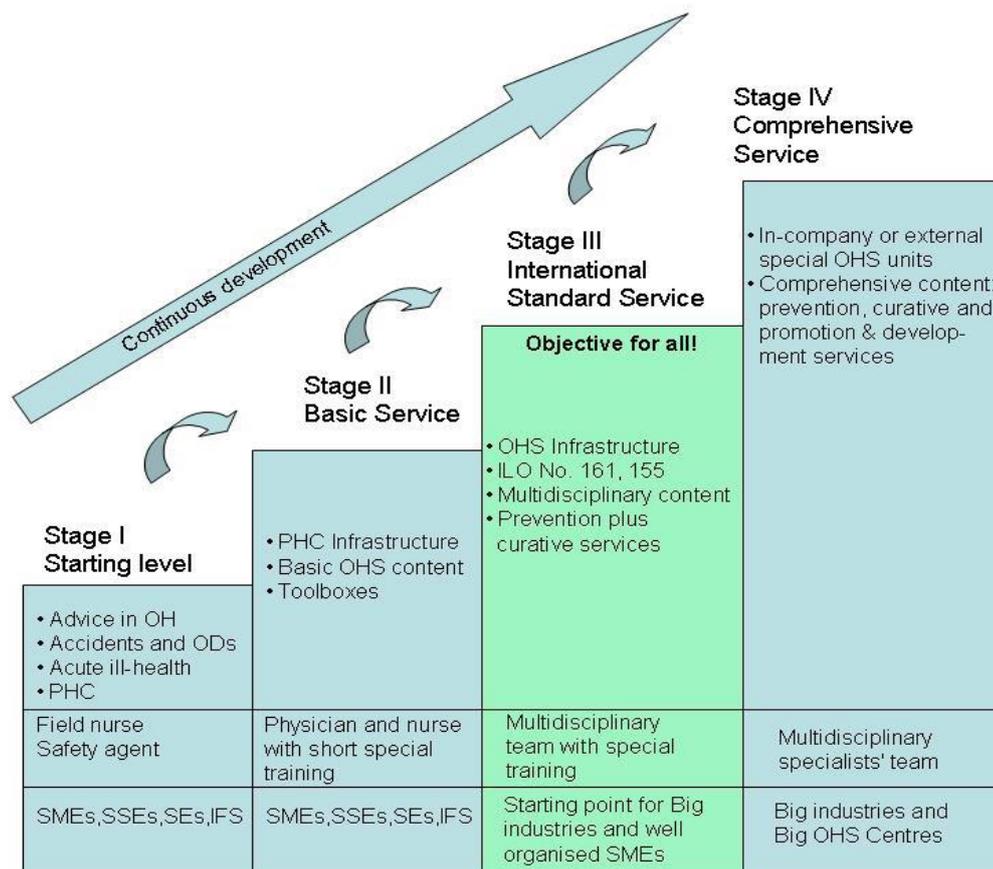


Figure 2.2 Stepwise Development of OHS (Rantanen, 2007)

ODs = Occupational Diseases, PHC = Primary Health Care, OHS = Occupational Health Services, SME = Small and Medium-sized Workplace, SSE = Small Enterprise, SE = Self-employed, IFS = Informal Sector

As Figure 2.2 shows, different OHS stages reflect professional participation and create differences in the workplace, based on the company size and its needs. For example, Stage I (starting level) is applied to small and medium-sized workplaces, and provides the OHS content with advice on OH, accidents and occupational diseases, as well as PHC and acute ill-health advice. A field nurse and safety agent are the service providers in this case.

Similarly, Stage IV refers to the comprehensive service provided by industries with more than 2000 employees and large OHS centers, which should aim to include physicians, nurses, physical therapy, and

adequate health support. Service providers are involved through multidisciplinary specialist teams, offering services that include prevention, curative measures, and health promotion and development.

OHS have list of clear tasks as below. It is a team approach, which includes the OHN and Physician in Finland (International Labor Organization, 2000).

- 1) Assessment of risks at work;
- 2) Investigation, assessment, and monitoring of work-related health risks and problems, employees' health, work ability and functional capacity;
- 3) Surveillance of the factors and suggesting measures to improve health and safety in the workplace;
- 4) Providing information, advice, and guidance on matters concerning health and safety in the workplace and the health of the employees;
- 5) Monitoring and supporting the ability of disabled employees to cope at work, considering the specific health requirements of these employees;
- 6) Cooperating with representatives of other health services, labour authorities, and educational authorities;
- 7) Organization of first aid readiness;
- 8) Assisting in the planning and organization of measures to maintain and promote work ability as a part of OH care;
- 9) Assessment and monitoring of the quality and impact of the OHS.

Leino, Lambeg and Husman's (2007) advice on the OHS tasks is consistent with Occupational Medicine (1998), with the exception of point 7. In general, Occupational Medicine (1998) stresses that the OHS

should focus on developing occupational policies, monitoring the health of employees, health assessment on recruitment, staff education, health promotion in the workplace, and working with relevant professionals. In addition, the suggestion is that, in order to have better OHS, the employer should ensure that employees have access to a competent OHS provider trained in providing service. Furthermore, a written protocol for the service provider is required. The size of the OHS team should be based on the number of units or types of work, rather than solely on the number of employees. Moreover, continued discussion between OHSP and OHSC representatives is crucial for the success of the service. Michalak (2002) stressed that the OHS should undertake medical and non-medical activities in order to protect the employees' health at work. His view was echoed by Rantanen (2007), who proposed an OHS approach which could be reviewed by the framework of the model.

2.5 Global OHS Development

Various legislative instruments and regulations govern OHS in different countries. For example, Health and Safety at Work Act 1974 the Health and Safety Act 2008 (UK), the Health and Safety at Work Order 1978 (North Ireland), Occupational Safety and Health Act of 1970 (US), Workplace Act 1996 (Canada) and OHS Act 2004 (Australia) (Goetsch, 2008; Kloss, 2010; Lewis and Thornbory, 2010) can be found in Australia, the UK, the US and Canada, whilst HK has "The Occupational Health & Safety Ordinance (Cap. 509)". However, they all impose general responsibilities on every employer, which are to ensure a reasonable, practical, and safe working environment for employees. After a decade of review of Occupational Health and Safety Services (OHSS) practice in various countries, including the UK, the US and Central Eastern Europe (CEE) (Hulshof et al., 1999; Kujala and Vaisanen 1997; Michalak, 2002a; Pransky et al., 2001), some common issues have been identified by the researcher as below:-

- 1) OHS is different between industries, depending on the company funding. In general, protecting employees' health is the key approach.
- 2) The representation of the OHS is different, as most European countries rely on Occupational Physicians as decision makers. For this reason, these countries use a clinical medicine approach in

OH practice. In particular, in the UK, the integration of OHS may result in general medical quality measurement systems, which is occupational medicine orientated

- 3) In the US and UK, the OHS can provide case management, utilization review, practice guidelines, programs in disability management, worksite health promotion and rehabilitation, hazard identification, and facilitate a return to work following illness or disability. Risk management may be another service provided. However, in UK first aid training and workplace assessment are included in the OHS. Lack of OH staff is a general problem (Hulshof et al., 1999; Kujala and Vaisanen 1997; Michalak, 2002a; Pransky et al., 2001).
- 4) Concerns about litigation and the costs of absence can be eased through OHS.

In some countries for example US and Australia, the OHS is supported by insurance companies or government funding through in-house services. However, in HK, OHS has to bear the cost of the service without any external financial assistance. In the US (Hulshof, 1999; Kujala, 1997; Michalak, 2002a; Pransky, 2001). The OHS provides the following content:-

- 1) Pre-employment and periodic physical examinations;
- 2) Medical surveillance examinations;
- 3) Broad range of immunizations;
- 4) Exposure assessments;
- 5) Drug and alcohol testing;
- 6) Ergonomic evaluations;
- 7) Work-related injury and illness management;
- 8) Regulatory exams;

- 9) On-site services including examinations, immunizations and phlebotomy;
- 10) On-site physician consultation services;
- 11) Wellness programs.

2.5.1 Occupational Health Service Approach

In line with changing and non-uniform OHS definitions, the OHS approach has also undergone changes in order to fit the actual needs. In 1998, the ILO published technical and ethical guidelines for workers' health surveillance (International Labour Organization, 1998), whereby the relevant service provider is given comprehensive instruction on primary, second and tertiary OHS implementation. According to the WHO (1999) guidelines on quality of management in multidisciplinary OHS, the services offered should also provide technical advice and political leadership in order to lead an effective health, environment, and safety management system. In addition, OHS should work towards initiating, developing, implementing, monitoring, and assessing good practice in the promotion of health and wellbeing. It is recognized that the role, structure and functions of OHS related to local legal, financial and organizational issues, directly affect employees' health (Guidotti et al., 2013; Michalak, 2002b).

According to the findings of the final report on employee and workplace health, issued by the British Columbia Community Social Service Sector, absenteeism, sickness and employee turnover are excellent human resource indicators of employee satisfaction and engagement (Health Care Benefit Trust, 2006). Physical, psychological and social work environments are key concerns in the service consumer view (Health Care Benefit Trust, 2006). However, the key to successful OHS is service providers who are independent of the organization/institution (Guidotti et al., 2013; Harrison & Harrison, 2002; United Kingdom Department of Health, 2001), as this ensures fairness, excellence, equity of access, the need for positive health gains and working in partnership (Guidotti et al., 2013; United Kingdom Department of Health, 2001).

Some observers question the benefit of the OHS to enterprises and society when it is focused on risk evaluation and assessment, health surveillance, prevention of accidents and occupational diseases, prevention of sick leave and improvement of work ability. This is in contrast with an alternate approach, focusing on prevention of chemical exposure and noise, rehabilitation issues, safety issues and ergonomic factors, as more successful OHS practices, due to the prevention and promotion attitude rather than the reactive action. Thus, the service provider requires adequate policies, protocols, risk assessment or training records in helping an OHS to succeed (Guidotti et al., 2013; Harrison and Harrison, 2002). This approach is also advocated by Burton (2010), who suggests that the primary goal is prevention of injury and illness at work in the first place. Secondary and tertiary prevention relate to “personal health resources,” which are not available in the community and must be provided by the employer in order to prevent re-injury or the recurrence of an illness when back at work. In other words, employees with chronic diseases or disabilities should be supported or accommodated when returning to work (Burton, 2010).

2.5.2 Occupational Health Service Application

The application of OHS in different countries depends on many factors, including legislation, government resources, and attitudes within the organization. For example, in Germany, an OHS physician-led team provides consumer guidelines on the quality of service expected from OHS. In contrast, the Polish OHS approach is to have clear legal regulations to guide their practice, and the system is established by the Occupational Health Service Act 1997. Thus, according to Michalak (2002), different applications of OHS reflect different models, terminology and concerns with respect to OHS. Another example is given by Tobias et al. (2008), who conducted a study in a medical center and children’s hospital for employees returning to productive work US. They focused on the costs associated with disability, and suggested that the OHS was more focused on a rather aggressively implemented Return-To-Work (RTW) program. Thus, the authors concluded that the Occupational Health Manager (OHM) needed to set up an OHS model to address the RTW policy. The key focus on the model is maximum health outcomes for employees in terms of health surveillance and workers’ compensation, as well as involving all the key

stakeholders – internal and external customers, Occupational Health Nurse (OHN) and OHM (Tobias et al., 2008). Besides the needs of the company or organization, the employees' needs in OHS cannot be ignored if the OHS program is to achieve success. Lie (2002) reported that, although 80% of enterprises in Denmark were satisfied with OHS, the existing OHS practice should be better aligned with the employees' needs. In Denmark, OHS practice relies on doctors and nurses, as well as architects, engineers, ergonomists, and psychologists (Lie, 2002).

An interesting argument is provided by Januskevicius and Telksniene (2002), who had a somewhat different view to Lie, observe that in a Lithuania study OHS for a cohort in that country failed to diagnose ODs due to the lack of OH professionals and specific diagnostic equipment. As a result, occupational diseases and health issues are not reflected in the reported statistics and reports (Januskevicius and Telksniene, 2002). A further study of Lithuania's OHS (Januskevicius and Telksniene, 2002) highlighted the issues related to the structure of the country's economy and industry, which is marked by well-developed food, agricultural, textile and building industries. The most significant occupational disease is thus found in machine operators, who suffer significantly from vibration disease among other ODs (Januskevicius and Telksniene, 2002). In addition, ergonomic services in the workplace are limited as they are not included into the occupational hygienists', occupational medicine physicians' and general practitioners' curricula (Januskevicius and Telksniene, 2002).

Furthermore, in Lithuania occupational skin diseases and allergies are typically under-reported due to limited laboratory diagnostics and the inability of general practitioners to diagnose such conditions (Guidotti et al., 2013). The most significant reason for the under-reported OD issues stems from the fact that the employees are insufficiently informed of the hazards in their working environment (Guidotti et al., 2013). Moreover, some may be concerned that reporting OH issues may result in job loss (Januskevicius and Telksniene, 2002). In the past decade, several globally applicable issues have been identified by the WHO (Guidotti et al., 2013) including, that OH is rarely a health policy priority, there is lack of informed judgment on relevant issues and inconsistent practices by service providers, lack of relevant data collection or support for ODs, occupational related injury, lack of worker participation. All

of these issues serve as a barrier in implementing quality OHS that provides support employees need in the workplace and beyond are noted in Spain (Benach, Muntaner, Benavides and Jodar 2002; Guidotti et al., 2013).

2.5.3 National Legislation Implementation

Different countries and different regions or states often take different approaches to legislation, regulation, and enforcement of health-related measures. The principle of legislation is a way to impose obligations on relevant parties. However, in most countries, the OHS practice has no national legislation to impose the related practice (Chenoweth and Garret, 2006). As a result, not only is related legislation and implementation different in different countries, it is often also interpreted differently at a state or regional level. In the European Union (EU), member states have enforcing authorities to ensure that the basic legal requirements relating to OHS are met. In most EU countries, there is strong cooperation between employer and worker organizations (e.g. Unions) to ensure good OS&H performance, as it is recognized that this benefits both the workers (through maintenance of optimal health) and the enterprise (through improved productivity and quality). Although most countries implement their OHS initiatives, the need for a more uniform approach was recognized. As a result, in 1996, the European Agency for Safety and Health at Work was founded.

Member states of the European Union have all incorporated into their national legislation a series of directives that establish minimum standards on OS&H. These directives (of which there are about 20 on a variety of topics) follow a similar structure, requiring the employer to assess the workplace risks and put in place preventive measures based on a hierarchy of control. This hierarchy starts with elimination of the hazard and ends with personal protective equipment. In addition, OHS covers all employed persons. The only exception applies to organizations that employ less than ten workers, which are given an option to implement the OHS. More specifically, in Finland, the legislation stipulates that all employers and employees are required to commit to the OHS (Kankaanpää, Manninen and Taattola, 2008). In Finland, OHS is classified as part of the PHC and the National Insurance reimburses the costs of the curative

services provided. Based on the reimbursement system in Finland, OHS and PHC system are closely linked (Lie, 2002).

In the UK, under the Health and Safety at Work Act 2008, health and safety legislation is drawn up and enforced by the Health and Safety Executive (HSE) and local authorities (the local councils). Increasingly, in the UK, the regulatory trend is moving away from prescriptive rules, and towards risk assessment. This is exemplified by major changes to the laws governing asbestos and fire safety management which embrace the concept of risk assessment (UK Legislation Department, 1974). In the US, the Occupational Safety and Health Act of 1970 created both the National Institute for Occupational Safety and Health (NIOSH) and the Occupational Safety and Health Administration (OSHA). The OSHA, in the United States Department of Labor, is responsible for developing and enforcing workplace safety and health regulations. On the other hand, the NIOSH, in the Department of Health and Human Services (2001), focuses on research, information, education, and training in occupational safety and health. The OSHA has regulated OS&H in the US since 1971, although regulation of a limited number of specifically-defined industries has been in place for several decades. However, prior to the establishment of the OSHA, broad regulations by individual states were already in place. In Canada, workers are covered by provincial or federal labor codes, depending on the sector in which they work. Workers covered by federal legislation (including those in mining, transportation, and federal employment) are covered by the Canada Labor Code, whereas all other workers are covered by the health and safety legislation of the province in which they work in. The Canadian Centre for Occupational Health and Safety (CCOHS), an agency of the Government of Canada, was created in 1978 by an Act of Parliament. The Act was based on the belief that all Canadians had, "a fundamental right to a healthy and safe working environment" (Boyd, 2006). The framework on which this study is built. The CCOHS is mandated to promote safe and healthy workplaces to help prevent work-related injuries and illnesses.

People's attitudes to OH&S have also changed over the years (Guidotti et al., 2013). This is largely the result of changes in legal requirements and individual awareness of OH&S issues (Cox and Tait, 1998; Cox and Williamson, 2001). In UK and British colonies before the Robens Report, old-style health and

safety legislation was overly reliant on law, and was as a result overly complex and inadequate to satisfy all the needs in the OH&S (Creighton and Rozen, 2007). In addition, this system relied mainly on setting standards to avoid specific hazards and enforcing compliance through inspection and fines. In other words, “personal responsibility” led to “apathy,” which was assumed to be the major reason for accidents at work (Creighton and Rozen, 2007; Liu et al., 2000).

“Self-regulation” has been emphasized since the Robens Committee pointed out the weakness of the old-style OH&S regulation (Creighton and Rozen 2007). Under the Act, “self-regulation” requires OH to be managed in two ways. First, individuals and specific groups should understand and carry out their responsibilities as described in the legislation. Secondly, effective consultative arrangements are one of the major mechanisms for OH&S problem-solving. Although the legislation does not require employers to have OHS professionals in the workplace, one of the key issues stressed by Wachs (2005) was that OH&S should have sufficient technical staff with specialized training and experience in OH, nursing, and other relevant fields. Guidotti et al. (2013) further reinforced that all organizations with more than 300 employees should have an OHN in place. Similarly, the Northern Ireland Department of Health (2004) suggests that an OHN is usually needed in organizations with more than 300 employees and for every additional 750 employees. Most professionals suggest that an OHN is needed, as it not only benefits the employees, but also the company.

Kopias (2001) reported on experiences in Austria, Belgium, Denmark, Finland, France, Italy, Netherland, Portugal, and Spain with multidisciplinary models in OHS practice. The findings suggest that the compulsory model is a problem to success the program. Implementing a voluntary approach might yield better results (Kopias, 2001). As Michalak (2002) stated, OHS practice may have a multidisciplinary approach, which can include one or more specialists in the fields of OH, Occupational Medicine (OM), OS&H, and HSE; however, there is no evidence to suggest that one approach is superior to others. The crucial element to success of the OHS is dependent on the employer’s choice of the OHS model and their commitment to implementing it in practice. For example, EUs OHS is mainly based on the engineer and the occupational physician is playing an advisory role. This practice is supported by EU Directive

89/391/EEC. In contrast, in Poland, the occupational physician plays an important decision-making, rather than an advisory role (Michalak, 2002b).

Thailand approved the OHS legislation in 1973 and established a Division of OH within the Labour Ministry to co-ordinate the OHS. In addition, a National OH Board was formed and the relevant act was drafted (Batawi, 1982). The Ministry of Public Health had a policy of emphasizing PHC in order to achieve “Health for All by 2000.” However, due to the lack of legal support, the ILO advised that a clear national policy on OHS needed to be established (International Labour Organization, 2000).

In Malaysia, the Department of Occupational Safety and Health (DOSH) under the Ministry of Human Resources is responsible for ensuring that the safety, health, and welfare of workers in both the public and private sectors are upheld. Thus, under the national OHS legislation, both employers and employees are liable for the legislation. The OHS Regulations in place since 1995 stipulates that every employer with more than five workers, as well as all self-employed individuals, must develop a Safety and Health Policy. DOSH is also responsible for enforcing the Factory and Machinery Act 1969 and the Occupational Safety and Health Act 1994 (Department of Occupational Safety and Health Ministry of Human Resources Malaysia, 2005).

Legislation governing OHS imposes a general duty on employers to take responsibility for the prevention of accidents in the workplace. Moreover, OHS strives to protect vulnerable groups, such as underprivileged high-risk workers, in order to prevent injury or illness at work (International Labour Organization, 1985a; Jeyaratnam, 1992). In India, the Basic Occupational Health Service (BOHS) are applied to PHC practices, which are primarily prevention-orientated (Pingle, 2009). Although the core principle of BOHS is providing the service to the whole working population, in reality, only 10 to 15% of workers in India are adequately protected and only a small part of the working population in developed countries are provided health-related services by their employers (Pingle, 2009). The purpose of Hong Kong’s Occupational Safety and Health Ordinance, Chapter 509, is as follows: “provides for the safety and health protection to employees in workplaces, both industrial and non-industrial” (The Government

of the Hong Kong Special Administrative Region, 2006). Thus, based on legal constraints and demands and the development of efficient management systems, employers have to enhance their awareness of OHS in their institutions in order to promote the quality of workplace safety and fulfill the legal requirements.

Although Batawi's work dates back to 1982, some of its content remains relevant today, given the current concerns in Asian countries with regard to OHS implementation. For example, the lack of adequate national policies to drive the OHS, the lack of law enforcement agencies, insufficient qualified and professional manpower in driving the program, and care-free attitudes of both employer and employee are still prevalent in many Asian countries). Whilst these concerns present a clear barrier to implementing a practical and standardized OHS practice in different countries, the facts that OHS professionals across the world with different local culture apply different values and methods in OHS practice make standardization difficult to achieve.

2.5.4 The Organization of the Occupational Health Service

The organization of the OHS varies not only at the national level, but across different organizations, based on the size, nature, and resources of the organization. Nonetheless, in most organizations, an occupational physician, OHN or staff member with formal training at tertiary level in safety engineering, is included in OHS implementation. Specialists in occupational hygiene, OH and ergonomics are typically key personnel to run the service (Northern Ireland Department Health, 2004). A multidisciplinary team approach is most common in Western OHS (Rantanen, Kauppinen, Toikkanen, Kurppa, Lehtinen, Leino, 2001; Tobias et al., 2008). In general, a program coordinator, nurse case manager, physician, physical therapist and adjustor are included in the team (Tobias et al., 2008).

In terms of measuring OHS effectiveness, different indicators are used in practice. The Finnish Institute of Occupational Health suggests simple and user friendly indicators that measure prerequisites for OH&S working conditions, OHS outcomes (Rantanen et al., 2001). Which measures are used and how effectively they reflect actual OHS practices are dependent on the organization's beliefs and concerns

with respect to OHS application. The prevalence and severity of accidents at work, ODs, and sickness absenteeism are still the most commonly-used indicators of the effectiveness of OHS programs. Michalak (2002) suggested that indicators should possess consistency, non-redundancy, comprehensiveness, and parsimoniousness in order to be considered as valid measures. Further, the effectiveness of OHS performance in an organization should be evaluated on the basis of eight principles: customer focus, leadership, involvement of staff, process approach, system approach to management, continual improvement, factual approach to decision making and mutually beneficial supplier relationships, in order to perform a comprehensive OHS evaluation.

2.5.5 The Way to OHS Success

In Mainland China, the annual OH-related cost is estimated at US\$12.5 billion (Young, 2007). Safety practices have changed as a result of new measures, whereby the OHS is the responsibility of everyone in an organization. Although management has the key role in ensuring that OH is the priority, safety principles stress that the chances of reducing accidents are greatly enhanced when everyone participates in OHS (Cheung, 2006).

Modern safety practice relies on the interactive participation of all employees. It is no longer adequate for the safety leader to simply send out the occasional memo and organize occasional meetings on the issues. The onus is now on the change of daily practices that result in the improvement of safety and health in the workplace. Moreover, increased involvement of professionals in interdisciplinary practice, better education and research all helping to promote the message of joint responsibility for OH at work. These activities aim to improve and empower the OHS. (Garrett, 2005).

A positive workplace OHS culture includes the organizational management systems, policies, procedures, training systems, and supervision. Moreover, the OHS management system must be audited regularly. It is crucial for the success of OHS to involve employees and all levels of management in order to develop and maintain the system that functions at an optimal level (Cheung, 2006; Colmar, 2004).

2.6 Factors Influencing the Quality and Effectiveness of Occupational Health Service Practice

Radford (1990) and Khorasani, Sadeghi and Daneshmandi (2014), amongst many other authors in this field, stresses that the quality of OHS must be continuously monitored and improved. Moreover, specific standards and policies need to be established for these services. All professionals, the OHNs in particular, are accountable to the public for the service they provide. As a result, monitoring the quality of their service is necessary (Guidotti et al., 2013; Radford, 1990). However, given the different approaches to OHS and the numerous models of implementation, identifying a generalizable and accurate method of measuring OHS standards is problematic. In general practice, referring to the fundamental OHS standards and devising measurement tools that evaluate performance against those benchmarks seems to be the optimal solution. However, this approach is not in consistent with the WHO definition of health due to the different values in different countries (Michalak, 2002b).

In general, monitoring the quality of an OHS focuses on the following three areas:-

- 1) **The level of participation by employees in developing programs to improve work practices.**
Other than testing and evaluating new equipment for conformity with health and safety regulations, the degree of participation by employees depends on the organization and on other OHS professional staff (Philip, 2007).
- 2) **The OHS performance of the organization:** Wright, Marsden, and Antonelli (2004) state that the empowerment of workers is necessary in order to improve OHS performance. Empowerment can accelerate the integration of the OHS into the management systems of organizations.
- 3) **The knowledge and skills of the OHSPs:** The knowledge and skills of the OHSPs influence the roles undertaken and the functions performed (Guidotti et al., 2013; Rundmo and Hale, 2003; Wong, 2002). Relationships between employers and employees are also changing and are influenced by different management systems, such as self-managing teams, the quality movement, and international 'Best Practice' (Guidotti et al., 2013; Wright, 2004).

OHS practice requires a team approach. However, for its success, a proactive, knowledgeable, and skillful professional is necessary to lead the team and promote the success of this practice. Moreover, senior management's attitude and behavior towards OHS practice is another key issue in helping and achieving success. (Guidotti et al., 2013; Rundmo and Hale, 2003; Wright, 2004) suggest that a bottom-up approach is crucial in achieving a successful OHS outcome. Since OHS issues can potentially affect all workers, including senior managers or leaders, it is essential to inform the workers about the importance of OHS issues and keep them updated on all changes in processes and requirements. Ideally, the OHS should be a part of their daily life in the workplace. However, there are various factors that can affect the outcome of the OHS implementation, which are discussed below. Rundmo and Hale (2003) stress that the success of OHS requires clear ownership and identification of the key drivers of the program.

2.6.1 External Influences

According to Januskevicius and Telksniene (2002), in Lithuania, one of the barriers to achieving success in OHS is due to its having two ministries, Social Affairs and Labour and Health Care in charge of OHS issues. Although they share the responsibility for the government surveillance of OH, the lack of coordination of their work undermines the effectiveness of the process and decision-making. In addition, the lack of a comprehensive legislation system in OH&S at work makes OHS implementation difficult at company level. In addition, most relevant regulations focus on the lower risk stemming from harmful work factors and equipment, rather than OH (Januskevicius and Telksniene, 2002). An increase in socio-cultural diversity, legislation regarding worker health and safety, technological advances in work processes, and economic factors are some of the other factors that impact on health and safety within a company. They are external factors that can influence the quality of OHS performance (Rogers, Winslow and Higgins, 1993; Zhu, Fan, Fu, and Clissold, 2010).

2.6.2 Internal Influences

Undoubtedly, internal factors such as corporate culture, mission, workforce characteristics, the type of work and adequate resources are essential to establishing an effective OHS (Dare, 1996). Dare's findings are supported by Januskevicius and Telksniene (2002), that Lithuania's OH problem is inherited from old

Soviet times. Due to the traditional practice and difficult economic situation, many companies are reluctant to invest in personal protective equipment and implement modern OHS guidelines in the workplace. Furthermore, the traditional job allocation in various ministries, such as the State Labour Inspectorate that reports to the Ministry of Social Affairs and Labour, makes the provision and enforcement of policies regarding prevention of OD and control of hygiene in the workplace difficult. The Department of Health Care of the Ministry is responsible for the employees' health care and diagnostics. General practitioners and family medicine centers are responsible for primary health control and surveillance. Regional occupational medicine centers and departments of occupational medicine at regional Public Health Centers provide secondary OH care while the Lithuanian Center of Occupational Medicine, the State Commission of Medical and Social Examination specialized departments (Occupational Diseases) at the University clinics.

After review it was evident the services lack the coordination that would improve efficiency and accountability for OHS practices at national level (Januskevicius and Telksniene, 2002). In addition, the provision of a quality OHS environment is contingent upon knowledge and relationships between the workers and OH professionals in the work field and the related environments (Dare, 1996). Fu (2010) advises that OH professionals must collaborate when implementing OHS processes if the program is to be successful and manageable in the long term. Moreover, these professionals should also undertake OHS supervisory and inspection roles in the workplace. Finally, integrating medical care and public health in OHS practice would result in better accessibility of the OHS program to the service consumer (Blizzard, 2006).

Another challenge to successful OHS implementation stems from the need for highly skilled OHNs/OHSPs, as their role in OH is extensive and multifaceted. However, this can be embraced as a new opportunity to expand professional knowledge and scope, as the process continually evolves with changes in the working environment, offering new career choices. These include management duties and skills, rehabilitation program management, co-ordination of risk management, health and safety, fire safety or physiotherapy treatment, training activities, health promotion activities, counselling services,

recall vaccination procedures, and undergraduate training, all of which may influence the quality of service (Guidotti et al., 2013; Northern Ireland Department Health, 2004).

- **Safety Management**

Safety management is a key to influencing OH&S policy and the achievement of a common objective. The notion of safety culture derives from organizational culture and is generally thought to be a major factor in determining an organization's ability to manage safety aspects. In other words, an organization's norms, beliefs, roles, attitudes, and practices should place strong emphasis on minimizing employees' exposure to hazards at work. The goal of safety culture is to develop a norm in which employees are proactive regarding OH&S issues in their workplace and uphold the OHS guidelines and values continuously and positively. This practice is affected by an organization's socially-transmitted beliefs and attitudes to OHS (Guidotti et al., 2013; Paglis & Green, 2002).

A key to cooperation in implementing an OH&S culture is in effectively motivating employees to accept particular guidelines. Thus OH&S promotion should involve staff at all levels in an organization. Although personal attitudes towards OHS play an important part in successful OHS implementation in the workplace, personal factors should not be the only ones to affect OHS effectiveness; a policy specifically created to meet the needs of the workplace should be developed and implemented effectively and consistently. Employees may have little knowledge of how to perform their duties in accordance with OH&S guidelines. This is especially true for those who have not received any training and are thus more prone to violation of OH&S protocols. Therefore, training and continuing communication of all relevant issues is necessary in the pursuit of OH&S practices in the work environment. More specifically, employees with specialized skills and aptitudes may be required to perform certain jobs in order to minimize OH&S hazards (Guidotti et al., 2013; Health & Safety Executive, 2001).

- **The Law as Booster of Director Action**

Philip (2007) conducted a comprehensive review of OH&S practices in England, concluding that it is crucial to motivate directors on Health and Safety law if OH&S models are to be implemented effectively. Top management should be role models for individuals and provide guidelines to follow when performing their daily duties. Managers have a moral and legal responsibility to follow regulations and monitor their enforcement. Moreover, they should make use of commercial incentives, such as lower compensation premiums, implement procedures that increase productivity, and employ tools that can adequately benchmark OH&S performance. Finally, given that OHS implementation in the workplace is still not legally enforced in most countries, employers should invest in OH&S because of their social and corporate responsibility, rather than to abide by the law (Guidotti et al., 2013; World Health Organization, 2001b).

2.7 The Functions of the Occupational Health Service Provider

Rogers and Higgins (1993) suggest that the OHSP should serve many different functions in various areas. However, the Northern Ireland Department of Health (2004) and Guidotti et al. (2013) recommend that providers should select functions and services to meet the needs of their organizations. Given these contrasting views, the purpose, standards, and roles of OHNs should be clarified.

The WHO (2001a, pp22) suggests that the OHS philosophy should have the following aims:-

- 1) To reduce and eliminate work-related hazards and promote health;
- 2) To advocate OH&S for workers and managers;
- 3) To protect workers' rights to information regarding work-related hazards so that correct decisions can be made;
- 4) To inform all employees of their responsibility to inform the employer of unsafe and unhealthy working conditions;

- 5) To maintain knowledge and improve skills related to their positions and to regularly update research and legislation affecting OH and nursing practice;
- 6) To be an active and productive part of the larger ecosystem that encourages a mutually supportive relationship with the community through referrals and utilization of resources, and enhances the environment;
- 7) To provide users with service in a cost-effective manner that promotes productivity through good health.

In general, the OHSP performs numerous functions, including management of the OHS, assessment of the work environment, assessment of workers' health, provision of health care, training and health promotion, rehabilitation of ill and injured employees, maintenance of records, counselling and research (World Health Organization, 2001 a).

According to Kloss (2010) stated the statutory requirements for OHS: health education and promotion, and administrative duties in the service are regarded as the top priorities. Health assessment and surveillance and first aid services are the second most important aspects of the service (Kloss, 2010; Takashi et al., 2002). Although PHC and rehabilitation/resettlement are regarded as less important, they should be provided wherever possible, in particular in large organizations (World Health Organization, 2001b). Depending on the size of the organization, an OHSP may either work on his/her own or may be a part of a multi-disciplinary team in charge of the OHS. In either case, the OHSP plays an integral part in motivating, educating, and advocating for people in the workplace in addressing safety issues in an efficient and cost-effective manner (Dirksen, 2001; Guidotti et al., 2013).

2.8 Evaluation of the Effectiveness of Occupational Health Services

Measurement of OHS effectiveness is very much future-oriented, as not only is it difficult to measure, but the effects of improvements in working conditions do not manifest instantly. Moreover, the emphasis should be on proactive measures, rather than constant evaluation. For example, if workplace committees are reduced to justifying every item of expenditure and improvement in terms of traditional accounting

systems, they are playing a hopeless zero-sum game where every expenditure is seen as a cost and a reduction in bottom-line profits (Guidotti et al., 2013; Health & Safety Executive, 2001). Organizations are rationalizing goods and services to be economically viable. Therefore, OH&S should ensure that there are no financial repercussions or reduction in productivity as a result of occupational illness and injury. Although every citizen of the world has a right to be healthy and safe at work (Northern Ireland Department Health, 2004), OHS professionals should still be profit- and result-oriented, and take a cost-effective approach to service delivery. The Northern Ireland Department of Health (2004) suggests that an OHSP plays an important role in helping to provide quality OHS for workplaces, and the OHSP needs to demonstrate that OHS is result-oriented and productive.

OHS practice is facing a dilemma as cost-effective analysis is commonly applied to measure the outcome of an OHS practice in a workplace. The Health & Safety Executive (2001) stressed that applying cost effectiveness analysis when assessing the monetary value of outcomes is not realistic, as OHS outcomes should be evaluated by relying on non-monetary measures and benchmarks. This is supported by Guidotti et al., (2013).

In general, incident rate, frequency, severity and average time lost are general indicators to reflect the effectiveness and quality of an OHS practice (Guidotti et al., 2013; Health & Safety Executive, 2001). However, these indicators are often questioned in terms of their relevance, in particular in time lost, as these results will be affected by the accuracy of the reporting system (Northern Ireland Department of Health, 2004). To monitor the quality of OHS accurately, there is a need for self-assessments or audits conducted by teams, which should include employees and management representatives. Furthermore, an incentive for continuous improvement should also be in place, in order to motivate all stakeholders to be more proactive in upholding OHS standards (Guidotti et al., 2013; Owens, 1996). Generally, a quality management approach focuses on management, commitment, policies and planning, communication, employee involvement and training. Based on these criteria, the standard of OHS quality can be assessed in an objective way (Owens, 1996).

2.9 OHS Development in HK Hospitals

As mentioned in Chapter 1, the OS&H legislation in HK was reviewed and amended after the occurrence of severe occupational accidents. OS&H practice has been reported officially and regularly in the HA's annual report and meeting minutes (The Hong Kong Hospital Authority, 1997). The comment from the SARS Expert Committee report to the OH practice in the public hospital setting is inadequate and needs to be improved (SARS Expert Committee, 2004).

2.9.1 The HK Hospital Structure

In this section HK hospitals background, structure and characteristics will be described. The hospitals operate within a dual system of public and private sectors. There are currently eleven private hospitals, which are operated in an independent mode and are monitored under the Hospitals, Nursing Homes and Maternity Homes Registration Ordinance (Chapter 165) (The Health Department, 2004). The HA is a statutory body established on December 1st, 1990 under the HA Ordinance to manage 41 public hospitals in Hong Kong. It is an independent organization, accountable to the government through the Secretary for Food and Health, and responsible for the formulation of health policies and monitoring the performance of the Authority (The Health Department, 2004). In 2008, it employed about 53,000 staff (The Hong Kong Hospital Authority, 2008a). The HA is mainly responsible for delivering a comprehensive range of secondary and tertiary specialist care and medical rehabilitation through its network of health care facilities.

There was a 4% (approximately 760 nurses) turnover rate between 2006 and 2007 (Scheeres and Solomon, 2006; Takungpao, 2007). For 2008/2009, the Authority's recurrent expenditure budget from the government was HK \$30,500 million (approximately US\$3,910 million). The HA offers 90% of the hospital beds in HK (The Hong Kong Hospital Authority, 2008a). In addition, when OHS was reviewed by the SARS Expert Committee, it pointed out a few OHS areas for improvement, including enhancing overall staff OHS awareness, including their OHS knowledge in the OH&S, and their rights and responsibilities in the program (SARS Expert Committee, 2004). On May 5th, 2008, at the HA Convention, the HA CEO acknowledged that a reasonable workload and more time to communicate with the health care staff is required (Solomon, 2008). However, no significant improvement was noticed

when the staff turnover rate was updated and confirmed to have risen from 3.2 per cent in 2006/07 to 4.7 percent in 2008/09 (Moy, 2009).

2.9.2 The HK Hospital's Occupational Safety and Health Plan

The HK private hospital system operates independently. For this reason, on November 11th, 1997, the HA started a Work Health and Safety Campaign, resulting in HA signing a safety charter on 1998 (The Hong Kong Hospital Authority, 1997 & 1998). According to the press releases, the HKHA planned to enhance OHS by including the requirement to achieve the Ordinance targets. In addition, the need for all health institutions to act proactively in upholding OS&H standards was stressed, in particular, as related to assessment of the working environment, modernizing work designs and procedures, identifying potential occupational hazards, and carrying out rectification to improve safety standards (The Hong Kong Hospital Authority, 1997).

In 2010, the HKHA employed 57,672 staff (full time equivalent), of which 20,032 were nurses (34.4 %) (The Hong Kong Hospital Authority, 2010a). In other words, the nursing staff is a major part of the workforce in the HA setting. In 2004, the SARS Expert Committee reported that the HKHA had room to improve OHS for frontline staff, especially the nursing staff, as this was the high-risk group for contracting ODs (SARS Expert Committee, 2004). In response, the HA tried to address this issue in various official documents, including annual reports, strategic service plans, HA in focus, and so on. The key issues covered in these documents are presented below.

According to the Strategic Service Plan 2009-2012, “an HA with engaged staff will be reflected by an atmosphere of happiness and friendliness, attention to work, and pride in the organization” (The Hospital Authority, 2009, pp. 30). In addition, in the 2010-11 Annual Report, the HA acknowledges that their major challenge is hospital-acquired infection and medical incidents, the reduction of which is the focus of their plan to foster a culture of safety among staff. Furthermore, “People First Culture,” which aims to promote staff health and wellness, is also included in the 2010-11 annual plan. Thus, Key Performance Indicators (KPIs) on the frequency and level of employees' compensation claims and the reduction of

nurses' work pressure are included as targets in the 2010-11 Annual Report (The Hong Kong Hospital Authority, 2010a).

'Workplace injury' may not appear on a balance sheet. However, the cost of insurance premiums, lost time, absenteeism, staff replacement and re-training, equipment breakage, and workflow interference is a real and often substantial economic cost. Practically, these costs are only overshadowed by the personal costs to the injured. An institution's account of economic and personal losses affects the overall ability to achieve its goals and add to the costs of goods and services produced (The Government of the Hong Kong Special Administrative Region, 2006).

2.9.3 Occupational Health Practice in the Health Industry

According to the WHO, health refers to physical, mental and social well-being (World Health Organization, 1948). This definition is generally accepted within the health industry. Julliard, Klimenko, and Jacob (2006) conducted a survey of health professionals, most of whom agreed that the term 'Health' should be associated with physical, mental and spiritual factors of one's overall wellbeing. However, the local hospital working environment does not support any of the health aspects of those working and visiting (SARS Expert Committee, 2004). Although hospitals treat numerous physical and psychological problems, employees are endangered by numerous work hazards whilst at work. Eijkemans (2007) states that health care workers engage in a number of unacceptably high risk activities in their workplace. Hence, hospitals are not always the healthy and safe places they are thought to be (Michaud, 2005). Benach, Muntaner, Benavides and Jodar (2002) conducted a study that focused on the OH agenda, suggesting that it primarily focused on the treatment of sickness, rather than illness or injury prevention. However, this approach seems to be changing, as, according to Mellor and St John (2007), in US and Australia OHS is moving towards the wellness-based, rather than illness-based models. Moreover, Benach et al. (2002) posit that OHS models are influenced by different external factors, such as the political ideology, beliefs and values of key personnel – government representatives, scientific experts, unions and employers – which makes modernization difficult, as it requires the approval of too many entities.

Despite many external factors that affect OHS, the focus should be primarily on addressing issues that stem directly from working practices implemented in daily operations. The common work hazards are discussed in the subsequent sections, as well as being mentioned in Chapter 1.

2.9.4 Performance of Occupational Health Services

Monard, Garton, Williams, and Taylor (1974) used TUC Centenary Institute of Occupational Health (TUCCIOH) data to study the quality of industrial/ commercial OHSs. In UK this study used the detailed design and scores recorded in the hospital OHS. There was a focus on the standards and scope of the care of hospital staff by health services. Answers were received from departmental managers in a structured interview administered by researchers. The results showed that the assessment group achieved “high” standards of work and performance. A similar study was conducted by Lie (2002), focusing on the employees’ views of the future of Norwegian OHS. The survey focused and addressed two key themes: quality improvement and customer focus. The outcomes was National Guidelines for Practice by year 2000 including for example an accreditation system.

An evaluation of the quality of OHS and its contribution should be conducted, given the recent changes in OH&S legislation in Hong Kong. It is also important to evaluate the perceived roles of health care professionals, the effectiveness of the relevant policies, and identify areas for improvement in both public and private hospitals. Comprehensive and relevant studies on these issues have not been conducted in HK in the past. Thus, it is imperative to broaden the scope of research in this field to address these gaps in knowledge, as this information may provide the employees with a basis to promote, maintain, and improve the OHS in HK hospitals.

2.9.5 Occupational Health Service in Hong Kong Hospitals

No specific research about the HK health industry is related to OH. Relevant articles by Wolf (2007) and Tsin (2006) reported the development of OS&H legislation in HK from post-World War II to 1997. However, both authors focused on OS rather than OH issues. A cross-sectional survey (Yu, 2010) reported that the trend of occupational epidemiology has changed compared to a decade ago. Although only 46 original papers related to occupational epidemiology in HK were published between 1998 and

2009, around 43% of the papers touched on the psychosocial/organizational aspects; approximately 33% of the literature was related to biomechanical/physiological aspects; almost 52% was related to ergonomics, 33% discussed SARS and influenza and 17.4% was related to biological hazards. This reflects the trend of HK OS&H as it moved from the original OS to OH, especially among health care workers. It further indicates that the traditional focus on manufacturing/production industries was declining, but the most significant change was the focus on infections, which is likely related to the SARS outbreak of 2003 and the formation of the SARS Expert Committee (SARSEC), which pointed out the limited focus of the OHS in the health care sector (SARS Expert Committee, 2004).

In HK the official reports made no significant, specific mention of the hazards facing hospital health care workers. The HKLD annual statistical report, which lists OI in all workplaces, including manufacturing, construction, wholesale and retail trades, restaurants and hotels, transport and related services, storage and communication, financing, insurance, real estate and business services (including import & export trade), community, social & personal services and others, was reviewed. The detailed content, listing “Occupational Injuries (OI) in Medical, Dental & other Health Services in 2009” showed a total of 1625 injuries. The most frequent injury in this industry is “injured whilst lifting or carrying” at 31%, followed by “slip, trip or fall in same level”, at 20%, “striking against or struck by moving object”, at 9%, and “injury in workplace violence”, at 7%.

In addition to OIs, the number of confirmed ODs in 2009 was also reported: occupational dermatitis, asbestosis, compressed air illness, silicosis, occupational deafness, tenosynovitis of the hand or forearm, tuberculosis, gas poisoning and mesothelioma. Of the 268 confirmed cases, occupational dermatitis (3.7%), tuberculosis (6.7%), gas poisoning (6.3%) and tenosynovitis of the hand or forearm (14.6%) are most relevant to health care workers (The Hong Kong Labour Department, 2009a). The OI and accident records for the health industry show limited injuries when compared with the food and beverage services and construction industries, which recorded 53% and 20.4% respectively in the first three quarters of 2010 (The Hong Kong Labour Department, 2010).

Based on these figures, the health industry with limited official data to reflect their OH situation before 2003, which was the year of the SARS outbreak. In that year, the percentage of occupational fatalities among health care staff was 2.7% and the OD record was 21.5%. The impact of the SARS outbreak was significant in a short period of time (three months), which triggered public and health care staff concern regarding how OH should focus on the impact of the issue and not the reported annual percentages (SARS Expert Committee, 2004). A study showed that among the nursing staff, more than 50% were affected by SARS (Lau, 2004). This led to questions from the SARS Expert Committee about how much hospital nurses know about OHS.

Quality assurance is a set of guidelines defining the standard of product quality. It is essential to apply quality assurance measures to OHS in order to monitor outcomes in the workplace. Once the OHS and a standard/model are developed, employers need to accept and implement them for the system to be effective. OH is everyone's concern and needs employees at all levels in an organization to be engaged.

2.10 Role of Stakeholders

According to the HA Safety Manual Accident Reporting and Investigation (The Hong Kong Hospital Authority, 2002), hospitals should have a clear management structure, in which different roles are well defined. Moreover, in order to facilitate OS&H procedures, accident reporting and investigation systems must be in place. Six key stakeholders are identified – HA Head Office (HAHO), hospital senior management, Human resources/ personnel department of individual hospital, hospital safety committee or safety coordinator, department supervisors, and employees. Their roles are briefly discussed below.

The HAHO should be in charge of preparing HA accident trend analysis reports, sending the statistical reports to HA organizations, highlighting the trends, high risk areas where accidents occur or have potential to do so, as well as formulating corporate OS&H policies and strategies aimed at injury prevention.

Hospital senior management should mainly focus on work in individual hospital departments, regarding the trends, risk factors and areas where accidents occur or have potential to do so. Moreover, they should formulate hospital policies and strategies aimed at injury prevention.

Human resource/ personnel departments should be responsible for entering the injury on duty data into the system and reporting to the HR Payroll System (HRPS). Moreover, HR personnel should generate the injury on duty report form and forward it to the LD and HAHO. Finally, their duty is to prepare the standard statistical reports with the HRPS for the Safety committee/ senior management.

The hospital safety committee or safety coordinator focuses mainly on the operational aspects of the OS&H process by, for example, participating in an accident investigation if needed. Moreover, they should be proactive in recommending appropriate strategic plans and measures to senior management in order to prevent further accidents. Analysis of injury on duty data and follow-up on corrective actions with the appropriate personnel are also the responsibilities of the committee.

The department supervisor should mainly focus on the reporting of injuries and health and safety breaches to the HR, investigating accidents and taking corrective action for further prevention.

Employees should have proactive role in participating the OHS for example participating in workplace education and assisting to support a workplace health and safety culture by hazard prevention strategies, OHS awareness activities, reporting injuries on duty as soon as possible and assisting in implementation of subsequent corrective or monitoring action. Examples of strategies include health and safety orientation of new staff, re-orientation of longer –serving staff and specialised services for specialised equipment and techniques. Research in trends in patterns of illness and injury would inform the strategy.

2.11 Hospital Authority's OHS Development Direction

The HKHA 2007 to 2008 Annual Report emphasized the importance of striving to “continuously improve service quality and safety.” However, due to changes in health and safety issues, risks in hospitals also involve infections such as MRSA, which introduce new areas of concern, due to the risk and the associated cost of litigation resulting from poor service (The Hong Kong Hospital Authority, 2006a). In the last decade, workplace violence became another high profile issue that the OH in the HKHA had to address. According to the HKHA internal document “Risk Alert,” 1425 cases relating to workplace violence and treats/abuses were reported, of which only half were reported through the relevant channels (The Hong Kong Hospital Authority, 2008d).

Since 1997, OS&H and related activities have been reported in HKHA's official documents. The SARS Expert Committee fed back in 2004, that the HA needs to allocate more resources to the OHS issue after the SARS experience in 2003 (SARS Expert Committee, 2004). In addition, following the HAHO Chief Executive's progress report from 2003 to 2008, "The Cluster-based Staff Health and Wellness Committee" was formed to work on providing health checks for hospital staff. Currently, HAHO has two approaches to OHS: working towards building human resources capability; and enhancing OS&H. In addition, Human Resource strategies should include, "communication and caring staff." In other words, the HA emphasizes the OS&H message is adequate to pass on to the staff; in addition, caring for their employees is another positive aspect to promoting OS&H. Following the SARS Expert Committee recommendation, a number of changes to OHS practices were implemented. For example, The Capacity Building in Human Resource capability and rewarding performance included a new item "Staff health and welfare," to echo the 2003 HA Chief Executive's progress report, which emphasizes a healthy and safe working environment. In addition, HK\$1.4 million (approximately US\$0.18million) from the Government Training & Welfare Fund was allocated to support staff health and wellness initiatives (The Hong Kong Hospital Authority, 2004b). According to the Chief Executive's progress report, published in 2004, the OS&H team was enhanced and two additional positions were created in the HA head office (The Hong Kong Hospital Authority, 2004a). In 2004, the HKHA recorded workplace violence as the most significant injury type on duty, with 2378 cases reported by hospital nurses from 2002 to 2004.

According to the HKHA, in general, workplace violence is under-reported, in particular if it does not involve physical violence. On average, around 400 cases are reported each year, implying that the employees are at significant risk of violence in the workplace. Based on this concern, promotion activities on preventing Workplace Violence were held by the HKHA (The Hong Kong Hospital Authority, 2011). This document makes recommendations on workplace design, security assistance, provision of patient restraining devices in high-risk areas, and post-incident support in order to minimize the psychological impact on victims of workplace violence. The psychological support is offered through "Oasis" centers, which have been set up in different hospital clusters to provide HA staff with the professional counselling, education, and support. In addition, a new initiative, entitled "Caring for the

carers,” was implemented. It aims to educate the public in order to minimize inappropriate behavior towards health care workers. Besides public education, the hospital management level is taking action to protect health care workers who have been abused (The Hong Kong Hospital Authority, 2004c).

The Chief Executive’s report (The Hong Kong Hospital Authority, 2004c) recommended priority actions to tackle the problem of workplace violence through a clear definition and management policy, proper reporting mechanisms, and prevention and support measures against workplace violence. Based on these priorities, the HA had to achieve their objectives through a clearly defined and effective step-by-step process. For example: a clear definition of workplace violence was endorsed in February 2005. In April 2005, four posters were designed and posted in workplaces. A workplace violence experience forum was held in June 2005. Finally, the HA is also taking on-site action to prevent workplace violence by improving monitoring procedures, such as installing closed-circuit television (CCTV) cameras and security patrols, which assist in identifying perpetrators and their prosecution, in accordance with the HA by-laws (The Hong Kong Hospital Authority, 2005b). In the next phase, in February 2007, workplace violence training was implemented, focusing on communication, management skills, and psychological interventions. According to the report, 1044 staff was trained through the workplace violence prevention project (The Hong Kong Hospital Authority, 2007b).

In addition to preventing workplace violence, enhancing staff health and wellbeing is the key concern addressed by the HA’s policy. The HKHA is spending HK\$1.4 million (approximately US\$0.18million) to run the staff health and wellness program, in which outdoor activities, such as hiking and cruises, and health promotion initiatives, including hand washing campaigns, are key areas of focus. A staff clubhouse and injury prevention programs for the manual handling operation and a range of other measures are also important initiatives. A train-the-trainer program for clinical and non-clinical staff commenced in October 2005, as a response to the need to improve OHS awareness and related practices in the workplace. The sharps injury reporting system has also been strengthened (The Hong Kong Hospital Authority, 2005a). Oasis and oasis satellites were also set up as a result of the enhanced funding, and in recognition of the need of the health care staff for additional support in coping with work-related issues and challenges (The Hong Kong Hospital Authority, 2004d). According to the HA Chief

Executive's Progress Report, all the above initiatives showed improvements in OHS outcomes. Moreover, the HA strengthened and consolidated the OHS in the "Return to Work" program, infection control, chemical safety and manual handling. In addition, an OHS Carnival was held in order to promote the OHS concept to the hospital staff. In practical terms, 7% to 13% reductions in injuries on duty (IODs) and 13% in sick days were reported, as compared to the same period in the previous year (The Hong Kong Hospital Authority, 2005a, 2005c). A "Care for Carers" program was launched in 2005 by the New Territories East Cluster, with the aim to enhance health care workers' wellbeing at work. The activities included promotional materials for hospital staff, health/food for thought talks, stress reduction training and awareness of physical fitness, such as Tai Chi, and walking programs (The Hong Kong Hospital Authority, 2005a).

The HA Chief Executive's progress report on key performance indicators (December 2006) and the 2008-2011 OS&H plans focused primarily on staff working in high risk areas, emphasizing the need for reducing the number of injuries on duty and the associated costs. The report focused on nurturing a caring culture in the workplace. It proposed conducting a "situation analysis" on the OS&H program and policies, which would enable establishing a timeframe and action plan in the workplace to enhance staff wellbeing. For example, the Head Office had an 85% response rate to the "your views count" survey and successfully launched all initiatives recommended by the report. Based on the success of the OHS initiative, further training and development program were provided for Head Office staff. Besides nurturing a caring culture, building people first culture is another key area to focus on in order to enhance the staff awareness of healthy life-style and work-style and focus on the psychosocial support while staff is sick or injured.

Based on the Executive Reports' objectives, seven staff health talks, six days of staff health screening and 101 personal consultations with staff were recorded by the HA Head Office. An Occupational Medicine Consultation Clinic was also started in December 2007 in the HK East cluster. For the New Territories West Cluster, the Human Resources Department reviewed 32 departments and offered counselling services for around 30 cases in order to minimize unnecessary sick leave applications (The Hong Kong Hospital Authority, 2006b). However, although the OHS initiative is cluster-based, since

2007, the KPIs for sick leave, injury on duty, and annual leave have referred to the entire HA, rather than being reported per cluster (The Hong Kong Hospital Authority, 2007b). Thus, the KPIs reflect the senior management's view that the building people first culture is an OSH issue. Psychological care is another key issue the HA has focused on with the aim of providing better psychological support to frontline health care staff (The Hong Kong Hospital Authority, 2007a). Periodic examinations for radiation workers, pre-employment medical examinations, and post-exposure examinations are key items on the Occupational Medicine (OM) in the future, in addition to the Occupational Medicine Care Service (OMCS) providing Injury on Duty (IOD) in order to reduce the sick leave days (The Hong Kong Hospital Authority, 2008b).

In order to improve staff wellbeing, the HA Chief Executive's Progress Report on Strategic Priorities mentioned "Oasis at Workplace" as an initiative aimed at strengthening staff psychological wellbeing. In order to support this project, 267 staff volunteers were recruited and trained to care for their colleagues. This approach was initially piloted in the head office, where seven staff health talks and six days of staff health screening were conducted. Upon successful completion of the pilot study, 875 staff from the HK East Cluster joined the program. They were given health talks, covering back care, pain relief, care of shoulder injury, prevention of anxiety, osteoporosis, prevention of neuro-cardiac disease, and rheumatology approaches to pain management. A pilot Occupational Medicine Consultation Clinic was also opened to provide service for OH problems and staff suffering from injury on duty. Phase II of Oasis at Workplace was subsequently implemented with 210 participating work units (The Hong Kong Hospital Authority, 2008c). In addition, a staff survey was conducted in order to review the HA employees' concerns related to their health issues, which provided a direction for the management to improve staff wellbeing (The Hong Kong Hospital Authority, 2008b).

In addition, the HA Chief Executive's Progress Report on strategic priorities (2006) recommended that "Seven habits for highly effective people" be implemented for all HA staff in order to encourage a healthy and balanced lifestyle for individuals and organizations. As a result, 1,000 HA staff were trained in 2007/08. Moreover, respiratory and chemical health and safety training are mentioned in this strategic plan as number five priority (The Hong Kong Hospital Authority, 2006c).

Following the review of HA Quality and Risk Management, an annual report was published (The Hong Kong Hospital Authority, 2010b), stating that Quality and Risk Management was primarily focused on patient issues, and more emphasis should be placed on those related to staff. In response, the Hong Kong East Cluster (HKEC) prevention of needle-stick injury program was launched and completed in February 2009. On-going skill training in handling workplace violence and the way to implement prosecution policy on workplace violence were still on-going issues, as highlighted in this report. Moreover, analysis of IODs and the related leave was identified as another area that needed more work.

The Kowloon Central Cluster (KCC) identified workplace violence, needle-stick injury and infection control as the key areas to focus on. However, the implementation method is different in HKEC, where these initiatives were renamed from the Workplace Violence Working Group to Workplace Harmony Working Group. Moreover, a staff support team was set up and training and communication in relation to workplace violence were improved, with emphasis on striving for violence-free workplaces. Regarding needle-stick injury and infection control, the focus is on active approaches to the clinical staff through seminars, lectures, forums, meetings, posters, emails, workshops and banners to increase awareness of these risks and their prevention.

The Kowloon West Cluster (KWC) also addressed the issue of risk in -alert communication as a channel to share the workplace violence and related risk issues. In addition, KWC also stressed general OS&H concerns, such as fire safety and risks associated with display screen equipment.

The New Territories West Cluster (NTWC) focused on infection control, workplace violence, and manual handling, although using somewhat different approaches compared to the previous clusters. For example, using a safety device to replace the traditional angio-catheter was implemented in October 2008. A case management approach for difficult cases in order to reduce workplace violence was another successful indicator measure in this cluster. Finally, manual handling was addressed based on the approach recommended OSH in annual HA conference in order to raise staff awareness.

According to the HKHA annual report (2010a) the HKHA remains focused on the “nurture a skilled and performing workforce” is an objective with “engage staff and enhance workforce capacity” as the

strategic direction. The related key objective is the “People first culture.” In this approach, “redesign work to streamline work process and reduce workload” is one of the key goals of OHS implementation. Thus, the HKHA is planning to replace 1,700 manually-operated beds with electrically-operated beds in order to minimize unnecessary manual handling. Work is also being done to develop the KPIs as recording systems to measure the organization’s OS&H performance, which is reflected by the employees’ compensation claims. The way forward plan remains focused on the “People first culture” through staff health and wellness, improving OS&H, and staff communication and recognition. The proposed program also includes post-screening care plan and promotion of psychological staff wellbeing through screening exercises aimed at early detection of mood disorders and proactive provision of supportive services (The Hong Kong Hospital Authority, 2010a).

2.12 Nurses’ Role in Occupational Health and Safety

Nurses have made the transition from the reactive and “disease-oriented” approach of Florence Nightingale’s era, to the proactive health promotion and wellness approach adopted in today’s health care system. The transformation of nursing practice aims for specialization in both the hospital setting and in the community, where nurses are working in many different settings and roles than before (Pick, 1991). These specialty areas include health care, health promotion, and prevention of disease (Moloney, 1992).

OHN is one of the specialist nursing services which been practiced for more than one century (Lusk, 1990; Sato, 1997; Strasser, 2006). Numerous scholars have explored the role of OHNs in OHS in different countries across different time periods (Alleyne and Bonner, 2009; Esin, Emirog, Aksayan and Bes, 2008; Garrett, 2005; Ishihara, Yoshimine, Horikawa, Majima, Kawamoto and Salazar, 2004; Marziale and Hong, 2005; Marziale, Hong, Morris and Rocha, 2010; Mellor and St. John, 2007; Naumanen-Tuomela, 2001b; Salazar, 2002; Salazar, 2006; Sourtzi, 1991; Strasser, 2006). For example, Salazar (2002) described the role of OHN as clinician, coordinator, advisor, and case manager. However, the nature of OHN duties is dynamic and influenced by the external working environment, hence no static description applies. This view was confirmed by Strasser et al. (2006), who pointed out that the duties of OHNs practicing in hospital - or non-hospital-based settings are vastly different. Infection control management and health surveillance monitoring are key activities performed by OHNs working

in hospitals, compared to the non-hospital-based OHNs, who spend more time addressing issues of hygiene, disaster preparedness, travel health, and ergonomic activities. However, education and safety activities were reported to be similar between hospital- and non-hospital-based OHNs (Strasser, 2006).

Although nursing is not as competitive as the business arena, nurses are striving to confirm their professional status within society. Almost three decades ago, the United Kingdom Central Council (UKCC) in Project 2000 advocate that the nature of nursing requests a positive, assertive, and self-motivated attitude is important in the nursing profession, it is indeed, at least in terms of requirements similar to other industry sectors. The mission of Project 2000 is to provide high quality, cost-effective nursing service (UKCC, 1986). This nursing attribute remains valid till 2013 in order to fill the new position for the nurse (Masters, 2013). For example, various nursing positions become available, some of which involves research and quality improvement focusing on enhancement of the nursing self-concept thereby promoting and improving the standard of caring (Masters, 2013). Advanced nursing practice is usually associated with the promotion of the image of the nursing profession. Thus, nurses require up-to-date knowledge as a means of professional empowerment, enhancement of the quality of nursing care and leading to a more positive professional self-concept (Masters, 2013; Wilkinson, 1991). As mentioned earlier, the nursing role spans primary (prevention) to tertiary (curative) functions, which is consistent with the OHS framework (Mellor, 2007). Nursing staff can also perform many specialist roles in various clinical settings, as there is a tremendous need for their skills, which can further be enhanced by relevant training (Moloney, 1992; Strasser, 2006).

OHN is a specialized role that extends above traditional skills and competencies to include characteristics aligned with the OHN's unique mission, such as the concept of health in the workplace not only confine in the hospital (Draper, 2011; Esin, 2008). The WHO's global medium-term program for workers' health further emphasizes the need to develop OH programs for the early detection, prevention, and control of workers' health problems, to include psychosocial problems related to adverse working conditions (Radford, 1990). The focus of OHN's attention is thus the employees, the employer, and their working and living environments, which are becoming increasingly important, since employees are subjected to multiple hazard exposures in their lives (Guidotti et al., 2013; Radford, 1990).

According to Guidotti et al. (2013) and Rogers (1994), although OHNs have functions in various areas, those focusing on careers in OHS should select functions to meet the needs of their organizations. Moreover, the WHO (2001b, pp. 38) suggested that OHN philosophy should provide services for his/her institution aimed at:-

- 1) To reduce and eliminate work-related hazards and enhance health promotion;
- 2) To advocate for the worker and often manages the OH&S;
- 3) To protect worker rights, and ensure that workers are given information regarding work-related hazards so that informed decisions can be made;
- 4) To facilitate collaboration within the team that has the responsibility to inform the employer of unsafe and unhealthy working conditions;
- 5) To maintain and improve knowledge and skills relative to her or his position and to keep informed on current research and legislation affecting OH and nursing practice;
- 6) To encourage a mutually supportive relationship with the community through referrals and utilization of resources and by being a productive part of the larger ecosystem that enhances the environment;
- 7) To provide service that promotes productivity through good health in a cost-effective manner.

The basic functions of OHN include management of the OHS, assessment of the work environment, assessment of workers' health, provision of health care, training and health promotion, rehabilitation of ill and injured employees, maintenance of records, counselling and research (Mellor and St. John, 2007; Parker, 1994; Rogers, 1994). According to the Ontario statutory requirements for OH (Management Board of Cabinet Directives, 2010), safety health education / promotion and administrative duties are the first priority of the OHN service. Moreover, health assessment and surveillance and first aid services are also important aspects of OHN duties within OHS. Finally, although PHC and rehabilitation-resettlement are less important, they should be performed wherever possible to enhance health and wellbeing of

workers (Guidotti et al., 2013; Naumanen-Tuomela, 2001b; Parker, 1994). This suggestion is supported by Strasser et al. in their PHN analysis report. As most developing countries, such as Turkey and South Africa, have no significant legal and educational regulations related to the OHN requirements and standard (Esin, 2008; Grainger, 2003), practice is dependent on the beliefs and competencies of the individuals responsible for OHN, rather than the practical needs of the clients he or she serves.

Given the special features of OHN profession – which are consistent with ILO Convention 161 (International Labor Organization, 1985a) recommendation on the OHSP role and function, and is confirmed by Taskinen (2004) – the roles an OHN practitioner typically takes on are pre-employment screening, periodical medical examination, health education, administration of health service, assessing the work site health and safety risk, maintaining the employee health, implementation of the return to work policy, providing a guidance to carry out an intervention to improve the employee’s well-being at work, and also to provide the first-aid backup and rehabilitation service (Guidotti et al., 2013; Jeyaratnam, 1992; Taskinen, 2004). In the European regional strategy document (World Health Organization, 2005b), special attention has been drawn to the need to decrease the number of occupational diseases and injuries in businesses traditionally perceived as carrying high risk. It is also recommended that actions supporting the employee’s own health promotion and health education should be included in the tasks of OH personnel (World Health Organization, 1995b).

2.12.1 Role of the Occupational Health Nurse in an Occupational Health Service

As mentioned previously, OH practice focuses on maintaining and promoting the health of workers at worksites and the OHN is a person in charge of implementing strategies in order to achieve OH (Guidotti, et al., 2013; Sourtzi, 1991). OHN is defined as a “registered (general) nurse engaged in the conservation promotion and restoration of the health of persons at their place of work. Their primary goal is the prevention of occupational illness and injury. The outcomes are reduced economic and social costs for both employer and employees” (Australia College of Occupational Health Nurses, 1991, pp. 2). OHNs see employees as people, not patients. That approach will stand them in good stead as the organizations in which they work undergo major structural change (Guidotti et al., 2013). In addition, OHNs’ responsibilities include quality improvement, international ‘Best Practice,’ through the

consultation role of workplace labor reforms, and enterprise bargaining (Parker, 1994; Strasser, 2006). These roles, combined with changes to OH&S legislation in most states during the last decade and the escalation of workers' compensation costs, are having a marked effect on OHS performance within organizations (Guidotti et al., 2013). Hence, OHNs have long proved their value in caring for the scarce commodity of labor and safeguarding workers' health in the workplace (Strasser, 2006).

Over five decades ago, Johnson and Martin (1958) recommended that the nursing role should meet patient needs, by focusing on expressive rather than instrumental functions. In the US, OHN practice has already developed a solid foundation for improvements within OHS (Sato, 1997). Historically, OHN was responsible for OH&S on the worksite since the late 1800s in the north eastern part of America to serve the coal mining industry. However, the role was changed and expanded due to the changes in the economic activity from coal mining to the technical industry. Thus, presently, the key nursing role in OH&S could be as that of a coordinator amongst stakeholders, educators, researchers, leaders, case managers, consultants, clinicians and health promoters, where the number of individuals and their functions depends on the type of industry and the country's practice (AAOHN, 2004; Alleyne, 2009; Martin, 2007; Naumanen-Tuomela, 2001b; Rossi, 2000; Sato, 1997). Although the OHN traditionally had numerous roles and functions, the key role the OHN should focus on is the promotion and restoration of health and the prevention of illness and injury on the worksite with a holistic approach (AAOHN, 2004; Mellor and St. John, 2007; Miller and Nuttall, 2002; World Health Organization, 2001b). Thus OHN practitioners are expected to be multi-skilled and able to apply the knowledge into multidisciplinary approach (Naumanen-Tuomela, 2001b).

Marziale et al. conducted a study that suggested that the role of OHN was prone to have managerial focus, although consultant and educator functions are more important in U.S. (2010). From the client's perspective, the OHN is required to have a holistic and client-centered approach, which is supplemented by extensive knowledge across different disciplines (Guidotti et al., 2013; Naumanen-Tuomela, 2001a). Regardless from whose perspective – the client's or OHN's, an extensive knowledge, working with other parties, and on-going study are highly valued skills an OHN should possess (Naumanen-Tuomela, 2001a, 2001b; Strasser, 2006). Although the OHN must protect, promote, and maintain the worker health

(Salazar, 2006), the goal should also be to reduce the health cost and eventually to effectively and efficiently use related resources, not all industries hire OHN with these goals in mind, due to no national legislation to guide the employer (World Health Organization, 2001b). Only a limited number of countries, such as Finland, Greece, Australia, India, China, and Brazil have a legal means to force the employer to offer OHS to employees. In addition, no significant guidelines for OHN qualifications and job duties are available at the national level (Komulainen, 1993; Wong, 2004; Sourtzi and Gourgiotou, 2011).

An OHN can be an OHSP as well as occupational physician, physiotherapist, occupational therapist, or occupational hygienist (Northern Ireland Department of Health, 2004). No rules or regulations are in place to govern which medical professionals can be the OHSP; at present this decision depends on traditional practice, the employer's beliefs or resource allocation. Moreover, no legislation or professional regulation governs the OHSP's qualifications or practice standards that can be enforced when a professional is appointed as OHSP (Beattie et al., 2000; Blizzard, 2006; Januskevicius and Telksniene, 2002; Rogers et al., 1993; Zhu et al., 2010). According to the AAOHN (2004) a clear position statement for OHN's role and responsibility must be given, as well as the qualifications for professional accreditation prior to offering a person a position of OHN. In the job responsibility the OHN should have knowledge and competence in providing OHS in various workplaces and should provide evidence of experience of working independently or collaboration with other professionals (Sato, 2003). In Finland, OH is a part of the Master degree of the Health Care program in the University and the OHN is required to have on-going education with the emphasis on preventive measures. In addition, an OHN is required to continue education and is reassessed every five years (Guidotti et al., 2013; Komulainen, 1993).

As mentioned previously, OHS has been a specialist practice in various industries for more than a century (Sato, 1997). In general, OHNs are perceived positively and are seen as supportive by the client (Lusk, 1990; Silpasuwan, 2006; Teichman, 1990). However, official recognition of this valuable service is not shown in developing countries such as Brazil and South Africa (Grainger and Mitchell, 2003; Marziale and Hong, 2005). More than two decades ago, Teichman and Brandt-Rauf (1990) predicted an

increase of 300% in the U.S. market's demand for OHNs due to the low number of OHN graduates. Their study is echoed by Surintorn, who conducted a similar study in Thailand (Surintorn, 2003). In the meantime, internal evaluation related to the OHN still has room for improvement, in particular in areas including advanced professional knowledge and use of evidence-based information to develop new programs in practice (Barlow, 1992; Lusk, 1990; Yamase et al., 2001). As OHN professionals are increasingly in specialist roles in nursing practice in various workplaces, their practice needs to have appropriate documentation in order to fulfill the legal requirement and continue providing care to the client (Draper, 2011). As a result, some OHNs have found that their key function was to supply the required documentation. In short, the OHN has value in OHS, but can still expand the professional image, professional standards, autonomy and role. In particular, in developing countries, such as South Africa, Thailand, and Brazil, the OHN role perception is rather negative, stemming from inadequate information about the service these professionals provide (Draper, 2011; Grainger, 2003; Silpasuwan, 2006; Surintorn, 2003). Esin, Emiroğlu, Aksayan, and Beser (2008) recommended that the OHN should have postgraduate level training in the future in order to achieve the high level of service. In addition, Mellor and St. John (2007) stressed that although the OHN plays an important role in occupational rehabilitation and evidence-based practice in OHS, study at the post-graduate level would improve their professional knowledge as well as their image and standing in the workplace and society.

2.13 Conclusion

In this chapter, the literature on OHS practice has been critiqued. Although first defined in 1950 at a WHO and ILO joint meeting, the term appeared in the literature as early as 1946 and has been promoted for many decades since by the WHO, the practice varies from one country to another, and across different industry sectors and therefore so does the literature. In addition, a global approach to OHS is difficult to achieve, due to the different national approaches to OHS and the lack of national policy to guide practice. Moreover, flexibility in implementing OHS practice is necessary for adoption of any standardized principles and guidelines, as the level of achievement is dependent on the local legislation, OHS definition, and stakeholders' approach towards the process. In HK, OHS practice was focused when the OSHO was enacted in 1997. However, the actual practice still remains unclear and the health care sector

is still recognized as a higher risk industry. This is an important, albeit understudied issue, and following a comprehensive and systematic literature review, the present study is located where there is, only one study in Hong Kong and several in the Western countries (Heikkinen et al. 2007, Gibb. et al. 2010, Rogers, et al. 2014). It can be concluded that the legislation, attitudes and practices of stakeholders and the expectations of OHS consumers (OHSC) are key issues that affect the outcome of the service. The views of some the stakeholders/consumers were explored. In the next chapter the researcher design is described.

CHAPTER THREE

Research Design

3.1 Introduction

As described in Chapter One, the aim of this study was to explore workplace health and safety for nurses in Hong Kong Hospitals. In Chapter Two, the evidence in the literature was critiqued and the gap identified where important new research will be undertaken. This chapter describes the research design, the rationale for the mixed method approach which aims to explore the phenomenon using various data sources and types. The study ethical considerations are described and discussed, followed by recruitment, questionnaire design and interview structure. Finally the data collection, data analysis and strategies to confirm the reliability and validity of the findings will be discussed.

3.2 Mixed Method Research

Although mixed method approach is a contemporary method when compared with traditional research methods (Creswell, 2009), it has become an approach of increasing interest in the last three decades recommended by many nursing scholars (Kettles, Creswell and Zhang, 2011; Todd, 1979). It becomes the third research approach beside quantitative and qualitative research methods (Creswell, 2007).

Creswell (2009) stated mixed method research combines both quantitative and qualitative datasets to analyze a study result. Quantitative approach works from the positivist paradigm, which is expected to be objective, free of values and measurable. In other words, it is using deductive reasoning. In this approach there can be influence by the researchers' personal values of the theory or conceptual framework (Ivankova, Creswell and Sticks, 2006). Qualitative approach focuses on the Constructive paradigm. In this approach, researchers' seek to learn the participants' points of view. The study result can be influenced by researchers' values. A mixed method research study allow researchers to study their interests, concerns and use the results in ways can draw up a valuable outcome to reflect the participants' experience (Creswell, 2009; Ivankova et al., 2006).

One of the characteristics of the mixed method approach is that the weaknesses can be minimized and the strengths can be enhanced arising from particular qualitative or quantitative research methodologies. This approach recognizes the value of knowledge as constructed through qualitative approaches such as perceptions and life experience of the participant. Furthermore, this study approach can consolidate the grey area of qualitative (fact-based) and quantitative (subjectively based) methodologies as having value only in exclusivity from each other.

Based on the unique characteristics of the mixed method, the method can be used to reflect the trend of the study population and the structured qualitative dataset and can enhance the qualitative investigation and add rigor to the quantitative analysis. This approach therefore can add depth to exploration of the study (Kettles, Creswell and Zhang, 2011).

3.3 Purpose and Criteria of the Mixed Method Study

Greene, Caracelli and Graham (1989) identified five purposes of mixed methods: triangulation, complementarity, development, initiation and expansion after review of various mixed methods studied.

Triangulation approach is the predecessor in mixed methods study (Creswell, 2009). Complementarity approach is using qualitative and quantitative methods to examine the different and overlapping facets of a situation in order to generate a meaningful result. Development approach refers to using one approach after the other. In other words, the second study method is guided by the first study result. It is crucial to decide about the second study sampling, the method of measurement and implementation. Initiation approach is applied when the uncertainty is discovered in the study. It can show the stability in qualitative and quantitative results when compared and analyzed for a new question. Finally, expansion approach enhances the scope and breadth of study (Greene et al., 1989).

Creswell & Plano-Clark (2011) identified four criteria for researchers to decide the appropriate mixed method suitable for the research.

- i. type of design
- ii. the design approach to use

- iii. match the design for the study's purpose and
- iv. be clear about the reason for using mixed methods (2011)

It is crucial to have rigorous objective setting and understanding about the direction of research study by the researcher. This can influence the sequence of qualitative and quantitative methods prior to the research commencement (Creswell & Plano-Clark, 2011).

3.4 Reasons for Using a Sequential Mixed Method

Ivankova et al. described a mixed method approach as “a procedure for collecting, analyzing, and “mixing” or integrating both quantitative and qualitative data at some stage of the research process within a single study for the purpose of gaining a better understanding of the research problem” (2006, pp.3). Mixed methods are supported by various scholars, and their advantages are summarized in section 3.4.1.

A better understanding of the multifaceted characteristics of OHS and underlying phenomena can be obtained using multiple data generation approaches (Kettles et al., 2011). In addition, a mixed method approach enables various views of a problem and it is possible to use a quantitative method followed by a qualitative method or vice versa. In other words, it strengthens a study of this type and overcomes the weaknesses of each individual approach (Golafshani, 2003; Kettles et al., 2011). Furthermore, adopting a mixed method approach allows for the construction of a coherent picture of the process of OHSP and OHSC as they apply to this study. Finally, it can provide comprehensive answers to the research questions which a single research approaches often cannot achieve (Golafshani, 2003). An appropriate research design is crucial to generate a valid and reliable result.

Of the approximately forty mixed methods designs reported in Creswell (2003), the sequential explanatory design is most common and popular (Creswell, 2003; Lieber, 2009). The sequential explanatory design uses the quantitative method to collect and analyze the data in the initial phase of the study. This is followed by the qualitative approach to collect data within one study (Greene, 2007; Lieber, 2009). Ivankova et al. (2006) and Creswell (2003) remind researchers of methodological issues while using sequential explanatory design. These include the priorities or weights assigned to the

quantitative and qualitative data collection and analysis. The sequence of the data collection and analysis from step to step in the quantitative and qualitative phases are considered.

Creswell (2003) and Lieber (2009) provide a clear guide to sequential design in a mixed method approach. A quantitative phase is followed by a qualitative phase. In the first phase quantitative data were collected and analyzed, and qualitative data were collected and analyzed in the second phase. In this approach, the qualitative phase elaborates and explains further the quantitative results. In addition, the qualitative data collection is informed by the results of the quantitative data collection phase is built on the quantitative phase in order to link the two phases in the intermediate stage of the study. This approach provides a general picture of the research problem and further elaborates the statistical results with qualitative data to support them (Greene, 2007). A decision was made to use the sequential explanatory mixed method as for these reasons, it is the best for this study.

The major steps in the process of this study are illustrated in Figure 3.1

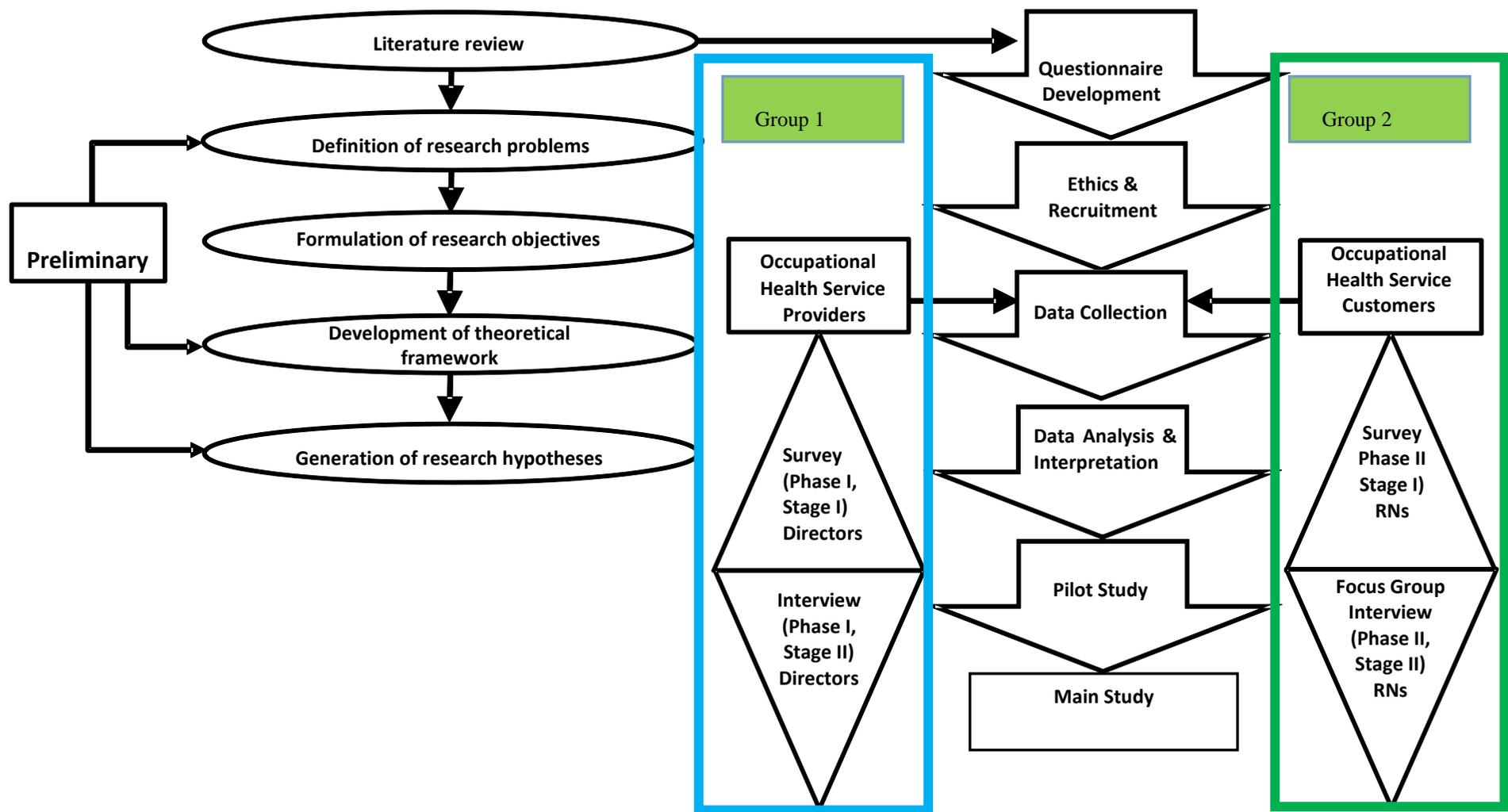


Figure 3.1 An Overview of Research Design

3.4.1 Advantages and Disadvantages of the Mixed Methods Explanatory Sequential

Design for this study

The explanatory sequential design enables the researcher to explore the quantitative results in more detail before talking to key participants about their views. In addition, this design helps to uncover unexpected results through the voices of the participants, and by enriching the data with personal examples. Because of these characteristics, mixed methods are used in this study to capture the different views and concerns about OHS between service providers and consumers. However, mixed method approaches are more time-consuming and require more resources compared to the single method approach (Greene, 2007; Lieber, 2009). No research design is perfect however (Greene, 2007). The researcher attempted to avoid design limitations by using a feasible timeframe, for example: the researcher would not include participants if they failed to contact her within a week of being invited to participate. For the focus group study, within a week with different time interval attempt, or no reply after the message was left with the contact number, in order to complete the study within the schedule and avoid causing inconvenience to the participant.

3.5 Ethical Considerations

The research addresses the need for ethical conduct of the research since there was clearly human involvement and would be subject to review by a human ethics committee. The Human Research Ethics handbook of the National Health and Medical Research Council Australia (2007) was used as a guideline and ethical framework of this study. The study did not entail any serious risks for participants and any potential risks were minimized by careful consideration of ethics matters pertaining to the conduct of the research. Prior to commencing the study, ethics approval was obtained from the Monash University Human Research Ethics Committee (MUHREC). In addition, the researcher submitted the research proposal to each invited hospital. Further some of the hospitals involved in the study had their own Ethics Committee and ethics application process, but some did not. For this reason, those which did not have their own Ethics Committee provided approval letters to MUHREC from the hospital Chief Executive Officers. The relevant letters are attached in Appendices 6 to 12 for Group 1: Phase I and Appendices 16 to 21 for Group 2: Phase II studies. For those hospitals with HRECs the ethical application was processed. The study was not commenced until approval was granted and agreed to by the Monash University Human Research Ethics Committee (MUHREC). (Appendices 2, 3, 4, 14, 15, 22, 25, 26). According to the MUHREC guidelines, various ethical issues were applicable in this study, such as anonymity, confidentiality, protection of human rights, level of risk, benefits of the study, right of self-

determination and full disclosure. These were all considered with reference to the NHMRC guidelines and discussed with academic supervisors.

3.5.1 Anonymity and Confidentiality

Anonymity and confidentiality of the participants were adhered to throughout the study. Where participants were invited to complete an anonymous paper questionnaire, no identifying information was requested. There was no requirement for written consent and consent was implied by participation. The procedure for maintaining anonymity was explained in the Explanatory Statement which was attached to the front of the questionnaire. Where participants were invited to participate in an interview or focus group, no identifying information was requested at any time. A written consent was offered to participants. Pseudonyms were used to protect identity. The procedure for maintaining confidentiality was explained in the Explanatory Statement which was tabled before the interviewees and focus group participants began and during introductory morning/afternoon tea. All data relating to participant individuals and organizations will be reported in unidentified aggregate form, and will be kept in a locked archive store at the School of Nursing and Midwifery for five years. The participants were aware that the results may be presented at conferences or published in journals and individuals and organizations would be unidentifiable.

3.5.2 Beneficence and Level of Risk of the Research

Beneficence is one of the four founding ethical principles in planning and conducting a research study therefore researchers should consider a design which maximizes benefits and minimizes harm (Polit & Beck, 2006a). The benefit in this study is clear. By exploring the views of various stakeholders, it is possible to inform policy, practice and research which results in a safer workplace for nurses. However, research may cause distress or other types of discomfort or harm. According to Polit and Beck (2006) the harm caused to participants in research studies may be may be physical, emotional, social or financial. Most significantly harm and discomfort may arise during the qualitative studies, which involve in-depth understanding of the personal experience (Polit & Beck, 2006a). Therefore in this mixed methods study, the researcher remained alert to the possibility of significant harm when individual participants were recalling events. Based on the National Health and Medical Research Council (2007) advice there are three levels of risk; harm, discomfort and inconvenience for human research. In this study design, discomfort can be anticipated for the participant as a result of anxiety during the focus group interview. The MUHREC assessed the project as standard risk yet the researcher remained vigilant for any unexpected response from participants. None occurred.

3.5.3 The Right of Self-Determination and Full Disclosure toward Informed Consent

The right of self-determination and full disclosure toward informed consent is the second ethical principle after the beneficence (Polit & Beck, 2006a). All participants were informed of his/her right to withdraw from the study during the process without obligation. The Explanatory Statements in Appendices 4 and 22 were provided to participants in Group 1: Phase I Stage II and Group 2: Phase II Stage II studies respectively. Questionnaires were forwarded to the OHS departments of the hospitals which had agreed to participate and appropriate arrangements were made with the Personnel Departments to distribute the questionnaires to the appropriate participants. All participants were fully informed of the purpose of the study, the right to participate or not, and that all information obtained would be held in strict confidence and according to the Monash University policy. All participants had the right to withdraw from the study at any time, until the time of data submission. Group 1: Phase I Stage I: Implied consent was assumed by the return of the completed questionnaires Group 1: Phase I Stage II study. The participant simply ticked question 11 "Yes". The researcher then sent an explanatory letter (see Appendix 5) to the participant prior to the individual interview. Group 2: Phase II Stage I: Implied consent for questionnaire. Group 2 Phase II Stage II study was assumed when the participants' returned the questionnaire with completed personal contact details signifying consent to participate in Group 2 Phase II Stage II of the study (last question, part 2). The consent form for Phase two is shown in Appendix 25.

3.6 The Setting

The setting of the study, an important element of the research design, was Hong Kong hospitals. Five private and two public hospitals participated in the study. Three hospitals are located on Hong Kong Island, three on the Kowloon side and one in the New Territories. The number of employees in each hospital ranges from 300 to 3500 but the number of nursing staff (including health care assistants, enrolled nurses and registered nurses) ranges from 150 to 1500 (see Table 3.1). These hospitals provide a range of out-patient and in-patient, day surgery and specialty care services. One hospital provides community services in addition to emergency care services. Some of the participating hospitals have a separate OHS department and some do not and this function is managed by the Human Resource Department, Administrative or Quality Department or the responsibilities may be delegated to various departments, which form a safety committee for OHS. Seven hospitals participated in Phase I involving the questionnaire in Stage I, but only five OHSPs participated in the interviews in Stage II. The OHSP was full-time in three of the hospitals and part-time in the remaining four. The OHSP at Hospital A and B had a nursing background and based on this reason the hospital approval letter (see Appendix 6 & 7) would use the term "Nursing staff" in this case. For the rest of hospitals the OHSPs had a different professional

background for example: occupational therapist, physiotherapist or human resource personnel, the approval letter was worded accordingly.

Hospital	Type	Region	No. of bed	No. of nursing staff	Title of person in-charge	OHSP with nursing background	
1	A	Private	HK Island	150	200	Occupational Safety and Health Manager	Yes
2	B	Private	New Territories	150	200	Occupational Safety and Health Manager	Yes
3	C	Private	HK Island	100	150	Quality Manager	No
4	D	Private	HK Island	400	1000	Occupational Safety and Health Coordinator	From different departments in the hospital (including nursing)
5	E	Private	Kowloon	800	800	Occupational Safety and health Coordinator	From different departments in the hospital (including nursing)
6	F	Public	Kowloon	1442	~1500	Occupational Safety and Health Manager	Occupational Therapist, Physiotherapist, Nursing Officer
7	G	Public	Kowloon	425	300	Hospital Administrator	No

Table 3.1 Profile of Participating Hospitals

3.7 Participant Inclusion and Exclusion Criteria

The views of two groups of participants were sought. Occupational Health Service Providers (OHSPs) and

Occupational Health Service Consumers (OHSCs) from seven participating hospitals in Group1: Phase I and

six in Group 2: Phase II. Participants were located in the New Territories (NT), Kowloon and Hong Kong Island regions.

Inclusion and exclusion participation criteria were carefully considered for each phase of the study.

The inclusion criteria for Group 1 (both Stages I and II):

1. The OHSP in the hospital OHS department (in charge/title – ‘Director’)
2. May be a Registered Nurse, Physiotherapist, Occupational Therapist or Human Resource Personnel
3. 18 years or above which is considered to be the legal age in HK (The Hong Kong Labour Department, 2012b)
4. Read and understand English

The inclusion criteria for Group 2 (both Stages I and II):

1. 18 years or above which is considered to be the legal age in HK (The Hong Kong Labour Department, 2012b)
2. Registered Nurse in HK under the HK Nursing Board regulation (The Nursing Council of Hong Kong, 2012)
3. Read and understand English

3.7.1 Sampling Methods

In sequential explanatory design sampling involves different data from different sources. Overall the sample of 7 participant hospitals was the number of hospitals that responded to the letter of invitation. The majority are private hospitals, 5 of 7 and those that did not respond may have reasons for not contributing which may have been useful to this study.

- **Quantitative**

There were two sets of quantitative data arising from a sample of OHSPs in Phase I and a sample of RNs in Phase II. Non probability sampling was used; the samples may not represent the populations of OHSPS and RNs in the wider hospital populations in Hong Kong hospitals. Quantitative sampling, was

expected to inform with the largest sample possible, and thus reduce the sampling error (Polit & Beck, 2012). A power analysis was not undertaken for the sample sizes as the denominator was not possible to acquire.

- Qualitative

There were two sets of qualitative data, one arising from OHSPs in Phase I and another from RNs in Phase II

These were convenience samples recruited from participants in the surveys. In qualitative research “there are no rules for sample size (Patton, 2012:244). For both the interviews with the OHSPs and the focus groups with the RNs individual participants were encouraged to provide their own views rather than an organizational perspective and freedom of speech is more likely and did occur. The researcher continued to pursue what she wanted to know about the issue, until saturation was achieved (Cresswell, 2009).

3.8 Recruitment and Overall Steps in the Process

The participants were recruited after voluntary reply to an invitation letter was sent out to all private (12) and public hospitals (43) in HK: total 55 hospitals (The Hong Kong Department of Health, 2001). The OSHPs provided in Hong Kong hospitals were surveyed through the Directors (Group 1) to obtain information on the organizational structure of each unit, its policies and procedures, the range of services and programs offered, and the types of OH problems that are encountered and reported. The Directors were also invited to be interviewed.

Hong Kong nurses’ working in Hong Kong hospitals (Group 2) were surveyed with regard to their knowledge of OHS, participation in OHS activities, OHS problems and concerns, use of OHS and their opinions on the OHS policies and practices offered by Hong Kong hospitals. They were also invited to join a focus group. A summary of sample recruitment is shown in Table 3.2.

Grouping	Staging	Employees	Data type	Method	Recruitment channel
1 (OHSP)	Phase I				
	Stage I	Directors	Quantitative	Questionnaire	CEO's
	Stage II	Directors	Qualitative	Interviews	Director
2 (OHSC)	Phase II				
	Stage I	RN's	Quantitative	Questionnaire	Nursing Administration or Human Resource
	Stage II	RN's	Qualitative	Focus group	Self nominated

Table 3.2 Summary of Recruitment Target

CEO – Chief Executive Officer

OHSP – Occupational Health Service Provider

OHSC-Occupational Health Service Consumer

RN – Participant Registered Nurses

3.8.1 Group 1: Stage I Phase I Study Recruitment

During the initial phase, the researcher participated in various OH related conferences, seminars and activities in Hong Kong in order to gauge the likely response to the proposed study. The Chief Executive Officers (CEOs) of the public and private hospitals located in the Hong Kong (HK) area, including Hong Kong Island, Kowloon and the New Territories, were then approached. Initially, all hospitals were sent an invitation (see Appendix 2) to join the study after the Monash University Human Research Ethics Committee (MUHREC) approved the study as previously reported. The researcher sent the invitation letters by normal mail to the hospital CEOs. The letter explained the purpose of the study and invited the hospital to join the study. An explanatory statement for the directors of OHS units (see Appendix 4) about the study was provided by the researcher through the CEOs, and the directors were invited to complete the questionnaire (see Appendix 5). The questionnaire (with a hospital name on it) was completed by the Director/ Manager in each of the OHS departments or units.

Questionnaires were completed in work time and in a way convenient to the participants. They sent back the questionnaire through the stamped return envelope. No personal contact details were required.

The reason for selecting the directors of OHS units for participation in Group 1: Phase I Stage I (Figure 3.2) was that they are in charge of the OHS unit and should be familiar with its operation any concerns. In this study, the researcher was interested in collecting information about the existing OHS operations in HK hospitals and the official records of OHS in the hospital setting. The directors of the OHS units were considered the appropriate persons to participate in this stage of the study.

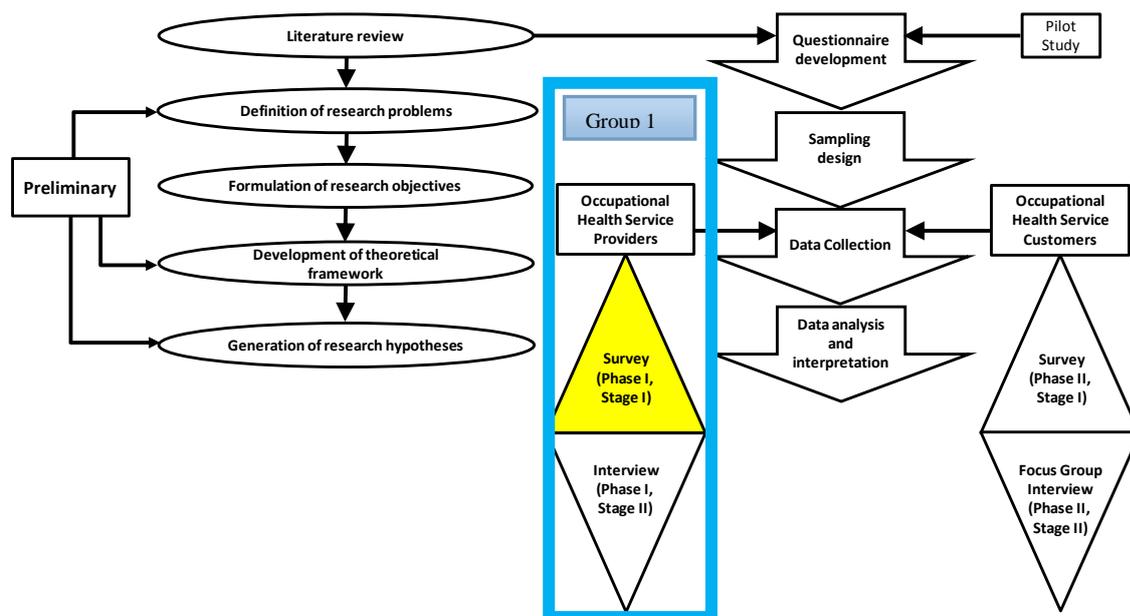


Figure 3.2 Group 1: Phase I Stage I Study Recruitment

3.8.2 Group 1: Stage I Phase II Study Recruitment Approach

The OHSP was asked to complete Question 11 of OHSP questionnaire (see Appendix 5) for further participation in Group 1:Stage II (Figure 3.3) of the study. If the researcher found the need for an in-depth exploration of the OHSPs experience she made an initial approach via email. Individual interviews were then arranged. OHSPs were contacted by the researcher to make an appointment for an interview by telephone or face-to-face subject to the participant’s convenience and comfort.

A follow-up interview on the questions or the list of topics in Appendix 13 was conducted by the researcher to collect information on the existing OHS in the study hospital. Interview data were collected and processed either in the participant's office or a hospital meeting room. The voluntary participants were assured of confidentiality, and the OHSPs had the right to decline to answer any questions during the interview.

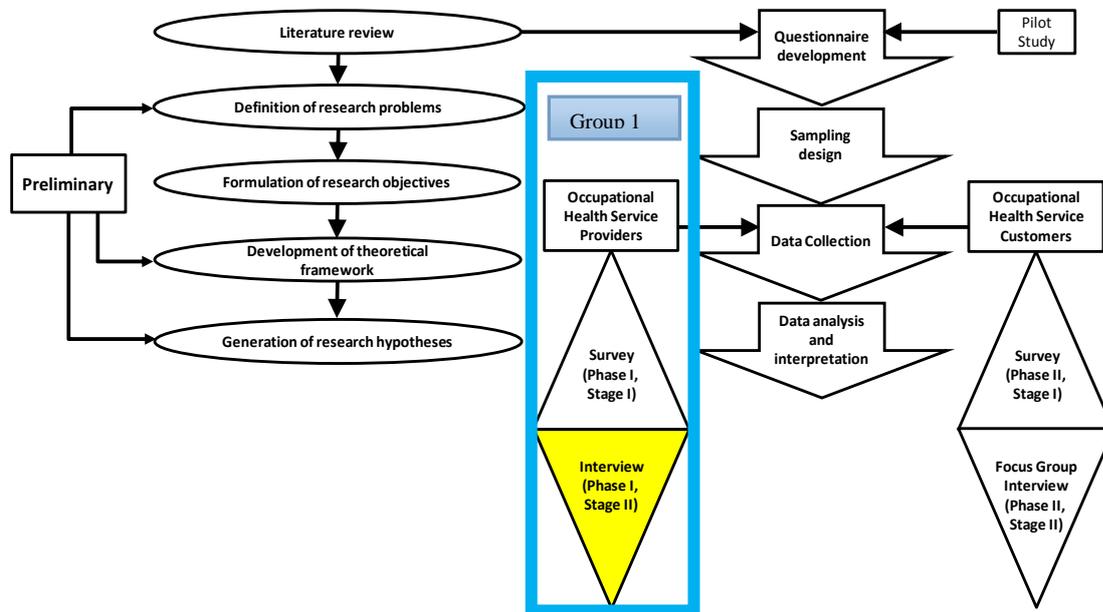


Figure 3.3 Group 1: Phase I Stage II Study Recruitment

3.8.3 Group 2: Stage II Phase I Study Recruitment Approach

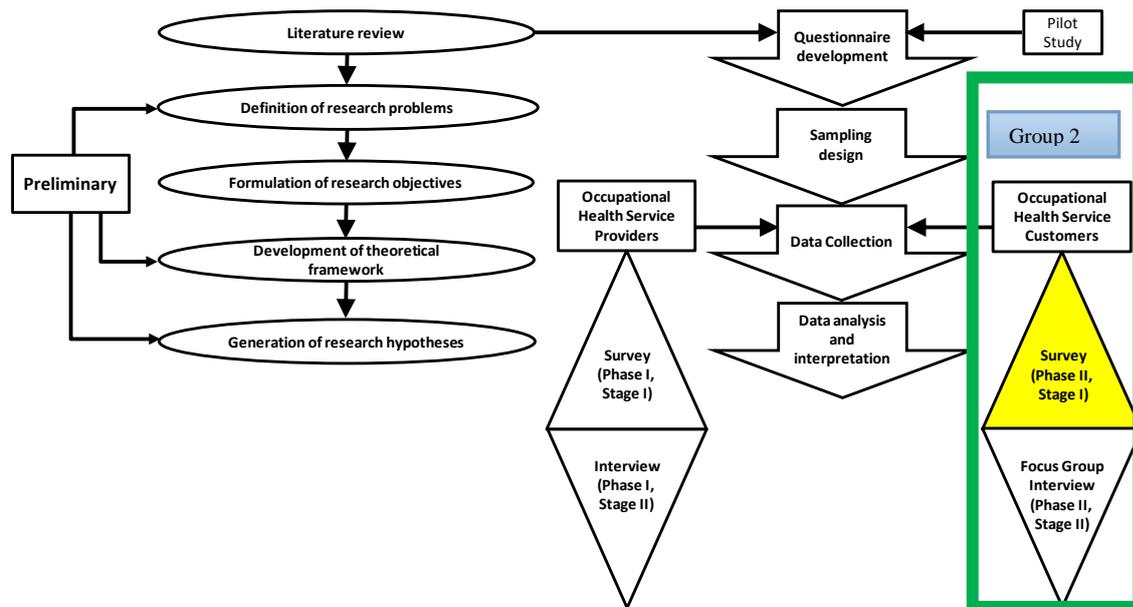


Figure 3.4 Group 2: Phase II Stage I Study Recruitment

Phase II of the study commenced after the completion of Phase I of the study Hong Kong hospitals. HA hospitals and private sector hospitals were included. Each invited hospital had at least 50 Registered Nurses (RNs). The reason for choosing RNs to participate in Group 2: Phase II of the study was that they were the key human resource in the hospital. They work in the high risk environments, and spoke English unlike most other employees in the hospitals. It was reasonably assumed that the registered nurses would be aware of, and be able to provide feedback on OHS in their hospitals. The hospitals were recruited using the purposive selection method with voluntary participation in the study and the volunteers were recruited using the purposive sampling method in this study.

Letters (see Appendix 15) were posted to the Directors of Nursing or other responsible officers of the Phase I study hospitals, to invite their participation in Phase II of the study, with a particular focus on all RNs. The nursing staff of the selected hospitals was recruited through either the Nursing Administration or Personnel Departments, depending on the practice of each hospital.

Unfortunately, one public hospital was unable to participate in the Group 2 study because of the flu epidemic and was unable to free any resources for this study. After approval by the CEOs of the other six hospitals, the

relevant correspondence (see Appendices 16 to 21), followed by an explanation letter (see Appendix 22) and questionnaire (see Appendix 23) were sent to the nurse in charge of each hospital with a request to disseminate the information to the appropriate nursing staff.

The researcher sent the follow-up letter (see Appendix 24) two weeks after the questionnaires were distributed. This letter thanked those participants who had already returned the questionnaire and reminded any participant who had not yet returned their questionnaire to do so.

The questionnaires were completed in a location convenient to the participants e.g. at work or at home. The questionnaires (see Appendix 23) were anonymous and implied consent was assumed for Group 2: Phase II Stage I (Figure 3.4) participants, and the return of a completed questionnaire was taken as consent to participate.

For OHSC, 1800 RNs working in six hospitals including 1 public and 5 private hospitals in Hong Kong were targeted for Group 2: Phase II Stage I of the study. According to the Nurses Registration Ordinance, Cap164s8 qualification for registration stated the minimum age of 21 years (The Nursing Council of Hong Kong, 2012). In other words, the participants were aged over 21. No personal contact details were required. Questionnaires completed by the participants were returned direct to researcher in pre-paid self-addressed envelopes.

3.8.4 Group 2: Phase II Stage II Study Recruitment Approach

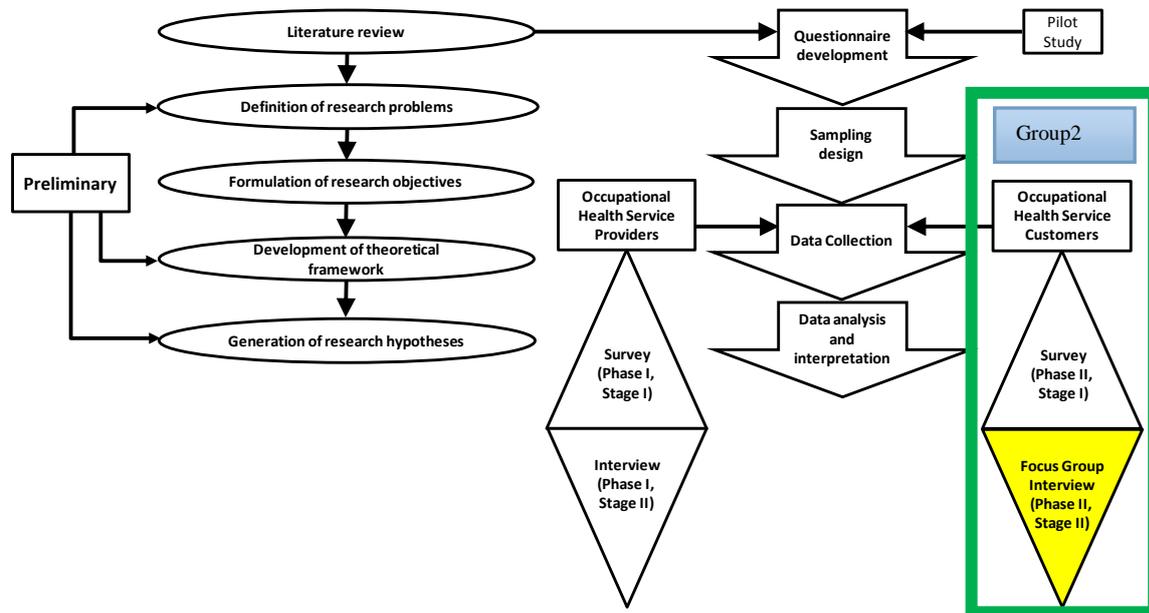


Figure 3.5 Group 2: Phase II Stage II Study Recruitment

Participants self-selected for this stage were those nurses who indicated on the returned questionnaires (see Appendix 23) their agreement to participate in a focus group interview. Included in the letter to participants was an invitation to participate in a group interview designed to obtain more in-depth information from a sub-sample of nurses. A purposive sample of 6 nurses from each hospital was selected. Those who agreed to a focus group interview were asked to provide contact details on the questionnaire. This arrangement aimed to offer the participants a safe environment in respect of meeting venue and schedule where they could share ideas, beliefs and attitudes with others at the same time as provide valuable data for the research.

Thirty-two RNs working in the 1 public and 5 private hospitals in Hong Kong agreed to participate in Group 2: Phase II Stage II (Figure 3.5) focus group interviews. A consent form (see Appendix 25) for Group 2: Phase II Stage II was completed by participants prior to commencing the focus group interview and given to the researcher.

Semi-structured group interviews with audio recording were planned, and the interview questions or list of topics are provided in Appendix 26. The researcher adapted a focus group instrument from a similar study done in Sydney by Wong (2002). This study was modified by the researcher after a local pilot study using Wong's group interview instrument study (2002) to assess the effectiveness of the current workplace health management structure and processes within each of the selected hospitals. The modification was based on responses from a group of OHSCs at each hospital. In this local study, the researcher considered policies, procedures and practices on health promotion, health and safety, management principles, human resource and support system.

The focus group meetings were suitable venues for gaining meaningful insights into the OHS experience of OHS consumers. In their working lives, they work in teams, they belong to the culture of the industry and they share similar experiences. The focus group interviews were conducted in a meeting room or other place suitable for the participants at the hospital. The interviews were audio-taped and interview notes were recorded by the researcher. The data were collected in Hong Kong and the questionnaires and interviews were conducted in English. No language issues were apparent.

3.8.5 Procedures Involving Participants

Participants in each group were informed how much time would be required for each phase and stage as follows:

Group 1: Phase I Stage I survey: 30 to 40 minutes to complete the questionnaire.

Group 1: Phase I Stage II face-to-face or telephone interview: 30 to 45 minutes for a follow-up interview if required.

Group 2: Phase II Stage I survey: 30 to 40 minutes to complete the questionnaire.

Group 2: Phase II Stage II focus group interview: 30 to 45 minutes.

Nothing irregular occurred during Phase I and II except the normal administration of completing the Questionnaires and answering interview questions.

Grouping	Staging	Data type	Time require to complete the process
1 (OHSP)	Phase I		
	Stage I	Questionnaire	30 to 40 minutes
	Stage II	Face-to-face or telephone interview	30 to 45 minutes
2 (OHPC)	Phase II		
	Stage I	Questionnaire	30 to 40 minutes
	Stage II	Focus group interview	30-45 minutes

Table 3.3 Summary of the Procedures Involving Participants

3.9 Questionnaire Design

The questionnaire used in Group 1: Phase I of the study was developed based on the literature review and tailor-made for the local (HK) situation.

1. English language was used in this questionnaire. The rationales in using English language are listed as below: More than 90% of related literatures in this study are English. The candidate is studying at an Australian University and her supervisors are English speaking only.
2. In using the English language to design the questionnaire can minimize the translation error
3. The HK Registered Nurse is capable of reading and writing English language

The OHSP questionnaire included 11 questions and was designed and piloted with an expert panel by the researcher and approved by the Monash Human Research Ethics Committee as shown in Appendix 5. The questionnaire design was informed by the literature and the source is discussed further in section 3.9.3. The survey questionnaire focused on the organization of the service, types of services and programs offered, reported OH&S problems and concerns, and OH&S policies and procedures.

These questions were included the following sections:

The first section: From question 1 to 5. Type of service: How organized, staffing etc.

Organization descriptor by governance type

How service is organized?

Who does the service report to?

To who do you provide occupational health service?

Specify the type and number of staff working in your service.

The second section: Services and programs/courses, which includes 2 questions:

What occupational health and safety service do you provide?

What occupational health and safety courses/ programs are offered to employees?

The third section: Types of OH&S problems encountered vs Occupational Health Service content, 1 question as below:

Which of the following occupational health problems has your service dealt with in the last 12 months?

The fourth section: OH&S policies and procedures. The existing hospital OH&S policies and procedures,

Which of the following policies and /or procedures are available in your workplace?

The fifth section: Open ended

Are there any other details about your service not covered in the questionnaire that you would like to add?

The sixth section: Invite the participant to participate in an interview.

Could you please indicate below if you agree to be interviewed, to provide further information or clarification regarding the occupational health service your unit provides?

3.9.1 Validity of the Tools

Content and construct validity are important dimensions in assuring data quality and the outcomes of the findings (Polit and Beck, 2012). Content validity refers to the degree to which the instrument's items sufficiently represent the concepts of the study (Polit and Beck, 2012).

Construct validity is the degree to which the instrument actually measures the theoretical construct under investigation (Burns & Grove, 2009). To ensure content and construct validity of the items, data quality and user friendliness, both questionnaires were examined by an expert panel with three members, which included the OH&S manager from a public and a private hospital and a professor from a Hong Kong university with an interest in OHS. The feedback was that the questionnaire was fit for the purpose and there was no need to change any wording or phrases to correct the meaning or represent the concept.

3.9.1.1 OHSP's Content Validity Index

Screening of the data by the researcher revealed no missing data on the items returned by the panel of experts.

There is no solely objective method to measure content validity of an instrument (Polit and Beck, 2006b). Using experts in the field however, has become a common method to evaluate and document content validity of a new instrument.

3.9.1.1 I) Panel of Experts (Stage 1 Phase II: OHSP survey)

Experts were recruited by phone, post, or email from within the Hong Kong experts in providing an OHS within different sectors, Hospital Authority (n = 1), private hospital (n = 1) and Professor in the University (n=1). They all have ten or more years of experience in OHS.

The CVI in OHSP survey paper was 1 (Table 3.4) which according to the Polit and Beck (2006b) calculation method.

	Rater1	Rater2	Rate3	Number agreement	i-CVI
Item1	4	4	4	3	1
Item2	4	4	4	3	1
Item3	4	4	4	3	1
Item4	4	4	4	3	1
Item5	4	4	4	3	1
Item6	4	4	4	3	1
Item7	4	4	4	3	1
Item8	4	4	4	3	1
Item9	4	4	4	3	1
Item10	4	4	4	3	1
Item11	4	4	4	3	1
				CVI	1

Table 3. 4 OHSP's CVI

3.9.1.1 II) Panel of Experts (Stage I Phase II: OHSC survey)

Experts were recruited by phone, post, or email from within the Hong Kong Registered Nurse in working public or private hospital, Hospital Authority (n = 4) and private hospital (n = 2). They all have two or more years of experience in clinical work.

The CVI in OHSC survey paper was 1 (Table 3.5) which according to the Polit and Beck (2006b) calculation method.

	Rater1	Rater2	Rater3	Rater4	Rater5	Rater6	Number agreement	i-CVI
Item1	4	4	4	4	4	4	6	1
Item2	4	4	4	4	4	4	6	1
Item3	4	4	4	4	4	4	6	1
Item4	4	4	4	4	4	4	6	1
Item5	4	4	4	4	4	4	6	1
Item6	4	4	4	4	4	4	6	1
Item7	4	4	4	4	4	4	6	1
Item8	4	4	4	4	4	4	6	1
Item9	4	4	4	4	4	4	6	1
Item10	4	4	4	4	4	4	6	1
Item11	4	4	4	4	4	4	6	1
Item12	4	4	4	4	4	4	6	1
Item13	4	4	4	4	4	4	6	1
Item14	4	4	4	4	4	4	6	1
Item15	4	4	4	4	4	4	6	1
							CVI	1

Table 3. 5 OHSC's CVI

A pilot of the questionnaire was then undertaken by inviting four OHSPs and ten OHSCs at various services and after analysis of the data, the following change to the questionnaire was deemed necessary - the researcher amended the format of the questionnaire. For example: from writing feedback to tick box, to focus the participant to options defined by.

3.9.2 Reliability of the Tools

Stability, equivalence and internal consistency are key ways to test the reliability of a quantitative instrument (Burns & Grove, 2009). Reliability is a crucial criterion for assessing the quantitative instrument's consistent, stable and repeatable results (Polit and Beck, 2006a). Burns and Grove (2009) describe the instrument stability as the result of consistence from time to time test. Based on this principle, researchers required more than one test for evaluating the reliability (Polit and Beck, 2006a).

3.9.2.1 OHSP

The questionnaire developed was tested for reliability by test-retest. All of the three experts recruited to the study completed both test and retest. The interval between the two periods was about 4 weeks. Cohen's kappa was calculated using SPSS version 24 for all categorical questions. The values of Cohen's kappa for non-numeric variables ranging from 0.937 to 1.000, showing very high test-retest reliability.

Symmetric Measures							
Question				Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance
1.	Measure Agreement	of	Kappa	1.000	.000	2.449	.014
	N of Valid Cases			3			
2.	Measure Agreement	of	Kappa	1.000	.000	2.449	.014
	N of Valid Cases			3			
3.	Measure Agreement	of	Kappa	1.000	.000	2.449	.014
	N of Valid Cases			3			
4.	Measure Agreement	of	Kappa	1.000	.000	1.732	.083

	N of Valid Cases		3				
5.	Measure of Kappa Agreement		1.000	.000	4.077	.000	
	N of Valid Cases		6				
6.	Measure of Kappa Agreement		1.000	.000	7.418	.000	
	N of Valid Cases		14				
7.	Measure of Kappa Agreement		1.000	.000	6.000	.000	
	N of Valid Cases		12				
8.	Measure of Kappa Agreement		.937	.060	11.107	.000	
	N of Valid Cases		18				
9.	Measure of Kappa Agreement		1.000	.000	17.107	.000	
	N of Valid Cases		30				
10	Measure of Kappa Agreement		. ^c				
	N of Valid Cases		3				

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. No statistics are computed because test and retest are constants.

Table 3.6 OHSP Test-retest result

3.9.2.2 OHSC

The questionnaire developed was tested for reliability by test-retest. All of the six subjects recruited to the study completed both test and retest. The interval between the two periods is about 4 weeks. Cohen's kappa was calculated using SPSS version 24 for all categorical questions. The values of Cohen's kappa for non-numeric variables ranging are 1.000, showing 100% agreement for test-retest reliability.

Symmetric Measures						
	question		Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance
1.00	Measure of Agreement	Kappa	1.000	.000	2.449	.014
	N of Valid Cases		6			
2.00	Measure of Agreement	Kappa	1.000	.000	2.449	.014
	N of Valid Cases		6			
3.00	Measure of Agreement	Kappa	1.000	.000	2.449	.014
	N of Valid Cases		6			
4.00	Measure of Agreement	Kappa	1.000	.000	4.431	.000
	N of Valid Cases		8			
5.00	Measure of Agreement	Kappa	1.000	.000	7.166	.000
	N of Valid Cases		15			
6.00	Measure of Agreement	Kappa	1.000	.000	7.816	.000
	N of Valid Cases		15			
7.00	Measure of Agreement	Kappa	.c			
	N of Valid Cases		6			
8.00	Measure of Agreement	Kappa	.c			
	N of Valid Cases		6			
9.00	Measure of Agreement	Kappa	1.000	.000	18.329	.000
	N of Valid Cases		40			
10.00	Measure of Agreement	Kappa	1.000	.000	4.756	.000
	N of Valid Cases		6			
11.00	Measure of Agreement	Kappa	.c			
	N of Valid Cases		6			
13.00	Measure of Agreement	Kappa	1.000	.000	2.449	.014
	N of Valid Cases		6			
14.00	Measure of Agreement	Kappa	.c			
	N of Valid Cases		6			

15.00	Measure of Agreement	Kappa	1.000	.000	3.292	.001
	N of Valid Cases		6			

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.
- c. No statistics are computed because test and retest are constants.

Table 3.7 OHSC Test-retest result

After the pilot study, researchers reviewed and amended the terminology of several questions in order to make the same language for all participants. For example: some private hospitals were using "Advanced Practice Nurse" to replace Senior Registered Nurse position, therefore researchers used Advanced Practice Nurse /Senior Registered Nurse in the questionnaire and interview conversation.

As mentioned, the study tools were tailor-made for the HK workforce after the researcher had completed a literature review and pilot study. This questionnaire underwent test retest reliability testing. The first timing to undertake the original questionnaire was 13 to 18 minutes. For the amended questionnaire the timing was 10 to 15 minutes. The results achieved were similar. Further details are shown on the following page.

3.9.3 Bibliographic Review

The researcher reviewed Hong Kong’s OHS legislation relevant to the Hospital Industry. This involved a search of key Government acts, reports, and surveys, HA reports and surveys and related research literature. Based on this information, the researcher located the survey in the legislation.

Group 1: Phase I study: A structured questionnaire was developed to obtain details of the service which include: type of services offered, range of health problems encountered and current policies and practices.

Group 2: Phase II study: The purpose of the questionnaire was to obtain demographic and employment information about the participants, the use of the OHS service, and their opinion of the quality of the service provided. Opinions of hospital nurses on the quality of services were obtained from the self-reporting questionnaires.

3.9.4 Reasons for Using a Self-Administered Questionnaire

The self-administered questionnaire was considered by the researcher to be an appropriate way of collecting data for the following reasons. It is cheap, simple, and easy to control within a specific time frame and an ideal method for obtaining descriptive data (Polit, 2008).

The mixed method approach used in this research study was useful for investigating the behavior of people in their working lives. This method enabled the researcher to collect data in the participants' natural settings and allowed them to provide feedback that they deemed relevant. Using this technique the potential weakness of using only a questionnaire constructed by the researcher was overcome. Interviews allowed for rigorously searching for elusive data that is often lost when participants simply report on a questionnaire (Waltz, 2005). Based on the unique characteristics of the descriptive study, which was used to collect the information about OHS in HK hospitals, valuable data were gathered to reflect the local situation from different perspectives.

The most important reason to use this questionnaire was that the participants could complete the whole questionnaire anonymously, which encouraged honesty which in turn, increased the validity of their responses (Polit, 2008).

However, some weaknesses of the study design still exist. Firstly, the percentage of participants could not be controlled. Secondly, participants might answer the questionnaire in an improper manner or misunderstand the questions. Thirdly, the researcher could not guarantee a random sample. Finally, a questionnaire format might not fully cover all the research questions (Polit, 2008).

The researcher considered the limitations of using this type of questionnaire. Some alternative methods were used in order to minimize bias. For example, an individual interview is arranged for the stage 1's participants and focus group interview for the stage 2's participants in order to clarify and deeply explore the participants' concern.

3.10 Data Analysis

Responses to both questionnaires were coded and analyzed using SPSS version 16 for Windows. Each participating hospital was coded alphabetically. Each participant had a number after the alphabetical code. Frequencies and summary statistics were calculated to describe each OHS and the characteristics and opinions

of the employee samples. If any data were missing completely at random from the survey study they were handled by not replacing but counting an average of the values (Polit, 2008). There was no other type of missing data. ANOVA was used to analyse the differences among group means and their associated procedures. Paired t test was used to compare two population means and the independent t-test could determine whether there is a statistically significant difference between the means in two unrelated groups. Following analysis of the demographic data, analyses were performed to determine if any significant relationships existed between the variables using Spearman's rho test.

All interviews were tape-recorded and responses reviewed, coded and analyzed using discourse analysis strategies. For this kind of analysis, the concepts (or ideas) are identified from the speech (or data) in the first stages of analysis and given a label or code that describes them. Concepts which are closely linked in meaning can be formed into categories: categories which have similar meanings can be brought together into a theme. The term 'emerging themes' refers to the development or 'emergence' of themes from the data. For interview data analysis, the researcher used the traditional research methods of iteratively and concurrently gathering the data, studying and reviewing it, and coding it into themes. The reflexive nature of this system allowed for refinement in the data gathering process as emerging themes lead to interview questions and permitted the researcher to seek clarification from future participants. It should be remembered that no data source is neutral, it is necessarily partial (Silverman, 2011). Hence, the researcher not only waited for themes to emerge but also actively sought things that the researcher had noticed as significant in the process of OHS discourse. The researcher looked for links between everyday discursive practice and how these reproduce institutional discourses. The researcher deconstructed the 'taken for granted' practices within discourses, reading them against the grain, searching for local displays of normalizing processes (Holstein, 2007). For example, the researcher would ask 'what can you do?' as a response to participants who put up with unsatisfactory conditions.

3.11 Conclusion

This chapter has described the research design for both Group 1: Phase I and Group 2: Phase II of the study, and provided a rationale for using a mixed methods approach. In addition, the sample recruitment, instrument design, means of data collection, methods of data analysis, reliability and validity have been described. The

research setting and the ethical considerations have been described. The results of Phases I and II are reported in the next chapter.

CHAPTER FOUR

Research Results

4.1 Introduction

As described in Chapter Three, an explanatory sequential, mixed method approach was used in this study to evaluate the OHSP and OHSC views of OHS in Hong Kong hospitals. In the previous chapter, the design of the study was described, together with how the samples were chosen to achieve the research aims and answer the research question. This chapter will first present the quantitative data— specifically the summary statistics from the survey on OHSP, and summary statistics on the surveys of registered nurses. This will be followed by presentation of the qualitative results for both groups. The chapter will close with a summary.

4.2 Quantitative Data

These results were collected as part of the Phase I and Phase II surveys. Data analysis was conducted using SPSS version 16. As the intention of this study was to explore how hospitals meet the current OH&S needs of nurses, the focus of the results will be on presenting descriptive statistics of survey data. This section will first present summary statistics on the hospitals included, their OH&S unit organisation and OH&S policies and programs in place in each hospital. This will be followed by summary statistics of RN survey respondents' demographics, then a summary of survey responses from the Phase II surveys.

4.3 Response Rate

There were responses to five recruitment exercises (Table 4.1) in this study and they are summarised below with details to follow in the relevant results sections.

Table 4.1 Response rates

* 6 nurses were invited to join the focus groups at each hospital, 1 public and 5 private (1 public hospital withdrew)

^ of all hospitals in Hong Kong

+ of the hospitals in the sample

	Public	Private	Total	Overall Response Rate
Hospitals	2/43 0.05% [^]	5/12 42% [^]	7 /55	13% [^]
OHSPs Survey	2 (29%)	5 (71%)	7/7	100%+
OHSPs interviews	1 (20%) ⁺	4 (80%) ⁺	5/7	71%+
OHSCs Survey	61 (5%) ⁺	1145 (95 %) ⁺	1206/1800*	67%+
OHSC Focus groups	* 1	*16	17/36	47%+

Table 4.1 Response Rates * the denominator for the number of nurses at all the hospitals could not be calculated due to lack of reliable data sets

4.4 Phase I: Occupation Health and Safety Providers Survey

4.4.1 Organisation of OH&S Services of Hospitals

Responses to the Phase I survey was collected from seven Occupational Health and Safety Providers, two from public hospitals and five from private hospitals. The organisation of OH&S services in hospitals is presented in Figure 4.1. 57% ($n=4$) of hospitals responded that OHS is organized as a separate department/unit, while 29% ($n=2$) described OHS as a matrix in other settings and 14% ($n=1$) have a unit within a department.

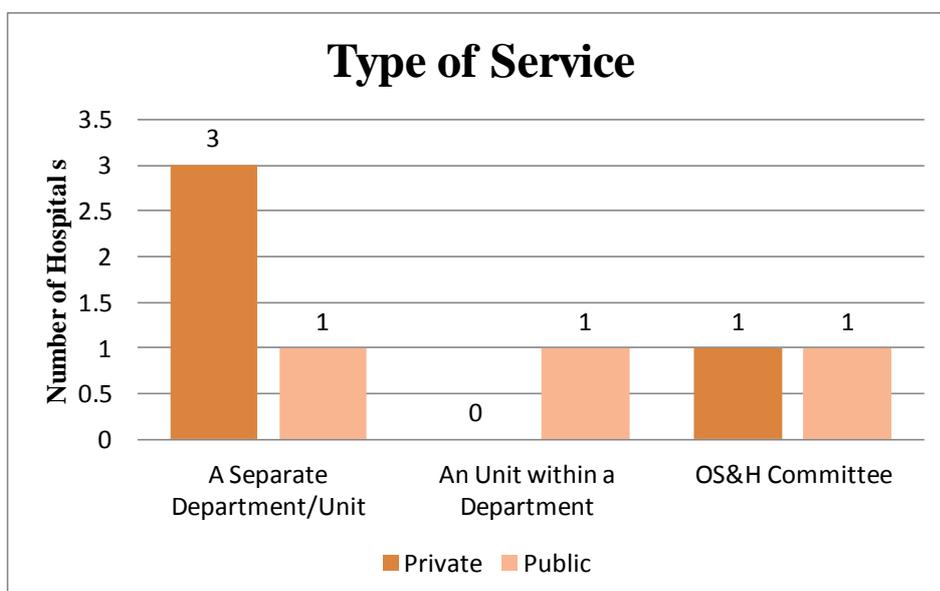


Figure 4.1 Type of Service

Figure 4.2 presents lines of reporting for OH&S units within each hospital. 14.3% ($n=1$) reported to the hospital's Chief Executive while the rest reported to the Human Resource Department, the hospital Administration and the Quality and Safety Department 42.9% ($n=3$) reported to the Nursing Administrator or the General Manager of Clinical Operations Department. After clarification, it became clear that these departments are similar to the Nursing Department.

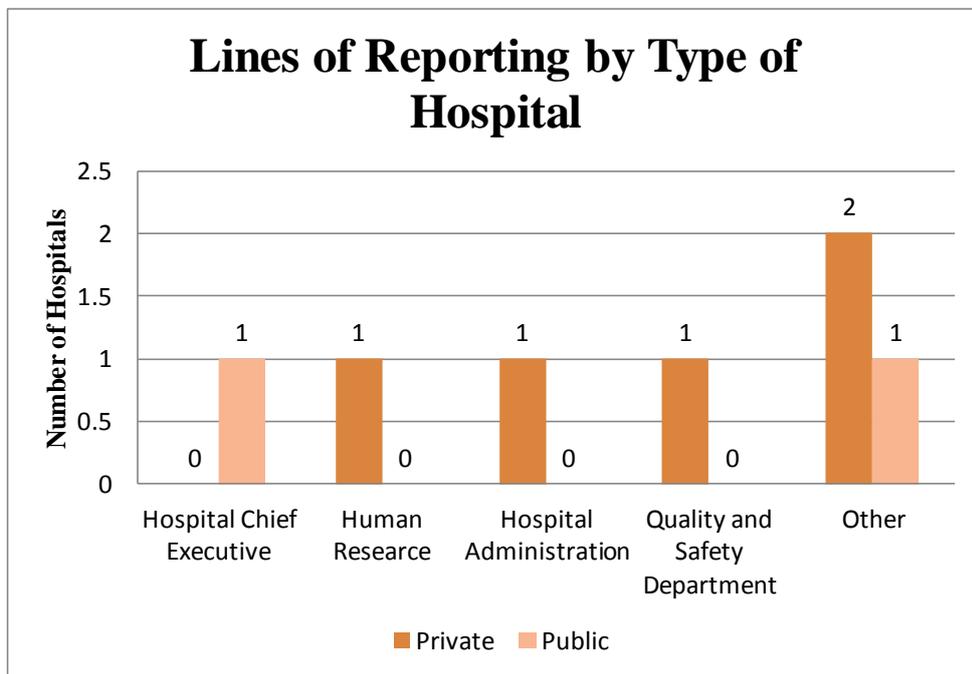


Figure 4.2 Lines of Reporting by Type of Hospital

4.4.2 Staffing Profile

Table 4.2 presents staffing profiles for OH&S departments by type of hospital. Four of the seven hospital units had a full time manager as the most senior staff member. Two units appointed nurses; one a private hospital unit uses a nurse linking system that connects the unit with a total of 60 nurses responsible to the OHS. No units had a Unit Director. Two units (both public) employed either a physiotherapist or occupational therapist on the OH&S team, and two units (1 private and 1 public) had one part-time clerk to provide administrative support.

	Private	Public	Remarks
Director (s)	0	0	Nil
Doctors	0	1	1 full time for 1 public hospital
Manager (s)	3	1	Full time
Nurse	1	1	1 (private hospital) 60 link nurses from each unit 1 (public hospital) full time nurse
Physiotherapists	0	1	Full time
Occupations Therapists	0	1	Full time
Clinical Psychologists	0	0	Nil
Administrative staff	1	1	1 part-time clerk from private and public hospital
Other: Link staff	2	0	P/time nurses, physiotherapist, f/time Quality Health Coordinator

Table 4.2 Type and Number of Staff by Type of Hospital

4.4.3 OH&S Services and Programs of Hospitals

Table 4.3 presents the range of services offered by the hospitals' OH&S units. All but one unit managed work-related injuries and conditions and most (5 of 7) provided pre-employment physicals, assessed work-related risks, and conducted ergonomic evaluations. Less common services offered were health counselling and rehabilitation services (2 of 7), and screening for work-related diseases, processing worker compensation claims, and conducting OH&S research (1 of 7). Only four units said that they provided statistical reports required under the legislation.

Programs	Private	Public
Pre-employment physical examinations	4	1
Medical surveillance examinations	3	1
Screening programs to detect early work-related diseases	4	1
Assessment of work-related health risk problems	0	1
Immunizations for work conditions/diseases	3	1
Ergonomic evaluations	4	1
Medical consultations for work-related conditions	2	2
Managing work-related injuries and illnesses	4	2
Health counseling for physical, psychological or social work problems	1	1
Rehabilitation services for staff with work-related injuries or diseases	1	1
Processing worker compensation claims	1	0
Reporting statistics as required under the legislation	3	1
Keeping other occupational health and safety statistics	2	1
Providing other reports e.g. monthly incidence reports, injury on duty	3	1
Evaluating the quality and impact of the occupational health service	3	1
Conducting other occupational health research	0	1

Table 4.3 Occupational Health and Safety Services by Type of Hospital

As shown in Table 4.4, the majority of hospital OH&S units surveyed offered a selection of courses. Specific courses reported by units were chemical drills, radiation safety, preventing needle-stick injury, risk assessment and handling workplace violence. Only 3 units ran rehabilitation courses.

Programs	Private	Public
Work safety e.g. health hazards (toxic chemicals)	5	1
Fire drills	5	1
Wellness / fitness	4	2
Training Occupational Health and Safety representatives	5	0
First aid	4	1
Stress management	4	1
Nutrition	3	1
Rehabilitation for work related conditions	1	2

Table 4.4 Occupational Health and Safety Courses/Programs by Type of Hospital

4.4.4 OH&S Factors

Figure 4.3 presents the types of OH&S incidents reported at each hospital. Of the 16 OH&S factors listed, all hospital units reported muscle strain/ repetitive strain injury (RSI) and falls; 6 reported needle-stick injuries and 5 reported back injuries. Less frequent problems seen by the units were eye and soft tissue injuries, respiratory infections and work stress. Burns, skin conditions, Methicillin-resistant *Staphylococcus Aureus* (MRSA)/Extended-spectrum beta-lactamase (ESBL) and cases of workplace violence were reported by one unit only.

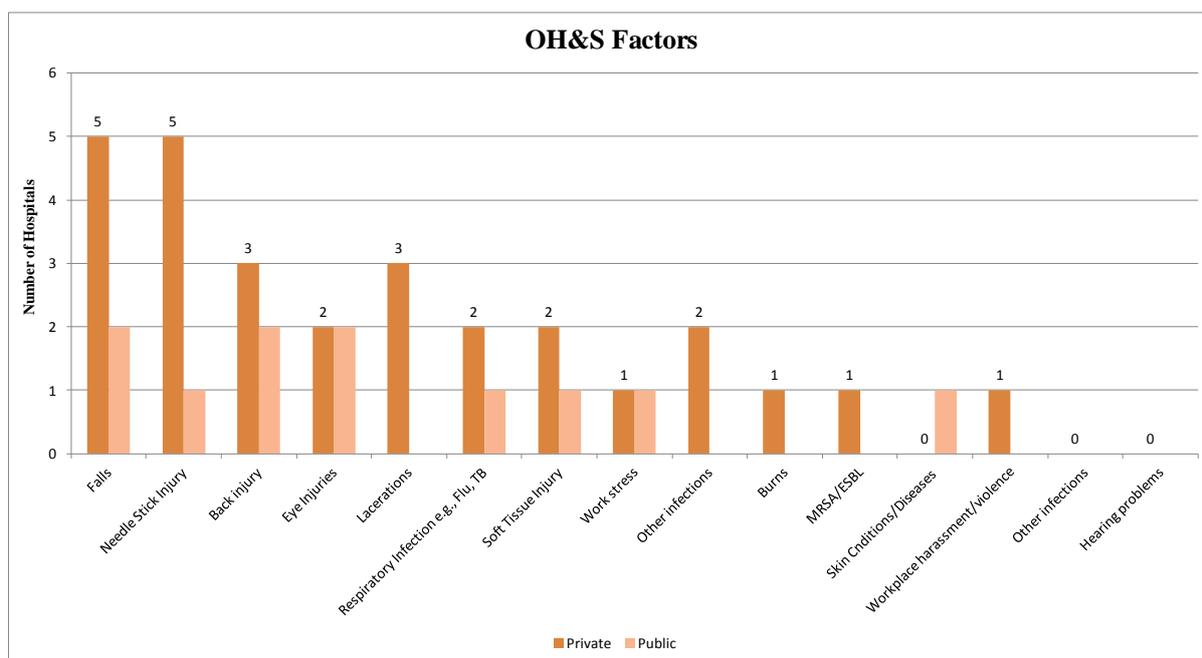


Figure 4.3 OH&S Factors

4.4.5 OH&S Policies and Procedures of Hospitals

As shown in Table 4.5, all hospitals had policies and procedures in place for handling chemicals, lifting, incident reporting, immunization, staff OH&S training, and injury on duty management. Surprisingly, one public hospital did not report having policies/procedures for infection control, fire safety or workplace harassment. It is also notable that the two public hospitals did not report having policies on poisons and radioactive materials and employee medical records.

Programs	Private	Public
Handling chemical	5	2
Lifting	5	2
Incident reporting	5	2
Immunization	5	2
Staff OH&S training	5	2
Injury on duties management	5	2
Fire safety	5	1
Infection control	5	1
Workplace harassment/violence	5	1
Poisons	3	0
Radioactive materials	3	0
Employee medical record	3	0
Accessing of service	2	1
Return to work after occupational related injury or disease	2	1

Table 4.5 OH&S Policies and Procedures by Type of Hospital

4.4.6 Details of Services Not Covered in the Questionnaire

Q10 Other details about the service not covered in the questionnaire	Content	Private Hospital	Public Hospital
Hospital A	Promotional program in OHS and employee wellness, annual physical checkup for employees, risk assessment, advise on chemical waste management, regular workplace inspection, sick leave analysis	1	0
Hospital D	Workplace inspection, screen safety	1	0

Table 4.6 Detail of services provided not covered in the questionnaire

The Table 4.6 data were collected using the open-ended question at the end of the survey. Additional responsibilities reported were workplace inspection, screen safety, promotional program in OHS and employee wellness, annual physical check-up for employees, risk assessment, advice on chemical waste management, regular workplace inspection and sick leave analysis.

4.4.7 Response Rate OHSPs

Agreed to conduct an interview

Group 1: Phase I Stage I (Table 4.7), has 80% from private hospitals and 20% from public hospitals who agree with the interview section.

Q11 Agree to be interviewed	Private Hospital	Public Hospital	Total responses
Yes	Hospital A,B,C &D	Hospital G	5
No	Hospital E	Hospital F	2

Table 4.7 Hospital OHSP Interviews-Responses

Therefore, 71% of the participants agreed to be interviewed while 29% declined to participate. The reason provided by those who declined the interview with feedback was tight working schedules.

4.5 Interviews OHSP s Phase I Interviews

The researcher contacted the participants, who agreed to have interviews by telephone or face to face. The purpose of the interviews was for the researcher to seek greater clarity and depth of opinion regarding the questionnaire responses (see Appendix 13). In the following tables, the aggregate results of the interviews are recorded and recurring content highlighted. The item numbers correlate with the OHSP questionnaire section and the responses have been split into two tables, Table 4.8 relates to the actual work the OHSPs are doing in HK and Table 4.10 relates to using global practice as reference.

4.5.1 Aim of the Survey

The aim was to obtain information about the organizational structure of the OHS in each hospital, its policies and procedures, the range of services and programs offered and the types of OH problems that are encountered and reported by consumers.

4.5.2 Hospital Sample

Five private and two public hospitals participated in the study and their characteristics are shown in Table 4.8. Hospitals were invited based on their locations and bed sizes (see also Table 3.1).

Characteristics	No.
Type of hospital	
• Public	1
• Private	5
Location	
• HK island	3
• Kowloon	2
• New Territories	1
<100 Number of beds	1
• 101 - 299	2
• 300 - 599	2
• 600 - 900	1
• > 1000	0

Table 4.8 Hospital Characteristics

4.5.3 Response Rates and Demographics of Survey Respondents

Of the 1800 Phase I surveys sent out, 1206 (67%) were returned within the two month study period. A visual breakdown of responses from public and private hospitals is presented in Figure 4.4.

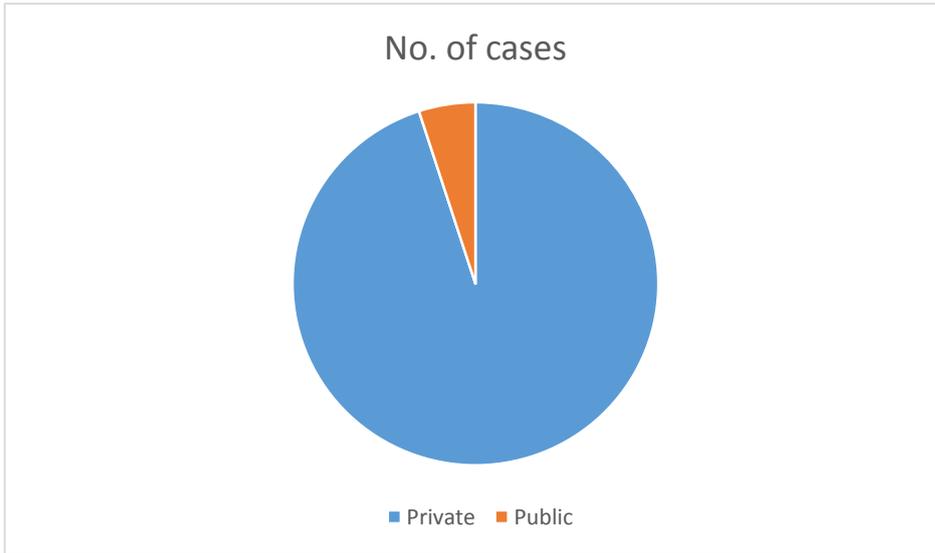


Figure 4.4 Percentage of responses

1200 of respondents disclosed their gender. A visual breakdown of respondents by gender is presented in Figure 4.5.

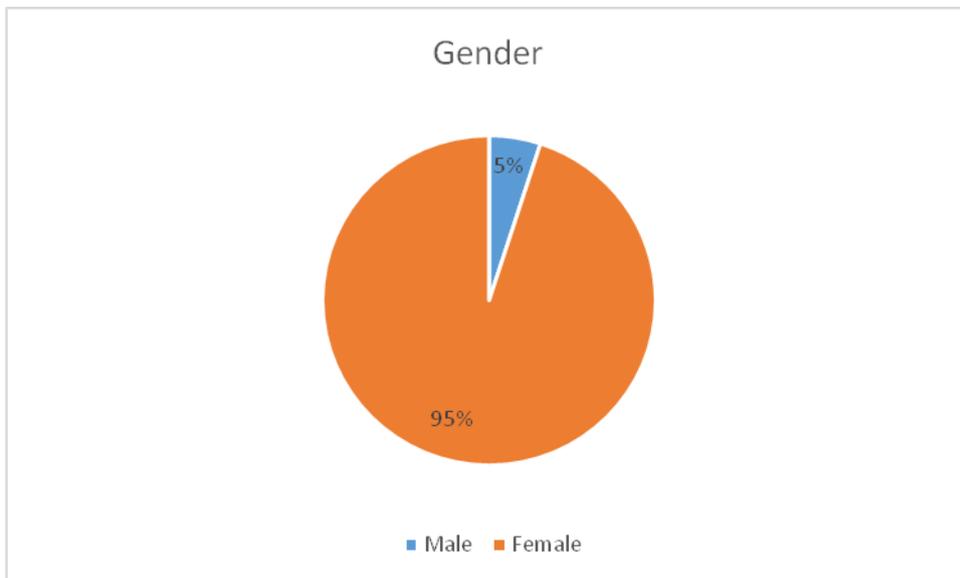


Figure 4.5 Gender of Participants

Information on respondents' areas of responsibility is presented in Figure 4.6. Most participants 37% ($n=446$) worked in a medical unit, followed by the Operating Room (OR) 17% ($n=240$).

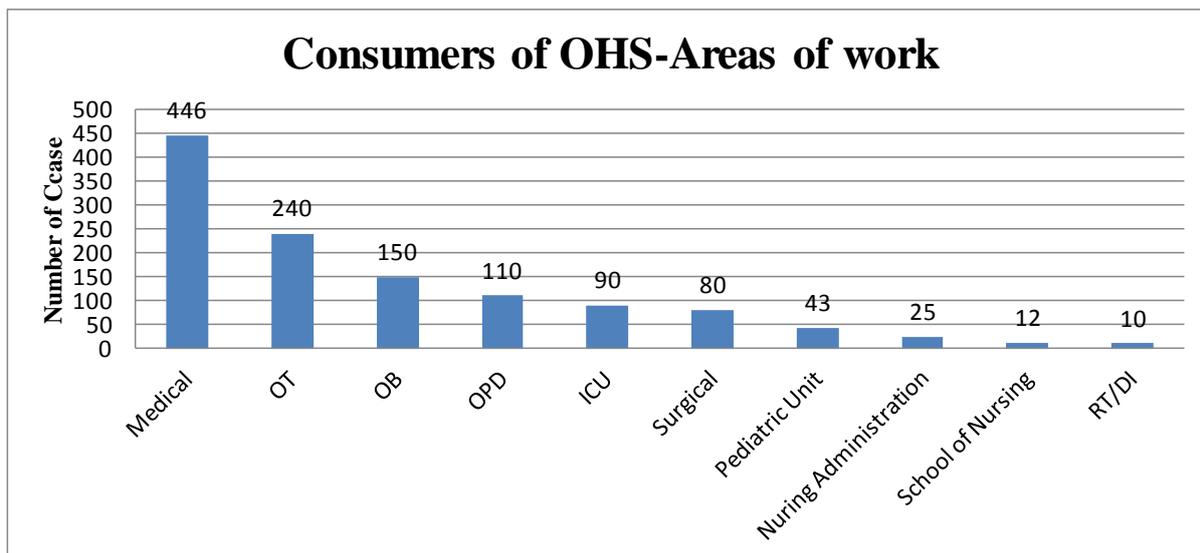


Figure 4.6 Consumers of OHS - Areas of Work

Figure 4.7 presents employment information on respondents. 97% ($n=1155$) of participants had full time employment while 0.02% ($n=21$) and 0.01% ($n=10$) were part-time or casual. 20 respondents did not answer.

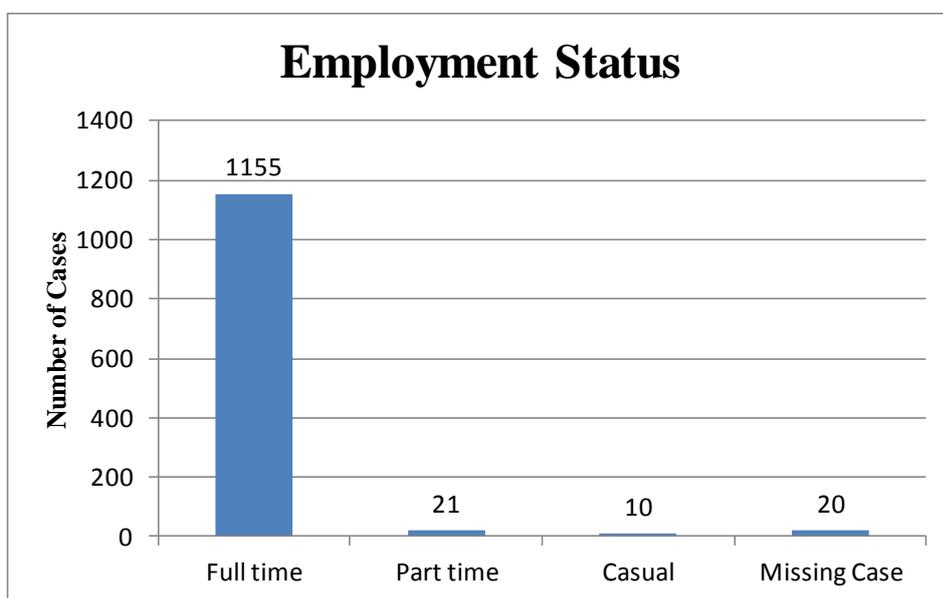


Figure 4.7 Employment Status

Figure 4.8 presents information on the current position of respondents. Registered nurses were 87.7% ($n=1050$) of the study population while 12.3% ($n=148$) of the population was composed of Nursing Officers and other staff.

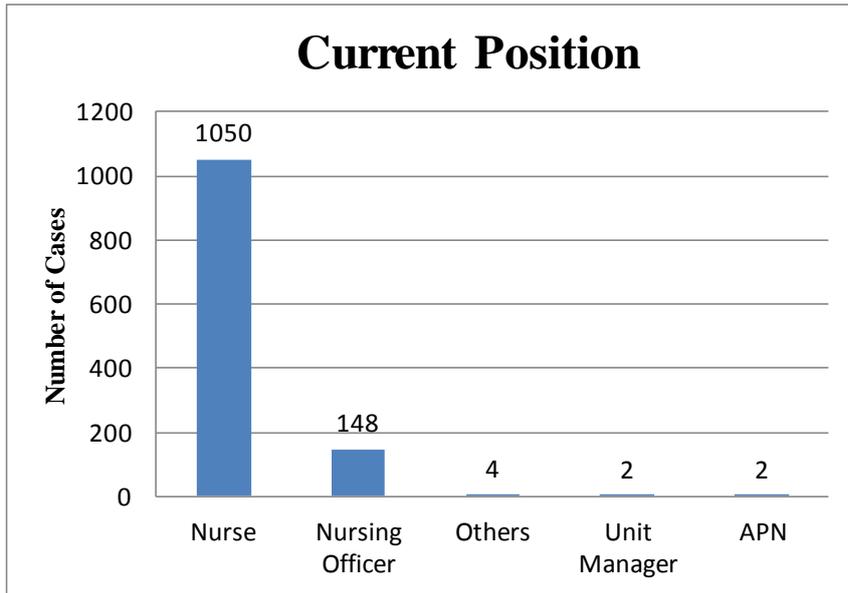


Figure 4.8 Current Position

Figure 4.9 presents summary statistics on respondent qualifications. Most participants 69% ($n=826$) in this study held a Bachelor Degree or other degree while 31% held either Nursing Certifications or Diplomas. 11 respondents did not answer.

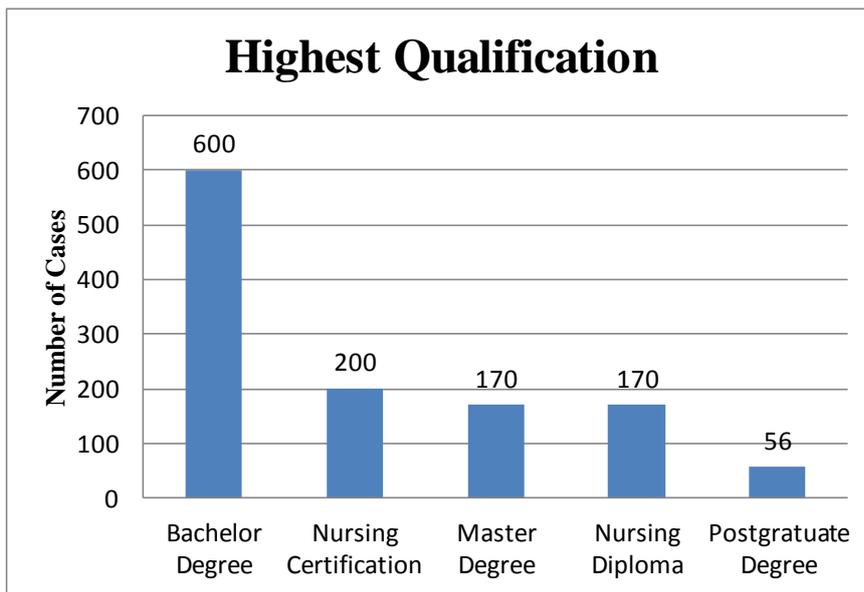


Figure 4.9 Highest Qualification

4.5.4 Respondent Awareness and Usage OHS

Figure 4.10 shows that 95% ($n=1146$) of participants were aware that OHS was provided in their hospital.

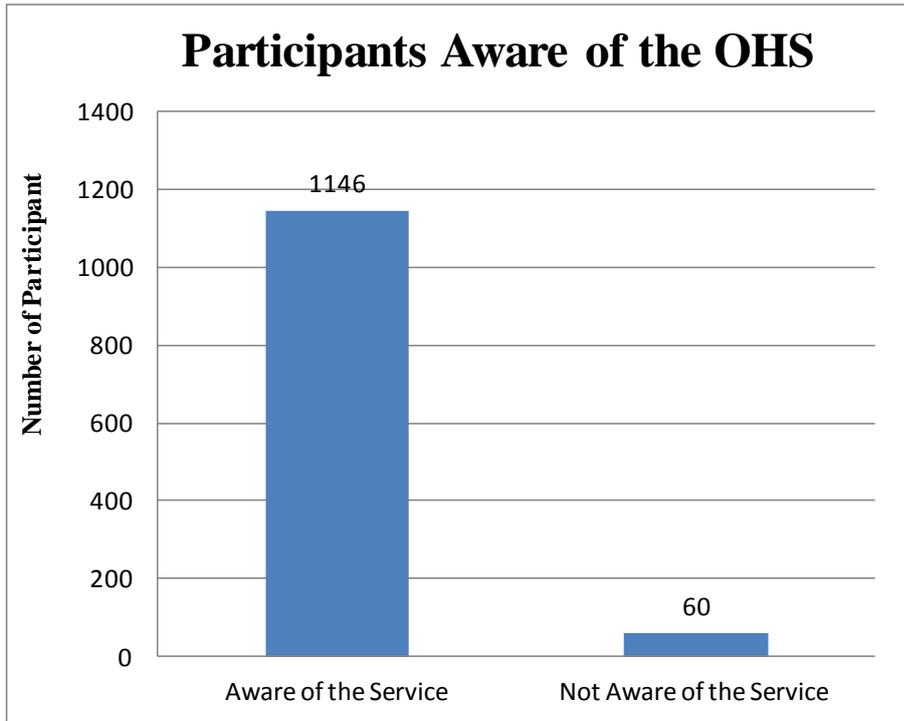


Figure 4.10 Participants Aware of the OHS

Lines of reporting for OH&S matters are presented in Figure 4.11. Reporting to the Unit Manager showed the highest rate of frequency 56.1% (n=676), followed by OHs representative 41.5% (n=501).

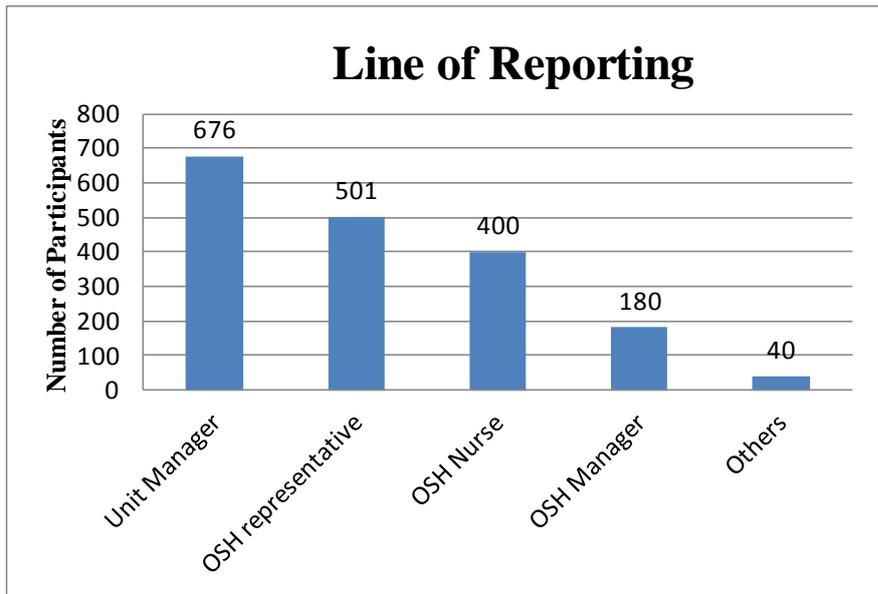


Figure 4.11 Lines of Reporting

Figure 4.12 presents the range of services used by the participants in hospital OHSs. Pre-employment physical examination is the most common. Work-related health risk assessment and immunization was the second and third most commonly reported, respectively.

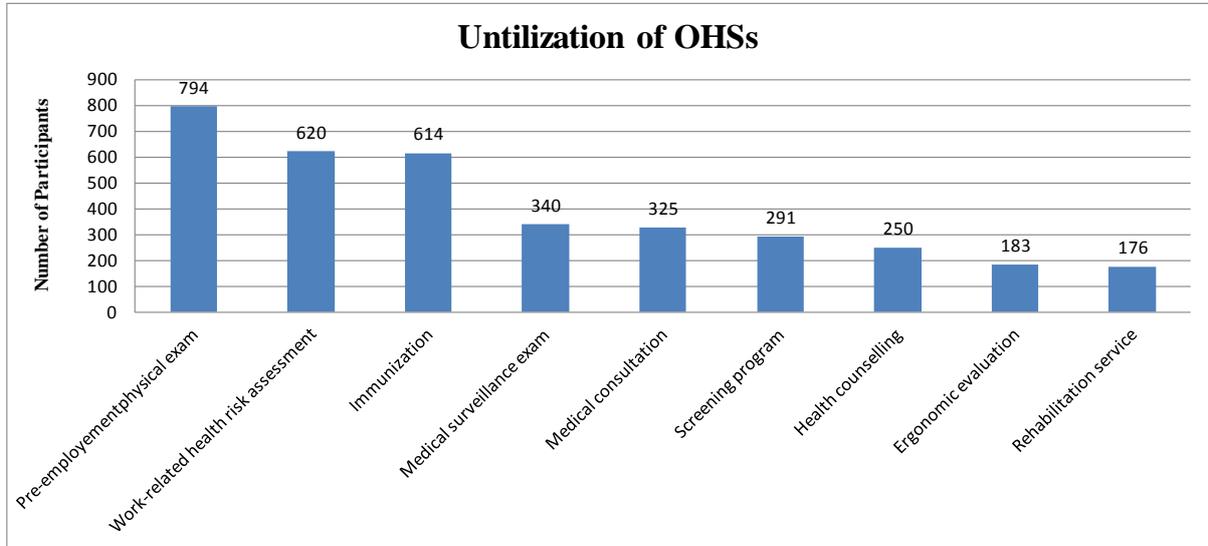


Figure 4.12 Utilization of OHSs

As shown in Figure 4.13, the majority of hospital OH&S units surveyed offered a selection of courses.

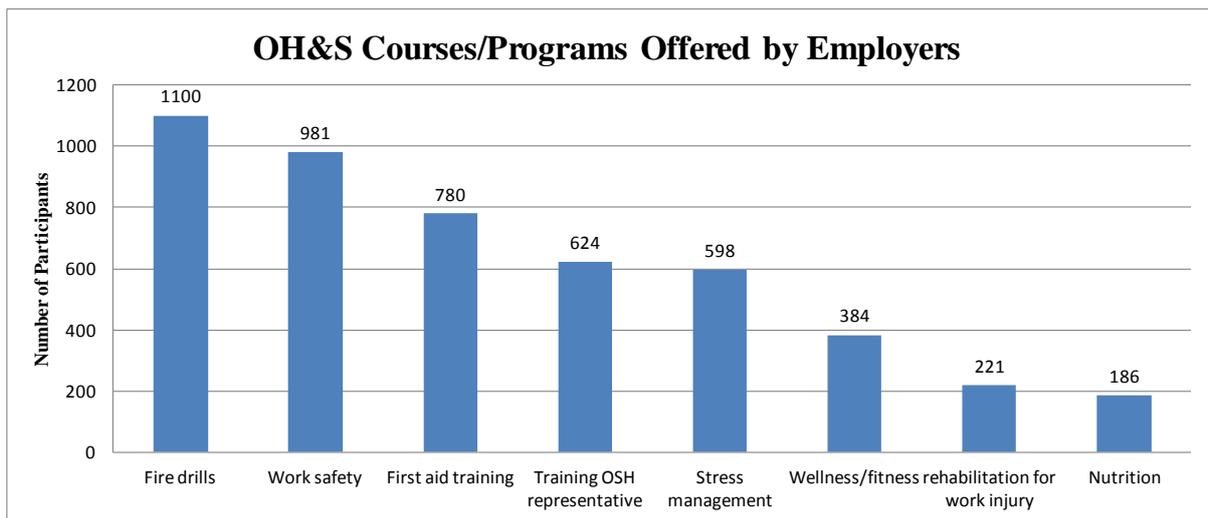


Figure 4.13 OH&S Courses/ Programs Offered by Employers

Figure 4.14 presents OH&S courses completed by respondents. The most common were ergonomic training 56.1% ($n=677$), fire drill 47.5% ($n=573$), needle-stick prevention 35.6% ($n=429$), chemical hazard 24.2% ($n=299$), work safety 18.9% ($n=228$) and first aid training 12.1% ($n=146$).

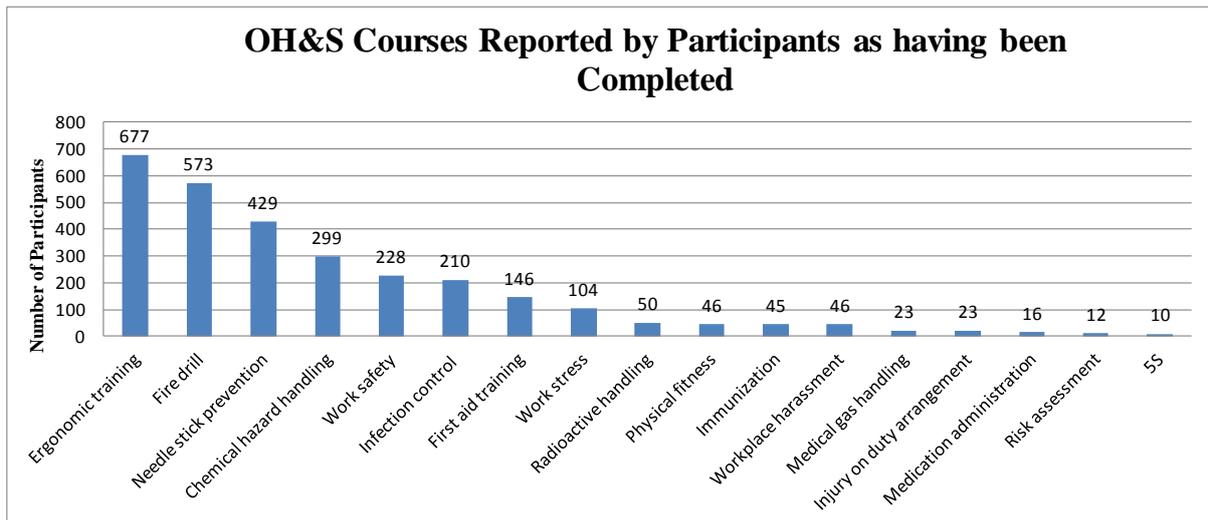


Figure 4.14 OH&S Courses Reported by Participants as having been Completed

4.5.5 Opinions on the Most Relevant OH&S Policies and Procedures

As shown in Figure 4.15, most participants claimed that the most relevant policies and procedures in the work place related to infection control 90.3% ($n=1089$), fire safety 89.9% ($n=1084$), handling chemicals 84.2% ($n=1015$), needle-stick injury 84.2% ($n=1015$), lifting techniques 82.9% ($n=1015$), incident reporting 81.5% ($n=1000$), staff OH&S training 67.7% ($n=983$), immunization 60.9% ($n=816$), injury-on-duty management 49.5% ($n=734$), poisons 48.9% ($n=597$), radioactive materials 48.9% ($n=590$), workplace harassment/violence 28.9% ($n=349$), return to work after occupational injury 24.5% ($n=296$) and accessing the service 23.4% ($n=282$).

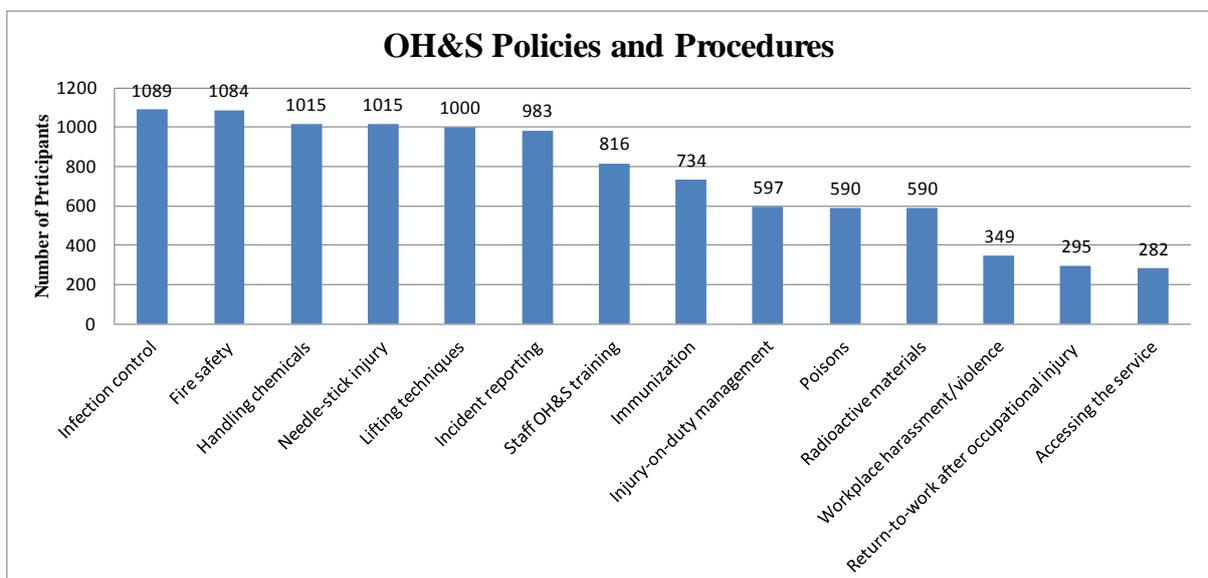


Figure 4.15 OH&S Policies and Procedures

4.5.6 OH&S Risks and Satisfaction

Figure 4.16 presents OH&S problems experienced by the participants. From the list of 15 problems, participants reported that they experienced falls 6.1% ($n=74$), laceration 0.7% ($n=8$), burns 0.4% ($n=5$), and hearing problems 0.2% ($n=2$), respiratory infection 5.7% ($n=69$), needle-stick injury 4.3% ($n=52$), back injury 3.9% ($n=47$), MRSA/ESBL 3.8% ($n=47$), muscle strain 2.3% ($n=46$), skin condition/diseases 1.7% ($n=21$), work stress 1.5% ($n=18$), soft tissue injury 1.2% ($n=15$), workplace harassment 1.1% ($n=13$), eye injury 1.0% ($n=12$). Fewer problems were reported with poisoning 0.7% ($n=8$), laceration 0.7% ($n=8$), and hearing problems 0.2% ($n=2$).

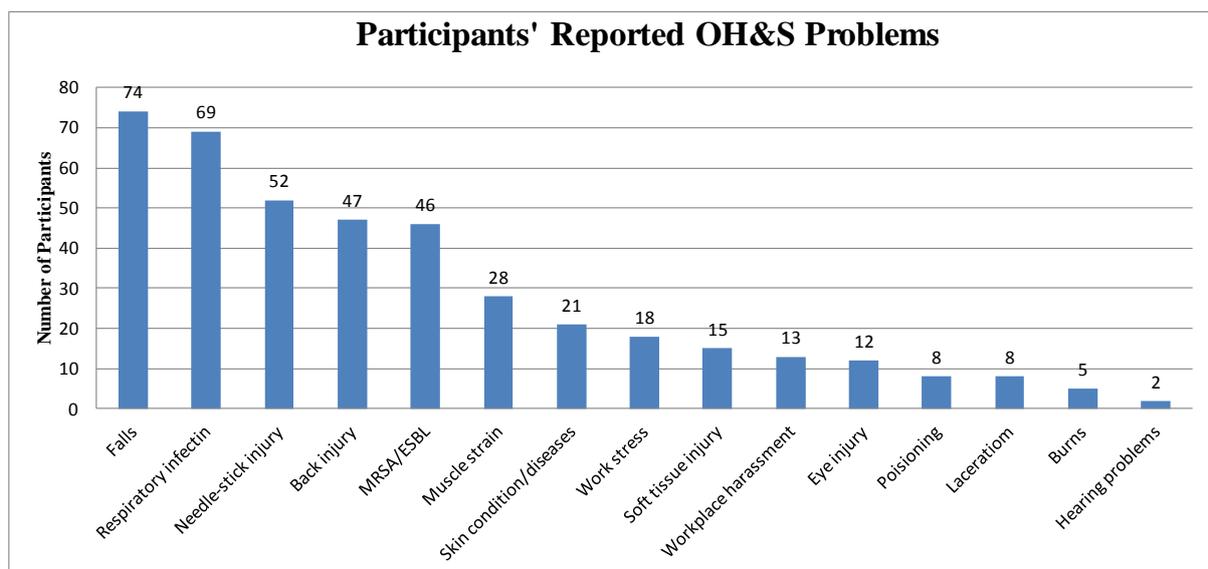


Figure 4.16- Participants' Reported OH&S Problems

The mean satisfaction score with the OHS was 6.78 (out of 10) as shown in Figure 4.17. Although the mean score was somewhat low, the median score was 8. For this question 4.4% ($n = 53$) participants did not provide a response.

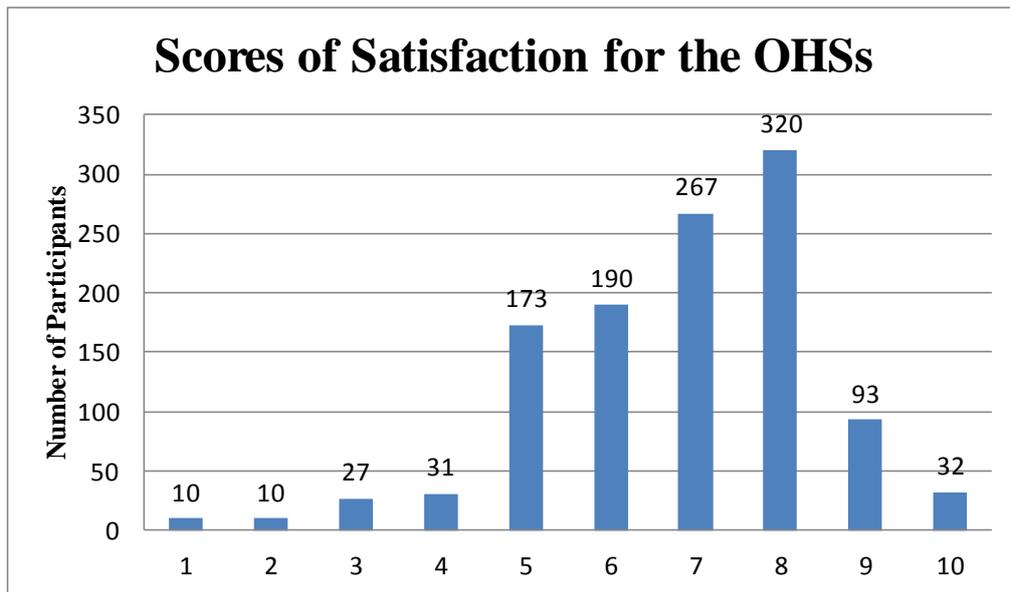


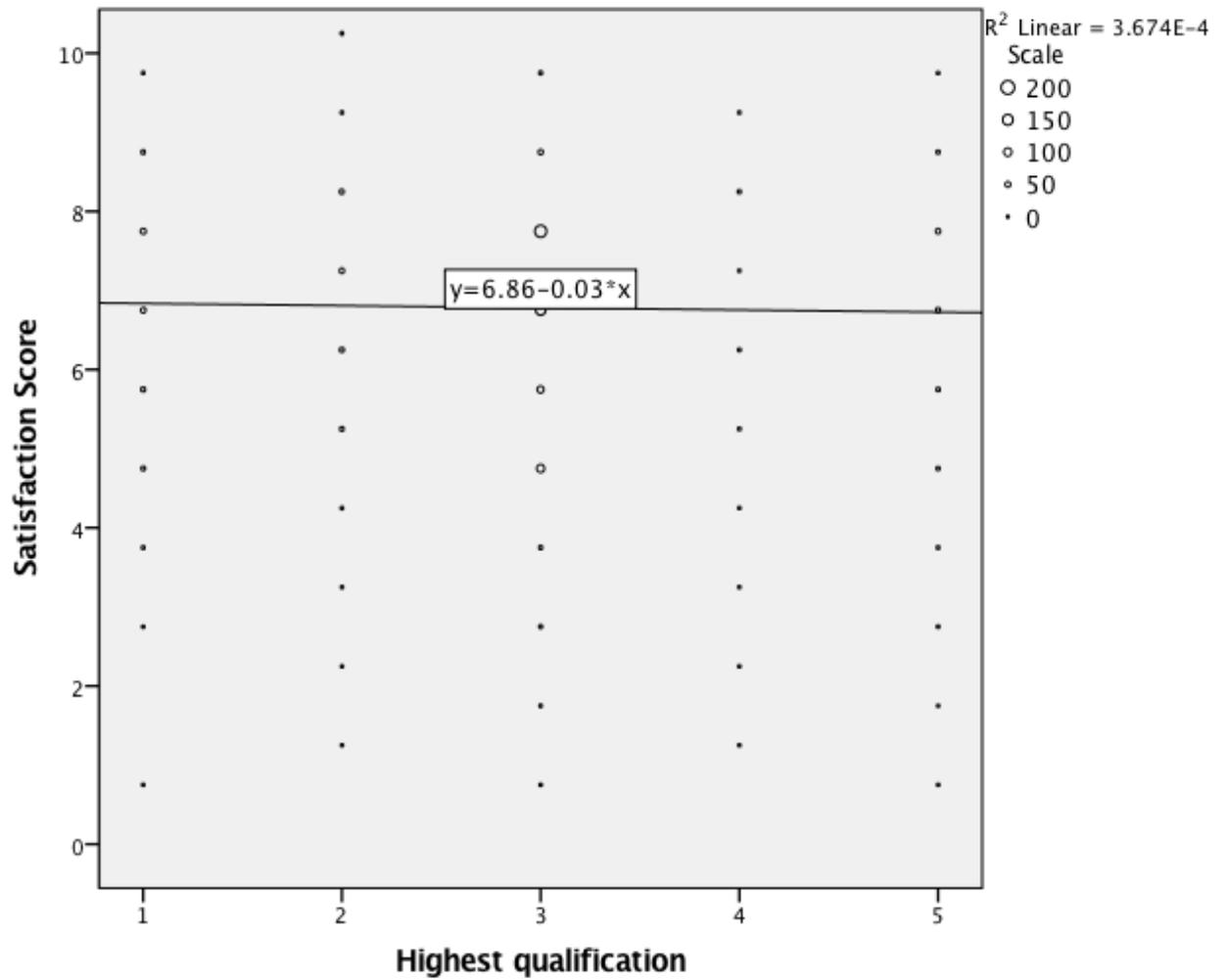
Figure 4.17 Scores of Satisfaction for the OHSs

4.5.7 Correlation

There are only two variables in the dataset which are ordinal data in nature and with at least 5 levels of measurement i.e. satisfaction score and highest qualification.

Scatterplot was used to show the relationship between these two variables and Spearman correlation was used to test their strength of relationship.

From the scatterplot and table below, it was shown that the correlation for these two variables is very weak ($R = -0.005$) and statistically insignificant ($p = 0.872$).



Notes:

Highest qualification

- 1- nursing certificate
- 2- nursing diploma
- 3- bachelor degree
- 4- postgraduate certificate/diploma
- 5- master degree

			Highest qualification	Satisfaction Score
Spearman's rho	Highest qualification	Correlation Coefficient	1.000	-.005
		Sig. (2-tailed)	.	.872
		N	1196	1146
	Satisfaction Score	Correlation Coefficient	-.005	1.000
		Sig. (2-tailed)	.872	.
		N	1146	1153

Table 4.9 Highest qualification and satisfaction score's correlation

The result may imply that the level of satisfaction towards OH&S does not change with the qualification level of the nurses. That means the extent of OH&S concern is similar for those junior and senior nursing staff within the hospital. This explains the importance of OH&S in the hospital setting from the perspective of all nursing staff.

4.5.8 Quantitative Summary

Quantitative data were collected during Stage I of both Phase I and Phase II. During Phase I, data were collected from OHSP regarding the organisation of their services, staffing, and policies and programs in place at the respective hospitals. All hospitals had organized OH&S units with clearly reported staffing and lines of reporting. Most hospitals provide management for work related injuries, pre-employment physicals, assessed work related risks and conducted ergonomic evaluations. Only four OH&S units reported providing statistical reports required under legislation. All hospitals had policies and procedures in place for handling chemicals, lifting, incident reporting, immunization, staff OH&S training, and injury on duty management. One hospital did not have policies and procedures in place for infection, fire safety or workplace harassment. Two hospitals did not have policies or procedures on poisons and radioactive materials or employee medical records. Most hospitals reported muscle strain/ repetitive strain injury (RSI) and falls, needle-stick injuries and back injuries. Burns, skin conditions, Methicillin-resistant Staphylococcus Aureus (MRSA)/Extended-spectrum beta-lactamase (ESBL) and cases of workplace violence were reported by one unit only.

During Phase II quantitative data were collected from OHSCs during the focus group interviews. 95% of Phase II participants were aware of the OH&S services offered by their hospital and reported using OH&S services – most commonly pre-employment physical examinations, work-related health risk assessments, and immunization services. Of the training courses provided, ergonomic training, fire drills, needle-stick prevention, chemical hazard training and work safety were the most common courses completed by respondents. The most common OH&S problems reported by respondents were falls, respiratory infections, needle stick injuries, back injuries and MRSA/ESBL. Respondents stated that the most important OH&S policies and procedures were infection control, fire safety, handling chemicals, needle-stick injury, lifting techniques and incident reporting procedures. Generally, OH&S satisfaction was high, with a median score of 8 out of 10. Mean score was slightly lower, brought down by a minority who had lower satisfaction with OH&S in their hospitals.

4.6 Qualitative Introduction

Qualitative data were collected in the second stage of both Phase I and Phase II. In the following sections, information regarding qualitative data will be presented with information about the demographics and number of participants for interviews, followed by presentation of responses on the topics of interest for the study. Phase I qualitative data will be presented first, followed by Phase II data. As qualitative data are presented, reference will be made back to the quantitative data.

4.7 Phase I: Occupational Health and Safety Providers Interviews

4.7.1 Participants

Of the seven OHSPs who responded to the Phase I Stage I survey, five (71%) agreed to follow up phone interviews. One was from a public hospital and four were from private hospitals.

In summary, from the Phase I Stage II interview results, the HK OHSPs had common elements and different approaches in services, background, OHS focus, management of prolonged absence from work, early identification of risk factors, medical follow-ups after work injuries, staff health, OHS practice and OHS compliance in local and global practice.

The following Table 4.10 includes content analysed after five interviews.

Item no.	Scope	Local Approach		Goble Approach	Common Elements
		Private Sector (Private Hospital)	Public Sector (Hospital Authority)		
1	Service organization	A separated department	Part of Occupational Medicine Practice and separate from wellness program.	A separated department.	No matter whether it is a separate department, all OHS providers need to collaborate with their employees, employers, members of the OH&S team and other professional
2	OHSP's professional background	Nursing, quality or safety professional qualification background	Nursing, occupational therapist, physiotherapist or administrative background	Nursing, occupational therapist, physio therapist or administrative background.	Nursing qualification are in common
3	OHS's focus	Health hazard assessment and surveillance of employee populations and workplace	Workplace hazard assessment and possibility that workplace exposures or job activities would be reviewed if needed	Workplace hazard and health hazard assessment and surveillance on regulatory base plus required by worksite.	Focus on hazard assessment
4	Method to approach the prolonged absence from work.	Case management for occupational and non-occupational illnesses and injuries.	The health status of the workers should be re-evaluated after a long absence from work due to illness or injury.	Case management for occupational and non-occupational illnesses and injuries and the health status of the worker should be re-evaluated following prolonged illness or injury.	Taking care of the long-term absence from duty employee.
5	Early identification of risk factors	Regular site inspections to identify the need of health and safety. Educated employee about the potential hazards at the workplace e.g.: stress management	Educated employees about potential hazards at the workplace e.g.: stress management	Regular site inspection to identify health and safety needs and education of employees about potential hazards in the workplace e.g.: stress management.	Educate employees about potential hazards at workplace
6	Medical follow-up the injury on duty case	Referring to the medical treatment and follow up the healing process when the employee injured on duty	Injury on duty case is referred to the occupational medicine team promptly for diagnosis and treatment	Referring to the medical treatment and follow up the healing process when the employee is injured on duty and injury on duty case is referred to the occupational medicine team promptly for treatment	All refer cases for treatment

Item no.	Scope	Local Approach		Goble Approach	Common Elements
		Private Sector (Private Hospital)	Public Sector (Hospital Authority)		
7	Staff health	Periodic health screening examinations, immunizations and health education are part of the OHS	Oasis is a type of emotional support for employee. Stress management talk and workshop are held periodically.	Periodic health screening examinations, immunizations and health education are part of the occupational health service and specific department of emotional support for the employee is needed. Stress management talks and workshops are held periodically	Pay attention to the staff health though in different perspectives
8	OHS belonging practice	Health promotions and disease prevention strategies using the primary, secondary and tertiary principles. For example: immunization for Hepatitis B, C. Blood test for Cholesterol level, annual CXR stool and urine test.	Health education and health promotion programs are considered in the Wellness program but not in the OHS.	Health promotion and disease prevention strategies using primary, secondary and tertiary principles. For example: immunization for Hepatitis B, C, TB travel medicine and Health education and health promotion programs are considered in OHS.	Disease prevention and health promotion
9	OHS compliance	Management and Administration of OHS. Compliance with laws, regulations and standards governing health and safety acts for employees	Writing policies for employee education, prevention and recognition of violence in workplace.	Management and Administration of OHS. Compliance with laws, regulations and standards governing health and safety for employees and written policies for employee education, prevention and recognition workplace.	Follow the laws, regulation and standards governing professional

Table 4.10 Interview Results- Compared with OHSPs in HK and Global Approach to OHS

4.8 Phase II: Occupational Health and Safety Consumers Interviews - Nurses (Group 2)

4.8.1 Participants and Demographics

Thirty-two out of the initial 1800 participants who received Phase II surveys agreed to participate in the focus group interviews. Of these, 15 participants did not proceed due to lack of time, incorrect contact numbers, or misunderstanding the questions in the initial survey. Fifteen participants took part in the focus group interviews. Of these, one had their interview conducted via telephone due to concerns about anonymity and a second had theirs conducted individually in their workplace. All participants were female, during the Phase II Stage I survey. Table 4.11 presents a demographics breakdown of the interviewees' main areas of work for the 12

month period prior to interview. This is similar to the distributions of nurses observed in the Phase II Stage I surveys, indicating there is no bias in work area among the participants that agreed to participate in focus groups. In addition, presents full time employment status of participants: most (83%, $n=14$) participants had full time employment while 6% ($n=1$) and 12% ($n=2$) were employed on a part time or casual basis respectively. Given part time and casual employees made up only 0.03% of the sample that responded to the first round surveys there is a bias in the focus group sample towards these roles. Furthermore, the RN was most 59% ($n=10$) the current position held by participants at the time of the interview. No senior nurses participated in this phase of the study. 53% ($n=8$) participants held a Master Degrees or higher qualification. There is a slight bias in the interview sample towards those with a higher education than is reflective of the entire population.

Items	Respond items	Number	Percentage
Workplace during last 12 months	Medical ward	6	35%
	Surgical ward	3	18%
	OPD	2	12%
	OB	2	12%
	School of Nursing	1	6%
	ICUOT	1	6%
	Nursing Administration	1	6%
	Pediatric unit	0	0%
	RT/DI	0	0%
Employment status	Full-time	14	83%
	Casual	2	12%
	Part time	1	6%
Current position	RN	10	59%
	NO or above	6	41%
Highest Qualification	Master degree	8	53%
	Bachelor degree	6	35%
	Nursing certification	1	12%
	Nursing diploma	1	12%
	Postgraduate degree	1	12%

Table 4.11 Focus group's demographics data

4.8.2 Interviewee Awareness and Usage of OH&S services

All interview participants were aware of OH&S units and services within their hospitals. Lines of reporting for interview participants were varied and is presented in Table 4.12. Reporting to a Nurse-in-charge showed the highest rate at 35% (n=6), followed by Unit Manager at 30% (n=5). 25% (n=4) stated that they reported to the OHS Manager, OHS Nurse or OHS representative.

Items	Respond items	Number	Percentage
Lines of Reporting	Nurse-in-charge	6	35%
	Unit manager	5	30%
	OSH representative	4	25%
	OSH nurse	4	25%
	OSH manager	4	25%
Utilization of OHS	Immunization	17	100%
	Ergonomic evaluation `	17	100%
	Screening programs	12	71%
	Pre-employment examinations	10	59%
	Work related health risk assessment	4	25%
	Medical consultation	3	18%
	Rehabilitation service	3	18%
	Health counseling	0	0%
OH&S Courses Reported by Participants as Having Been Completed	Manual handling	12	71%
	Fire drill	12	71%
	Needle stick prevention	4	25%
	Infection control	2	12%
	Workplace harassment	2	12%
	Workplace violence	2	12%
	Workplace bulling	2	12%
	Others	2	12%
OH&S Policies and Procedures	Infection control	17	100%
	Fire safety	17	100%
	Handling chemicals	17	100%
	Needle stick injury	17	100%
	Lifting technique	17	100%
	Incident reporting	17	100%
	Staff OH&S training,	17	100%
	Immunization	17	100%
	Injury on duty management	17	100%
	Poisons	17	100%
	Radioactive materials	17	100%
	Workplace harassment/violence	17	100%
	Return to work after occupational injury policies or procedures	17	100%
Frequency of	Accessing of services	16	94%
	Work stress	12	71%

participants who experienced OH&S safety problems	Falls	12	71%
	Workplace harassment/violence	6	35%
	Skin condition/diseases	3	18%
	Respiratory infection	1	6%
	Muscle strain	1	6%
	Back injury	1	6%
	Needle stick injury	1	6%
	MRSA/ESBL	1	6%
	Poisoning	1	6%
	Laceration	1	6%
	Hearing problem,	0	0%
	Eye injuries	0	0%
	Soft tissue injuries	0	0%
	Burns	0	0%
Frequency of Participants reporting OH&S conditions	Needle stick injury	2	12%
	Skin condition/diseases	1	6%
	Back injury	1	6%
	Work stress	0	0%
	Soft tissue injury	0	0%
	Workplace harassment/violence	0	0%
	Eye injury	0	0%
	Poisoning	0	0%
	Laceration	0	0%
	Burns	0	0%
	Hearing problems	0	0%
	MRSA/ESBL	0	0%
	Muscle strain	0	0%
	Falls	0	0%
Respiratory infection	0	0%	

Table 4.12 Focus group's response to the OHS items

The range of services used by the participants in hospital OHSs. Of the 17 participants, all (100%) reported utilizing immunization and ergonomic evaluation. Screening programs and pre-employment examinations were the second and third highest showed in the Table 4.12. These services differ from those reported by the majority of nurses, with the highest used service being pre-employment physicals and work-related health assessments which rank fourth and fifth among interviewees.

The completion rates of hospital courses by interview participants. Manual handling and fire drill programs were mandatory programs according to the participants. In hospitals A, D and E, all twelve participants reported having regular tests to review their knowledge. Furthermore, needle-stick injury programs were reported by 24% participants (A61, B58, E238 & G26) as having been completed. Infection control or similar programs, for example, isolation techniques, were mentioned by only A61 and E238. No official seminars were offered in

relation to workplace harassment, workplace bullying or violence handling according to D491 & E238 but any such incidents would be mentioned during handover from senior staff to the ward nursing staff. B58 mentioned “new equipment demonstration e.g. new wheelchair model. If needed, I would be able to go to the intranet for related information”. A unique program was mentioned by G26: “‘stress first aid’ for counseling”.

4.8.3 Opinions on OH&S Policies and Procedures

Sixteen of the 17 participants claimed OH&S policies and procedures were available in their workplace. All 100% (n=17) participants had acknowledged infection control, fire safety, handling chemicals, needle stick injury, lifting technique, incident reporting, staff OH&S training, immunization, injury on duty management, poisons, radioactive materials, workplace harassment/violence, return to work after occupational injury policies or procedures in the workplace. A summary of OH&S policies available in the workplace is presented in Table 4.12

4.8.4 OH&S Risks and Satisfaction

According to Table 4.12 presented 71% (n=12) of participants experienced work stress and falls. 6 (36% of) participants stated that they experienced workplace harassment. 18% (n=3) of participants experienced skin conditions or diseases.

Actual reported OH&S risks by interview respondents in the workplace. Two (12% of) participants reported having had a needle-stick injury. In relation to skin diseases and back injuries, one (6% of) incident had been reported through official channels. Out of all the OH&S problems reported by the interview participants very few are actually reported through official channels at the hospital.

Finally, the satisfaction of OH&S in the workplace by interview participants. The mean score was 7.2 out of 10, and the median score was 8. This matches the findings of the Phase I Stage II survey which found that there was a small number of nurses who rated their OH&S satisfaction as low, but the majority rated their satisfaction as an 8 out of 10.

4.9 Group 2: Phase II Stage II OHSC focus group

4.9.1 Positive OHS feedback by the focus group

In this section the positive feedback on the OHS service is reported from five hospitals.

Participant Code	Content
A19	Very impressed after IOD with needle-stick injury arrangements.
B6	They are improving the service. With limited resources, they try to help the staff at work.
D471	I was very impressed the hospital reported to the related parties. I feel I was taken care of and received feedback from staff of high level.
D471	Hospital is quite supportive in OHS training.
E232	I'm very impressed with the IOD Return to Work (RTW) program.
E238	The expansion of the service which is very helpful.
E255	As a newcomer, I am impressed with the OHS here.
G26	That's very impressive for such a 'secret association' as recalled.

Table 4.13 Positive OHS Feedback by the Focus Group

4.9.2 Room for improvement in the OHS

Facility of employer attitudes, as feedback from the participants.

Participant Code	Content
A61	Most of OH&S courses/training materials are obtained from the internet. However, other techniques and physical skills can only be acquired through practice. For example, lifting patients.
A19	The setting and facilities in the ward are not user-friendly e.g.; The power point is set behind the bedside cupboard after the ward renovation. Cupboard has to be moved in order to connect the power. Besides, an extra extension cord is needed to have more power points. Do not understand why the management did not consult the users before setting up the facility. Is the management being consulted? Unit Manager is usually the one to collect the feedback before proposing the renovation plan. A5: I agree.
B58	There is room for improvement, including the facilities in the hospital. There are gyms

and rest rooms in other hospitals while there are none in ours.

E255

If the hospital considers the fitness centre would be nice to the staff. Since work at ANH, one of the HA hospital, for long. There is a staff centre and some fitness facilities such as treadmills. Staff are able to have exercise after work, and have a shower, which releases the work stress and refreshes them!

There are only 2 newspapers in the rest room here. They are Mingpao and Singtao: no other choice. In addition, the hospital has **no decent space for meal breaks.** The situation in the ward is even worse!! We only have a folding chair without a decent table for the meal break. We can only have a quick meal break and back to work, no time to rest after meals. I seldom have a meal break in the ward. I would rather have my break in the canteen which is more crowded and noisy. At least there is a place to sit

Table 4.14 Responses Regarding Hospital Facilities

Employer or senior staff attitudes:

Participant Code	Content
A61	There have been 3 changes in the OHS manager within 3 years. The existing one has been only working for a few months.
A19	The setting and facility in the ward is not user friendly e.g.; PowerPoint is set behind the bedside cupboard after the ward renovation. Cupboard has to be moved in order to connect the power. Besides, extra extension cord is needed to have more power points. Do not understand why the management did not consult the user before setting up the facility.
A61	Is the management being consulted? Unit Manager is usually the one to collect the feedback before proposing the renovation plan. A5: I agreed
A61	Nurses only deal with Displace Screen Equipment (DSE) for a short period of time. They need to walk around and check the patients. Well....lifting or manual handling work, not a problem at all.
C3	Because action is not consistent with what have been said.
C3	Consistency!! Again, they have to work consistent with what they said. The staff concerned in the OHS issue would be isolated and affected negatively at work.
C3	This hospital has its own culture. It is small and reports are easily disclosed with proper channels. Staffs don't feel comfortable to make official report of the related issue. E.g.: I did report an incident to the OHS department then the related colleague came and did the investigation and finally my senior told me: I shouldn't have made this report which caused a colleague to have problems! In addition, the staff concerned in the OHS issue would be isolated and affected negatively at work.
D471	If more administrative personnel take a look at the service at the service, it will be helpful. Instead of face- to-face communication, we usually have communication in written form only. It feels better if there is more face- to-face communication for this shows the care and warmth from them.
D476	Yes, this is true!! Action rather than documentation are needed to express their concern.

Most of the time, the senior staff do not have much feedback. However, being busy is not an excuse. For the senior staff to understand what is happening in the frontline, they should experience it.

They cannot just observe and leave but never stand on our shoes!! Sometimes, the senior staff watches the frontline staff being verbally abused by the patient, relative or even the doctor. They should know how difficult our positions are. I would very much appreciate if the senior staff could do it!!

D491

Hospital has paid attention to OHS issues and put a lot of resources in this area. Frontline staff may not be aware we do have the right to report such issues as physical abuse or verbal assault when the patient is mentally fit but intends to hit or accuse the staff personally. In general, our frontline staff would try to avoid this patient. As a team, we try to have a consistent attitude. We never know we have the right to report a case as occupational injury, workplace violence or bullying. In nursing practice, we never have such concept to report not in the mental hospital practice. Even the Nursing Officer knows the case but such issue is not reported.

G26

1. More attention on people. For example, the senior people should meet the frontline staff through interviews or talk to them in wards. This helps to find out their needs and how much stress they are facing day to day.
2. The review system on IOD involves only system but not personality.
3. Positive attitude and methods should be used in handling medical error. Staff should not blame one another.
4. Feedback from senior staff not only to the outsider but also to the frontline staff after injury, accident or incident and so no. Indeed, it has never got feedback to our internal when the issue is raised from either external or internal people. Since we never have any feedback from the senior staff after the investigation of the issue, we never learn to do it right without growing.
5. Senior level only provides the hardware in relation to the OH&S issue but never pays attention to the software which are the frontline staff's needs. For example, when OH&S launched a campaign about prevention of t back injury, the hospital arranged

electric beds for us. Did they think about the space, time for work and manpower in the ward as priorities before buying those electric beds? Finally, our hospital has the new beds but still lacks frontline staff to lift the patients and achieve the patient's need. For example, staff needs to help the patient to operate the bed, which needs to occupy our limited time when working. As a result, the electric bed does not solve the problem. We still have back or soft tissue injury. Staffs don't bother to report if not immediate hurt. However, the chronic back and soft tissue injury could be another concern, which is present in different way!!

Table 4.15 Responses Regarding Employer or Senior Staff Attitudes

Other issues

Sources of stress can be classified as internal and external.

Internal stress

Spag Hospital A had not mentioned the actual fact of the stress but able to quote as below:

Participant Code	Content
All replied from Hospital A	In a stressful place like the hospital campus where the programs are organized, they are not interested. It is because they are eager to leave as soon as possible after work.

Table 4.16 Response Regarding Internal Stress

External stress

External stress comes from the nature of the job, the working environment, limited resources, lack of appreciation, medical training system, higher public expectations, inadequate knowledge, and the way of administration to handle a problem are feedback in this study. For example:

Job nature

Participant Code	Content
B58	I have stress working at OPD due to the rushed appointment schedule in between patients

Table 4.17 Response Regarding Job Nature

Working environment

i) New working environment:

Participant Code	Content
B6	The most stressful phase is first year in this hospital. Got skin problems such as dry hand and skin exfoliation. It is out of control until the hand wash method was changed e.g.: using soap instead of the hibitane. The problem may be related also to the stress.
E255	<p>If there were more support in the “O” program for newcomers, it would be better. I’m working in the NICU but the mentor changes day by day. It is a bit confusing for different people to have different coaches. In addition, the mentor is EN, who coaches me in the clinical work but not in administrative matters. Furthermore, the mentor always reports to the senior staff about the progress or performance without letting me know. This makes feel somebody is talking behind my back. This is very stressful.</p> <p>A consistent mentor would allow the newcomer to have a person to share and enquire about their needs. This is a buddy system and enables a newcomer to grow: an easy way to avoid stress in a new environment!</p>

Table 4.18 Responses Regarding New Working Environment

ii) Limited resources:

Participant Code	Content
G26	Shortage of manpower due to sick leave and resignation of staff without filling the vacancies.

Table 4.19 Response Regarding Limited Resources

iii) Lack of appreciation from the public:

Participant Code	Content
G26	Back in the time of SARS, I felt respected even if we had been fighting for lives with very limited resources. I felt my hard work was worth it without any regret. Again, the working

environment seems improved nowadays but I feel very tired working day by day to deal with the unreasonable demands and lack of appreciation from the public even though we are providing the same service as during the SARS period!

Table 4.20 Responses Regarding Lack of Appreciation from the Public

iv) Medical training system makes the newcomers frustrated:

Participant Code	Content
G26	<p>One of the new graduate nursing staff from the university was disappointed after the first few months working here and always asked to resign the job. She found working here with behind the new technology and also lack of resource support it did not suit for her well. However, this staff worked for a few years and resigned for her further study. On the day she left she claimed she never experienced such a nice working place with such care and support. Every year, this girl sent us a Christmas card and also we kept in touch. Nowadays, the nursing training emphasizes effectiveness at work with equipment to help the patient ignoring the nature of nursing. This is care which is not essential in the environment with high tech or deluxe equipment. However, the newly graduated nurse always lacks time to experience the care attitude. This might be the reason for new graduates leaving. They found the difference between training and working in the “real world”. Back to our apprenticeship in hospital-based training, trainers worked with limited resources such as no air conditioning, and camp beds everywhere in the ward. We could not argue when senior staff assigned any duties to us. Always no say when senior staff asks to work but we did happily and also respected the senior due to the senior nurse always with fair handling for each staff. The staffs in the frontline do not have sufficient experience to fit the post that coaching or backup is not enough.</p>

Table 4.21 Medical Training System Makes the Newcomers Frustrated

v) Higher public expectation:

Participant Code	Content
D228	<p>Maybe because our hospital has a high reputation the patients have higher expectations for the staff here. In addition, the public and the media tend to over-emphasize medical errors. This leads to a negative image for the hospital and the staff. If there is any incident, the patient or relative will look for our staff concerned to make more clarification of a procedure in order to make sure the staff is capable to handle the procedure. It makes our staff more stressed.</p>
D476	<p>A lot of stress. It is very different when compared with the time I joined this profession. You know, professional knowledge is more assessable these days. The needs of the patient and family are different now. You know, they would challenge you about everything including medicine, service and policy etc.</p>
D471	<p>A lot of workplace violence happens because the patient and family think they have suffered enough from the illness. Your nurses should understand totally patients' needs and be able to provide good care. Any minor mistake or inadequate service will trigger the patients. They might bully or verbally abuse the staff.</p>
G26	<p>Workplace abuse from patient's rude relatives who are increasingly demanding. In addition, junior doctors are also abused nowadays. It may be the cause for stress. Patients' rights are abused who forget their responsibilities during the hospitalization.</p>
G26	<p>Too open to the public about medical error which becomes a weapon for the patient or relative to abuse the medical system.</p>
G26	<p>Overwhelming information or medical knowledge on the internet that the public can misuse in some cases.</p>

Table 4.22 Responses Regarding Higher Public Expectations

Inadequate knowledge

Participant Code	Content
D476	<p>From family, patient and the Hospital Authority (HA). There are a lot of new practices and techniques from HA that I never come across. However, I have to deal with them when the new staff from HA work here. Since I trained and matured in this hospital and never worked in the outside hospital under the management of HA, I do not have any idea at all and always know nothing.</p> <p>I'm able to provide the service to my patients most of the time. However, I recall an experience a few years ago I had to take care of a patient from HA hospital called Hickman catheter. I was challenged and controlled by the patient since I lacked knowledge in that field. I think we need to acquire more knowledge and improve our skills to meet the standards.</p>
D471	<p>Our hospital is classifying the patients with room level rather than the nature of the illness, which causes work stress at the ward level due to the limited resources and back-up with related care in high-dependence cases. Recently, the hospital to set up a ventilator ward, especially to look after the ventilated cases in order to reduce the workload and stress in the ward. Existing needs cannot be met due to the limited intensity service such as limited number of beds. Most of the time the ward staff needs to work very hard because of this limitation. This is not fair to the staff and other patients when I work as night supervisor. You know, a student nurse cannot take care of seriously ill patients. They have enough work and routines at night. As night supervisor, I have my responsibility and I am willing help with clinical work if I can.</p>

Table 4.23 Responses Regarding Inadequate Knowledge

Problem solving by administration

Participant Code	Content
C3	<p>Operation Room door is dangerous when open, someone behind the door could be injured.</p> <p>No response and follow up and people seem not to take it seriously.</p>
C3	<p>I reported an incident to the OHS department then the related colleague came and did the investigation and finally my senior told me: I shouldn't have made this report which caused a colleague a problem! In addition, the staff concerned in the OHS issue would be isolated and affected negatively at work.</p>
G26	<p>For most complaints, the Hospital Authority will pinpoint the staff. Patients and their relatives are always the winners and the staffs are the losers. Staffs never have any feedback on how the senior staff handle the case. Therefore, a culture of increasing number of complaints is the result, especially when the senior staffs tries to avoid the issues. This is unfair for frontline staff involved. For example, people with unreasonable demands achieve their goals by insisting on what they want or even by abusing the system and staff. The public are learning to use some “bullying attitude” to satisfy their needs. Finally, the staff has to handle routine work as well as facing the stress from customers who have rude attitude.</p>

Table 4.24 Responses Regarding Problem Solving by Administration

The consequence of workplace stress is reflected on by Participant D491: “I have dreamt about the working situation and am afraid of having a sudden call when I am sleeping. It never happened when I was doing another job!” D491 elaborated further: “Yes, I do have stress at work. That’s the reason to have phobia for work. They did call me 8 o’clock in the morning!! Staff in the morning shift should take care of it. It was around 7:30 am and I was sleeping at home! They also blamed me for not answering their calls. Indeed, I was sleeping at that time. Yes, they expect you to have 100% of your work done and without any mistake. No one has such confidence!! If I know I have not finished my work, I shall not leave my duty!”

A typical workplace stress related comment from participants A5, A19 and A61: “in a stress place like the hospital campus where the programs are organized, they are not interested. It is because they are anxious to leave as soon as possible after work”. This statement is an indicator of potential 1 for risk of burnout and job dissatisfaction amongst nurses at this hospital (Chan, 2004; Bai et al., 2004).

In the local situation, internal stressors seem not to be significant, but external stressors are significantly reflected in various items including the nature of the job, working environment, limited resources, lack of appreciation, doctor’s training system, higher public expectation, inadequate knowledge and the administration’s ways of handling problems. The mishandling of workplace stress may lead to burnout at work, which is well documented by Chan and Chan (2004) and Bai et al. (2004). From an accountant’s point of view, mishandling workplace stress would cause significant workplace stress-related claims (Muhammed and Vishwanath, 2000; D’Aleo et al., 2007).

The HK hospital employers who responded to this study are aware of the consequences of workplace stress. Responses by OHSPs and OHSCs indicate that employers provide relevant training to their employees. However, the replies were significantly different between the survey (8.3%) and focus group (100%) in their statements that they had attended stress management programs arranged by the employers. No matter what the attendance rates of the programs were, the outcome of the training still has room for improvement in order to educate employees about their right to report and knowledge of workplace handling.

4.9.3 OHSC’s Initiative

Four participant hospitals feedback that staff there with initiative to hold the leisure activities for the staff. Related content is reported in Table 4.23

Participant Code	Content
B3	We are going out with colleagues for meals instead of any work-related activity.
B58	We do have activities, which are near the hospital. No one from the hospital arranges any activities officially. Activities such as tennis and swimming are organized by colleagues who have a club house where they live. This is private in nature.
D491	Voluntary only. This does not belong to the Human Resource Department or any department in the hospital. Only voluntary staff is in charge of the club.
E232	This is not a formal or official program but it is an interest group organized by outsiders.
G26	No, these are informal and unofficial activities. Since people have different interests and hobbies, they group together and open classes for others to join. No enrolment is needed and people just join by completing the activity form. Some do need to enrol prior to the activity. For example: junk trip, outing.

Table 4.25 Responses Regarding the Organization of Leisure Activities for Staff

4.10 Method or Channel to Release or Balance the Work Stress

Participants reported using methods like “avoidance”, “support from the team or senior”, “ventilate with a proper channel” or “not taking it personally” to balance the work stress. Each of these strategies is discussed below.

4.10.1 Avoidance

Hospital A participants’ feedback: “All replied that in a stressful place like the hospital campus where the programs are organized, they are not interested. It is because they are anxious to leave as soon as possible after work”. This indicates reluctance to attend, possibly because staff do not see these programs as relevant. It is interesting that in the case of Hospital A, which has a religious foundation, none of the focus group participants mentioned the Chaplaincy service or other hospital services to help staff while suffering stress. However, in the case of Hospital D, which does not have any religious background, the participants mentioned the value of their hospital’s free Chaplaincy service for patients and staff.

4.10.2 Support from the Team or Senior

Comments made in the focus group included the following: “Report to the UM who will follow the case and work on it”, “Colleagues are very considerate”, “My boss comforted me and asked me not to take it personally”, and “I was reassured by my colleagues”. However, negative attitudes from the team or senior staff add to the stress on frontline staff (Peterson, 2008) and support from the peer group or working team is able to reduce work stress, (Peterson 2008). Two participants in the present study made the following comments: “The senior staff only tell you when you did the wrong thing, however, they are not necessarily able to tell you the rationale behind the practice”. (see Appendix 27).

4.10.3 Ventilate Using Proper Channels

Some participating hospitals with religious backgrounds assist hospital staff by providing an easy way to ventilate their stressful feelings through the Chaplaincy service, without the need for a referral system. As Chiesa & Serretti (2009) stated, spiritual care is a powerful way to treat stress. In addition, hobbies like reading and singing or interest groups, may divert work stress (Barlow, 2007). In the present study, some participants claimed that they were able to balance their stress in various ways, either on their own or by making use of services arranged by the hospital (see Appendix 28).

4.10.4 Being Considerate and Not Taking It Personally

“Not to take it personally”, “Try to be a good listener and not to respond to any gossip” and “Stand in other’s shoes” are other ways to minimize work stress, according to comments made in focus groups (see Appendix 29). These suggestions are also supported in the literature (Barlow, 2007; Chiesa et al., 2009; Flanagan, 2012).

4.11 Workplace Violence

According to Smith-Pittman (1999, pp. 8) and other scholars (Miranda et al., 2010; Hahn et al., 2008; Jackson, et al., 2002), workplace violence should be defined as “any act of physical or psychological abuse against a health care provider designed to harm, injure, and/or damage.” Based on this definition, the researcher has grouped workplace harassment, workplace bullying and workplace violence together for the purposes of discussion.

From the OHSC survey, 6.2% of the participants reported experiencing workplace violence but a reporting rate of only 1.1% was noted. In contrast, the focus group interviews reported 18% of the participants experienced

workplace violence and 0% had reported the incident. According to the replies from OHSPs, 2 incidents were reported in seven participating hospitals for the 12 months preceding Stage I Phase I of the study.

The study indicates that the most significant workplace violence is verbal rather than physical. For example, Participant D471 stated “Physical violence would be less indeed, but verbal abuse is more than usual”.

The source of the problem can be seen from the feedback of Participant D491 “Verbal abuse from senior to junior staff due to the work culture”. In addition, Participant G26 feedback on workplace verbal abuse from the patients and relatives. “In most of the complaints, HA will pinpoint the staff. Patients and their relatives are always the winners and the staff is the loser. Staff never had any feedback of how the senior handled the case. Therefore, the culture of increasing number of complaints is resulted especially when the senior staff tried to avoid the issues. This is unfair for the frontline staff involved. For example, people with unreasonable demands would achieve their goals by insisting on what they want or even by abusing the system and staff. The public is learning to use some ‘bullying attitude’ to satisfy their needs. Finally, the staff has to handle routine work as well as facing the stress from customers who have a rude attitude”.

This observation is supported by Moustafa et al. (2010) and Jackson et al. (2002) who state that a key factor contributing to workplace violence is patients and their relatives and friends. Further, Jackson et al. (2002) pointed out that nurse managers contributed to 61% of workplace violence in the UK.

The consequences of workplace violence are similar to that of workplace stress. As mentioned in Chapter One, poor handling of workplace violence increases the likelihood of nurses’ absenteeism (Brook, McGlynn and Cleary, 1996, Jackson et al., 2002), loss of confidence, lower self-esteem, job dissatisfaction (Fernanders et al., 1999; Brook et al., 1996), poor work performance, physical or mental illness such as blood pressure problems (Efe and Ayaz, 2010; Hahn et al., 2008; Fernanders et al., 1999; Rippon, 2000; Brook, 1996), burnout (Jackson et al., 2002) and even resignations (Fiala, Rahman and Fahim 2010; Cleary et al., 2010; Jackson et al., 2002; Fernanders et al., 1999). In addition, various scholars agree that this is not a healthy working environment (Moustafa et al., 2010; Cleary et al., 2010; Miranda, Punnett, Gore and Boyer, 2010; Cooper, Walker, Winters, Williams, Askew and Robinson, 2009; Jackson et al., 2002; Fernanders et al., 1999). Staff with back pain incidence would increase three times more than that in the healthy workplace (Miranda et al., 2010).

It is well known that the reason for the under-reporting of workplace violence in health care is the belief that it is part of the nature of the work (United States Department of Labour Occupational Safety and Health Administration, 2004) and people can do nothing about it (Efe and Ayaz, 2010). Participant D491 stated that “I heard this happened between doctor and the nursing staff (Embree and White, 2010) which was very minor. They just talked about the incident but never reported! Hospital has paid attention to OHS issues and put a lot of resources in this area. Frontline staff may not be aware that we do have the right to report such issue as physical abuse or verbal assault when the patient who is mentally fit intends to hit or accuse the staff personally. In general, our frontline staff would try to avoid this patient. As a team, we try to have a consistent attitude. We never know we have the right to report the case as occupational injury, workplace violence or bullying. In nursing practice, we never have such concept to report if we are not in the mental hospital practice. Even the Nursing Officer knows the case but such issue is not reported”. In addition, senior staff attitudes to reporting cases of workplace violence are one of the issues affecting the reporting rate. For example, Participant C3 stated: “Workplace harassment, violence and bully reported to the senior without any follow up”.

This is a serious concern for hospital management as the study indicates that, even if relevant programs are offered and delivered to frontline staff, the level of understanding by senior staff and the action taken when reports are made need to be considered and reviewed. As Participant D491 stated: “Workplace harassment and violence and their related policies are not clearly written down”.

4.12 Back Pain

Chronic back pain is a common problem in the health service sector, not only in HK but in other countries (Clever & Omenn, 1988; Northern Ireland Department Health, 2004). In HK, 41% of nurses experienced back pain (Franche et al., 2010), which is close to the result of the present study result (40%). In addition, 14.3% of the participants reported muscle strain, 10.6% reported back injury and 6.1% reported soft tissue injury. However, the reporting rates from the present study differ, from 3.9% for back injury, 2.3% for muscle strain and 1.2% for soft tissue injury in the official record.

The study reflects that HK nurses experienced back pain, soft tissue injury or muscle strain but they seldom reported these injuries. The reason for low reporting rate can be cited from Participant C3: “Minor back injury without report; minor injury in muscle strain without report”. Ergonomic and manual handling training are

mandatory training programs in HK hospitals, and the relevant policies are available on site for employee reference, as stated by both OHSPs and OHSCs. The key factor in relation to OH&S concerns is elaborated by participant G26: “Senior level only provides the hardware in relation to the OH&S issue but never pays attention to the software”.

Participant D491 makes a similar comment: “For OHS, there are two types of services, the hardware and the software. Hardware is for those you can identify immediately such as wet floor where a sign is placed as warning immediately. The problem can be avoided. However, the software still has room for improvement”. According to Kerzner (2009) hardware can be implemented in an easy way in the OHS but software needs various stakeholders to back up in order to achieve the common goal.

4.13 Needle-stick Injury

As reported in Section 1.5.5 needle-stick injury had the second highest reporting rate among HK OH&S hospital nurses. Two participants stated that they had suffered a needle-stick injury at work. Because of this incident, they contacted the OHS and found that the service was helpful.

Participants agreed that needle-stick injury was a significant risk in their workplace. In addition, one of the participants mentioned: “As a nurse, needle-stick injury is common in the workplace. Nowadays, the number of this injury is decreasing due to the effective management and administration. According to the Hospital D’s participant from the focus group reported, injury occurred 3 to 4 times a month due to the razor blade cut. Although related talk and seminar were given, it was still happening. Finally, hospital changes the razor to clipper which reduces the number of injury”.

HIV or Hepatitis B virus infection may be a consequence of needle-stick injury (Elder and Paterson, 2006; Üstün, Rapiti and Hutin, 2005). Nursing in hospital carries a higher chance of coming into contact with needles, which may cause injury and be hazardous to health. For this reason, all participating OHSPs mentioned that their services include “regular immunization, counselling for post needle-stick employees, regular surveillance and regular in-service and recording systems”. All participating hospitals mentioned that they used the needleless system in order to reduce the risk of needle-stick injury. In addition, all participants in the focus group study acknowledged the policy and attended the relevant OH&S training programs arranged by their employers.

4.14 Skin Disease

It is well known and well documented that hand dermatitis is a classic OH issue in the nursing industry (Kampf and Löffler, 2007). According to various scholars, stated disinfectants and infection control issue causes hand dermatitis either through traditional hand washing or hand rub (Kampf and Löffler, 2007; Talamanca, 2000; Liu, Woskie, Cullen, Chung, Holm & Redlich, 2000; Majan, 1999). Besides, hand washing material also causes hand dermatitis, which is echoed in this study by one of the participants that “Is the hand washing material, which is hibitane scrub advised from the senior staff with applying the hand cream. Different brands and various ways have been used to solve the problem, but not very effective so far!” Hospital E participants have a different view and find that the existing hand rub is able to solve the hand dermatitis problem. According to participant E238 code “Nowadays the modified hand rub helps to solve the skin problem due to added moisture to the hands”.

According to these responses, it would be individual hospital’s issue. In addition, stress and preparing antibiotics are contributory factors mentioned in the study. For example, participant B6 stated: “Got skin problem such as dry hand and skin exfoliation. It was out of control until hand wash method had been changed e.g. using the soap instead of the hibitane. The problem may be related also to stress”. Participant B6’s statement is consistent with the work of various researchers (Hashizume, 2006; Kedrowski, 2008; Magnavita, 2011). Medication handling is another factor which may cause hand dermatitis. For example, participant D491 stated: “Preparation of antibiotic and using medication spread on my hands may be the cause of my problem” (Gehrig, 2008; Gielen, 2001).

In Phase I Stage I of the present study, a reporting rate of 14% was noted, and 4.6% of the OHSC participants claimed that they experienced skin problems or disease but only 1.7% reported through the official channels as stated by the OHSC. The reasons for the low reporting rate in this study may be the attitudes of senior staff handling the case, knowledge of the incidents and personal beliefs, all of which may contribute to the reporting rate. Comments made by participants include the following: Participant C3: “Skin condition/disease such as eczema. Report verbally to the senior only”. Participant D491: “Do you think this is a skin problem? Very dry skin with abrasion. This is very common in nursing and be prepared for this as part of the job. For me, not a very serious problem but some other staff might be seriously affected!!”

4.15 The Value of Occupational Health Service for HK Hospital Nurses

Participants scored the value of their hospitals' OHS between 6.78 and 7.2 in the survey and the focus group interview respectively. In general, the participants' impression was that the value of OHS in hospitals was defined in terms of safety and caring.

4.15.1 Occupational Health Service as "Safety"

Participants are impressed that OHS contributes to the workplace, as this service provides information and a safe working environment. For example, from the safety viewpoint, Participant G26 stated "policy procedures have been put in place so that staff will have a safe environment to work in!" In addition, Participant D471 stated: "Yes, as this protects us and makes us more aware of OH risks and hazards", and Participant E255 remarked "we are reminded regularly of the need to be aware of occupational hazards". Moreover, Participant G26 recognized that "because the hospital has a duty to provide a safe working environment, OH&S service helps to achieve this".

As stated in Section 1.5 employers have a legal obligation to provide a safe workplace for their employees, and hospitals are supposed to be a place to treat both physical and psychological problems. However, hospital staff are working in an "unsafe environment" (Gernshon, Karkashian, Grosch, Murphy, Escamilla, Flanagan, Kasting and Martin, 2000). Furthermore, the 2004 Emerging Infectious Diseases recognized that people were endangered by numerous work hazards (Stone, Clarke, Cimiotti, Correa-de-Araujo, 2004.). A decade after this study, the hospital working environment still had numerous hazards (Choo, Johnson & Manias, 2013; D'Aleo, Stebbins, Lowe, Lees and Ham, 2007; Elder and Paterson, 2006; Fischer et al., 2006; Hahn et al., 2008; Possamai, 2007; Weisshaar et al., 2006). Finlay, (2006) and Florence Nightingale (Lewis, 2006) stressed on the medical practice which guides and medical ethics that the first requirement of a hospital is to do no harm to the people who come to it. (Finlay, 2006; Lewis, 2014). Based on the participants' feedback and the above articles, it can be stated clearly that providing a safe working environment in hospitals is important for frontline nursing staff.

4.15.2 Occupational Health Service as "Caring"

The participants in the present study considered that the OHS was "Caring". The challenges that the nurses face in today's health care environment in HK are constraints on human resources, high patient turnover rates and

high public expectations. Furthermore, there are stresses from organizational problems, levels of training, interpersonal relationships with colleagues and allied health providers, work demands, and physical and emotional overloads (Refer to section 1.5.1). These findings are consistent with the work of (Bay et al., 2004; Barlow et al., 2007).

Additionally, high levels of staff turnover exert further stress within the workplace as newcomers perceive anxiety more acutely (Barlow et al., 2007; Marsella, 1994). Norrie (1995) reported that 30% of nurses' stress in England came from management issues such as inadequate numbers of staff, incompetent staff and problems concerning emergencies, admissions and transfer procedures. This study result remains valid and is supported by Barlow (2007). Nurses face numerous stress-producing situations when they perform their duty. Leininger (1984, pp.24) states that "caring was nursing, and nursing was caring". However, "Nurse is human and needs care and support" was the comment of Participant D471 in the focus group study.

The study results suggest that HK nurses are also looking for care. The participants expect the OHS to provide this care and they experience the care through the service, as indicated by the following comments: "I had great support from different parties while I was injured" Participant A19. "Apart from the IOD staff, post-operative staff also joins this program. It makes staff feel that they are being taken care of" Participant E232 (Appendix 30 Number 8).

4.16 The Quality of Occupational Health Services in HK Hospitals

As reported, the OHSPs knew about the risks confronted by the frontline nurses, and they tried hard to implement various strategies in order to maintain a "healthy" working environment for the frontline nurses. Objective measures of the quality of OHSs are not available for HK to date. Understanding the OHSC prior to providing suitable service is crucial for a good quality and standard of service to be achieved. As Kerzner (2009) states "people" is a key area to focus on for OHSs. Hence, quality of design, workmanship and service are all relevant from the OHSCs' point of view regarding the quality of service. Therefore, to review the needs of HK hospital nurses in their OHS is important to improve the present service.

4.16.1 Potential Problems Facing Occupational Health Services

As this study has shown, nurses "do not bother to report", have a "lack of awareness of the problem", show "lack of knowledge", "might not be aware of their rights" or "senior's attitude" affect the reporting of work-

related health problems to the OHS. Comments such as the following: “Don’t bother with the minor injury”, “lack of related knowledge”, “lack of awareness of the problem”, “senior attitude” were noted during the focus group interview. Each of these is considered below.

4.16.2 Do Not Bother to Report

The participants stated that they “do not bother” to report the minor injury. This may be consistent with Chinese culture, as people will try to hide problems if possible to avoid any further issue (Cahill & Di, 2010). The root cause of the OH&S problem may not be solved in an initial stage without significant damage or causing a harmful result (Kerzner, 2009). However, the principle of OHS is to provide a healthy and safe environment to employees and it is necessary to have adequate data and information to maintain the system where problems are noticed immediately, otherwise, effective action cannot be taken (Kwok, 2011). For example, Participants E232 stated “Don’t bother to report the clean needle-stick injury” (Appendix 31, Number 3); “Don’t bother to report the minor back injury, which may cause trouble” Participant G26, “Any work stress is seek for the Chaplaincy or self-care” Participant E238. “I experienced fall in the hospital but not reported due to the slope stairway (Appendix 31, Number 4). Most of the time, we never report any minor issue, for example, falling without injury, the injury is not reported to the hospital” Participant E238. “Just talk about the incident but never report!” Participant D491 (Appendix 31, Number 2). The participants attempted to minimize the problem as they thought that they were creating a potential OH&S problem in their workplace, however it may cause further injury to other people if the root of the problem is not solved immediately (Kerzner, 2009; Kwok, 2011).

In contrast, Hospital D changed their usual practice after the incident data were collected. Administrative level was alerted to the problem and further incidents were minimized after corrective procedures were put in place. The actual example as coded from Participant D471 stated: “According to the report, injury occurred 3 to 4 times a month due to razor blade cut. Although related talk and seminar were given, these had been happening. Finally, hospital changed the razor to clipper which reduced the number of injury”.

Participant D491 “Workplace bullying happened between doctor and staff. The telephone recorder has recorded the related conversation and this will be reported to the senior staff for review. If this happens among patients or relatives and the staff, we will report to the nursing officer. Recently, hospital has policy to protect the staff

from being abused. If the patient or relative has unreasonable demand and the staff is being abused, the patient will be black listed and would never be admitted again”

People would have a different response with same incident happens (Kerzner, 2009), senior management needs to remind the frontline staff that reporting near-miss incidents to the related parties is crucial to achieve OHS principles and put them into practice (Kwok, 2011).

4.16.3 Lack of Awareness of the Problem

As mentioned in the previous section and as appended to Appendix 31, HK OHSCs are not aware that their reporting of incidents may help to prevent further injury or accident. This is a sign of inadequate awareness (Kerzner, 2009). Further, their right to report incidents is not known by OHSCs. For example, participant (D476) stated “I believe I have MRSA/ESBL since there are a lot of that in the hospital but we do not have any sign or symptom!” “I am not sure if I get it at work” Participant D491. “Frontline staff may not be aware that we do have the right to report such issue as physical abuse or verbal assault when the patient who is mentally fit intends to hit or accuse the staff personally. We never know we have the right to report the case as occupational injury, workplace violence or bullying. In nursing practice, we never have such concept to report” Participant D491 (Appendix 32, Number 2 & 3). According to OHS principles, any work-related disease can be reported and be taken care of by the OHS (Kloss, 2010; Lewis and Thornbory, 2010). In HK, OHS practice shows that either workplace or health hazard assessment but global with both approaches (refer to Table 4.10) item 3 OHS’s focus). The management staff should be made aware that further reinforcement for the related gap is needed

4.16.4 Vague Concept of Present Occupational Health Service

As present HK OHS practice focuses on the legal requirements, and is not demonstrated as an OH issue, for example: follow-up with physical health issues proactive stress management, follow-up and review of the related OHS issue. This may be reflected in the inconsistencies between the OH&S problems experienced and the reported cases. In addition, in HK, OHS and the related services are provided through various departments or units, and the follow up and management of the issue is the responsibility of infection control nurse (ICNs), Human Resources (HR), Chaplain, or OH&S department, while the global practice is with an independent and unique department. Local OHS practices mainly show a part-time and liaison role. The relevant data are

scattered and cannot be consolidated for further follow-up if needed. Further, OHSC has not got a well framed idea as to how the OHS can support their need at work with regard to maintaining a healthy working environment (Appendix 32 Participant D491). One of the participants stated “I experienced work stress all the time but I had exit to get rid of the problem. For example, I only pray and talk to someone but never report. I always seek for the Chaplain help” (Participant E238. See Appendix 31). The study shows that 72% of the participating hospitals offer stress management courses or related programs to the hospital staffs. However, the most reported and experienced OHS concern is work stress, which is not shown in the official reports.

The OHSPs stated that they provided regular immunization to all staff, regular in-service information regarding health issues and orientation programs to all new staff. These services were available to all staff in the hospital. There is a need for evaluation as to why many participants stated that they had attended the pre-employment screening program but no other OHS programs which were available. For underlying reasons refer to Participant A61 “Only the mandatory program” or Participant E238 “Most of the time, hospital paid for the OHS course for the hospital staff. Not many staff are able to join due to limited time at work or personal issue” (Appendix 43).

Wellness and fitness programs are provided by the 86% of HK OHSPs (see Table 4.4). However, the OHSCs have limited use for this service compared with ergonomic and fire drill training programs. Global OHS approach with health screening, examinations, immunization, health education and emotional support as content of OHS but HK only provide with either part of the content. In addition, attendance at the stress management programs is lower than for mandatory courses such as manual handling and fire drills. There may be missing data for the relevant period and the coordination of the existing OHSs may have room for improvement. For example, to consider the range of mandatory programs be broadened. Or proactively in the coordinating the program to the frontline staff.

4.17 Safety Management

4.17.1 Attitude of Senior Staff

Reactive senior attitudes in relation to OHS would reduce OHS effectiveness (Kerzner, 2009). The following quotations reflect that OHSC’s apathy or lack of initiative in reporting OHS concerns is due to senior staff’s attitude in relation to reporting or their lack of respect for junior staff or even that senior staff have only one-way communication with frontline staff. “Reported to the senior without any follow up” Participant C3. “No

response and follow up and people seem not to take it seriously!” Participant C3 “Even the Nursing Officer knows the case but such issue is not reported” Participant D491. “Verbal abuse from senior to junior staff due to work culture” Participant D491. “Staff never had any feedback of how the senior handled the case” Participant G26 (refer to Appendix 33).

The HK OHSC feedback with existing OHS has adequate paper work and policy back up. The most direct, practical, respect which is also beneficial to the frontline would be direct and honest verbal communication between management and frontline staff. It is crucial to let the frontline staff feel that they are taken care of by the employer rather than just providing OHS as a fashionable service or legal requirement.

4.17.2 Bureaucratic Approach

Management issues can frustrate the smooth operation of a system, especially in a big organization (Kerzner, 2009). A number of management issues are illustrated by comments of participants reported in Appendix 34. For example, participant (Participant D471) stated: “It would be helpful if more administrative personnel takes a look at the service. Instead of face to face communication, we usually have communication in written form only”. Another commented from Participant D476 stated “Personnel offices are locating on 38 floors; do they understand the frontline staff working on 20th floor? Do they know we have high stress and busy environment?” A further comment was: “Action rather than documentation is needed to express their concern. For example: They cannot just observe and leave, they never stand in our shoes!! Sometimes, the senior staff does watch the frontline staff being verbally abused by the patient, relative or even the doctor. They should know how difficult our positions are. I would be very much appreciated if the senior staff could do it!!” (Participant D476).

A number of participants called for closer contact between staff at different levels: “More contact with the frontline staff and to try to understand their need would help the frontline staff feeling cared of by the senior” (Participant D476). “More attention from people, for example, the senior people should meet the frontline staff through interviews or talk to them in wards” (Participant G26). Some participants considered that more personal approaches were necessary: “Review system on IOD involves only system but not personality” (Participant G26). “Senior level only provides the hardware in relation to the OH&S issue but never pays attention to the software (Participant G26)”. Another participant felt that frontline staff should be involved in the feedback loop

after an incident: “Feedback from senior staff should not only be given to the outsider but also to the frontline after the injury, accident or incidence and so on” (Participant G26) (Refer to Appendix 34).

On the basis of these comments by participants, the existing safety management staff needs to be aware of their ways of communication and the necessity to balance the “hardware” and “software”. More attention should be paid to frontline staff needs and concerns through observation and listening by heart. This issue must be approached with an open-minded attitude rather than processing in a correctional way or by official documentation (Cherniack et al., 2010; Kerzner, 2009).

4.18 Level of Knowledge

Knowledge is necessary to achieve change (Dare, 1996; Kerzner, 2009). Some participants reflected their limited knowledge in relation to OH issues and the right to an OHS service. For example, participants expressed in the conversation “Work stress is too abstract” (Participant A61). “Work stress is understood” (Participant C3). “No idea about MRSA/ESBL” (Participant D491). Further, some participants questioned the cause of physical problems such as skin problems or use expressions such as “May be the reason” (Participant D491). Finally, some participants made statements like “Frontline staff may not be aware that we do have the right to report” (Participant D491). “We never know we have the right to report the case as occupational injury” (Participant D491) (Refer to Appendix 35). These comments indicate that HK OHSCs have room for improvement of their knowledge and their right to know (Hall et al., 2006; Kerzner, 2009; Kloss, 2010; Lewis, and Thornbory 2010). Wong (2002) reported a similar study in a Sydney Hospital OHS, where participants suggested “To increase in-services or lectures will help to improve the OHS”. The function of in-services and lectures is to introduce the “new knowledge”, “skills” or even “new products” to nursing staff. Based on this function, the nursing staff would be able to use relevant services to their benefit (Wong, 2002).

Kloss (2010) stated that the employees have the “right to know”. The easiest and most direct way to “sell” a “service” or “product” is to use an in-service or lecture (Kerzner, 2009). Although the present study shows that the HK OHS provides active training programs in relation to OHS knowledge, OHSPs need to use this strategy wisely. Otherwise, it will not achieve the goal and waste resources, which is reflected by some participant stating “no time to attend the OHS course or program if not mandatory”. Detailed assessment of clients’ and

planning of the professional development activity is crucial for a tailor-made in-service or lecture, and effective evaluation and follow-up is also needed (Kerzner, 2009).

Based on the study feedback with various concern in the OHSC's workplace health issue, such as the setting of working environment or system, the backup of the frontline nursing staff in nursing practice knowledge, team work atmosphere, OHS related activities arrangement and facilities in their work sites, it arouses the management level of the frontline actual need.

4.19 The Setting of Working Environment or System

As indicated in Section 1.5.1, a healthy and safe working environment is able to enhance working efficiency and minimize work-induced stress and health hazards (Kerzner, 2009). Although the OHSPs stated that their hospitals had regular site inspections in relation to OH&S, participants still made comments such as "The setting and facility in the ward is not user-friendly" (Participant A19) , "The preparation before work takes longer than as expected" (Participant D491). "Nursing staff doing administrative work will wear a dress with words "Don't disturb, Drug Administrative time". But not work in a practical way" (Participant D471). "The problem is the PM shift followed by the AM shift and we do have 8 hours shifted here. You need to complete all your work before you leave. It always makes you stay behind longer than as expected" (Participant D491). "Hand over time is too long. No formal meals break when you are busy at work. The doctor is another issue. This always happens during the staff's meal period" (Participant D491). "Manpower issue is another concern" (Participant D228).

According to these responses from OHSCs, senior management needs to review the existing frontline operation, to see if it needs to be corrected in order to provide a safe and healthy working environment to the staff. According to the OHSCs comment, the related working environment, manpower or resource allocation needs to be reviewed and reconsider. The most effective way would be to consult the user's opinion then professional advice in order to develop a tailor made system (Kerzner, 2009).

4.20 Frontline Nursing Staff Back Up

Nursing practice is changing day by day. It is a stressor of frontline nursing staff if they cannot catch up with current practice because of their busy workload (Yeung, 2009). As Participant D476 stated: "Yes, I'm able to provide the service to my patient most of the time. However, I recall an experience a few years ago. I had to take

care of a patient from HA hospital with a Hickman catheter. I was challenged by the patient since I lacked the knowledge in that field. I think we need to acquire more knowledge and to improve our skills to meet the standard". Another participant (Participant D476) made a similar comment: "If no one tells you, you will never know. You only learn through observation and practices but not through the system". Participant D491 stated: "A Clinical Instructor (CI) is available in each ward that only follows the student and learner for their routine work but not the staff". A further comment was "Medical training system makes the newcomers frustrated.....Nowadays, the nursing training only emphasizes effectiveness at work with equipment to help the patient but ignores the nature of nursing. This is care which is not essential in the environment with high tech or deluxe equipment. However, the newly graduated nurse always lacks the time to experience the caring attitude. This might be the reason for the leaving of the new graduates. They found the difference between training and working in the 'real world'" Participant G26 (Refer to Appendix 36, Number 25).

Based on these participants' statements, the nursing training system and the focus of the clinical approach are changing, but frontline nursing staff has limited support in relation to the changes. It may be the issue to be addressed through the administrative level.

A harmonious working atmosphere with mutual trust is the basic requirement for team work (Barlow, 2007). Effective teams can enhance the effectiveness at working and positive interpersonal relationship between staff. It is crucial to build up a positive team atmosphere depending on the team leader's attitude (Decuypera, Dochya and Van den Bosschec, 2010). Staff don't feel comfortable to make an official report of the related issue" (Participant C3). "For OHS, there are two types of OHS services, the hardware and the software. Hardware is for those you can identify immediately such as wet floor where a sign is placed as warning immediately. The problem can be avoided. However, the software still has room for improvement. Although the hospital has a program called 'be nice' good employee nomination, the staff is still unable to experience the harmonious working environment. Even the Nursing Officer knows the case but such issue is not reported" (Participant D491). "Negative attitudes among people in the working team" (Participant D491). "Positive Mental Ability (PMA) helps people to enhance rather than giving negative feedback to the staff" (Participant D491). "Does senior level understand the frontline staff working in the ward?" (Participant D491) "More attention on people is required. Positive attitudes and methods should be used in handling medical error. Feedback from senior staff should not only be given to the outsider but also to the frontline after the injury, accident or incidence and so on.

Senior level only provide the hardware in relation to the OH&S issue but never pay attention to the software “stated by Participant G26. (Refer to Appendix 36, Number 24).

4.21 OHS Activities and Facilities

Accessibility to OHS facilities for example: gymnastic equipment, will enhance the occupancy in using the service (Kerzner, 2009). Some participant hospitals with related facilities such as gymnastic room, gymnastic equipment and staff resting room but have lesser occupancy rate. Participant commented that “in a stressful place like the hospital campus where the programs are organized, they are not interested. It is because they are anxious to leave as soon as possible after work. They are just not willing to go back once again to the workplace”. However, these participants feedback as “Would be nice if some sports and fitness class can be organized near to the community” (Appendix 36).

One participant (Participant E238) claimed “It would be nice if these facilities are available and easily accessible in the campus!!” One participant stated that it would be nice to have their family members involved in the activities: “Allows family members to join the OHS program” (Participant E232). The next participant has commented with “It would be nice if there are extra OHS programs but there are too many staff here” (Participant E238) (Appendix 36). According to Kerzner (2009) and Barlow (2007), better and more successful programs are possible when family members are involved in OHS activities.

When OH&S launched a campaign about prevention of back injury, the hospital arranged the electric beds for us. Have they thought about the space, time for work and human resources in the ward as priority before buying those electric beds? Finally, our hospital got the new beds but there was still a lack of frontline staff to lift the patient and achieve the patient’s need. For example, staff need to help the patient to operate the bed, which will occupy our limited time at work. As a result, electric beds do not solve the problem. We still have back or soft tissue injury. Staff do not bother to report if not immediately hurt. However, chronic back and soft tissue injury could be another concern, which is present in a different way. However, a participant in another hospital is still looking for basic facilities in their workplace: “If hospital considers the fitness center, it would be nice to the staff. There are only 2 newspapers in the rest room here. No proper space for meal breaks” (Participant E255). Another participant commented “It is like having a massage and you will feel great after a hard day of work at the ward” (Participant E232; Appendix 36, Number 18).

4.22 Management Style

The way from the senior level towards the subordinate level is crucial in affecting the outcome of the task (Kerzner, 2009). This is part of the organizational culture as well as the individual senior staff member's belief (Cahill and Di, 2010). The present study shows that management style is one of the barriers blocking the process of implementing better OHS. As participant (Participant A19) states "The setting and facility in the ward is not user friendly". (Participant A61) to respond A19 "Manager is usually the one to collect the feedback before proposing the renovation plan". Another participant (Participant D471) refers to the apparent preference for written communication: "We usually have communication in written form only. It feels better if there is more face-to-face communication as this shows the care and warmth from them" (Participant D476). "Most of the time, the senior staff does not have much feedback". (Participant D476) "Each time when we reported an incident, the senior would only blame the staff". (Participant G26) "The review system on IOD, attitude and methods should be used in handling medical error. Staff should not blame each other. They never got feedback from our internal when the issue had been raised whether from external or internal people. Since we never have any feedback from the senior staff after investigation of the issue, we never learn from the lesson. Senior level only provides the hardware in relation to OHS issue but never pays attention to the software".

4.23 Cultural Practice

As mentioned previously, culture is a unique characteristic of an organization (Kerzner, 2009). A positive culture will encourage a group to be cohesive and will also make it easier to achieve the OHS principles. However, culture can be influenced by various factors. For example, strong external factors such as positive team spirit may influence the internal cultural practice and vice versa (Kerzner, 2009). A comment by participant (Participant G26) reflects this point: "We do have our 'culture'. Indeed, more than 2/3 of the doctors and staff are Christian and also, the senior always did a lot of good things for the staff but nowadays it seems that the culture has changed a bit. It may be that the external or global environment is changing".

Internal culture is able to sustain when adequate internal power is maintained (Kerzner, 2009). However, this is another resistance force in implementing a successful OHS program if the internal culture needs to be improved but the internal resistance force has dominated the program and also people who are growing under this culture will become chronic and apathetic with the "old": traditional practice. This "Old" practice may affect the employee's health and may also damage human relationships (Cahill & Di, 2010). A comment by one of the

Participants “Verbal abuse from senior to junior staff due to the work culture. Perhaps this is part of the communication here!” Participant D491. “Very few outsiders joined this hospital. At the beginning, they had not performed as the local culture ‘bullying and personal accusations’. There is negative attitude inside the people in the working team. People are busy in working and talking to rude person due to the local culture here. The staff may not be aware of these attitudes. This would make people uncomfortable and become a bad influence to one another! Well, this is part of the culture here!!” (Participant D491). As these quotations show, the local culture may not welcome newcomers but a senior participant claimed: “We try to educate the new staff to understand and learn our hospital’s culture” (Participant D260). It would be the hidden agenda for the following OHS concern as further elaborated by the participant. “Culture of increasing number of complaint is resulted especially when the senior staff is trying to avoid the issues. This is unfair for the frontline staff involved” (Participant G26) (Appendix 37, Number 19).

Meal break is a basic requirement for employee at work from the employer. However, one of the Participants feedback “Meal break: For each staff, there is half an hour for meal break. However, they are so busy that they cannot leave the ward easily..... need to complete all your work before you leave. It always makes you stay behind longer than expected” (Participant D491). The reason for the frontline nursing has long working hour due to “The preparation before work takes longer than expected”. “The hand over time is too long stay behind ‘to complete’ the work and come back ‘to prepare’ for the work!! In other words, we should be off around 2330hr and should be back to work at 0630hr”. “You never have time for tea break or even go to the toilet when you are at work! This happens very often” (Participant D491) (Appendix 37, Number 17). Meal breaks or regular breaks are a basic need and right of all employees (Kloss, 2010). In addition, lack of regular breaks will not only add to stress but also minimize the work effectiveness and increase the risk of error (Lewis and Thornbory, 2010). However, traditional or cultural practice will lessen people’s awareness that this against to the OHS principle.

Confidentiality is a basic requirement in keeping employees’ records in relation to reporting under the OHS system (Kloss, 2010). Eighty six percent of OHSPs in the present study stated that their hospitals have employee medical record policies or procedures. In other words, each team member has the right to access his/her personal information when necessary. This is the same principle when people are to report the OHS concern where senior manager or related parties should keep the reporting anonymous and also cannot take personal issue in handling.

However, one of the participants stated: “This hospital has its own culture. It is small and reports are easily disclosed with official channels. Staff doesn’t feel comfortable to make official report of the related issue” (Participant C3) (Appendix 37, Number 4). For this reason, the local culture of hospital may reduce the reporting rate if it cannot be corrected immediately.

“I believe I have MRSA/ESBL since there are a lot of these in the hospital but we do not have any sign or symptom!!”(Participant D476) (Appendix37, Number 9). “I believe” could be a positive or negative attitude in dealing with a situation. However, a belief needs to have proof by evidence and also needs to take appropriate action to correct the faulty performance or mindset. Otherwise, this “belief” would become an unnecessary stressor (Yeung, 2009). Whether the related parties have taken appropriate action to review the frontline staff concern in order to provide the frontline staff with a healthy and safe working environment?

The OHSPs surveyed indicated that they should have a systematic database of hazard reports and injury reports. In addition, incident investigation and hazard or injury management were part of their work. Hence, the OHSPS should be aware of the risks in the workplace in order to take the appropriate action to prevent unnecessary health hazards to nursing staff in the hospital by collecting the near miss report and do the related analysis and make a correction action (Kerzner, 2009).

4.24 Follow up OHS Issue

Some participants in the focus group claimed that their senior staff had not taken any follow-up action with regard to their OH&S concerns after incidents had been reported or new facility been installed. For example, Participant C3 stated: “Workplace harassment, violence and bully were reported to the senior without any follow up. The door of the operation room is dangerous. When open, someone behind the door could be injured. No response and follow up and people seem not to take it seriously!”

Participant D491 expressed that “You know, people learn bad thing easily. If the peer or senior staff abuses the junior staff, this affects one another. Gradually, this becomes a culture or norm in the workplace. Finally, how can you have harmonious atmosphere at work? This becomes an issue. The Nursing Officer also knows the case but such issue is not reported”.

Participant G26 stated that “Feedback from senior staff not only to the outsider but also to the frontline after the injury, accident or incident and so on. Indeed, we have never got feedback from our internal after the issue has been raised whether from external or internal people. Since we never have any feedback from the senior staff after investigation of the issue, we never learn from the lesson”.

Apart from the clinical OHS issues, the OHS representative has not been reviewed on an official and regular basis as expressed by Hospital D, E and G as follows: “I have been working as OHS representative for many years but it has never been reviewed by the senior”.

Replied from one of the Participants “Approximately one from each unit or department and around 30 to 40 for the whole hospital. In general, the OHS representative is appointed and will be kept for as long as possible if this representative is working OK since it is very difficult to get a new one to replace on regular basis”. “In general, annually; in reality, if there is no new comer, the title will be continued. As far as I know, the existing OHS representative has been doing this for at least 2 years since there has been no new comer” (Participant E238).

4.25 Middle Management

The OHSPs surveyed/interviewed realized that there was a certain level of difficulty in providing OHS. One OHSP (Participant Hospital A) stated: “The Management level don’t want to change; Managers are worried but do not bother”. Related key words citation from the focus group management level feedback is: “Available in the internet. Not required to remember all” Participant A61. “Never remember all related details” (Participant E238). However, another participant win a higher position: Nursing Officer and above claims “Heavy workload, don’t have time. After work, no time and try not to touch anything related to work” (Participant A5). “Techniques and physical skills can only be acquired through practices but not the internet course. Don’t bother to report!”(Participant A61). “Know the file location. Only little information is received. Learn and review them if you really need to. Difficult for the part-time OHS representative to learn all policies. Hospital paid for the OHS course for the hospital staff. Not many staff is able to join due to limited time” (Participant E238) (Appendix 38, Number 10).

The previous statements show that even though detailed policies and procedures are available and easily accessed, middle management staff have busy routines and ignore the OHS issue as part of their responsibility.

However, middle management staff is the key persons to act as a bridge between the frontline and higher management staff in operating the policies and procedures in an appropriate way. They are the role models for the frontline staff in OHS practice (Kerzner, 2009). To enable frontline nursing staff to have more energy at work and to minimize unnecessary stress at work are part of OHS principles. The success in maintaining this principle is dependent on the gatekeeper: the middle management level (Kerzner, 2009). One of the participants reflects Kerzner's statement, "Ha-ha..... do not think about it and report to the UM who will follow the case and work on it. The problem is addressed by the senior level and with the support from the UM, I am not worried!! I don't consider this as work stress!!" (Participant B3)

Nowadays, the nursing middle management has various positions on their roles. In other words, they have different functions in a role. Does higher management staff care about their needs? From the focus group middle management feedback: one of the Participants stated "Heavy workload, don't have time. After work, no time and try not to touch anything related to work" (Participant A5). "Hard for the part-time OHS representative to learn all policies. Hospital paid for the OHS course for the hospital staff. Not many staff is able to join due to limited time" (Participant E238). These feedbacks tell that the middle management as heavy workload during the work. It may become another underlining issue to break the OHS operation system if this problem is not to be fixed at an early stage. For example, from what another participant stated: "3 changes in the OHS manager within 3 years" (Participant A61, A5) would be the consequence.

4.25.1 Middle Management Level

Policies or procedures are the guidelines that middle management draws on to accomplish the mission of the organization (Lewis and Thornbory, 2010). Understanding of the policies and procedures is therefore crucial for success. Middle management has been criticized by participants who believe they are confused or not clear about the OHS and the OH&S principle. Related examples are: "Only the office staff is required to do the ergonomic evaluation" (Participant A61) "Nurses only deal with DSE with short period of time" (Participant A61). "Too abstract and it is difficult to report" (Participant A61) (Appendix 38, Number 7).

4.25.2 Frontline Nursing Staff

The needle-stick injury policies and procedures are well known by the frontline nursing staff as mentioned by Participant B58 and D260 (see Appendix 39, Number 5 & 6). They have no idea about other OHS policies and

procedures and they do not care to remember the details either because the information is easily accessible from the backup or they have no time to search for the related information due to limited time at work, (Participant B3, B58 and D491). It may also be because that they could not understand the content of or are not aware of the relevant policy.

Some participants claimed that needle-stick injury is the most well-known policy because “Nurse deals with needle or sharp objects all the time at work, we should be aware of the related policy” (Participant B58) and “Needle stick injury is the easiest to remember. We need to teach the student the proper way in handling and prevention” (Participant D260) (Appendix 39, Number 6). This behavior can correlate with Maslow’s Hierarchy theory which states that individual need is the key issue in driving human beings to motivate themselves for tasks (Kerzner, 2009). Further, the other participants using the “The need”, which was referring to the regular audit, annual review for example: test or examination. One of the participants stated “need to do the audit each year for the hospital staff. You would pay more attention to the related information when you come across the issue” (Participant D476: Appendix 39, Number 7). “Staff must read the OHS policies which is easy in the ward level” (Participant E255, E232: Appendix 39, Number 8). “Messages and information are available and we should read prior to the audit” (Participant E238: Appendix 39).

Frontline staff should have right to read the related policy. However, one of the participants stated: “For me, this is a technical issue. You are busy at work and have no time to get into the intranet. After work, you can’t access the intranet at home” (Participant D103: Appendix 38, Number 9). In addition, the content should be easy to understand at each level. This study has shown that some policies or procedures on issues such as radioactive materials, workplace harassment and violence policies have room to be improved, which was feedback from Participant B58, D491. Participant stated “Not aware of further details” ((Participant B58). “Not sure and not clear of the details” (Participant B3, B58). “Not very understand” (Participant D491). “Not clearly written down” (Appendix 39).

Based on various needs of the OHSCs, the OHSPs and senior management staff should pay attention to this area in order to enhance the OHSC’s ownership of the OHS policies and procedures. In addition, letting the OHSC feel that they belong to the OHS is making the program a success and more human in approach (Kerzner, 2009)

4.25.3 Management of the Injury on Duty

As a participant from a private hospital stated: “This hospital has its own culture. It is small and reports are easily disclosed with proper channels. Staff doesn’t feel comfortable to make official report of the related issue” (Appendix 36 Participant C3). Further, the way to deal with the IOD is dependent on the individual handling the case rather than a systematic approach. Individuals should have mutual attitude to handling IODs, otherwise, OHSCs may be discouraged from using the service. One of the participants stated “Workplace harassment, violence and bully were reported to the senior without any follow up” (Participant D491). Another participant from a public hospital stated: “The review system on IOD involves only system but not personally” (Participant G26). An example from Hospital D shows that “Each time when we reported an incident, the senior only blamed the staff. In fact, do I want to make such error? I did not feel good too. I hope the senior staff would be able to stand on my shoes to find out the reason behind” (Participant D491).

Some of the participants’ feedback shows that their reporting is able to have constructive feedback from their senior. For example “The problem is addressed by the senior level and with the support from the UM. I am not worried!!”(Participant B3) “Injuries occurred 3 to 4 times a month due to the razor blade cut. Finally, hospital changed the razor to clipper which reduces the number of injuries” (Participant D471). “Recently, hospital has policy to protect the staff from being abused. If the patient or relative has unreasonable demand and the staff is abused, the patient will be black listed and would never be admitted again. There was a case last year which had been reported in the newspapers. The related patient was asked to be transferred to another hospital” (Participant D491).

4.26 Learn from Others

Policies or procedures are references to assist people in handling an incident efficiently. However, people learn from each other even if they have no experience with the related injury and one of the participants claimed: “Similar incident happened in my ward” (Participant B3). “My colleague reported a case of Injury on Duty (IOD) and I learnt the reporting procedure” (Participant B3; Appendix 41, Number 1). For this reason, clear and easily understood policies or procedures are useful tools for the OHSCs. Another Participant stated “A student had eye injury..... . We reported the case to the senior according to the protocol” (Participant D260) (Appendix 41, Number 2).

4.27 OHSCs' Attitudes

4.27.1 Initiatives in OHS

Some participants are willing to use their own time and effort to motivate the OHS activities even without official delegated resources. For example, four participants took the initiative to arrange leisure activities for staff. One stated “With colleagues for dining out instead of any work related activity” (Participant B3). “Activities such as tennis and swimming are organized by the colleagues who have club houses in the places where they live. This is private in nature” (Participant B58). “This does not belong to the Human Resource Department or any department in the hospital; only the voluntary staff is in charge of the club” (Participant D491). “These are informal and unofficial activities. They group together and open classes for others to join. No enrolment is needed, just join by filling the activity form” (Participant G26; Appendix 42, Number 5).

Further, one of participants stated that she joined the stress management and first aid for counselling programs in her own time. For example “I join the stress management and first aid for counselling. This is an on-call voluntary work apart from the nursing job. Through participation, relationship between staff is enhanced. In addition, “I’m able to learn more from others and come to know more people other than our nursing team. Our hospital has a staff member who passed away unexpectedly.” (Participant G26; Appendix 42, Number 6). The reason for this participant joining this counselling program was: “We provided a proactive service to the related wards. Although we were not offering any professional counselling for the colleague, we were there to listen and pass the tissue paper when the colleague was crying. People felt being cared for and there is cohesiveness among colleagues” (Participant G26; Appendix 42, Number 6).

As noted in the related quotation, OHSCs are willing to use their own time to contribute to the hospital and the colleagues if it is necessary and meaningful.

4.28 OHS Accessibility

Accessibility is crucial to enhancing the using rate of relevant services (Guidotti et al., 2013; Kerzner, 2009). One of the participants expressed: “Nice to have some sports and fitness classes can be organized near the community. It will be a great incentive if they are easily accessible” (Participant A19, A61). Another participant with opposite expression “There are gym and rest room in other hospitals but none in ours” (Participant B58). “No one from the hospital arranges any activities officially. Activities such as tennis and swimming are

organized by the colleagues who have club houses in the places where they live. This is private in nature” (Participant B58; Appendix 44, Number 3). In contrast, there are numerous leisure activities and easily accessible facilities available for staff at Hospital D as a number of participants noted: “Other than the gym, we have classes such as Chinese Herb class, handcraft and other leisure activities” (Participant D228). “Sports and classes like badminton, tennis and basketball are available in the public recreational center near the hospitals” (Participant D260). “There is stress management yoga and I have joined the swimming class. There are wellness and fitness classes. Staff can go to the gym room at the physiotherapy center and badminton class is available, too. We have staff corner. There are different kinds of activities. For example, singing club, tennis club, golf club, handcraft, badminton club and whatever you can think of. No political issue!! More clubs and activities are organized” (Participant D491).

Most of the participants require their employer to provide for the leisure activities. As G26 stated: “senior level only provides the hardware in relation to the OH&S issue”. According to this participant, hardware is significant and easy to be arranged for the frontline.

Participants from Hospital B, D and E stated that their hospitals have chaplaincy services to help the frontline nursing staff release their working stress. “The chaplain service for the patients and staff” (Participant D491). “A clinical psychologist provides free service and keeps the client’s name in secret. Have a lunch and able to join the gathering. This talk is held on every Tuesday. Staff is able to chat with the Chaplain anytime without any referral” (Participant D491; Appendix 44, Number 5). Only Hospital D stated that their hospital provided the services of a free clinical psychologist to their nursing staff.

In addition, Hospital G is the only hospital with a religious background which is an added value with cluster resource for the psychology back up. “This club held few activities every year and was supported by the staff” (Participant G26; Appendix 44, Number 8).

4.29 Timing

Timing is another key factor impacting on OHSCs use of OHS facilities (Guidotti, et al. 2013; Kerzner, 2009). Some participating hospitals were able to arrange access to OHS activities to suit all the shift work employees which was appreciated. Staffs employed by hospitals that were not as flexible and had limited options for access to facilities were aggravated and felt they were not meeting their obligations. For example: “The health talk is

held on every Tuesday. (Participant E255, Appendix 45, Number 4) Participants E255 and E232: Yes, I had the experience of joining this talk”. “Once or twice a year because of limited time schedule. Seem to be better now. The related activity occurs during lunch time at 1300, 1530, 1700 or later in order to fit different duty times. This club held few activities per year and was supported by the staff”. In contrast, timing not suitable for OHSCs would discourage participation. “I will join if I am released from my work duty. Otherwise, I will rarely join” (Participant B58, Appendix 45, Number 1). “The nursing staff would have difficulty in joining the club due to the work shift” (Participant D491; Appendix 47, Number 2). These echo comments from Costa (1985) and Rogers (2004) that the psycho-social impact is a significant issue for workers on shift. Finally, even if the related activity were held, the attendance rate of nursing staff would be less than expected. “Sometimes, the activity is held by the club in the hall. There are about 20 people who have joined the activities but not all members” (Participant D491; Appendix 47, Number 3).

4.30 Occupational Health Service Operation

Participants from different levels reflecting on the existing OHS operations in HK felt there were few issues that needed to be addressed. For example:

Participants stated: “Increase in manpower is important in increasing the hardware: facility or equipment in OHS”.

The OHSCs surveyed claimed that they reported OHS concerns to the Unit Manager rather than the OHS representative in the initial stage. To encourage Unit Manager (UM) and nurse in charge to involve their employees for hazard and incidents management will make the operation of the OHS in a systematic way and will also able to share the responsibility among each level of staff. A few of the management level participants show they have room to improve their OHS knowledge and awareness .As mentioned, the level of middle management requires further reinforcement in relation to OHS knowledge. In this case, Manager training programs aiming to enhance awareness of OH issues can be considered. According to suggestions from the participant hospitals, OHS resources can be used optimally. OH is everyone’s business, and needs to involve different levels of personnel (Kerzner, 2009). Hence, ward-level participation is worthwhile not only to save OHS resources but also to have effective outcomes to promote the health issue with frontline nursing staff (Guidotti et al., 2013; Kerzner, 2009). However, a strong and reliable OHS backup to the ward level is

important. Otherwise, OHS consumers may have a negative perception that OHSPs do not care about the service. Participant (Participant D471) stated: “I believe I have ESBL or MRSA”. However, no related follow up from the OHS was noted. Frontline staff only has the “belief” with the problem, but never has solution to solve the related problem.

4.31 Appropriate Facility but Wrong Approach

The appropriate facility is crucial for a program to be successful if it is used in the right way (Kerzner, 2009). A review of the OHSCs’ responses shows that the participating hospitals are trying hard to provide a better OHS since they are able to invest resources in the program. However, the appropriate facility with the wrong approach will cause the program to fail eventually (Kerzner, 2009)

For example, two participating hospitals were able to employ a full-time OHSP. However, participant (Participant A61) stated: “There were 3 changes in the OHS manager within 3 years” (Appendix 46, Number 1). In addition, people have different ways to communicate, but sometimes the traditional face-to-face communication is able to show sincerity and care towards the frontline staff (Kerzner, 2009). Although the participating hospitals have adequate documentation of the OHS program, participant (Participant D471) stated: “We usually have communication in written form only. It feels better if there is more face-to-face communication as this shows the care and warmth from them” (Appendix 46, Number 4). Participant D476 expression is supported by other participants: “Action rather than documentation is needed to express their concern” (Participant D476, Appendix 46, Number 5). Besides Hospital G’s participant with similar feedback as Hospital D’s participants: “Senior level only provides the hardware in relation to the OHS issue but they never pay attention to the software which is the frontline staff’s need” (Participant G26, Appendix 46, Number 7). This is a concern for existing OHS practice almost a decade after SARSEC (2004, pp. 136) stated that “the OHS for health care workers are not well developed. They are generally focused on OS and do not offer a comprehensive package of services that address both prevention and care and psychological health of staff”.

A review of the system is important in making correction of such issues, and the way to implement the system is crucial for giving the impression to the OHSC as to whether the system is helping or disturbing them at work (Kerzner, 2009). For example, “Review of the system on IOD involves only the system but not personally. Positive attitude and methods should be used in handling medical error. Staff should not blame each other”

(Participant G26, Appendix 46, Number 6). Some hospitals have review systems, but from the feedback of the participant, the focus is on the person rather than the issue. According to Kloss (2010) and Lewis and Thornbory (2010), an OH&S investigation is applied with a “no blame approach”; this is part of the OHS principles and should be initiated and conducted by the OHSP supported by the hospital senior level.

The right approach and application of training programs will arouse the OHSC’s interest in the learning content. One of the participants stated “where can I get the information? In the intranet? For me, this is a technical issue. You are busy at work and have no time to get into the intranet. After work, you can’t access the intranet at home” (Participant D103, Appendix 46, Number 3). “Majority of OH&S courses/training materials is obtained from the internet. However, other techniques and physical skills can only be acquired through practices” (Participant A61, Appendix 46, Number 2).

As mentioned, some hospitals arrange various OHS activities for frontline nursing staff. However, the nature of nursing is shift rotation, which should be considered by the OHSPs and senior staff before they launch activities and suitable timing of programs should be a priority so that the frontline nursing staff will be able to join the activity.

4.32 Inadequate Care

In this study, the participants expressed their feelings about why they need to be cared for (Appendix 30). The participants indicated that they had a difficult time during the SARS challenge but felt that they were cared for and respected. One of participants expressed: “During the SARS, I felt that I was respected but this feeling disappeared gradually. I felt that at that time ‘I was cared for and also respected’” (Participant D471, Appendix 30, Number 5). “Back in the time of SARS, I felt being respected even if we were fighting for lives with very limited resources. I felt my hard work was worth it without any regret. I feel very tired when working day by day in dealing with the unreasonable demand and lack of appreciation from the public” In contrast, staff felt they were being cared for even though the caring action was without professional background. A participant started crying while she expressed her experience as: “We were leading the team to deliver the sweet soup to the staff there. We cared for our colleagues and felt the warmth in fighting for lives to serve the public. People felt “being cared” and there was cohesiveness among colleagues.” “We were there to listen and pass the tissue paper when the colleague was crying. People felt ‘being cared’ and there is cohesiveness among colleagues”

(Participant G26, Appendix 30, Number 11). According to Participant D471 and G26 with similar experiences that they were felt to be cared and supported even the SARS hard time and felt positive at work. However, the existing nursing practice seems to lack the caring element even though they have a caring team from the OHS.

The changing nursing training is focusing on advanced technology, effectiveness and efficiency in nursing (Harper, 2006; Nehring, 2008; Pamela, 2005) but is lacking in interpersonal communication and also care for each other (Harper, 2006). This is reflected by one of the participants who stated: “The new graduate nurse left and claimed that she never experienced such a nice working place with care and support. The nursing training emphasizes on effectiveness at work with equipment to help the patient while ignoring the nature of nursing. Care is not essential in the environment with high tech and deluxe equipment. The newly graduated nurse always lacks time to experience the care attitude” (Participant G26, Appendix 30, Number 13).

Furthermore, some participants want senior staff to care for them with actual action rather than just paper work or hardware implementation. One of the participant claimed “It feels better if there is more face-to-face communication as this shows the care and warmth from them” (Participant D471, Appendix 30, Number 3). “More contact with the frontline staff and try to understand their need will help the frontline staff feeling cared by the senior”. “Action rather than documentation is needed to express their concern. For example, they just observe and leave but never stand on our shoes!! Sometimes, the senior staff just watches the frontline staff verbally abused by the patient, relative or even the doctor. They should know how difficult our positions are. I would be very much appreciated if the senior staff could do it” Caring is part of the OHS elements.

4.33 A Proactive Approach

According to the Australian College of OHNs (1991), OHSPs play an important role in motivating people in the workplace regarding health issues in a cost-effective way. This concept remains valid and is supported by Kerzner (2009). Parker (1994) made a similar suggestion that OH promotion is the first priority of the service. Whether in motivating people or promoting a health issue, OHSPs should have a proactive attitude in order to achieve their role responsibility. Although some HK hospitals have link persons and OHS committees instead of a full-time OHSP position, it can have similar function if a proactive approach by the relevant parties is adopted.

The OHSP usually has some strategies to make their role proactive. For example, one of the Hospital B’s participants stated: “With limited resource, they try to help the staff at work. They are using their heart to help

the staff. Good communication between staff and department. Using reminder to remind the hospital staff of important events and activities, try to make OHS posters to remind the hospital staff of any work hazard” (Participant B6, Appendix 47, Number 1) . Another participant (Participant D491, Appendix 47, Number 5) stated: “We have a staff corner. There are different activities. For example, there are singing club, tennis club, golf club, handcraft, badminton club and whatever you can think of. No political issue!! This concept is raised by the senior level staffs who want to open a channel for the staff to show their concerns. More clubs and activities are organized”. Feedback from Hospital C’s participants with another way to show their hospital invests certain resource and being proactive in some OHS activities but result is not what the frontline staff wants. The reason is the OHSP or senior should consider the frontline’s need rather than only blindly to implement the OHS on site: “Staff who is concerned in the OHS issue would be isolated and affected in a negative way at work” Hospital D’s participants stressed that face-to-face communication would be a proactive way to contact the frontline staff and understand their needs in OHS issues. One of the participants stated “We usually have communication in written form only. It feels better if there is more face-to-face communication as this shows the care and warmth from them” (Participant D471, Appendix 47, Number 3). “Action rather than documentation is needed to express their concern. They just observe and leave but never stand on our shoes!!” (Participant D476, Appendix 47, Number 4). Participants suggested that senior staff or OHSPs should take the initiative with frontline nursing staff. For example, “service providers can participate in their ward routines, observe their work flow and talk face-to-face with frontline staff on a regular basis in order to understand their ward situation and needs (Participant D471, Appendix 47, Number 3). All suggestions from the OHSCs can only be achieved with the management level’s heart and sincerity but not with the money issue. However, the existing OHS practice is focusing on the hardware and document and legislation requirement but forget about the human issue: care and listening to the consumer needs.

4.34 Increase Occupational Health Service Resources

In general, employers are profit-oriented towards their business (Kerzner, 2009). OHS cannot contribute to a profit immediately. For this reason, employers often reduce the resources to be put into OHS in order to make their business more profitable on the accounting sheet. (Kerzner, 2009). However, the end result of poor quality of OHS would cost not only money, but also legal liability and loss of reputation or image in the organization (Kerzner, 2009; Creighton & Rosen, 1997). Half of the participating hospitals’ OHSPs worked part-time.

Several participants suggested increasing the OHS resources in different ways. For example, participants stated “to increase the leisure facility, for example, massage chair, decent dinner table at the rest room, and to increase the variety of the reading items in the hospital” (Participant E255). “To make the leisure facility available with easy access, for example, available in the community” (Participant A61). “To increase the family function” (Participant E238). “To have full-time OHSP” (Code E238).

To increase the OHS resources, it is not necessary to increase the finance but should invest the positive and ownership concept to the OHSC through the backup or referring system at work (Kerzner, 2009). In addition, wise utilization of existing resources can make the OHSC feel the care that they need, for example consult with frontline staff for opinion when implementing any new system at work. This simple consultation procedure would enable staff understanding of the frontline staff needs and concerns and also show that the administrative level care about the staff..

4.35 The Imperative for Communication Skills in the Occupational Health Service

Some participants stated that improving communication is the way to improve the present OHS. For example, “more consultation with staff” (Participant G26), “more contact with staff” (Participant D476) “more regular attendance at each hospital department; speak with staff members about their concerns” (Participant D471), “by more direct observation and interaction with the staff” (Participant D471). Meanwhile, a friendly approach from service providers is important. For example, participants suggested that “by having friendlier, understanding, approachable staff who are not walls” (Participant G26) and “More input from the coal face” (Participant A61).

In summary, the participants’ suggestions regarding communication are that OHSPs should be aware of their methods in approaching staff. In addition, they should make themselves more visible with frontline nursing staff rather than merely appear when a problem has occurred. Finally, sympathetic listening is crucial to improve communication.

4.36 Conclusion

The results of this study reflected HK OHS practice in the hospital settings covered was in compliance with local legislation and each local hospital implemented part of global OHS practice as necessary. The feedback from Phase II Stage I study correlated with Phase I Stages I and II. However, the most significant and enhanced picture reflecting the OHSC came from Phase II Stage II study, which had 17 participants from six hospitals in

the focus group interview. In general, OHSC provided positive feedback on their hospital OHS, but there is room for improvement in employer and senior staff attitudes. In addition, significant internal and external stress was reported by the OHSCs in relation to their working environments. Overall, the results indicate a number of implications and concerns for existing OHS in the hospital setting in HK. These are discussed in the following chapter.

CHAPTER FIVE

Integrative Discussion

5.1 Introduction

In this chapter, discussion centres on establishing an understanding of existing OHS practice and function in the sample of HK hospitals, the relationship with the literature and the implications for occupation health and safety of nurses more broadly. This will be informed by the results reported in Chapter Four integrated with the peer reviewed literature and key OHS documents. The findings of the survey and interviews with managers of OHSPs will also be integrated with the views of nurses working in hospitals in relation to their experience as consumers of OHS, and their concerns about OH&S issues. These findings will be further discussed in the context of the existing body of evidence and the theoretical framework which underpins the study.

To recap, the aim of the study was to explore workplace health service for nurses in HK Hospitals. This raised the question, ‘How are OHSs in HK Hospitals ensuring a safe and healthy working environment for nurses?’ This question prompted this first study of workplace health service for nurses for the HK community, which first publicly questioned the function of OHSs in 2003 following death and impairment to health care workers exposed to SARS. The HK OHS movement had been growing strongly since the enactment of the OS&HO (CHAP 509) in 1997 and was seen to have provided safer work practices for employees. The changes to legislation and the impact on OH & S in HK health services are detailed in Chapter One. A review of the literature was undertaken in Chapter Two and includes the WHO’s policy development, global OHS development, national legislation in HK, developments in the HA and the role of nurses. In Chapter Three the research design is described and the rationale for using mixed methods is justified.

The data presented in Chapter 4 were analysed and interpreted to facilitate a meaningful understanding of workplace health and safety for nurses in HK hospitals by capturing quantitative and qualitative data provided by managers of OHSP services and from the nurses themselves, as consumers of OHSs in hospitals. In this chapter, an integrative discussion will build on the reporting of results in the previous chapter and explore what the results mean for nursing. The qualitative data in both phases was captured in an environment where participants expressed a feeling that they felt it was easier to talk than write about their experiences. Sometimes

the responses supported what was captured in the surveys and sometimes there was different content. The demographic data will be reported first and followed by the inferential data from both Phase I and Phase II.

5.2 Profile of hospitals and participants

There are many reasons why a low overall response rate of 13% may have resulted. This may have simply indicated that the invitation to participate in the research was not received. OH & S is governed by a range of departments from HR to nursing and the invitation may not have actually been received by the relevant person in many hospitals. Other reasons may include lack of interest in the topic, decisions made that nurses may not be involved in non-clinical research or concern about loss of anonymity or other research processes in what may be seen as a controversial area of research. The private sector hospitals dominated the sample by number of hospitals and number of participants in each phase and they were also more likely to continue through all steps in the process (only one OHSP not interviewed) compared to the public sector hospitals where only one hospital participated in all the steps in the process. This does not mean that the non-responders think differently to responders, but the researcher acknowledges there may be many differences associated with governance, funding and employment models and the private and public hospital OHS approach for nurses.

Of the participant hospitals, only one hospital reports OHS directly to the CEO, no unit has a Director, only 4 hospitals provide statistical reports required under legislation, a measure of the relatively low profile of importance of the workplace safety of all employees in the hospitals in the sample at the time of data collection, not only nurses. **This means OHS governance is delegated to middle management at a significant number of hospitals**

Most of the OHSPs were nurses, working full-time appointed at manager level, but other professions were employed and also part-time. They identified roles for themselves in policy and procedure, legal compliance, collaboration with allied health and occupational medicine, emotional support and more globally in travel medicine. It was surprising that a clerk was working in this role presumably without comprehensive medical or safety training. The vast majority of OHSCs were female, working full-time in a private hospital, with at least one degree and most commonly in medical wards which would reflect the HK workforce demographic apart from the private hospital status. It would be of interest to know if there had been any internal OHS surveys of

staff to determine if OS&H awareness or competence had been explored internally with nurses but the question was not asked during this study.

There was no statistically significant association between employment status, position, highest qualification, and awareness of type of OHS service.

5.3 Perceptions of OHS services

Only five hospital representatives stated their workplace used either an official or unofficial nomination procedure approach. Further, more OHSCs stated that they preferred to report their OHS concerns to their Unit Manager (UM) or nurse in charge, even though they had OHNs or OHMs in their hospitals.. These results may be influenced by responses from participants from hospitals with part-time managers and managers who were not nurses, as nurses may have preferred to discuss an OHS issue with a senior nurse who was readily available. They may have been the NUM or significantly the OHS nurse.

The results of this study show that OHSPs (mostly nurses) and OHSCs (all nurses) concurred both on the actual and perceived range of services, OHSPs reporting the four most frequently occurring services in hospitals as

- i. managing work related injuries and illnesses
- ii. pre-employment physical examinations;
- iii. ergonomic evaluations; and
- iv. screening programs to detect early work related risk (Ref Table 4.3)

More than 95% of the OHSCs surveyed were aware of the OHS in their workplace and reported almost the same four most commonly occurring services which would occupy the OH&S service time. The key purposes of OHS attendance by the OHSCs reported are

- i. pre-employment physical examinations;
- ii. work related health assessment, medical surveillance, medical consultation
- iii. immunizations;
- iv. screening programs to detect early work related risk (Ref Table 4.12)

Employee wellness programs were also suggested by both OHSPs and OHSCs but preference was given to such programs being separate from the OH&S program. The participants report a strong desire to separate 'unwellness' from wellness.

This means that nurses know what OHSPs do and are the preferred line of reporting if they are nurses, and OHSPs want to develop their role in safety, workforce management and wellness programs. OHS program satisfaction is uncertain in this sample.

5.4 Occupational Health and Safety Issues – Stress, Violence, Needle stick Injury, Back Pain, Skin Conditions

OHSPs report falls, respiratory infection, needle-stick injury, back injury, soft tissue injury, eye injuries, as the most common OH&S issues in order. However, needle-stick injury is the only item matched to be reported by the OHSC in the surveys and focus groups. Further, the survey and focus group results indicated that the most common OH&S issue experienced by OHSCs is work stress, followed by workplace violence/harassment, back pain, needle stick and then skin conditions. **This means that nurses are either not reporting their top three most common OH&S issues or they are not being included in official reports.**

5.4.1 Workplace Stress

The highest rate of responses were for workplace stress, with 22.1% from the paper survey versus 71% from the focus group interview participants, indicating that the former rate does not correlate with the participants' experiences. Although workplace stress is well documented and recognized in Western health and safety legislation (D'Aleo, 2007), this is not applied in HK practice. This is one of the possibilities as to why the participants do not report the issue, including in the paper survey in this study, but they felt freer to talk about it in focus groups.

In addition, this study reflects the participants' lack of knowledge of workplace stress. To cite the focus group interviewees, Participant A61 stated "Work stress is too abstract and it is difficult to report". Participant C3 stated "Work stress is understood and I did not make any report". Participant E232 stated "The work stress which has never been taken seriously". Participant E238 stated "There is great pressure working here!! We need a way to release the stress!" Participant D471 stated "If I only work in one role in the ward, my stress level is

less. In the day I work as nurse in charge of the shift and hospital supervisor”. Participant D476 stated “A lot of stress. It is very different comparing with the time when I joined this profession”. The limited knowledge of the participants in handling workplace stress may be another barrier for them to solve the problem in an appropriate way.

Participant E255 echoes Laschinger, (2002) that mis-trust is another factor causing the stress of the nursing staff at work. Participant E255 stated “It would be better if there is more support in the “O” program for newcomers. The mentor always reports to the senior staff about the progress or performance without letting me know. This makes me feel that somebody is talking behind my back. This is very stressful”. Another source of workplace stress is stated by Participant D491 “The busy working schedule leaves me little time to review my day of work. The nurse in charge would review the drug sheet but sometimes it may be missed. The doctors may have written a new order but they may miss it because they are too busy. This may be followed by the doctor on the following shift. Finally, I may be called to confirm whether I have completed the job or not. If it is not urgent, we will follow up and complete the duty. Still we have stress when you missed the thing before you left the ward! ” Perhaps this stress is managed by taking the line of not making any further difficulty for oneself by making no further reports to one’s manager. **This means that for many nurses, their exposure to stress is not an unusual event, it is part of every shift, throughout the shift. This places nurses and the patients in their care at risk.**

5.5 OHS Training, Related Activities and Facilities

According to this study, for all participating hospitals, OHS training programs and activities are available on a regular basis. Fitness facilities, leisure classes and hobby groups are also provided by some hospitals. Although these services are provided by the hospitals, feedback from some of the participants shows that there is room for improvement. All hospitals have OHS policies and procedures in place, however one hospital had none in place for infection control, two had none for radioactive materials and two had none for keeping employee medical records. All of these policies need to be in place for reporting to various legislative organizations.

5.5.1 OHS Training options and modes

In this study, the OH&S training and programs offered by employers to employees appear to be a routine practice rather than based on the needs of the OHSCs. For example, B3 was willing to pay for a seminar in which she was interested but was not offered in OH&S training or programs in her hospital. “For me, I joined the Children’s Infectious Disease 3 day seminar in PMH out of my own interest and paid on my own”. On the other hand, participants E238 and A61 stated: “Most of the time, the hospital paid for the OH&S courses for the hospital staff. Not many staff was able to join due to limited time at work or personal issue”. “Only the mandatory program, for example, fire drills and first aid program. Other than that, no time and not interested” (Participant E238, Appendix 43, Number 4). “I need to join the mandatory training annually, for example, lifting techniques. Other seminars or talks are not compulsory” (Participant A61, Appendix 43, Number 2).

Using the internet to complete training is an effective and efficient approach (Kerzner, 2009). However, online training does is not always an appropriate approach for OH&S training. For example learning how to use fire extinguishers or patient lifting machines requires practice with the equipment ensuring that techniques for handling the equipment are correct. In addition, as OHS focuses on human needs and care, technology may assist the program but cannot be a substitute for traditional training through human contact. Participants (A5, A61) stated: “Most of OH&S courses/training materials are obtained from the internet. However, other techniques and physical skills can only be acquired through practices. For example ‘Manual handling training method’”. (See Appendix 37, Number 1). Hospital A representative replied “other techniques and physical skills can only be acquired through practices but not the internet training only” and Hospital C representative replied “Manual handling only on paper without any real experience” reflected that OHS is focusing on paper work training rather than being tailor made for the particular educational needs. There would be risk of negative impression from the OHSC that the employer was only fulfilling legislative requirements but not really caring for their needs (Kloss, 2010).

People at management level should have an awareness of consumers’ needs by consulting the staff or the OH&S committee and reviewing the workplace accidents, incidents and risks when installing OHS facilities and programs, rather than simply focusing on the minimum legislative requirements. Otherwise the OHS objectives cannot be achieved and resources will be wasted and the confidence of the OHSCs in the services will be

reduced. As Kerzner (2009) states, raising awareness and continuing to reinforce messages, is a key to ensuring compliance that should be considered by the management level. **This means that OHS training that focuses on pursuing an awareness of staff needs, building confidence and continuing to reinforce safety messages in a meaningful mode rather than only on meeting minimum, legislative requirements will avoid wasting resources.**

5.6 Cultural Practices or Beliefs

Each organization or society has its own cultural practices or beliefs (Kerzner, 2009). In this study, the feedback shows that each participating hospital has its own approach to OHS. This is supported in the literature (Kerzner, 2009). The management styles varied from hospital to hospital due to the differences in their missions, resources and religious backgrounds. Regardless of these differences, all hospitals are obligated to meet the guiding principle of OHS policy: to provide a healthy and safe working environment for employees (Kloss, 2010). Cultural practices or beliefs may be a challenge to the success of OHS programs since people are resistant to change existing practices. (Cahill and Di, 2010; Kerzner, 2009). A positive and encouraging OHS culture or set of beliefs will improve the potential for success of any initiative and encourage people to learn and grow (Kloss, 2010). **This means that success in meeting the guiding principles of OHS includes policy for safe, healthy workplaces for nurses includes respecting cultural and religious practices unique to individual hospitals.**

5.7 Problems of Occupational Health Services in HK Hospitals

5.7.1 The Operation of the Policies

Although the OHSPs and OHSCs acknowledged that relevant policies are in place, the policies' operation at a senior management level has room to be improved in respect to the assessment of injury on duty.

5.7.2 Management of the Injury on Duty

According to the participants' feedback, all injury cases are processed under the usual IOD procedures and policies. In the HA, Injury on Duty (IOD) is processed at different levels. For example: "Long sick leave, together with the IOD, will go to the cluster level for further management" (Participant G26). In the private hospital setting, the procedure will follow their internal policies or guidelines in processing IOD. However, different parties may be involved in handling the procedure. For example, participant A19 states: "The ICN

arranged an appointment for me with the in-house doctor who refers me to specialists. There are the HA's QEH HIV's clinic. Last but not the least, a follow up section from the OHS Manager. A61: "Yes, the hospital has related protocol for such incidence". D471: "A medical review had been arranged for me in the hospital. Unexpectedly, I received a letter from the Department of Health reminding me that I did have the right to claim the injury anytime in the future since it was IOD" (Appendix 40, Number 2). Compared with the global approach which refers all injury on duty cases to the occupational medical team (see Table 4.10), in HK, some hospitals do not have any occupational medical team (see Table 4.10). This statement reflects that HK private hospitals have no occupational medical team as A19 and D471 stated and they are referring to the in house related party and then followed-up by the Health Department.

OHSPs recommend a multidisciplinary case management approach with referral to occupational medicine. In this way, providing comprehensive leadership and coordination of the health, employment, rehabilitation and financial aspects of the injury or illness as it relates to the workplace, under the guidance of the occupational medicine unit of the organization or potentially contracted service.

One of the limitations of the present study is that it was the inability to review each participating hospital's OHS policies and procedures. According to Kloss (2010) and Lewis and Thornbory (2010) the definition of IOD, IOD management procedure and principle, which refers to no discrimination, no blame system review The related case has the right for suitable medical follow-up which should be considered when implementing OHS in the organization. As Kerzner (2009) stated, constructive feedback will be able to encourage reporting and help to increase the incident reporting rate and also to build up a relationship with trust between frontline and senior management level. **This means that senior management could contribute to the positive assessment of OHS by standardized procedures for assessment of IOD, including coordinated case management, referral to occupational medicine and no blame system review.**

5.8 Theoretical framework informing the findings

By drawing the findings through Maslow's theory (1954), and through the WHO lens of worker's rights to a safe workplace (1995) together with the Nightingale lens of the first requirement of a hospital being to do no harm to the people who come to it (Finlay, 2006), it is evident that nurses and their employers in this sample are

having difficulty aligning on OHS ownership. With reference to Figure 1.2 in Chapter One, while it is clear that nurses have a right to a safe workplace, and a right to education and knowledge about health, safety and security issues, employers also have a right to information and feedback and appropriate agitation when staff have safety concerns. Nurses need to report accurate and timely OHS statistics through their OHSP not only for themselves and their organization but for all nurses who seek the evidence for safe practice.

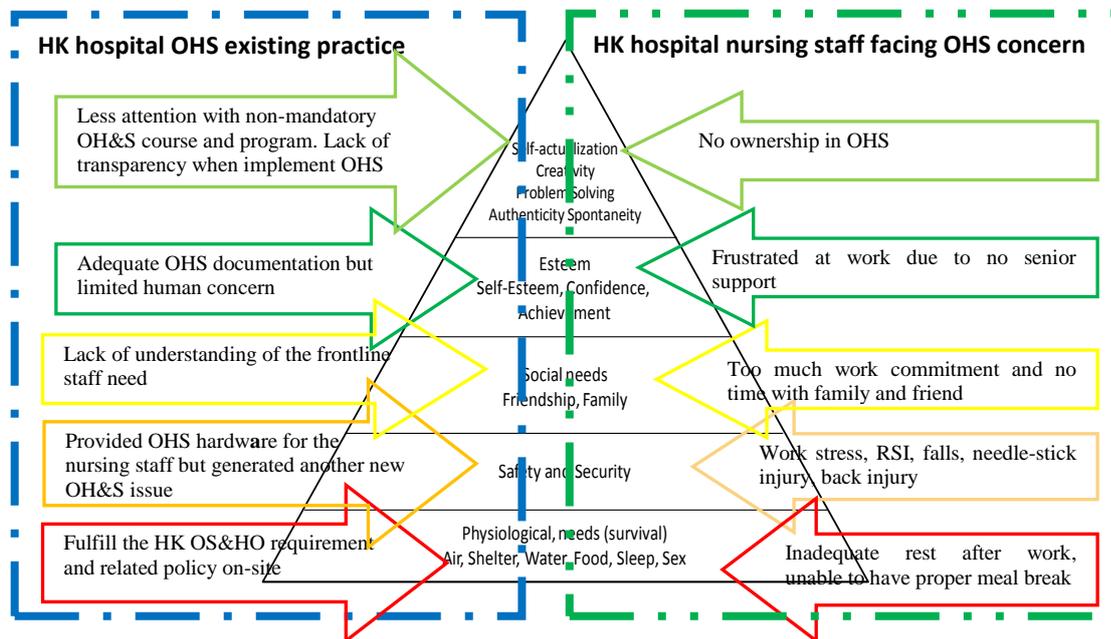


Figure 5.1 HK Nurses OH&S Concern in the Hospital Setting - Theoretical model

In Figure 5.1 HK Nurses OH&S Concern in the Hospital Setting - Theoretical model, Maslow's hierarchy of needs is extrapolated to include all levels of need arising from lack of safe work place for nurses practising in Hong Kong hospitals (on left) and nurses' level of OHS concern (on right). In order to move towards effective OHS ownership, the right to know and the right to safety could be realised working from the right to the left from the base of the triangle to the top. These theories and frameworks have been helpful in framing the implications and recommendations for policy, practice, education and research which are discussed further in Chapter Six.

5.9 Limitations of the study

In the design phase, and with further knowledge of the hospitals which responded to the invitation to participate, a study of either public hospitals or private hospitals may have been more informative for the respective

workforces and for those that read the findings. As noted earlier in the thesis the researcher acknowledges there may be many differences associated with governance, funding and employment models and the private and public hospital OHS approach for nurses, although interestingly, as mentioned in Chapter Five, there was no statistically significant association between public or private hospital status towards the OHS experience.

Further an opportunity was lost to explore further on why nurses do not report workplace injury or illness? The difference between the top three reported workplace OHS issues and those reported in this study may be due to non-reporting at the next level (in which case they were reported by the nurse), lack of time for the nurse, lack of understanding of procedure or requirement to report, lack of trust, lack of interest or other reason. The study did not include the view of the employers or an actual review of the policies and procedures of the organizations and both would have added rigor to the study.

The sample size of the hospitals was small as previously discussed and the views of the non-responders can only be assumed as similar to the responders in the absence of any information to think otherwise. Non-response was previously discussed as likely to be due to not receiving the invitation due to OHS being spread over many departments and areas of responsibility. The sample of Directors was small and only one was appointed at Director level, the remaining were appointed at Manager level to clerk. It would have been ideal in retrospect to change the study design slightly and use snowballing technique to ask them to use their networks to recruit OHSPs from other organizations at Director level to obtain some more interviews from senior Directors. As mentioned previously it would have been helpful to have had the OHSP qualifications and their projected role and career directions which guided where they saw potential for the role and how they defined competence in this context.

5.10 Conclusion

In this chapter, the findings have provided, for the first time, a rich and informed discussion of the issues critical to workplace health and safety of nurses in Hong Kong Hospitals. The integration of the views of OHSPs and nurses as OHSCs from a range of Hong Kong hospital settings has provided an insight into the OHS services, programs and issues for nurses. There are a number of conclusions that can be made from these discussions, the first is the issue is highly complex, involving employers on the one hand, who were not part of this study and

employees, both OHSPs who report to employers and OHSCs, nurses who are consumers of the OHS services. Both of the latter groups did participate in this study from 13% of HK hospitals. Who exactly owns OHS is ill determined, some nurses take ownership for their own health and safety, and some report to nurses in the workplace, others fail to report due to the futility of the exercise, fear of blame or lack of governance. There is evidence that some nurses are stressed every shift and throughout the shift and the impact of OHS which is not managed well is likely to impact on patients. There is potential for the OHSP role to develop further but most importantly the health services in this study had not prioritized the safety of the nurses as described in its management and reporting structure.

In the concluding chapter the key findings of the study will be outlined, as will recommendations for policy, practice and research into nurses' needs and involvement in ensuring a safe workplace.

CHAPTER SIX

Conclusion

6.1 Introduction

In this study the issue of workplace safety for nurses in Hong Kong hospitals was explored for the first time and focussed on achieving the stated aim of ‘Exploring workplace safety for nurses in Hong Kong hospitals’ and answered the research question which guided the study ‘How are OHSs ensuring a safe and healthy working environment for nurses in Hong Kong hospitals?’ In most hospitals OHS services are provided by OHSPs. In all of the hospitals in this study, OHSs were provided by OHSPs. A descriptive explanatory sequential mixed method research design was employed to capture quantitative and qualitative data from Director of OHSPs and nurses to understand the phenomenon of interest. The study was completed in seven hospitals in different areas of HK. The theoretical framework which underpinned the study was Maslow’s Hierarchy of Needs which helped in framing the study and interpreting the findings.

As described, the study was conducted in two phases- Phase I was a study of the OHSP. Individual Directors were invited to participate in a paper survey and followed up with the focus group interview. Phase II was a study of the nurses as consumers and they were invited to participate in a survey and 6 were purposively invited to participate in focus groups at each hospital. The results were reported in Chapter Four, and discussed in Chapter Five. The study shows, it is no difference between public and private hospital nurses in using the OHS

Responses to the research questions, implication and recommendation to the OHS stakeholder are key themes in Chapter 6. The limitations to the research are also discussed. Based on the study result, an approach to enrich the existing OHS in Hospital is proposed.

6.2 Key Findings

A number of significant findings have emerged from this study as follows:

1. Participants feel that they are victimized by management if they report an OH&S concern.

2. OHS governance was poor. More than half of the hospitals revealed non-compliance with reporting to authorities.
3. The most common OH&S issues for nurses have not been captured or reported in official reports due to under-reporting by nurses and others for a range of reasons.
4. HK hospitals are willing to invest resources into OH&S, but focused on meeting minimum legislative requirements, and not identifying staff needs.
5. Managers of OHSPs who were nurses have potential for a greater role in workplace safety for nurses.
6. Successful OHS programs respect cultural and religious practices.
7. For many nurses, their exposure to stress is not an unusual event, it is part of every shift, throughout the shift. This places nurses and the patients in their care at risk.
8. Positive assessment of OHS by standardized procedures is recommended for assessment of IOD, including coordinated case management, referral to occupational medicine and no blame system review.

6.3 Other Findings

- Middle management is not conversant with OH&S policy and therefore compromises on staff and patient safety.
- The OHSC do not feel comfortable with the existing OH&S reporting system due to lack of confidentiality and follow-up from senior level.
- Majority of participants claim they understand and practice in accordance with OHS.
- Majority of participants claim the existing OHS is accessible.
- Some participants believed that the existing OHS need to be expanded to include staff families.
- Some participants wanted their employing hospitals to allocate additional facilities for staff to access during meal breaks and for rooms to be made available for staff to use after and between shifts to decrease stress.

While these findings make an important contribution to understanding workplace safety for nurses in HK hospitals, the researcher acknowledges some limitations of the study in design and data collection which may have an effect on the generalisability of the findings. These are now discussed.

6.4 Key Implications of the Study

A deeper understanding of workplace safety in HK hospitals has been realized and how this has the potential to be appreciated by health services, nurses, academics and ultimately patients is now described.

6.4.1 Implications for the Two Systems (Public and Private)

With this new evidence and knowledge about nurses' safety at work, appropriate interventions can begin in the following areas, ideally led by OHSPs, dual qualified in safety and health, with research expertise and sound negotiation and communication skills. OHSPs already report to employers and were identified by OHSCs as nurses who they would report to as first line about OHS issues and ideally placed for this role. In shifting the importance of the role of OHSPs, some of the areas for development in both sectors could be:

1. **Policy** – the development of policy in IOD case management, no blame IOD reporting, paid attendance at mandatory training
2. **Practice**- nurses in practice and returning to practice identifying needs and areas for risk assessment through Nurse OHS reps
3. **Education** – qualified educator for safety training program and assessments
4. **Research** – research on OHS stress in nursing, the views of employers, the perspectives of a stronger cohort of Directors of OHSPs, the role of Allied Health Directors of OHS, private and public hospital nurses as separate cohorts.

6.5 Recommendations

Recommendations are made for developing a real, working, workplace culture where OH&S competence for nurses is prioritized equally with clinical competence to advance the intentions of the OS&HO for this workforce at significant risk. The OHSPs are the key to success as the conduit between nurses with workplace health and safety risks, and employers prepared to spend money on programs of improvement. Yet OHSPs work in a complex environment where employers are perceived by nurses as uncaring and not trusted on OHS matters and they are reluctant to provide data which may compromise their relationship with their employer. OHSPs therefore, need to be better educationally prepared and supported in their complex role in effecting workplace culture change where stakeholders have very different views on OHS. They need to become dual qualified in OH and OS, with skills in research, communication, empowerment, rehabilitation and cultural awareness.

Nurses, OHSPs and employers must also take ownership of their OH&S competence to ensure nurses' confidence in their workplace safety in Hong Kong hospitals.

6.5.1 Government

- 1) OH&S legislation need to be reviewed for related wording and definitions as it relates to nursing.
- 2) To extend the mandatory OH&S course for example the OHS ownership and OH&S incident reporting; for example bullying.
- 3) To consider and adopt whistle blowing legislation.
- 4) To explore the occupational health problems among health care workers working in nursing homes.

6.5.2 The University

- 1) Emphasize workplace harmony in the communication program.
- 2) Official lecture included in undergraduate curriculum for OH&S principles.
- 3) Reiterate the OH&S issues during the nursing skill coaching.
- 4) Assist the Government and public organizations to define the OHS and related terminology in their policy documents.
- 5) Emphasize the importance and technique of face to face communication between teams working with health services.
- 6) Develop a local research study team in OH&S or OHS.

6.5.3 Organizations

- 1) HK Occupational Safety and Health Council could address more on OHS concepts into the training program.

- 2) The HK Association of Occupational Health Nurses:
 - i) A proactive role to provide a support and back up for the nurses if they have any OH&S concern at the workplace with limited support by the employer;
 - ii) Mentor the research group on OHS issues;
 - iii) Regular seminars for member, non-member, other nursing union and public;

6.5.4 Public Hospital Sector

- 1) Assist the OHS operations with transparency to the frontline staff.
- 2) Regular follow-up the OH&S issue and feedback to the frontline staff.
- 3) Reinforce the OH&S policies to the staff and make sure they understand their rights and responsibilities in OHS for example workplace bullying, harassment and violence handling.
- 4) Consult the user prior to implementation of the new system and facility on site.

6.5.5 Private Hospital Sector

- 1) The HK Department of Health or The HK Private Hospitals Association to coordinate and monitor the OH&S application.
- 2) OHS operation with transparency to the frontline staff.
- 3) Regular follow-up of OH&S issues and feedback to the frontline staff.
- 4) Reinforce the OH&S policies to the staff and make sure of their acknowledgement of their rights and responsibilities in OHS for example bullying, workplace harassment and violence handling.

Remarks: see Appendix 49 for individual recommendations.

6.6 Conclusion

OHSs need to provide a service that meets the requirements of all stakeholders and supports their consumers. Nurses in HK hospitals need a service which does not blame them for their injury or illness, accurately records and reports employee records while maintaining confidentiality and which is relevant, timely, coordinated and effective in a healthy working environment. Further, there is a need for a well-planned service program, which includes consulting with employees regarding their OHS concerns, reviews the past injury and near misses reports and involves nurses in their OHS educational program planning. This which will ensure a transparent and viable OHS. Such development will enable an effective collaborative outcome between nurses and employers to ensure their workplace is safe. Furthermore, this study found that nurse OHSPs have an essential role in improving OHS outcomes for nurses in HK hospitals and this should be optimized by employers for improvement in safety record, governance, transparency, the quality of employee records, workforce relations, policy development, contributions to practice development, research and education and they must be educationally prepared for that role.

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Appendix 1

Classification of Prescribed Occupational Diseases

Source: The Hong Kong Labour Department. (P1-19, 2009c)

Classification of Prescribed Occupational Diseases

- (1) **Under Employees' Compensation Ordinance:**
 Group A - Diseases Caused by Physical Agents
 Group B - Diseases Caused by Biological Agents
 Group C - Diseases Caused by Chemical Agents
 Group D - Diseases Caused by Miscellaneous Agents
- (2) **Under Pneumoconiosis and Mesothelioma (Compensation) Ordinance:**
 Pneumoconiosis and Mesothelioma - Diseases Caused by Silica or Asbestos
- (3) **Under Occupational Deafness (Compensation) Ordinance:**
 Occupational Deafness

Item	Description of Occupational Disease	Brief Notes	Some Examples of Trades / Processes / Occupations which may give rise to the disease
A 4	Cramp of the hand or forearm due to repetitive movements	Spasm, tremor or pain in the hand or forearm brought about by performing repetitive movements of finger, hand or arm.	Typing, stenographing, knitting.
A5	Subcutaneous cellulitis of the hand (Beat hand)	Inflammation of the subcutaneous soft tissue of the hand caused by prolonged friction or pressure. The affected part is swollen and tender.	Manual labour.
A6	Bursitis or subcutaneous cellulitis arising at or about the knee due to severe or prolonged external friction or pressure at or about the knee (Beat knee)	Inflammation of the subcutaneous soft tissue or bursa of the knee caused by prolonged friction or pressure. The affected part is swollen and tender.	Cleaner working on the knees, miner, carpet layer.
A7	Bursitis or subcutaneous cellulitis arising at or about the elbow due to severe or prolonged external friction or pressure at or about the elbow (Beat elbow)	Inflammation of the subcutaneous soft tissue or bursa of the elbow caused by prolonged friction or pressure. The affected part is swollen and tender.	Miner, bricklayer.

Item	Description of Occupational Disease	Brief Notes	Some Examples of Trades / Processes / Occupations which may give rise to the disease
A8	Traumatic inflammation of the tendons of the hand or forearm (including elbow), or of the associated tendon sheaths	Inflammation of the tendons or tendon sheaths of the hand or forearm caused by unaccustomed or repetitive movements of the hand and forearm. e.g. pain, swelling and tenderness in the wrist, forearm or elbow.	Manual labour, typist, cleaner, assembler.
A9	Carpal tunnel syndrome	Use of hand-held powered tools which transmit vibrations to the hand. Prolonged use of these tools can result in compression of the median nerve in the carpal tunnel at the wrist.	Use of pneumatic drill, chained saw, grinding tool.

Group B – Diseases Caused by Biological Agents

Item	Description of Occupational Disease	Brief Notes	Some Examples of Trades / Processes / Occupations which may give rise to the disease
B1	Anthrax	<p>A disease of cows and horses caused by <i>Bacillus anthracis</i> which can be transmitted to human through contact with such animals and their products such as hairs, hides or excrement.</p> <p>The infection gains entrance through a small cut or scratch.</p> <p>Clinical features: Skin ulceration, pneumonia.</p>	Butcher, abattoir worker, veterinary personnel, tannery & wool worker.
B2	Glanders	<p>A disease of horses caused by <i>Malleomyces mallei</i> which can be transmitted to human.</p> <p>Clinical features: Fever, vomiting, diarrhoea, joint pain, necrosis of nasal septum and ulceration of the throat and mouth.</p> <p>Pustular eruptions over body, deep ulcers of the nose and painful subcutaneous</p>	Horse handler, stable cleaner, veterinary personnel, jockey.
Item	Description of Occupational Disease	Brief Notes	Some Examples of Trades / Processes / Occupations which may give rise to the disease
B3	Infection by leptospira	<p>A disease of rats, dogs and other mammals caused by <i>Leptospira interrogans</i> which can be transmitted to human through contact with infected animals or their urine.</p> <p>Clinical features: Headache, malaise, jaundice.</p> <p>Can cause serious illness with fever and collapse.</p>	Sewage cleaner, pig and dog handler, veterinary personnel.
B4	Pulmonary disease due to the inhalation of the dust of mouldy hay or other mouldy vegetable produce, and characterized by symptoms and signs attributable to a reaction in the peripheral part of bronchopulmonary system, and giving rise to a defect in gas exchange (Farmer's lung)	<p>Allergic inflammation of the lungs caused by inhalation of mouldy hay or other decaying vegetable matter.</p> <p>Clinical features :</p> <p>Acute: breathlessness, fever, malaise, muscle pain and headache in few hours after exposure to the dust.</p> <p>Chronic: repeated attacks can cause irreversible fibrosis of the lungs.</p>	Farm worker.

Item	Description of Occupational Disease	Brief Notes	Some Examples of Trades / Processes / Occupations which may give rise to the disease
B5	Infection by organisms of the genus brucella	<p>A disease of cows, pigs, sheep and dogs which can be transmitted to human through contact with tissue, blood, urine and body fluid of infected animals.</p> <p>Clinical features: Fever and rigors, generalized ache, headache, anorexia and fatigue.</p> <p>Meningitis and inflammation of the lungs may complicate the illness.</p>	Butcher, veterinary personnel, farm worker, diary worker.
B6	Tuberculosis	<p>Infected by <i>Mycobacterium tuberculosis</i>.</p> <p>Clinical features: Low grade fever, night sweating, fatigue, anorexia, weight loss and persistent cough, blood stained sputum and chest pain.</p> <p>Infection of other organs e.g. lymph nodes, joints, kidney may occur.</p>	Health care worker, medical laboratory worker, pathologist, post-mortem worker.

Item	Description of Occupational Disease	Brief Notes	Some Examples of Trades / Processes / Occupations which may give rise to the disease
B7	Parenterally contracted viral hepatitis	<p>Infected by hepatitis virus by contact of skin wound or mucous membranes with infected blood, blood products or internal body fluids, e.g. needlestick injuries.</p> <p>Clinical features: Malaise, nausea, vomiting, anorexia, headache, upper abdominal discomfort, jaundice.</p>	Health care worker, medical laboratory worker, pathologist, post-mortem worker.
B8	Infection by <i>Streptococcus suis</i>	<p>A disease of pigs that can affect human via skin wound or inhalation.</p> <p>Clinical features: Acute meningitis with severe headache, neck stiffness, vomiting and fever.</p>	Handling and selling of pork, butcher, pig farmer.
B9	Avian chlamydiosis	<p>Infected by <i>Chlamydia psittaci</i> which is present in infected birds, their feathers and discharges.</p> <p>Clinical features: Chills, fever, malaise, headache, sore throat, muscle ache, joint pain, cough and blood stained sputum.</p> <p>Heart and liver may be infected.</p>	Pet shop worker, poultry farmer, poultry handler, veterinary personnel, feather and down processor.

Item	Description of Occupational Disease	Brief Notes	Some Examples of Trades / Processes / Occupations which may give rise to the disease
B10	Legionnaires' disease	<p>Infected by <i>Legionella pneumophila</i>.</p> <p>Clinical features: Headache, fever, malais, muscle ache, cough and breathlessness.</p> <p>Severe lung infection and respiratory failure may occur.</p>	Repair and maintenance of fresh water cooling system or hot water service system.
B11	Severe acute respiratory syndrome	<p>Infected by a coronavirus known as SARS-associated coronavirus, which can be transmitted by respiratory droplets produced when an infected person coughs or sneezes.</p> <p>Clinical features: High fever, chills, headache, an overall feeling of discomfort, body aches, dry non-productive cough and diarrhea.</p> <p>Pneumonia and respiratory failure may occur.</p>	Medical and nursing staff, medical research and laboratory worker, pathologist, post-mortem or funeral services worker.
B12	Avian influenza A	<p>Infected by Avian influenza A viruses, which can be transmitted to human through contact with infected poultry or birds.</p> <p>Clinical features: typical influenza-like symptoms e.g. fever, cough, sore throat, muscle aches, and conjunctivitis.</p> <p>Pneumonia and respiratory failure may occur.</p>	Pet shop worker, poultry farmer, poultry handler, veterinary personnel, research and laboratory worker.

Item	Description of Occupational Disease	Brief Notes	Some Examples of Trades / Processes / Occupations which may give rise to the disease
C4	Poisoning by arsenic or a compound or arsenic	<p>Acute: abdominal pain, profound vomiting, rice water stools, convulsion.</p> <p>Chronic: skin inflammation and ulceration, painless ulceration and perforation of nasal septum, tingling in hands and feet, liver damage. Also associated with skin cancer.</p>	Manufacture or handling of pesticides, alloys and pigments. Use of arsine gas in the electronic industry.
C5	Poisoning by mercury or a compound of mercury	<p>Acute: pain, inflammation and necrosis of mucosa in mouth and throat, nausea, vomiting, abdominal pain and even kidney damage.</p> <p>Chronic: inflammation of gums, excessive saliva, metal taste, tremor, slurred speech, visual field defect, mental disturbance and kidney damage.</p>	Manufacture or handling of some scientific equipment (e.g. thermometers), batteries, anti-fouling paints, pesticides, amalgam used in dentistry.
C6	Poisoning by carbon bisulphide	<p>Acute: headache, breathlessness, vomiting, palpitations, acute mental disturbance and coma.</p> <p>Chronic: mental disturbance, abdominal pain, muscle weakness, numbness, visual disturbance and cardiovascular disease.</p>	Manufacture of artificial silk, cellophane, vulcanisation of rubber.

Item	Description of Occupational Disease	Brief Notes	Some Examples of Trades / Processes / Occupations which may give rise to the disease
C7	Poisoning of benzene or a homologue of benzene	Acute: headache, nausea, dizziness, convulsion, coma. Chronic: depression of bone marrow — tiredness, pallor, palpitation, breathlessness, easy bruising, prolonged clotting, frequent infections. Can cause leukaemia. Neurological effects — behavioural changes, vertigo & unsteadiness.	Manufacture or handling of solvents, adhesives, dyes, paints and plastics. Processing of petroleum.
C8	Poisoning by a nitro- or amino- or chloro-derivative of benzene or of a homologue of benzene, or poisoning by nitro-chlorobenzene	Acute: headache, breathlessness, cyanosis, weakness, nausea, vomiting, abdominal pain and collapse. Chronic: jaundice, weakness, skin inflammation, headache and dizziness.	Dry cleaning, degreasing, painting and lacquering.
C9	Poisoning by dinitrophenol or a homologue or by substituted dinitrophenols or by the salts of such substances	Acute: stomach upset, loss of appetite, nausea, vomiting, headache, vertigo, high fever, profuse sweating, breathlessness, liver & kidney damage, collapse or even death. Chronic: cataract and decrease of white blood cell count.	Manufacture of dyes, wood preservatives, photographic developers, handling of dinitro-o-cresol (a pesticide).

Item	Description of Occupational Disease	Brief Notes	Some Examples of Trades / Processes / Occupations which may give rise to the disease
C17	Primary epitheliomatous cancer of the skin	Rapidly growing skin lesions, may be associated with surrounding new growths, non-healing ulcers on arms or other parts of the body exposed to the chemicals.	Handling of mineral oil, tar, pitch, bitumen, soot and arsenic.
C18	Chromic ulceration including perforation of the nasal septum	Skin lumps which progress to ulcer over area exposed to chromium. Inhalation of mists containing chromium salts or direct contact with contaminated fingers may lead to ulceration followed by perforation of the nasal septum.	Chromium plating, dyeing and tanning.
C19	Primary neoplasm of the epithelial lining of the urinary tract (renal pelvis, ureter, bladder and urethra), including papilloma, carcinoma-in-situ and invasive carcinoma	Caused by prolonged exposure to certain aromatic amines e.g. α -naphthylamine, β -naphthylamine, benzidine. Clinical feature: Blood in the urine.	Dyeing & printing. Manufacture of rubber, dye and paint.
C20	Peripheral polyneuropathy	Caused by n-hexane or methyl-n-butylketone. Clinical features: Limbs weakness, hands & feet numbness.	Manufacture of shoes, raincoats, handbags. Printing, furniture-assembling, tyre-retreading.

Item	Description of Occupational Disease	Brief Notes	Some Examples of Trades / Processes / Occupations which may give rise to the disease
C10	Poisoning by halogen derivatives of hydrocarbons of the aliphatic series	Eye and skin irritation, headache, dizziness, nausea, mental disturbance, liver and kidney damage.	Degreasing, dry cleaning, manufacture and repair of refrigerators and fire extinguishers.
C11	Poisoning by diethylene dioxide (Dioxan)	Eye, nose and throat irritation, headache, vertigo, drowsiness, nausea, vomiting, liver and kidney damage.	Manufacture of polishing compounds, cosmetics and paint strippers.
C12	Poisoning by chlorinated naphthalene	Acne over exposed skin surfaces, liver damage	Manufacture of insulated wires, electroplating.
C13	Poisoning by oxides of nitrogen	Nitrogen dioxide is a reddish-brown gas with a pungent odour. Clinical features: Cough, headache, throat irritation, chest tightness. Although these symptoms may resolve within 30 minutes, delayed effects such as lung damage, collapse or even death may occur.	Firing of explosives in quarries, welding.

Item	Description of Occupational Disease	Brief Notes	Some Examples of Trades / Processes / Occupations which may give rise to the disease
C14	Poisoning by beryllium or a compound of beryllium	Acute: Respiratory tract inflammation e.g. cough, fever, chest pain, blood stained sputum, breathlessness. Skin inflammation or nodules caused by implantation of beryllium. Chronic: fatigue, weight loss, rash, joint pain and progressive lung damage.	Manufacture of alloys, semi-conductor components, beryllium ceramics.
C15	Poisoning by cadmium	Acute: throat irritation, cough, chest tightness & pain, breathlessness, chills, sweating, back & limb pains, headache, dizziness, nausea, anorexia and abdominal pain. Severe lung or kidney damage. Chronic: kidney or lung damage.	Electroplating, welding, soldering, manufacture of batteries, plastics and cadmium alloys.
C16	Dystrophy of the cornea (including ulceration of the corneal surface) of the eye	Irritation, pain, redness & swelling of the eye, vision may be impaired.	Handling of mineral oil, tar, pitch, bitumen, soot and arsenic.

Item	Description of Occupational Disease	Brief Notes	Some Examples of Trades / Processes / Occupations which may give rise to the disease
C21	Localized new growth of the skin, papillomatous or keratotic	Skin growth on arms or other parts of the body exposed to the chemicals.	Handling of mineral oil, tar, pitch, bitumen, soot and arsenic.
C22	Occupational vitiligo	Depigmentation of skin at site of contact with certain chemicals e.g. hydroquinone, parateritary-butyl phenol.	Shoe-making, use of adhesives.

Group D — Diseases Caused by Miscellaneous Agents

Item	Description of Occupational Disease	Brief Notes	Some Examples of Trades / Processes / Occupations which may give rise to the disease
D1	Inflammation or ulceration of the skin produced by dust, liquid or vapour (including the condition known as chloracne but excluding chrome ulceration)	Red, swollen, itchy, painful skin and blisters formation over site of contact with irritants or allergens.	Work with solvents, detergents & oils e.g. cleaners, painters, maintenance workers and hair-dressers.
D2	Inflammation or ulceration of the mucous membrane of the upper respiratory passages or mouth produced by dust, liquid or vapour	Cough. Redness, pain, discharge, ulcer formation and bleeding of the lining of the mouth, throat and nose.	Handling of certain chemicals e.g. chromate, arsenic, soda.
D3	Carcinoma of the nasal cavity or associated air sinuses (nasal carcinoma)	Related to inhalation of wood dusts. Clinical features: Facial swelling, pain, nasal obstruction, blood stained or foul smelling nasal discharge.	Manufacture or repair of wooden goods, footwear.

Item	Description of Occupational Disease	Brief Notes	Some Examples of Trades / Processes / Occupations which may give rise to the disease
D4	Byssinosis	Disease of the lungs associated with prolonged exposure to raw cotton dust. Clinical features: Chest tightness, breathlessness, cough, wheezing which may be worse on the first day at work after a weekend or vacation, may progress to permanent lung damage.	Carding & spinning workers.
D5	Occupational asthma	The disease is characterized by episodic airway obstruction induced by any sensitizing agents inhaled at work. Clinical features: Attacks of sneezing, running nose, cough, breathlessness or wheezing may develop within minutes of exposure, or be delayed for hours after the worker has left the workplace.	Exposure to isocyanates, formaldehyde, proteolytic enzymes, flour and wheat.

Pneumoconiosis and Mesothelioma Group — Diseases Caused by Inhalation of Silica or Asbestos

Disease	Brief Notes	Some Examples of Trades / Processes / Occupations which may give rise to the disease
Silicosis	Fibrosis of the lungs due to inhalation of free silica dust. Clinical features: Cough and breathlessness.	Quarries, construction, mining, tunnelling, sand blasting, jade-polishing, stone splitting, manufacture of glass and pottery.
Asbestosis	Fibrosis of the lungs due to inhalation of asbestos dust. Clinical features: Breathlessness, cough and chest pain.	Brake & clutch maintenance and repairing, insulation processes, building demolition.
Mesothelioma	A primary malignant neoplasm of the mesothelial tissue due to inhalation of asbestos dust. Clinical features: Breathlessness, cough, chest pain, abdominal pain and weight loss.	Brake & clutch maintenance and repairing, insulation processes, building demolition.

Occupational Deafness

Disease	Brief Notes	Some Examples of Trades / Processes / Occupations which may give rise to the disease
Occupational deafness	Hearing loss of both ears caused by prolonged exposure to loud noise.	Use of power driven grinding tools on metal, percussive & drilling tools on rocks, use of chain saws, jet/internal combustion engine, manufacture of textile and plastic, printing, rifle shooting.

Appendix 2

Invitation Letter



March, 2011

Dear Director/Person in Charge,

My name is Maggie Wong Yat Cheung. I am currently undertaking my PhD at Monash University under the supervision of Dr Ken Sellick and Professor Karen Francis in the School of Nursing and Midwifery. The topic of my PhD project is an investigation of the occupational health and safety (OH&S) services within the hospital industry, with a particularly focus on the services provided by Hong Kong hospitals. An initial phase of my study is to survey OH&S units of selected hospital in Hong Kong, with the aim to obtain information on the organizational structure of the unit, policies and procedures, the range of services and programs that are offered, and the types of occupational health problems that are encountered and reported. Information from this survey will provide a clearer picture of the OH&S services provided by both government and private hospitals in Hong Kong, the work-related injuries and health problems of major concern, and the strategies in place to ensure a safe and healthy work environment for hospital employees. This survey has the support of your hospital and has been approved by relevant hospital ethics committees and the Monash University Human Ethics Committee.

This letter is being sent to the persons in charge of the OH & S unit of a selection of public and private hospitals in HK who have agreed to participate in the study. Your name and postal address was obtained from the directory on the hospital website. The purpose of this letter is to invite you to participate in this study by completing the attached questionnaire which has been designed to obtain information about your OH&S service. Completion of the questionnaire should take 30 to 45 minutes to complete. You are also

invited to participate further by agreeing to a 30 to 45 minute follow-up interview, if required, to clarify questionnaire responses and to obtain more details of the service. All information you provide will be treated in strict confidence and used for statistical purposes only. Also, the identity of the hospital will not be disclosed without the permission of the hospital. A more detailed description of the study and what it entails is given in the attached explanatory statement. Completion and return of the attached questionnaire in the reply-paid envelope provided will be taken as your consent to participate in the survey. Should you require further information please do not hesitate to contact me by telephone or by email.

Thanking you in anticipation for your support of what we consider an important study.

Yours sincerely,

Maggie Wong

Tel: (852) 9768 0591

email: ycwon18@student.monash.edu

Appendix 3

Monash Approval Letter

**MUHREC CF11/0418 - 2011000171: A Survey of Occupational Health Services in Hong Kong
Hospitals**

Dear Researchers

CF11/0418 - 2011000171: A Survey of Occupational Health Services in Hong Kong Hospitals

Thank you for the following information in relation to the above project:-

1. Approval from the Hospital Chief Executive, Haven of Hope Hospital, dated 4 May 2011, to survey OH&S services and email confirmation that ethics approval was not required for the project by Haven of Hope Hospital.

This is to advise that the Monash University Human Research Ethics Committee (MUHREC) has confirmed approval of this aspect of the project, and the research may proceed according to the approval given on 3 May 2011.

Thank you for your assistance.

Professor Ben Canny

Chair, MUHREC

Human Ethics - Monash Research Office

Building 3E, Room 111

Monash University, Clayton 3800

Phone: 9905 5490

email: muhrec@monash.edu

<http://www.monash.edu.au/researchoffice/human/>

Appendix 4

Explanatory Statement for Directors of OH&S Units



EXPLANATORY STATEMENT

Date:.....

Project Title: A survey of occupational health services in Hong Kong hospitals

This information sheet is for you to keep.

This Explanatory Statement contains detailed information about the research project. Its purpose is to explain to you as openly and clearly as possible all procedures involved in the project before you decide whether or not to participate. Please read the information carefully and feel free to ask questions about the information in the document.

Introduction

My name is Maggie Wong Yat Cheung and I am conducting a research project on the above topic as part of my PhD degree at Monash University, Melbourne, Australia. Dr. Ken Sellick and Professor Karen Francis from the School of Nursing and Midwifery, Monash University are my supervisors.

The aim/purpose of the research

The aim of this study is to describe the Occupational Health Services (OHS) offered by hospitals in Hong Kong by obtaining information on the organisational structure of the unit, policies and procedures, the range of services and programs offered, and types of occupational health problems that are encountered and reported.

Who is invited to participate in this research project?

An important aspect of this study is to obtain information on existing OHS provided by a selection of public and private hospitals in Hong Kong. Hence our invitation to you as the service consumer of the OHS of your hospital to participate in this survey.

Possible benefits

Although there are no direct benefits to you personally, the information from this survey will provide a clearer picture of the occupational health and safety services within the Hong Kong hospital industry, the range of work-related health problems and injuries reported by hospital staff, and the strategies for ensuring a safe and healthy work environment. The information obtained will also serve as the basis for a survey of hospital staff's knowledge, understanding and use of occupational health and safety services.

What does the research involve?

Participation in this project will involve completion of a self-report questionnaire designed to obtain information about the nursing staff in the hospital.

How much time will the research take?

The questionnaire will require no more than 20 minutes to complete.

Inconvenience/discomfort

The questions you will be asked are designed to obtain information about your service and therefore are unlikely to cause you any distress or discomfort. If you have concerns with any of the questions you have the right not to answer these.

Can I withdraw from the research?

Participation in the study is voluntary. You have the right not to complete the questionnaire or to terminate the interview at any time.

Confidentiality

The identify of yourself and your organisation, and the information you provide will be treated in strict confidence and will not be disclosed to others or reported in any publications and reports without written permission from your organisation.

Storage of data

During the course of the project questionnaires and interview notes will be kept in a locked cupboard or filing cabinet in the Student Researcher's office and information recorded electronically kept on a password protected computer. Only members of the research team will have access to this information. On completion of the project all paper records will be shredded and electronic records of the data stored for a period of 5 years and then destroyed as prescribed by the University.

Results

Findings from this study will be reported in a thesis, and may be presented at a conference or as a journal publication. No individual participant or organisation will be personally identified in any of these reports. Likewise, no organisation will be identified without their written permission.

On completion of the project a summary of findings will be available to participants by contacting one of the listed investigators.

For further information:

Any questions you have regarding the study or your participation can be directed to any of the investigators listed below:-

Chief Investigators: Dr. Ken Sellick

School of Nursing and Midwifery

Monash University – Gippsland Campus

Tel: 61 3 5122 6681, Fax: 61 3 5122 6527 Email: ken.sellick@med.monash.edu.au

Prof. Karen Francis

School of Nursing and Midwifery

Monash University – Gippsland Campus

Tel: 61 3 9902 6763, Fax: 61 3 9902 6527 Email: Karen.Francis@med.monash.edu.au

Student Investigator: Maggie, Wong Yat Cheung

School of Nursing and Midwifery

Monash University – Gippsland Campus

Tel: (852) 9768 0591 Email: ycwon18@student.monash.edu

For complaints:

Should you have any queries or complaints concerning the manner in which this research (insert project number) is conducted please do not hesitate to contact the Monash University Human Research Ethics Committee (MUHREC) at the following address:

[Executive Officer, Human Research Ethics](#)

Building 3E

Research Office

Monash University VIC 3800

Tel: +61 3 9905 2052

Fax: +61 3 9905 3831 Email: muhrec@adm.monash.edu.au

Appendix 5

Questionnaire for OHSP

Questionnaire

Survey of Occupational Health Services (OHS) in Hong Kong Hospitals

Instructions: Please tick the box(s) or provide comments if necessary for each of the following questions.

1	Name of organization	_____	
2	How is your service organized ?	A separate department/unit A consultant group	A unit within a department Other (please
3	To whom does the service report?	Hospital Chief Executive Hospital Administration Other (Please specify)	Human Resource Department Quality and Safety Department
4	To who do you provide occupational health services?	The hospital cluster A section of the hospital	This hospital only Other (please specify) _____
5	Specify the type and number of staff working in your service.	Position	Number of staff
		Director (s)	Full-time _____ Part
		Doctors	Full-time _____ Part
		Manager (s)	Full-time _____ Part

		Nurses	Full-time _____ Part time
		Physiotherapists	Full-time _____ Part time
		Occupation therapists	Full-time _____ Part time
		Clinical Psychologists	Full-time _____ Part
		Administrative staff	Full-time _____ Part
		Other (Please specify)	
6	What occupational health and safety services do you provide? Please tick all that apply.	Pre-employment physical examinations.	
		Medical surveillance examinations.	
		Assessment of work-related health risk problems.	
		Screening programs to detect early work-related diseases	
		Immunizations for work conditions /diseases	
		Ergonomic evaluations.	
		Medical consultations for work-related conditions	
		Managing work-related injuries and illnesses	
		Health counselling for physical, psychological or social work	
		Rehabilitation services for staff with work-related injuries or diseases	
		Processing worker compensation claims	
		Reporting statistics as required under the legislation	

			Keeping other occupational health and safety statistics
			Providing other reports e.g. monthly incidence reports, annual injury
			Evaluating the quality and impact of the occupational health service.
			Conducting other occupational health research
			Other (please specify
7	What occupational health and safety courses/ programs are offered to employees ?		
			Training Occupational Health and Safety representatives
			Fire drills
			First aid
			Work safety e.g. health hazards (toxic chemicals).
			Rehabilitation for work-related conditions
			Stress management
			Nutrition
			Wellness/fitness
			Other (please

8	Which of the following occupational health problems has your service dealt with in the last 12 months?	<p>Burns</p> <p>Poisoning</p> <p>Soft tissue injury</p> <p>Lacerations</p> <p>Eye injuries</p> <p>Hearing problems</p> <p>Skin conditions/diseases</p> <p>Back injury.</p> <p>Muscle strain/ RSI</p> <p>Falls</p> <p>Respiratory infection e.g. Flu, TB, SARS, etc.</p> <p>MRSA/ESBL</p> <p>Other infections</p> <p>Needle stick injury</p>
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9	Which of the following policies and /or procedures are available in your workplace?	<p>Infection control, Fire safety, Handling chemicals,</p> <p>Poisons Radioactive materials, Lifting</p> <p>Incident reporting Immunization Staff OH&S training</p> <p>Injury on duties management. Accessing of service</p> <p>Return to work after occupational related injury or disease</p> <p>Employee medical record Workplace harassment/violence</p> <p>Other (please specify)</p> <p>_____</p> <p>_____</p> <p>_____</p>
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10. Are there any other details about your service not covered in the questionnaire that you would like to add? _____

11. Could you please indicate below if you agree to be interviewed, if required, to provide further information or clarification regarding the occupational health service your unit provides.

Yes No

Thanking you for taking the time to provide this information

Hospital A Approval Letter

July 21, 2010

Maggie Wong

Dear Maggie:

We understand that you wish to conduct your doctoral research project entitled "To evaluate the Occupational Health Service (OHS) in Hong Kong hospitals" at [redacted] and that the study involves asking the Occupational Health Service Provider (OHSP) who is known as the Occupational Safety & Health Coordinator at our Hospital to complete a questionnaire, and inviting occupational health service consumers, in this case our nursing staff, to complete a questionnaire about OHS issues and their use of our Hospital's OHS services.

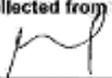
The Administrative Council of [redacted] has approved your request to conduct your research study at this hospital subject to the following conditions:

1. That the final analysis of the data be submitted to [redacted] for review before being reported;
2. That you agree to maintain the strictest level of confidentiality during the process with all parties other than your direct University advisors and [redacted];
3. That you agree to not identify [redacted] in your reporting if [redacted] so wish;
4. That you agree to conduct the study in a discreet manner that will not disrupt Hospital operations nor create any negative reactions from the staff, and [redacted];
5. That you agree to not approach any of our patients.

Sincerely,

Human Resources Director

By signing below, I declare that I have read, understood and agree to abide by all the abovementioned rules and conditions. It is further understood that any breach of the agreement will result in the immediate termination of the study at [redacted] and invalidate all data collected from the hospital as well as the decision reported to the University.


Maggie Wong's Signature

29 July 2010
Date of Signature

Appendix 7

Hospital B Approval Letter

Maggie Wong

Dear Maggie:

We understand that you wish to conduct your doctoral research project entitled "To evaluate the Occupational Health Service (OHS) in Hong Kong hospitals" at [redacted] and that the study involves asking the Occupational Health Service Provider (OHSP) who is known as the Occupational Safety & Health Coordinator at our Hospital to complete a questionnaire, and inviting occupational health service consumers, in this case our nursing staff, to complete a questionnaire about OHS issues and their use of our Hospital's OHS services.

The Administrative Council of [redacted] has approved your request to conduct your research study at this hospital subject to the following conditions:

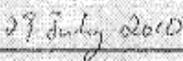
1. That the final analysis of the data be submitted to [redacted] for review before being reported,
2. That you agree to maintain the strictest level of confidentiality during the process with all parties other than your direct University advisors and [redacted]
3. That you agree to not identify [redacted] in your reporting if [redacted] so wish.
4. That you agree to conduct the study in a discreet manner that will not disrupt hospital operations nor create any negative reactions from the staff, and
5. That you agree to not approach any of our patients.

Sincerely

Human Resources Director

By signing below, I declare that I have read, understood and agree to abide by all the abovementioned rules and conditions. It is further understood that any breach of the agreement will result in the immediate termination of the study at [redacted] and invalidate all data collected from the hospital as well as the decision reported to the University.


Maggie Wong's Signature


Date of Signature

Appendix 8

Hospital C Approval Letter

From: [REDACTED]
To: maggie.wyd@ [REDACTED].com
CC: bemi [REDACTED]
Subject: Research
Date: Wed, 10 Nov 2010 13:42:38 +0800

Hi Maggie

We are pleased to accept you to do your research at the hospital.

I attach for your reference our Research policy

Looking forward to working with you

Kind Regards,

[REDACTED]

Preamble

Research and development is necessary to develop practice, knowledge and skills. Sound evidence based theories are required to promote quality and excellence in patient care.

The dignity, rights, safety and well being of participants in research is the primary consideration and [REDACTED] insists on good standards of practice to protect the rights of any participant in research within [REDACTED]. This policy, therefore, aims to forestall poor performance, adverse incidents, research misconduct or fraud. All medical research must be subject to ethical standards and promote respect and protection of the rights of any human participant.

Application and Approval Process

Any party wishing to undertake clinical research at [REDACTED] must apply to the CEO & Hospital Executives. Observational research will usually fall within the generic consent given by clients at admission and clearly stated in the admission agreement. Researchers in this category are still required to apply in writing to the CEO & Executives detailing their area of study, research outline, timeframe & how client data will be utilized. The hospital management must ensure that the researcher does not breach the hospital confidentiality policy AP/7 and the Privacy Data Ordinance.

Interventional Research is usually medically based, using the patient as a human subject to improve diagnostic & therapeutic procedures or further understand the aetiology or pathogenesis of disease. In accordance with the DoH Code of Practice, 2009, the applicant for this type of research will always require Ethics Committee approval. The researcher must apply in writing indicating the type of research and involved parties to the EMD & CEO in the first instance. This application letter & proposal must include information related to:-

- Reasons for undertaking this particular research
- Trial process and time frame
- The qualifications of the 'researcher' & that these are appropriate to undertake the research
- Other parties involved such as HKU, CU
- How clients will be selected and appropriately consented
- That no financial gain will be elicited.

[REDACTED] will not directly support or undertake research on human tissue or embryo's.

Once the research criteria has been initially approved by the CEO & EMD, the proposal will be passed to the hospital Ethics Committee for further scrutiny. The Ethics Committee consists of the hospital CEO,

EMD, BoG member, lay member and clinical management staff. Invitees will include MAC members of the related specialty if the applicant wishes to undertake medical research.

Responsibilities of the Researcher

The researcher remains accountable to MIH and may be called at anytime, to further explain aspects of the research or areas that may have initiated complaint from participants or hospital staff. The researcher is compelled to adhere strictly to the proposal & timeframe that has been approved by the Ethics Committee; any deviation from this must be referred back to the Ethics Committee for further approval. The hospital Management reserves the right to refuse or pause research if concerns have been raised.

Participants must be provided with full information in order to provide informed written consent to the entire process. They must also be informed of their right to withdraw their consent and must not be placed in a position of duress or coercion to continue by the researcher. Their rights must always be upheld & they must be aware of their right to complain to the hospital.

Staff undertaking Research

Staff within [redacted] are actively encouraged to audit their practice to enhance clinical effectiveness as part of the [redacted] Clinical Governance framework and their own code's of professional practice. See also CMP/E1.1 Evidence based practice and the [redacted] clinical governance document. They are also encouraged to present their research/audit results at a related conference i.e. Infection control

Any staff member undertaking a masters or PhD program will be encouraged to undertake their research component within the hospital.0

Appendix 9

Hospital D Approval Letter

: An evaluation of Occupational Health Services (OHS) in Hong Kong Hospitals

To 'Maggie Wong', Hospital Administration

From: **Hospital Admin** (HospAdm@[redacted].com)

Sent: Thursday, 9 December 2010 4:50:48 AM

To: 'Maggie Wong' (maggiewyc@[redacted])

Cc: Hospital Administration (hospadm@[redacted].com)

Dear Miss WONG,

Thank you for your letter dated 8 September 2010 inviting the Hospital to participate in the survey entitled 'An evaluation of Occupational Health Services (OHS) in Hong Kong Hospitals'.

Please be informed that our Hospital is willing to participate in your survey. We would also like you to send us the survey report at the end of the study.

Thank you very much for your attention.

Best regards,

[redacted]

Executive Officer

Hospital Administration Department

[redacted] Hospital

Appendix 10

Hospital E Approval Letter

To Maggie Wong

From:

Sent: Wednesday, 8 December 2010 10:16:31 AM

Dear Maggie,

The HK Hospital is interested in participating in your survey.

Regards,

Nursing Officer
Nursing Administration Office

Direct Tel: (852)

Fax: (852)

E-Mail:

Appendix 11

Hospital F Approval Letter

To 'Maggie Wong'

From: [REDACTED] ([REDACTED]@ha.org.hk)

Sent: Wednesday, 8 December 2010 8:19:57 AM

To: 'Maggie Wong' (maggiewyc@[REDACTED].com)

Dear Maggie,

I am the Doctor i/c of Occupational Medicine Department of [REDACTED]
[REDACTED] Cluster of Hospital Authority Hong Kong.

With reference to the below e-mail, [REDACTED] Hospital would participate in this study.

Best Regards,

[REDACTED]

Tel. [REDACTED] Fax [REDACTED]

Student research project: An evaluation of Occupational Health Services (OHS) in Hong Kong

From: **Dr. [REDACTED]** ([REDACTED]@ha.org.hk)

Sent: Wednesday, 4 May 2011 2:43:07 AM

To: ken.sellick@med.monash.edu.au (ken.sellick@med.monash.edu.au)

Cc: Maggie Wong (maggiewyc@[REDACTED].com); [REDACTED] ([REDACTED]@ha.org.hk)

2 attachments (total 196.3 KB)



HA_protoc..pdf

Download(138.8 KB)



OHS_Quest..pdf

Download(57.5 KB)

Download all as zip

Dear Dr. Ken Sellick

We would like to give approval to Ms Maggie Yat Cheung Wong to conduct the captioned student research project in [REDACTED] Hospital.

We understand that no patient or clinical data will be accessed, the participation of our staff is on a voluntary basis and that the research will not interfere with the hospital's operation.

Thank you for your attention.

Dr [REDACTED]

Hospital Chief Executive

[REDACTED] Hospital

Appendix 13

Interviews with Directors of Hospital Occupational Health & Safety Units

Purpose of the Interview

1. To obtain more detail and/or clarification of responses to the Survey Questionnaire.
2. To obtain copies of any unrestricted documents/reports relating to the OH&S service e.g. policies and procedures, organisational structure, statistical reports, list of programs offered.
3. To provide the Directors with the opportunity to provide a more detailed description of the OH&S services provided to hospital staff and how these are implemented.
4. To obtain more detailed information on the types of occupational health conditions and problems encountered by the service, particularly those affecting nursing staff and the prevention strategies in place.

Monash University Human Research Ethics Community Approval Letter



Monash University Human Research Ethics Committee (MUHREC)
Research Office

Human Ethics Certificate of Approval

Date: 17 April 2012
Project Number: CF12/0981 – 2012000454
Project Title: Nurses' knowledge, use and opinions of occupational health and safety services of Hong Kong hospitals
Chief Investigator: Dr Ken Sellick
Approved: From: 17 April 2012 To: 17 April 2017

Terms of approval

1. The Chief investigator is responsible for ensuring that permission letters are obtained, if relevant, and a copy forwarded to MUHREC before any data collection can occur at the specified organisation. **Failure to provide permission letters to MUHREC before data collection commences is in breach of the National Statement on Ethical Conduct in Human Research and the Australian Code for the Responsible Conduct of Research.**
2. Approval is only valid whilst you hold a position at Monash University.
3. It is the responsibility of the Chief Investigator to ensure that all investigators are aware of the terms of approval and to ensure the project is conducted as approved by MUHREC.
4. You should notify MUHREC immediately of any serious or unexpected adverse effects on participants or unforeseen events affecting the ethical acceptability of the project.
5. The Explanatory Statement must be on Monash University letterhead and the Monash University complaints clause must contain your project number.
6. **Amendments to the approved project (including changes in personnel):** Requires the submission of a Request for Amendment form to MUHREC and must not begin without written approval from MUHREC. Substantial variations may require a new application.
7. **Future correspondence:** Please quote the project number and project title above in any further correspondence.
8. **Annual reports:** Continued approval of this project is dependent on the submission of an Annual Report. This is determined by the date of your letter of approval.
9. **Final report:** A Final Report should be provided at the conclusion of the project. MUHREC should be notified if the project is discontinued before the expected date of completion.
10. **Monitoring:** Projects may be subject to an audit or any other form of monitoring by MUHREC at any time.
11. **Retention and storage of data:** The Chief Investigator is responsible for the storage and retention of original data pertaining to a project for a minimum period of five years.

A handwritten signature in black ink that reads "Ben Canny".

Professor Ben Canny
Chair, MUHREC

cc: Prof Karen Francis, Miss Maggie Wong

Appendix 15

Phase II Stage 1 Invitation Letter



Date:

Participant Hospital address

Dear XX,

Thank you very much for taking part in the first stage of my study of Occupational Health Services in Hong Kong Hospitals. The purpose of this stage was to survey OH&S units of selected hospitals in Hong Kong, to obtain information on the organizational structure of the unit, policies and procedures, the range of services and programs that are offered, and the types of occupational health problems that are encountered and reported. Please find attached a summary of the survey findings.

I am currently planning Stage 2 of the project which is designed to survey nurses' knowledge of occupational health and safety services provided by their hospital, their participation in education and training programs, types of OH&S problems experienced, and their overall satisfaction with the services provided. Attached is a copy of the questionnaire to be distributed to a sample of nurses from each hospital who participated in the Stage 1 survey. The plan is to implement the survey once I have the Monash ethics committee approval which I anticipate receiving in late April 2012.

Some time ago I sent you a letter inviting your hospital to participate in both stages of my study. Could you please confirm by email or letter if this remains the case.

Should you have any questions about the study or require further clarification please do not hesitate to contact me by phone or email as listed below.

Again, thank you for your support.

Yours sincerely,



Maggie Wong

Postal address: 24A, Block3, Holford Garden, Tai Wai, Shatin, NT, HK

Telephone: (852) 9768 0591

Email: ycwon18@student.monash.edu

Appendix 16

Hospital A Approval Letter

22 March 2012

Maggie Wong



Dear Maggie:

We understand that you wish to conduct phase II of your doctoral research project entitled "To evaluate the Occupational Health Service (OHS) in Hong Kong hospitals" at [REDACTED]. Phase II involves surveying a sampling of the nurses at our Hospital to complete a questionnaire on their knowledge of occupational health and safety (OH&S) service provided by the Hospital, their participation in education and training programs, types of OH&S issues encountered, and their overall satisfaction with the services provided.

The Administrative Council of [REDACTED] has approved your request to conduct your research study at both hospitals subject to the following conditions:

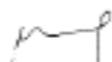
1. That the final analysis of the data be submitted to [REDACTED] for review before being reported.
2. That you agree to maintain the strictest level of confidentiality during the process with all parties other than your direct University advisors and [REDACTED].
3. That you agree to not identify either hospital in your reporting if [REDACTED] so wish.
4. That you agree to conduct the study in a discreet manner that will not disrupt hospital operations nor create any negative reactions from the staff, and
5. That you agree to not approach any of our patients.

Sincerely



Human Resources Director

By signing below, I declare that I have read, understood and agree to abide by all the abovementioned rules and conditions. It is further understood that any breach of the agreement will result in the immediate termination of the study at [REDACTED] and invalidate all data collected from the hospital as well as the decision reported to the University.

A handwritten signature in black ink.

Maggie Wong's Signature

25 April 2012

Date of Signature

Appendix 17

Hospital B Approval Letter

[REDACTED]

From: [REDACTED] - Human Resources ([REDACTED]@[REDACTED].org.hk)

Sent: Thursday, 22 March 2012 2:48:22 AM

To: 'Maggie Wong' (maggiewyc@[REDACTED].com)

I apologize. Yes, it has been approved.

From: Maggie Wong [mailto:maggiewyc@[REDACTED].com]

Sent: Thursday, March 22, 2012 10:41 AM

To: [REDACTED] - Human Resources

Subject: RE: Maggie's research study progress (An evaluation of OHS in HK hospital)

Dear [REDACTED]

Any feedback from the hospital?

I hope hospital is able to continue to support this study.

Regards

Maggie

Appendix 18

Hospital C Approval Letter

RE: PHASE 2 RECRUITMENT PROGRESS [REDACTED] FOLLOW UP 2

To see messages related to this one, [group messages by conversation](#).

2/05/2012

Maggie Wong

To [REDACTED]

From: **Maggie Wong** (maggiewyc@[REDACTED].com)

Sent: Wednesday, 2 May 2012 3:13:47 AM

To: [REDACTED]

Cc: [REDACTED]

Dear [REDACTED],

How's thing going?

If possible, would be appreciated you can advice the schedule for me then I can prepare accordingly.

Regards

Maggie

From: maggiewyc@[redacted].com

To: [redacted]

CC: [redacted]

Subject: RE: Phase 2 recruitment progress (MH) follow up 2

Date: Mon, 23 Apr 2012 06:56:52 +0000

Dear [redacted],

1) Is there a certain number that you wish to collect -> If able to survey the whole hospital's RN would be more valuable in the study especially for your individual report. Indeed, the rest of hospitals also be survey all departments/units/wards when RN are placed

2) Does it matter which depts, and can it be management also? -> for the survey paper, which did few pilot studies with various level are ok to complete, it should be ok in your hospital staff. If management level with RN title are also welcomed to join this study.

Maggie

From: [redacted]

To: maggiewyc@[redacted].com

CC: [redacted]

Subject: RE: Phase 2 recruitment progress (MH) follow up 2

Date: Mon, 23 Apr 2012 14:47:19 +0800

Dear Maggie

Just a few questions

Is there a certain number that you wish to collect

Does it matter which depts, and can it be management also?

Regards

Bernie

From: [REDACTED]
To: [maggiewyc@\[REDACTED\].com](mailto:maggiewyc@[REDACTED].com)
CC: [REDACTED]
Subject: RE: Phase 2 recruitment progress (MH) follow up 2
Date: Mon, 23 Apr 2012 10:27:14 +0800

Dear Maggie

Sorry for the lateness of my reply. When would you like to start?

Rgds,

[REDACTED]

From: Maggie Wong [[mailto:maggiewyc@\[REDACTED\].com](mailto:maggiewyc@[REDACTED].com)]
Sent: 23 April 2012 14:27
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Phase 2 recruitment progress (MH) follow up 2

Dear [REDACTED],

The study can start anytime when you are ready.

If you can provide the following information for me then would help.

- 1) Named of ward/unit/department will able to join
- 2) The number of RN in each ward/unit/department
- 3) Who and when I can contact with in order to deliver the survey paper to the responsible person

By the way, would like to attached the final version of questionnaire (attached file 1) and Participate letter (file 2) and explanatory statement (file 3) for your reference.

Regards

Maggie

Appendix 19

Hospital D Approval Letter

RE: An evaluation of Occupational Health Services (OHS) in Hong Kong
Hospitals (Phase 1 report and phase 2 recruitment)

HKS Queen Chan

To 'Maggie Wong'

From: [REDACTED] ([REDACTED]@[REDACTED].com)

Sent: Wednesday, 28 March 2012 1:22:03 AM

To: 'Maggie Wong' (maggiewyc@[REDACTED].com)

Dear Maggie,

Got the message from the Management. Kindly send me the survey details and I shall help to get it done!!

Regards,

[REDACTED]

Senior Sister (Quality Assurance)

Nursing Administration Department | [REDACTED] Hospital

Tel: +852 [REDACTED] | Fax +852 [REDACTED] | Website: [http://www.\[REDACTED\].com](http://www.[REDACTED].com)

Address: [REDACTED] Hong Kong

Appendix 20

Hospital E Approval Letter

RE: Survey of Hospital Occupational Health Services (stage 2 recruitment): [redacted] ethics application

To Maggie Wong, [redacted]

From: [redacted] ([redacted]@ [redacted].org.hk)

Sent: Thursday, 29 March 2012 11:14:17 AM

To: Maggie Wong (maggiewyc@[redacted].com)

Cc: [redacted] ([redacted]@ [redacted].org.hk)

Dear Maggie,

I have gone through your questionnaire & proposal and grateful to participate in the second stage of your study after the approval from the Hospital CREC. I would suggest you provide a brief introduction of the purpose of your study & the use of data as well as the confidentiality to our subjects.

Grateful to have your preparation of 630 sets of questionnaire in hard copy. I will brief all nurses at our nursing meeting about your study first. With your introduction letter, I will deliver the questionnaires to all RNs of all units for their voluntary participation. If your time permits, I will allow them return questionnaire in 4 weeks time (provided some RN on VL). Afterward, you can pick up the completed questionnaire.

My office is located at the **Nursing Administration Office**, [redacted]
[redacted] **Hospital**.

Hope your study be successful !!

Regards,

[redacted]
Nursing Officer
Nursing Administration Office
[redacted]

Direct Tel: (852) [redacted] Fax: (852) [redacted]
[redacted]@ [redacted].org.hk Website: www [redacted].org.hk

E-Mail:

Appendix 21

Hospital G Approval Letter

RE: An evaluation of OHS in HK hospital (Stage 2 recruitment: [redacted])

2/04/2012

To Maggie Wong, Dr. [redacted]

From: [redacted] ([redacted]@ha.org.hk)

Sent: Monday, 2 April 2012 12:41:19 AM

To: Maggie Wong (maggiewyc@[redacted].com)

Cc: Dr. [redacted] ([redacted]@ha.org.hk)

Dear Ms. Wong,

It is confirmed that [redacted] is going to take part in the Stage 2 of captioned survey.

Grateful if you could advise on the time and date for survey paper dissemination as well as collection for further arrangement on contact person of clinical units.

Regards,

[redacted]

GM(N) [redacted]

Tel: [redacted]

Appendix 22

Explanatory Statement to Stage II Phase 1 Participant



Date: 30 April 2012

Project Title: Nurses' knowledge, use and opinions of occupational health and safety services of Hong Kong hospitals

This information sheet is for you to keep.

This Explanatory Statement contains detailed information about the research project. Its purpose is to explain to you as openly and clearly as possible all procedures involved in the project before you decide whether or not to participate. Please read the information carefully and feel free to ask questions about the information in the document.

Introduction

My name is Maggie Wong Yat Cheung and I am conducting a research project on the above topic as part of my PhD degree at Monash University, Melbourne, Australia under the supervision of Dr Ken Sellick and Professor Karen Francis.

The aim/purpose of the research The aim of this study is to survey registered nurses knowledge of the Hospital's Occupational Health Service (OHS), participation in educational programs, and the type of occupational health problems reported by nursing staff.

Who is invited to participate in this research project? All registered nurses working in selected government and private hospitals in Hong Kong

Possible benefits

Although there are no direct benefits to you personally, the information from this survey will provide a clearer picture of the occupational health and safety services within the Hong Kong hospital industry, the range of work-related health problems and injuries reported by nursing staff, and the strategies for ensuring a safe and healthy work environment.

What does the research involve? Your participation in this project will involve the completion of a self-report questionnaire designed to obtain information on your knowledge of the Hospital's OHS, policies and procedures, range of services and programs offered, participation in OHS educational programs, the types of occupational health problems that are reported by nurses, and opinions on the OHS offered by the Hospital. Group interviews are also scheduled in each participating hospital to further clarify responses to the questionnaire and obtain more in-depth information on nurses' experience and opinions on the service.

How much time will the research take? The questionnaire will require no more than 30 minutes. The interview should take no longer than 45 minutes to complete. .

Inconvenience/discomfort The questions you will be asked are designed to obtain descriptive information about your service. It is unlikely that any of the questions will cause you any distress or discomfort.

Can I withdraw from the research? Participation in the study is voluntary. You have the right not to complete the questionnaire, not to participate in a group interview, and to withdraw from the study at any time.

Confidentiality All information you provide will be treated in strict confidence and used for statistical purposes only. Only members of the research team will have access to this information. You are also

assured that you will not be personally identified in any publications or reports arising from the study nor will your organisation be identified without written approval.

Storage of data during the course of the project questionnaires and interview notes will be kept in a locked cupboard or filing cabinet in the Student Researcher's office and information recorded electronically kept on a password protected computer. Only members of the research team will have access to this information. On completion of the project all paper records will be shredded and electronic records of the data stored for a period of 5 years and then destroyed as prescribed by the University.

Results and findings from this study will be reported in a thesis, and may be presented at a conference or as a journal publication. No individual participant or organisation will be personally identified in any of these reports. On completion of the project, a summary of findings will be available to participants by contacting the Chief Investigator.

For further information or complaints If you would like to contact the researchers about any aspect of this study, please contact the Chief Investigator:-

Dr Ken Sellick

School of Nursing & Midwifery

Monash University Gippsland

Northways Road, Churchill. VIC. 3842

Email: ken.sellick@monash.edu

Phone: +61 3 990 6681

Fax: +61 3 990 6527

If you have any complaints concerning the manner in which this research is being conducted (Project No: CF12/0981), please contact the Executive Officer of the MUHREC at the following address:-

Executive Officer

Monash University Human Research Ethics Committee (MUHREC)

Building 3e Room 111

Research Office

Monash University VIC 3800

Tel: +61 3 9905 2052

Fax: +61 3 9905 3831

email: muhrec@adm.monash.edu.au

Alternatively, any queries and complaints you may have can be made to Professor Johnathan Foo (contact details below) who will forward these on the MUHREC Executive Officer: -

Johnathan Foo

Professor of Religion

1111 Clear Water Bay Road

Sai Kung, New Territories

Hong Kong

Tel: 27191668

email: pastorfoo@gmail.com

Thank You

Maggie Wong Yat Cheung

Appendix 23

Phase II OHSC Questionnaire

Nurse Survey of Occupational Health Services (OHS) in Hong Kong Hospitals

CONFIDENTIAL

Questionnaire

Instructions: Please check the box(es) or provide comments as indicated:-

Part 1: Occupational health service

1	Type of hospital you work in	<input type="checkbox"/> Hospital Authority hospital <input type="checkbox"/> Private hospital	
2	Are you aware that there is an Occupational Health and Safety department /unit in your hospital?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
3	Do you have an occupational health and safety representative in your work unit?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	To whom do you report to if you have any occupational health and safety concerns?	<input type="checkbox"/>	Occupational Health and Safety Manager (s)
		<input type="checkbox"/>	Occupational Health and Safety Nurses
		<input type="checkbox"/>	Unit Manager
		<input type="checkbox"/>	Occupational Health and Safety representative
		<input type="checkbox"/>	Other(please specify):_____
5	Which of these occupational health and safety services or programs have you attended or utilized?	<input type="checkbox"/>	Pre-employment physical examinations.
		<input type="checkbox"/>	Medical surveillance examinations.
		<input type="checkbox"/>	Assessment of work-related health risk problems.
		<input type="checkbox"/>	Screening programs to detect early work-related diseases

		<input type="checkbox"/>	Immunizations
		<input type="checkbox"/>	Ergonomic evaluations
		<input type="checkbox"/>	Medical consultations for work-related injuries and illnesses
		<input type="checkbox"/>	Health counselling for work-related health conditions/concerns
		<input type="checkbox"/>	Rehabilitation services for work-related injuries or diseases
		<input type="checkbox"/>	Other (please specify): _____
6	What occupational health and safety courses/ programs are offered by your employer?	<input type="checkbox"/>	Training Occupational Health and Safety representatives
		<input type="checkbox"/>	Fire drills
		<input type="checkbox"/>	First aid training
		<input type="checkbox"/>	Work safety e.g. health hazards (toxic chemicals)
		<input type="checkbox"/>	Rehabilitation for work-related conditions
		<input type="checkbox"/>	Stress management
		<input type="checkbox"/>	Nutrition
		<input type="checkbox"/>	Wellness/fitness
		<input type="checkbox"/>	Other (please specify) : _____
7	Please list the occupational health and safety training courses, programs, in-service or other activities you have		1. _____ 2. _____

	<p>done in relation to your employment e.g. lifting techniques, needle-stick injury.</p>	<p>3. _____</p> <p>4. _____</p> <p>5. _____</p> <p>6. _____</p> <p>7. _____</p> <p>8. _____</p> <p>9. _____</p> <p>10. _____</p>
--	--	--

8	<p>Have you experienced any of these work-related health problems in the last 12 months? If so did you report them?</p>		Experienced	Reported
		<input type="checkbox"/> Burns	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/> Poisoning	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/> Soft tissue injury	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/> Lacerations	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/> Eye injuries	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/> Hearing problems	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/> Skin conditions / diseases	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/> Back injury	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Muscle strain	<input type="checkbox"/>	<input type="checkbox"/>		

		<input type="checkbox"/> Fall	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/> Respiratory infection e.g. Flu, TB, SARS, etc	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/> MRSA/ESBL	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/> Other infection (please specify:_____	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/> Needle stick injury	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/> Work stress	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/> Workplace harassment / violence	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/> Other (please specify): _____	<input type="checkbox"/>	<input type="checkbox"/>
9	Which policies and procedures relating to occupational health and safety concerns are available in your workplace?	<input type="checkbox"/> Infection control <input type="checkbox"/> Fire safety <input type="checkbox"/> Handling chemicals <input type="checkbox"/> Poisons <input type="checkbox"/> Radioactive materials <input type="checkbox"/> Lifting technique <input type="checkbox"/> Needle stick injury <input type="checkbox"/> Incident reporting <input type="checkbox"/> Immunization <input type="checkbox"/> Staff occupational health and safety training <input type="checkbox"/> Injury on duties management <input type="checkbox"/> Accessing the service		

5. Highest qualification:-

Nursing Certificate

Nursing Diploma

Bachelor Degree

Postgraduate Certificate/Diploma

(Please specify if in a specialty area): _____

Masters Degree

As noted in the letter of invitation we would like to conduct a group interview with a small sample of nurses from each participating hospital to obtain a more detailed picture on nurses experience and use of the hospital's occupational health and safety services. Please indicate your willingness to participate by marking:-

Yes or No

If you answered Yes, could you please provide you name and a contact number?

Name: _____ Phone: _____

Thank you very much for completing this survey. Please return the completed questionnaire with the "stamped return envelope" attached

Appendix 24

Stage II Phase 1 Study Follow Up Letter



Dear Colleagues,

Follow-up letter: Nurses' knowledge, use and opinions of occupational health services of Hong Kong hospitals

XXX

XXX

If you would like more information about this study, or a copy of the survey, please write to me at the above address or email me at:

maggiewyc@hotmail.com

Thank you for your kind attention and assistance.

Yours sincerely,

Maggie Wong

Contact number: 85297680591



GROUP INTERVIEW CONSENT FORM

Title: Nurses' knowledge, use and opinions of occupational health services of Hong Kong hospitals

NOTE: THIS CONSENT FORM WILL REMAIN WITH THE MONASH UNIVERSITY RESEARCHER FOR THEIR RECORDS

I agree to take part in the Monash University research project specified above. I have had the project explained to me, and I have read the Explanatory Statement, which I keep for my records. I understand that agreeing to take part means that:

I agree to be interviewed by the researcher Yes No

I agree to allow the interview to be audio-taped Yes No

and

I understand that my participation is voluntary, that I can choose not to participate in part or all of the project, and that I can withdraw at any stage of the project without being penalised or disadvantaged in any way.

and

I understand that any data that the researcher extracts from the interview for use in reports or published findings will not, under any circumstances, contain names or identifying characteristics.

and

I understand that any information I provide is confidential, and that no information that could lead to the identification of any individual will be disclosed in any reports on the project, or to any other party.

and

I understand that data from the interview will be kept in a secure storage and accessible to the research team. I also understand that the data will be destroyed after a 5 year period unless I consent to it being used in future research.

Participant's name:

Signature:.....

Date:.....

Appendix 26

Focus Group Interview Content

Purpose of the Interview

1. To obtain more detailed information and clarification of responses to the survey questionnaire.
2. To provide hospital nurses with the opportunity to describe their experiences of the OHS provided by the hospital.
3. To discuss the types of occupational health conditions and problems experienced by hospital nursing staff.
4. To obtain detailed information on nurses' participation in educational programs designed to reduce the prevalence of nursing related OHS problems.
5. To explore nurses' opinions on the quality of OHS provided by the hospital.

Appendix 27

Level of Support from Team/Senior

Number	Participant Code	Content	Key words
1	B3	Haha....do not think about it and report to the UM who will follow the case and work on it. The problem is addressed by the senior level and with the support from the UM,I am not worried!! I don't consider this as work stress!!	Report to the UM who will follow the case and work on it.
2	B58	Colleagues are very considerate and not to take it personally. It is just part of the work.	Colleagues are very considerate. Not to take it personally.
3	D103	I got experience in the OPD .A patient to ask me about the direction in the appointment sheet which there is two appointments. I gave the patient the right direction. Few minutes, the patient returned and scolded me of giving wrong direction. Luckily, my boss was there the whole time. She comforted me and asked me not to take it personally. The patient was just venting out the anger and I was the target. Her sister's passed away due to the mal practice in the public hospital.	My boss comforted me and asked me not to take it personally.

Number	Participant Code	Content	Key words
4	D103	I was reassured by my colleagues who also reminded me not to take it personally. I called the lab where the patient should go the next step. Staff in the labs was well informed of what were going on. Hopefully, no colleague is having any verbal abuse and patients were well taken care.	I was reassured by my colleagues. Not to take it personally.
5	D471	Sometimes the doctors are very considerate. They understand you are doing the drug administration and try not to disturb your work , but we do have responsible to help the doctor if he needs to have physical examination for a female patient. If we are not offering help, there is bad consequence! It really depends on what is happening! For me, rather than fulfilling the doctor's need and continue the drug administrative with stop and double check again with the colleague in order to minimize the incidence! That's why the hospital is running a lot of training or course in stress management for us. However, I try to forget all my work when I left the hospital. I try to do some interesting thing such as singing!!	Sometimes the doctors are very considerate.
6	D491	A Clinical Instructor (CI) is available in each ward who only follows the student and learner for their routine work but not for the staff. The senior staff only tells you when you did the wrong thing,	The senior staff only tells you when you did the wrong thing, however,

Number	Participant Code	Content	Key words
		<p>however, they are not necessarily able to tell you the rationale behind the practice. In addition, this is not systematic!</p>	<p>they are not necessarily able to tell you the rationale behind the practice.</p>
7	D491	<p>Concept is from person. Experience is gathered by working outside organization. We believe PMA (Positive Mental Ability) helps people to enhance their PMA rather than giving negative feedback to the staff.</p> <p>However, there is negative attitude among people in the working team. People are busy working and talking to rude person due to the local culture here. These staff may not be aware of these attitudes. This would make people uncomfortable and build a bad influence to one another! Well, this is part of the culture here!!</p>	<p>There is negative attitude among people in the working team.</p>

Appendix 28

Ventilate with a Proper Channel

Number	Participant Code	Content	Key words
1	B3	Chaplain service is great !! Talk to patients at least once and also chat with staff if needed.	Chaplain service, chat with staff if needed.
2	B6	By reading at home and joining some other activities after work at 7:pm.	Reading at home. Joining some other activities after work at 7pm.
3	D228	Other than gym, we have other classes such as Chinese Herb class, handcraft and some other leisure activities	Gym, interested class, leisure activities.
4	D260	Sports and classes like badminton, tennis and basketball	Sports
5	D471	Sometime the doctors are very considerate. They understand you are doing the drug administration and try not to disturb your work, but we do have responsible to help the doctor if he needs to have physical examination for a female patient. If we are not offering help, there is bad consequence! It really depends on what is happening! For me, rather than fulfilling the doctor's need and	I try to forget all my work when I left the hospital. I try to do some interesting thing such as singing!

Number	Participant Code	Content	Key words
		continue the drug administrative with stop and double check again with the colleague in order to minimize the incidence! That's why the hospital is running a lot of training or course in stress management for us. However, I try to forget all my work when I left the hospital. I try to do some interesting thing such as singing!	
6	E232	This talk is held on every Tuesday. The guests include popular artist, doctor and other speakers with relevant experience.	Stress management talk is held on every Tuesday. Share their relevant experience.
7	E255 and 232	Yes, I had experience to join this talk.	I had experience to join stress management talk
8	E255	Especially for the new staff who are reminded the talk all the time. In addition, the chaplain is available anytime for both the patients and the staff. Staff are able to chat with the Chaplain anytime without any referral. We can vent out our emotion anytime if we want.	Staff are able to chat with the Chaplain anytime without any referral. We can vent out our emotion anytime if we want.

Number	Participant Code	Content	Key words
9	G26	<p>Since our hospital has religious background, which is added value in the Oasis resource and form a group namely “XX club”. This club held few activities per year and supported by colleague. For example: game, happiness index self test, cake making then some small gift will issue to the staff after the game or gathering.</p>	<p>Our hospital has religious background.</p> <p>Added value in the Oasis resource and form a group namely “XX club”.</p> <p>Few activities per year and supported by colleague.</p>
10	G26	<p>As this hospital, there is religious background that there are talk or sharing session in every few months per a session. They are also open for outsiders. There are posters in lifts, lobbies and other public areas. Speakers may be chaplain, popular artist or celebrities. Topics include stress, positive thinking and life balancing.</p>	<p>Stress talk or sharing session in every few months per a session.</p>

Appendix 29

Be Considerate and Not Taking It Personally

Number	Participant Code	Content	Key words
1	B3	Haha....do not think about it and report to the UM who will follow the case and work on it. The problem is addressed by the senior level and with the support from the UM,I am not worried!! I don't consider this as work stress!!	I am not worried!! I don't consider this as work stress!!
2	D103	I got experience in the OPD .A patient to ask me about the direction in the appointment sheet which there is two appointments. I gave the patient the right direction. Few minutes, the patient returned and scolded me of giving wrong direction. Luckily, my boss was there the whole time. She comforted me and asked me not to take it personally. The patient was just venting out the anger and I was the target. Her sister's passed away due to the mal practice in the public hospital.	She comforted me and asked me not to take it personally
3	D228	We are working at the female dominate environment we Try to be a good listener and not to respond to any gossip. We hope to build a good and harmonious working atmosphere if possible.	Try to be a good listener and not to respond to any gossip.

Number	Participant Code	Content	Key words
4	D471	<p>If we always Stand on other's shoes and do our job, there should not be dispute between staff, family or patient. In fact, the patient and family are suffering enough while staying at the hospital. We should have empathy during their stay.</p>	<p>If we always Stand on other's shoes and do our job, there should not be dispute between staff, family or patient.</p>

Appendix 30

Occupational Health Service as “Caring”

Number	Participant Code	Content	Key Words
1	A19	<p>I had great support from different parties while I was injured. They sent me to the OPD for immediately treatment followed by the QEH for the HIV and Hep C. To overcome the crisis, the hospital OHS manager also follows the case and offers counselling service.</p>	<p>I had great support from different parties while I was injured.</p>
2	D471	<p>Nurse is human beings who have feelings and need care and support.</p>	<p>Nurse is human need care and support.</p>
3	D471	<p>If more administrative personnel take a look at the service at the, it will be helpful .Instead of face to face communication; we usually have communication in written form only. It feels better if there are more face to face communication for this shows the care and warmth from them.</p>	<p>It feels better if there are more face to face communication for this shows the care and warmth from them.</p>
4	D476	<p>Personnel offices are locating on 38 floors; do they understand the frontline staff working on 20th floor? Do they know we have high stress and busy environment? Indeed, the paper work here is very sufficient</p>	<p>More contact with the frontline staff and try to understand their need, which help the frontline staff be</p>

Number	Participant Code	Content	Key Words
		<p>but more contact with the frontline staff and try to understand their need, which help the frontline staff be cared by the senior.</p>	<p>cared by the senior.</p>
5	D471	<p>During the SARS, I was respected but this feeling was going away gradually. Although our hospital was not admitting a lot of SARS patients who did not stay long .I felt at that time “I was cared and also respected.</p>	<p>During the SARS, I was respected but this feeling was going away gradually. I felt at that time “I was cared and also respected.</p>
6	D476	<p>Yes, this is true!! Action rather than documentation are needed to express their concern. Most of the time, the senior staff do not have much feedback. However, busy is not an excuse. For the senior staff to understand what is happening in the frontline, they should experience it.</p> <p>They cannot just observe and leave but never stand on our shoes!! Sometimes, the senior staffs does watch the frontline staff verbally abuse by the patient, relative or even the doctor. They should know how difficult our</p>	<p>Action rather than documentation are needed to express their concern.</p> <p>Eg: They cannot just observe and leave but never stand on our shoes!! Sometimes, the senior staffs does watch the frontline staff verbally abuse by the patient,</p>

Number	Participant Code	Content	Key Words
		<p>positions are. I very much appreciated if the senior staff could do it!!</p>	<p>relative or even the doctor. They should know how difficult our positions are. I very much appreciated if the senior staff could do it!!</p>
7	D476	<p>Indeed, the paper work here is very sufficient but more contact with the frontline staff and try to understand their need, which help the frontline staff be cared by the senior.</p>	<p>More contact with the frontline staff and try to understand their need, which help the frontline staff be cared by the senior.</p>
8	E232	<p>The first day of work the OHS representative and Nursing Officer will do the evaluation and continue monitoring the injured worker progress. Apart from the IOD staff, post-operated staff also joins this program. It makes staff feel that they are being taken care of .</p>	<p>Apart from the IOD staff, post-operated staff also joins this program. It makes staff feel that they are being taken care of</p>
9	G26	<p>Most deeply experience was: SARS. Our team join with the cluster team and did the outreach service for the hospital which were affected by</p>	<p>We were leading the team to deliver the sweet soup to the staff</p>

Number	Participant Code	Content	Key Words
		SARS. We were leading the team to deliver the sweet soup to the staff there. We cared our colleagues and felt the warmth that is fighting for lives to serve the public when G26 started to tearing.	there. We cared our colleagues and felt the warmth that is fighting for lives to serve the public when G26 started to tearing.
10	G26	We were not offering any professional counselling for the colleague, we were there to listen and pass the tissue paper when the colleague was crying. People felt being cared and there is cohesiveness among colleagues.	People felt being cared and there is cohesiveness among colleagues.
11	G26	Lack of appreciation from the public. Back in the time of SARS, I felt being respected even if we had been fighting for lives with very limited resource. I felt my hard work was worth it without any regret. Again, the working environment seem improved nowadays but I feel very tired when working day by day To deal with the unreasonable demand and lack of appreciation from the public even we are providing the same thing as SARS period!	Back in the time of SARS, I felt being respected even if we had been fighting for lives with very limited resource. I felt my hard work was worth it without any regret. I feel very tired when working day by day To deal with the unreasonable demand

Number	Participant Code	Content	Key Words
			<p>and lack of appreciation from the public even we are providing the same thing as SARS period!</p>
12	G26	<p>Although we were not offering any professional counselling for the colleague, we were there to listen and pass the tissue paper when the colleague was crying. People felt being cared and there is cohesiveness among colleagues.</p>	<p>We were there to listen and pass the tissue paper when the colleague was crying. People felt being cared and there is cohesiveness among colleagues.</p>
13	G26	<p>Medical training system makes the new comers frustrated.. For example: One of the new graduated nursing staff from the university. She was disappointed when the first few months working here and always asking to resign the job. She found working here with behind the new technology and also lack of resource support is not suit for her will. However, this staff worked for few years and resigned for her further study. On the day she left she claimed she never experienced such a nice working</p>	<p>She left she claimed she never experienced such a nice working place with care and support.</p> <p>The nursing training emphasizes on effectiveness at work with equipment to help the patient</p>

Number	Participant Code	Content	Key Words
		<p>place with care and support . Every year, this girl sent us a Christmas card and also we kept in touch. Nowadays, the nursing training emphasizes on effectiveness at work with equipment to help the patient ignoring the nature of nursing. This is care which is not essential in the environment with high tech or deluxe equipment. However, the new graduated nurse always lacks time to experience the care attitude. This might be the reason for new graduates to leave. They found the difference between training and working at the “real world”. Back to our apprenticeship in the hospital based training, trainer worked at a limited resource such as no air conditioning environment, camp bed everywhere at ward. We cannot argue when senior staff assigned any duties to us. Always no say when senior staff ask to work but we did happy and also respect the senior due to the senior nurse always with fair handling for each staff.</p>	<p>ignoring the nature of nursing. This is care which is not essential in the environment with high tech or deluxe equipment.</p> <p>The new graduated nurse always lacks time to experience the care attitude.</p>

Appendix 31

Not bothered by Major Injury

Number	Participant Code	Content	Key words
1	C3	Minor back injury without report.	Minor injury. Without report.
2	D491	I heard the workplace bullying happened between doctor and the nursing staff which is very minor. They just talk about the incident but never report!	Just talk about the incident but never report!
3	E232	If the clean needle stick never report since don't want to make further trouble. In addition, the work stress which is never take seriously.	If the clean needle stick never report. Don't want to make further trouble.
4	E238	I experienced work stress all the time but I had exit to get rid of the problem. For example, I only pray and talk to someone but never report. I always seek for the Chaplain help.	Experienced work stress all the time .I only pray and talk to someone but never report.

Number	Participant Code	Content	Key words
5	E238	Fall: I experienced fall in the hospital but not reported due to the slope stairway. Most of the time, we never report any minor issue For example: falling without injury, the injury is not reported to the hospital.	Never report any minor issue
6	G26	<p>Senior level only provides the hardware in related to the OH&S issue but never pay attention to the software Which are the frontline staff's need. For example, when OH&S launched a campaign about prevention of t back injury, the hospital arranges the electric bed for us. Do they think about the space, time for work and manpower in the ward as priority before to buy those electric beds? Finally, our hospital got the new bed but still lack of frontline staff to lift the patient and achieve the patient need. For example staff need to help the patient to operate the bed, which need to occupy our limited time when work. As a result, the electric bed does not solve the problem . We still have back or soft tissue injury.</p> <p>Staff don't bother to report if not immediate hurt.</p> <p>However, the chronic back and soft tissue injury could be another concern, which is present in different way!!</p>	Staff don't bother to report if not immediate hurt.

Appendix 32

Lack of Awareness of the Problem

Number	Participant Code	Content	Key words
1	D476	I believe I have MRSA/ESBL since there are a lot of that in the hospital but we do not have any sign or symptom!!Also no one follow up this issue.	I believe I have MRSA/ESBL since there are a lot of that in the hospital but we do not have any sign or symptom!
2	D491	I would take sick leave if I suffer from flu but not sure. However, I am not sure if I get it at work.	I am not sure if I get it at work.
3	D491	Hospital has paid attention in OHS issues and put a lot of resource in this area. Frontline staff may not be aware that we do have the right to report such issue as physical abuse or verbal assault when the patient who is mentally fit intends to hit or accuse the staff personally. We never know we have the right to report the case as occupational injury, workplace violence or bullying. In nursing practice, we never have such concept to report.	Frontline staff may not be aware that we do have the right to report such issue as physical abuse or verbal assault when the patient who is mentally fit intends to hit or accuse the staff personally. We never know we have the right to report the case as occupational injury, workplace violence or bullying. In nursing practice, we never have such concept to report

Appendix 33

Senior Attitude

Number	Participant Code	Content	Key words
1	C3	Workplace harassment, violence and bully and reported to the senior without any follow up.	Reported to the senior without any follow up.
2	C3	Operation room door is dangerous when open, someone behind the door could be injured. No response and follow up and people seems not to take it seriously.!	No response and follow up and people seems not to take it seriously.!
3	D491	Verbal abuse from senior to junior staff due to work culture. Although the staff may not have such rude attitude but gradually staff learnt and also present the rude and un-respect attitude to the junior staff. Perhaps, this is part of the communication here!	Verbal abuse from senior to junior staff due to work culture
4	D491	Hospital has paid attention in OHS issues and put a lot of resource in this area. Frontline staff may not aware we do have right to report such issue as physical abuse or verbal assault when the patient with mentally fit but intend to hit or accuse the staff personally. In general, our frontline staff would try to avoid this patient . As a team , we try to have a consistent attitude . We never know we have the right to report it case as occupational injury, workplace violence or	Even the Nursing Officer knows the case but such issue is not reported.

Number	Participant Code	Content	Key words
		<p>bullying. In nursing practice, we never have such concept to report not in the mental hospital practice. Even the Nursing Officer knows the case but such issue is not reported.</p>	
5	G26	<p>By the way, workplace abuses from patient's rude relatives whose are increasingly demanding. In addition, junior doctors are also abused nowadays. It may be the cause for stress .Patients' rights are abused who forget their responsibilities.</p> <p>In most the complaints, Hospital Authority will pinpoint the staff. Patients and their relatives are always the winners and the staff are the looser. Staff never had any feedback of how the senior handled the case. Therefore, culture of increasing number of complaining is result especially when the senior staff tried to avoid the issues. This is unfair for frontline staff involved. For example, people with unreasonable demands would achieve their goals by insisting on what they want or even by abusing the system and staff. The public are learning to use some "bullying attitude" to satisfy their needs. Finally, the staff have to handle routine work as well as facing the stress from customers who have rude attitude.</p>	<p>Staff never had any feedback of how the senior handled the case</p>

Appendix 34

Bureaucratic Approach

Number	Participant Code	Content	Key Words
3	D471	<p>It would be helpful if more administrative personnel takes a look at the service at the service. Instead of face to face communication, we usually have communication in written form only. It feels better if there are more face to face communication for this shows the care and warmth from them.</p>	<p>It would be helpful if more administrative personnel takes a look at the service at the service. Instead of face to face communication, we usually have communication in written form only.</p>
4	D476	<p>Personnel offices are locating on 38 floors; do they understand the frontline staff working on 20th floor? Do they know we have high stress and busy environment?</p> <p>Indeed, the paper work here is very sufficient but more contact with the frontline staff and try to understand their need, which help the frontline staff be cared by the senior.</p>	<p>Personnel offices are locating on 38 floors; do they understand the frontline staff working on 20th floor? Do they know we have high stress and busy environment?</p>

Number	Participant Code	Content	Key Words
6	D476	<p>Yes, this is true!! Action rather than documentation is needed to express their concern.</p> <p>Most of the time, the senior staff do not have much feedback. However, busy is not an excuse. For the senior staff to understand what is happening in the frontline, they should experience it. For example: They cannot just observe and leave, they never stand on our shoes!! Sometimes, the senior staff does watch the frontline staff being verbally abused by the patient, relative or even the doctor. They should know how difficult our positions are. I would be very much appreciated if the senior staff could do it!!</p>	<p>Action rather than documentation is needed to express their concern.</p> <p>For example: They cannot just observe and leave, they never stand on our shoes!! Sometimes, the senior staff does watch the frontline staff being verbally abused by the patient, relative or even the doctor. They should know how difficult our positions are. I would be very much appreciated if the senior staff could do it!!</p>
7	D476	<p>Indeed, the paper work here is very sufficient but more contact with the frontline staff and try to understand their need would help the frontline staff feeling cared of by the senior.</p>	<p>More contact with the frontline staff and try to understand their need would help the frontline staff feeling cared of by the senior</p>

Number	Participant Code	Content	Key Words
8	G26	<p>More attention from people, for example, the senior people should meet the frontline staff through interviews or talk to them in wards. This helps to find out their needs and how much stress they are facing day to day.</p>	<p>More attention from people, for example, the senior people should meet the frontline staff through interviews or talk to them in wards.</p>
9	G26	<p>The review system on IOD involves only system but not personality. Positive attitude and methods should be used in handling medical error. Staff should not blame one another.</p>	<p>Review system on IOD involves only system but not personality</p>
10	G26	<p>Feedback from senior staff should not only be given to the outsider but also to the frontline after the injury, accident or incidence and so on. Indeed, it has never got feedback to our internal when the issue is raised from either external or internal people. Since we never have any feedback from the senior staff after the investigation of the issue, we never learn to do it right without growing.</p>	<p>Feedback from senior staff should not only be given to the outsider but also to the frontline after the injury, accident or incidence and so on</p>
11	G26	<p>Senior level only provides the hardware in relation to the OH&S issue but never pays attention to the software. Which are the frontline staff's need. For example, when OH&S launched a campaign about prevention of t back injury, the</p>	<p>Senior level only provides the hardware in relation to the OH&S issue but never pays attention to the software</p>

Number	Participant Code	Content	Key Words
		<p>hospital arranges the electric bed for us. Do they think about the space, time for work and manpower in the ward as priority before to buy those electric beds? Finally, our hospital got the new bed but still lack of frontline staff to lift the patient and achieve the patient need. For example staff need to help the patient to operate the bed, which need to occupy our limited time when work. As a result, the electric bed does not solve the problem . We still have back or soft tissue injury. Staff don't bother to report if not immediate hurt. However, the chronic back and soft tissue injury could be another concern, which is present in different way!!</p>	

Appendix 35

Inadequate Knowledge

Number	Participant Code	Content	Key Word
1	A61	Work stress is too abstract and it is difficult to report	Work stress is too abstract.
2	C3	Work stress is understood and did not make any report.	Work stress is understood
3	D491	Do you think this is a skin problem? Very dry skin with abrasion. cause to my problem.	Do you think this is a skin problem?
4	D491	Preparation of antibiotic and using medication spread on my hand may be the reason.	May be the reason.
5	D491	No idea about MRSA/ESBL.“Work stress, I have dream about at working situation and afraid of having sudden call when I am sleeping. It never happened when I was working another job! Hospital has paid attention in OHS issues and put a lot of resource in this area. Frontline staff may not be aware that we do have the right to report such issue as physical abuse or verbal assault when the patient with mentally fit but intend to hit or accuse the staff personally. In general, our frontline staff would try to avoid this patient . As a team , we try to have a consistent attitude . We	No idea about MRSA/ESBL. Frontline staff may not be aware that we do have the right to report We never know we have the right to report the case as occupational injury.

Number	Participant Code	Content	Key Word
		<p>never know we have the right to report the case as occupational injury, workplace violence or bullying. In nursing practice, we never have such concept to report not in the mental hospital practice. Even the Nursing Officer knows the case but such issue is not reported.</p>	
6	D491	<p>How about working hour and meal break arrangement? Are those included in the OHS issue?</p>	<p>Are meal break included in the OHS issue?</p>

Appendix 36

Level of Awareness

Number	Participant Code	Content	Key words
1	A61, A19	It would be nice if some sports and fitness class can be organized near to the community. It would be a great incentive if they are easily accessible.	Would be nice if some sports and fitness class can be organized near to the community.
2	A61	Majority of OH&S courses/training materials are obtained from the internet, however, other techniques and physical skills can only acquired through practices. For example, lifting the patience A5: Have you report to the IT or related parties?A61: Don't brother!!	OH&S training is not using the right approach.
3	A19	The setting and facility in the ward is not user friendly eg; PowerPoint is set behind the bedside cupboard after the ward renovation. Cupboard has to be moved in order to connect the power. Besides, extra extension cord is needed to have more power points. do not understand why the management did not consult the user before setting up the facility. A61: Is the management being consulted? Unit Manager is usually the one to collect the feedback before proposing the renovation plan.A5: agreed	The setting and facility in the ward is not user friendly

Number	Participant Code	Content	Key words
4	C3	<p>This hospital has its own culture. It is small and reports are easily disclosed with proper channel. Staff doesn't feel comfortable to make official report of the related issue. Eg: I did report an incidence to the OHS department then the related colleague came and did the investigation and finally my senior told me: I shouldn't did this report which made the colleague had problem! In addition, the staff concerned in the OHS issue would be isolated and affected negatively at work.</p>	<p>Reports are easily disclosed with proper channel. Staff doesn't feel comfortable to make official report of the related issue.</p>
5	D228	<p>Manpower issue is another concern</p>	<p>Manpower issue is another concern</p>
6	D476	<p>Personnel offices are locating on 38 floors; do they understand the frontline staff working on 20th floor? Do they know we have high stress and busy environment? Indeed, the paper work here is very sufficient but more contact with the frontline staff and try to understand their need, which help the frontline staff be cared by the senior.</p>	<p>Do senior level understand the frontline staff working on the ward?</p>
7	D476	<p>For existing practice, nursing staff doing administrative work will wear a dress with words "Don't disturb, Drug Administrative time". But people do not pay attention and</p>	<p>Nursing staff doing administrative work will wear a dress with words "Don't disturb,</p>

Number	Participant Code	Content	Key words
		<p>simply do not care!! They just ask you questions and do not have other resource or manpower. You end up receiving complaint if you ignore them. I had to leave my medication cart and my work was interrupted for few times due to the patient’s questions. In our system, patients are assigned to particular nurses on duty. If the patient asked me questions without answering, I would be blamed by even If I am not assigned to this patient. He thought nurse should know everything and why do you need to talk to someone else! Patients never know the system in your hospital; they only know the right but not the responsibility.</p>	<p>Drug Administrative time”. But not work in practical way.</p>
8	D476	<p>Yes, I’m able to provide the service to my patient most of the time. However, I recall an experience a few years ago. I had to take care of a patient from HA hospital with a Hickman Catheter. I was challenged by the patient since I lacked the knowledge in that field. I think we need to acquire more knowledge and to improve our skills to meet the standard.</p>	<p>Yes, I’m able to provide the service to my patient most of the time. However, I recall an experience a few years ago. I had to take care of a patient from HA hospital with a Hickman Catheter. I was challenged by the</p>

Number	Participant Code	Content	Key words
			<p>patient since I lacked the knowledge in that field. I think we need to acquire more knowledge and to improve our skills to meet the standard.</p>
9	D471	<p>The words “Don’t disturb, Drug Administrative time” uniform helps but questions keep coming from the patient or relatives. It is difficult to meet high expectation from patients with the staff issue and the structure in the private hospital. Another issue is doctor who is coming to have regular check on patients anytime. Most the time, only 2 nurses will be on duty .You can imagine how busy and out of control even if they are just doing routine. They have to do a lot of paper work too.</p>	<p>It is difficult to meet high expectation from patients with the staff issue and the structure in the private hospital.</p>
10	D491	<p>Our Nursing Officer is a Infection Control Nurse who cares about the isolation technique including MRSA/ESBL patient’s handling in the dressing or related procedure priority. If no one tells you, you will never know. You only learn through observation and practices but not</p>	<p>If no one tells you, you will never know. You only learn through observation and practices but not</p>

Number	Participant Code	Content	Key words
		through the system..	through the system.
11	D491	<p>A Clinical Instructor (CI) is available in each ward who only follows the student and learner for their routine work but not the staff. The senior staff only tell you when you did the wrong thing, however, they are not necessarily able to tell you the rationale behind the practice. In addition, this is not systematic!</p>	<p>A Clinical Instructor (CI) is available in each ward who only follows the student and learner for their routine work but not the staff.</p>
12	D491	<p>Concept is from person. Experience is gathered by working outside organization. We believe Positive Mental Ability (PMA) helps people to enhance their PMA rather than giving negative feedback to the staff. “Does senior level understand the frontline staff working in the ward?”</p>	<p>Positive Mental Ability (PMA) helps people to enhance their PMA rather than giving negative feedback to the staff”.</p>
13	D491	<p>However, there is negative attitude among people in the working team. People are busy working and talking to rude person due to the local culture here. These staff may not be aware of these attitudes. This would make people uncomfortable and build a bad influence to one another! Well, this is part of the culture here!!</p>	<p>Negative attitude among people in the working team</p>
14	D491	<p>You know, the problem is the PM shift follow by the AM shift and we do have 8 hours shift here.</p>	<p>The problem is the PM shift follow by the</p>

Number	Participant Code	Content	Key words
		<p>You need to complete all your work before you left. It always makes you stay behind longer than expected. For example, some tasks are not urgent but you have to finish before you your duty. Indeed the nurse in charge never release you from work without her permission. In addition, they make you stay to have more manpower which is too long for us. We never have enough time to rest for the following duty! They think we belong to the ward and the hospital which is the culture here.</p>	<p>AM shift and we do have 8 hours shift here. You need to complete all your work before you left. It always makes you stay behind longer than expected.</p>
15	D491	<p>The preparation before work takes longer than the expect. For example: Afternoon staff need to get on at 1445hr for taking over from AM shift. We need to come early for the drug preparation, do the ward around and also observe the environment. Staff need to come early and let the Nursing Officer to know that you are already at work.</p>	<p>The preparation before work takes longer than the expect.</p>
16	D491	<p>Too long hand over time: AM shift should be off duty at 1500hr but 1600hr is considered to be a normal practice. For example: PM off at 2300hr and AM on duty at 0700hr. When you have AM follow by PM duty, which would be a question to get enough time to rest due to stay behind “to complete” the work and come back “to prepare” the</p>	<p>Too long hand over time.</p> <p>No formal meal break: when you are busy at work.</p> <p>The doctor is another</p>

Number	Participant Code	Content	Key words
		<p>work!! In other words, we should be off around 2330hr and should be back to work at 0630hr. You can imagine how much time you have for rest especially a long travelling time for work!! Meal break: For each staff, there a half an hour for meal break. However, they are so busy and cannot leave the ward easily. Besides, staff really want to complete all the work so that they can enjoy the break. This is a vicious cycle!! You cannot go for break because you have not completed your work but you need to cover your colleague since she is having her break. Also, the doctor is another issue. This always happens during the staff's meal period. You have your routine, you need to cover your colleague you have to follow the doctor round and arrange related treatment from the doctor's order. As a result, you never finished your work and you never have time for meal break!! We never have time for tea break or even go to the toilet when you at work! This happens very often.</p>	<p>issue. This always happens during the staff's meal period.</p>
17	D491	<p>For OHS, there are two 2 types of services including hardware and software. Hardware for those you can identify immediately such wet</p>	<p>For OHS, there are two 2 types of services including hardware</p>

Number	Participant Code	Content	Key words
		<p>floor, a sign is placed as warning immediately.</p> <p>The problem can be avoided.</p> <p>However, the software still have room to be improved. Although the hospital has a program called “be nice” good employee nomination, still unable to experience the harmony working environment.</p> <p>You know, people learn bad thing easily. If the peer or senior staff abuse the junior staff, this affects one another. Gradually, this becomes a culture or norm in the workplace. Finally, how do you to get harmonious atmosphere at work? This becomes a issue. Even the Nursing Officer knows the case but such issue is not reported.</p>	<p>and software.</p> <p>Hardware for those you can identify immediately such wet floor, a sign is placed as warning immediately. The problem can be avoided.</p> <p>However, the software still have room to be improved. Although the hospital has a program called “be nice” good employee nomination, still unable to experience the harmony working environment. . Even the Nursing Officer knows the case but such issue is not reported.</p>

Number	Participant Code	Content	Key words
18	E232	If hospital able to hold more program which allows family members to join, it would be nice.	Allows family members to join the OHS program
19	E238	Family members join the program frequently. For example: handcraft which is sponsor by the hospital and run by the Human Resource Department. It would be nice if there are extra program but there are too many staff here. There are difficulty to run the extra program.	It would be nice if there are extra OHS program but there are too many staff here.
20	E255	If hospital considers the fitness center, it would be nice to the staff. Since work at ANH, one of the HA hospital, for long. There is a staff centre and some fitness facilities such as treadmill. Staff are able to have exercise after work, having a shower, which release the work stress and refresh themselves! There are only 2 newspapers in the rest room here. They are Mingpao and Singtao no other choice. In addition, the hospital is no proper space for meal break. The situation in the ward is even worse!! We only have a folding chair without a decent table for the meal break. We can only have a	If hospital considers the fitness center, it would be nice to the staff. There are only 2 newspapers in the rest room here. No proper space for meal break.

Number	Participant Code	Content	Key words
		quick meal break and back to work, no time to rest after meal. I seldom have to have meal break at ward. I would rather have my break the canteen which is more crowded and noisy. At least there is a place to sit down !	
21	E232	PYH, one of the HA hospital, had massage chair and infrared bed. It is like having a massage and you will feel great after a hard day of work at the ward.	It is like having a massage and you will feel great after a hard day of work at the ward.
22	E238	It would be nice if these facilities are available and easily accessible in the campus!! I shall stay the hospital to enjoy these facilities.	It would be nice if these facilities are available and easily accessible in the campus!!
23	E255	If there are more support in the “O” program for the new comer, it would be better. I’m working in the NICU but the mentor changes day by day. It makes me feel a bit confusing for different people have different coaches. In addition, the mentor is EN, who coach me in the clinical work but not administrative matter. Furthermore, the mentor always reports to the senior staff about	It would be nice if these facilities are available and easily accessible in the campus!!

Number	Participant Code	Content	Key words
		<p>the progress or performance without letting me know. This makes feel somebody is talking behind my back. This is very stressful.</p> <p>A consistence mentor let the new comer to have a person to share and enquire the need. This is a buddy system and enable a new comer to grow an easy way to avoid stress in a new environment!</p>	
24	G26	<p>However, it still has room to be improved as below:</p> <p>1)More attention on people For example, the senior people should meet the frontline staff through interviews or talk to them in wards. This helps to find out their needs and how much stress they are facing day to day.</p> <p>2) The review system on IOD involves only system but not personality.</p> <p>3) Positive attitude and methods should be used in handling medical error. Staff should not blame one another.</p> <p>4) Feedback from senior staff should not only be given to the outsider but also to the frontline after the injury, accident or incidence and so no.</p>	<p>More attention on people. The review system on IOD.</p> <p>Positive attitude and methods should be used in handling medical error. Feedback from senior staff should not only be given to the outsider but also to the frontline after the injury, accident or incidence and so on.</p> <p>Senior level only provides the hardware in relation to the OH&S</p>

Number	Participant Code	Content	Key words
		<p>Indeed, it has never got feedback to our internal when the issue is raised from either external or internal people. Since we never have any feedback from the senior staff after the investigation of the issue, we never learn to do it right without growing.</p> <p>5) Senior level only provides the hardware in relation to the OH&S issue but never pays attention to the software which is what the frontline staff needs. For example, when OH&S launched a campaign about prevention of back injury, the hospital arranged the electric beds for us. Have they thought about the space, time for work and manpower in the ward as priority before buying those electric beds? Finally, our hospital got the new bed but was still lack of frontline staff to lift the patient and achieve the patient's need. For example, staff needs to help the patient to operate the bed, which will occupy our limited time at work. As a result, electric beds do not solve the problem. We still have back or soft tissue injury. Staff does not bother to report if not immediately hurt. However, chronic back and soft tissue injury could be another concern, which is present in a different way!!</p>	<p>issue but never pays attention to the software</p>

Number	Participant Code	Content	Key words
25	G26	<p>Medical training system makes the new comers frustrated. For example: One of the new graduated nursing staff from the university. She was disappointed when the first few months working here and always asking to resign the job. She found working here with behind the new technology and also lack of resource support is not suit for her will. However, this staff worked for few years and resigned for her further study. On the day she left she claimed she never experienced such a nice working place with care and support . Every year, this girl sent us a Christmas card and also we kept in touch. Nowadays, the nursing training only emphasizes on effectiveness at work with equipment to help the patient but ignores the nature of nursing. This is care which is not essential in the environment with high tech or deluxe equipment. However, the newly graduated nurse always lacks the time to experience the caring attitude. This might be the reason for the leaving of the new graduates. They found the difference between training and working in the ‘real world’. Back to our</p>	<p>Medical training system makes the new comers frustrated..... Nowadays, the nursing training only emphasizes on effectiveness at work with equipment to help the patient but ignores the nature of nursing. This is care which is not essential in the environment with high tech or deluxe equipment. However, the newly graduated nurse always lacks the time to experience the caring attitude. This might be the reason for the leaving of the new graduates. They found the difference between training and working in</p>

Number	Participant Code	Content	Key words
		<p>apprenticeship in the hospital based training, trainer worked at a limited resource such as no air conditioning environment, camp bed everywhere at ward. We cannot argue when senior staff assigned any duties to us. Always no say when senior staff ask to work but we did happy and also respect the senior due to the senior nurse always with fair handling for each staff.</p>	<p>the 'real world</p>

Appendix 37

Culture Practices and Beliefs

Number	Participant Code	Content	Key Word
1	A61, A5	<p>Majority of OH&S courses/training materials are obtained from the internet, however, other techniques and physical skills can only acquired through practices. For example, lifting the patience. A5: Have you report to the IT or related parties?A61: Don't brother!!</p>	<p>Majority of OH&S courses/training materials are obtained from the internet, however, other techniques and physical skills can only acquired through practices. For example, lifting the patience.</p>
2	A19:	<p>The setting and facility in the ward is not user friendly eg; PowerPoint is set behind the bedside cupboard after the ward renovation. Cupboard has to be moved in order to connect the power. Besides, extra extension cord is needed to have more power points. do not understand why the management did not consult the user before setting up the facility.</p>	<p>The setting and facility in the ward is not user friendly</p>
3	A61	<p>Is the management being consulted? Unit Manager is usually the one to collect the feedback before proposing the renovation plan.A5: agreed</p>	<p>Manager is usually the one to collect the feedback before proposing the renovation plan.</p>
4		<p>This hospital has its own culture. It is small and</p>	<p>This hospital has its own</p>

Number	Participant Code	Content	Key Word
	C3	<p>reports are easily disclosed with proper channel. Staff doesn't feel comfortable to make official report of the related issue. Eg: I did report an incidence to the OHS department then the related colleague came and did the investigation and finally my senior told me: I shouldn't did this report which made the colleague had problem! In addition, the staff concerned in the OHS issue would be isolated and affected negatively at work.</p>	<p>culture. It is small and reports are easily disclosed with proper channel. Staff doesn't feel comfortable to make official report of the related issue.</p>
5	D260	<p>Not really, we try to educate the new staff to understand and learn our hospital culture.</p>	<p>We try to educate the new staff to understand and learn our hospital culture.</p>
6	D471	<p>If more administrative personnel take a look at the service at the, it will be helpful .Instead of face to face communication; we usually have communication in written form only. It feels better if there are more face to face communication for this shows the care and warmth from them.</p>	<p>We usually have communication in written form only. It feels better if there are more face to face communication for this shows the care and warmth from them.</p>
7	D476	<p>Yes, this is true!! Action rather than documentation are needed to express their concern. Most of the time, the senior staff do not have much feedback. However, busy is not an excuse. For the senior staff to</p>	<p>Most of the time, the senior staff do not have much feedback</p>

Number	Participant Code	Content	Key Word
		<p>understand what is happening in the frontline, they should experience it.</p> <p>They cannot just observe and leave but never stand on our shoes!! Sometimes, the senior staffs does watch the frontline staff verbally abuse by the patient, relative or even the doctor. They should know how difficult our positions are. I very much appreciated if the senior staff could do it!!</p>	
8	D476	<p>Each time when we reported an incident, the senior only blamed the staff :For example, if there is medication error, the senior staff only blamed the staff why the error was made!! In fact, do I want to make such error? I did not feel good too. I hope the senior staff would be able to stand on my shoes to find out the reason behind.</p>	<p>Each time when we reported an incident, the senior only blamed the staff</p>
9	D476	<p>I believe I have MRSA/ESBL since there are a lot in the hospital but we d o not have any sign or symptom!!</p>	<p>I believe I have MRSA/ESBL since there are a lot in the hospital but we d o not have any sign or symptom!!</p>
10	D491	<p>Concept is from person. Experience is gathered by working outside organization. We believe PMA (Positive Mental Ability) helps people to enhance</p>	<p>Concept is from person. However, there is negative</p>

Number	Participant Code	Content	Key Word
		<p>their PMA rather than giving negative feedback to the staff. However, there is negative attitude towards people in the working team. People are busy working and talking to rude person due to the local culture here. These staff may not be aware of these attitudes. This would make people uncomfortable and build a bad influence to one another! Well, this is part of the culture here!!</p>	<p>attitude towards people in the working team. People are busy working and talking to rude person due to the local culture here. These staff may not be aware of these attitudes. This would make people uncomfortable and build a bad influence to one another! Well, this is part of the culture here!!</p>
11	D491	<p>Meal break: For each staff, there a half an hour for meal break. However, they are so busy and cannot leave the ward easily. Besides, staff really want to complete all the work so that they can enjoy the break. This is a vicious cycle!! You cannot go for break because you have not completed your work but you need to cover your colleague since she is having her break. Also, the doctor is another issue. This always happens during the staff's meal period. You have your routine, you need to cover your colleague you have to follow the doctor round and arrange related treatment from the doctor's order. As a result,</p>	<p>Meal break: For each staff, there a half an hour for meal break. However, they are so busy and cannot leave the ward easily.....need to complete all your work before you left. It always makes you stay behind longer than expected</p>

Number	Participant Code	Content	Key Word
		you never finished your work and you never have time for meal break!!	
12	D491	You know, the problem is the PM shift follow by the AM shift and we do have 8 hours shift here. You need to complete all your work before you left. It always makes you stay behind longer than expected. For example, some tasks are not urgent but you have to finish before you your duty. Indeed the nurse in charge never release you from work without her permission. In addition, they make you stay to have more manpower which is too long for us. We never have enough time to rest for the following duty! They think we belong to the ward and the hospital which is the culture here.	
13	D491	As I know, a few outsiders join this hospital . At the beginning, they were not perform as the local culture “bullying and personal accuse”. But the new comer able to learn the local culture very quick. Finally, the new comer has become part of the hospital!!	Few outsiders join this hospital . At the beginning, they were not perform as the local culture “bullying and personal accuse”. The new comer has become part of the hospital!!

Number	Participant Code	Content	Key Word
14	D491	<p>Verbal abuse from senior to junior staff due to the work culture. Although the staff may not have such rude attitude but gradually staff learnt and also present the rude and un-respect attitude to the junior staff.</p> <p>Perhaps, this is part of the communication here!</p>	<p>Verbal abuse from senior to junior staff due to the work culture.</p> <p>Perhaps, this is part of the communication here!</p>
15	D491	<p>The preparation before work takes longer than they expect. For example: Afternoon staff need to get on at 1445hr for taking over from AM shift. We need to come early for the drug preparation, do the ward around and also observe the environment. Staff need to come early and let the Nursing Officer to know that you are already at work.</p>	<p>The preparation before work takes longer than they expect.</p>
16	D491	<p>Too long hand over time: AM shift should be off duty at 1500hr but 1600hr is considered to be a normal practice. For example: PM off at 2300hr and AM on duty at 0700hr. When you have AM follow by PM duty, which would be a question to get enough time to rest due to stay behind “to complete” the work and come back “to prepare” the work!! In other words, we should be off around 2330hr and should be back to work at 0630hr. You can imagine how much time you have for rest especially a long travelling time for work!!</p>	<p>Too long hand over time... stay behind “to complete” the work and come back “to prepare” the work!! In other words, we should be off around 2330hr and should be back to work at 0630hr.</p>

Number	Participant Code	Content	Key Word
17	D491	We never have time for tea break or even go to the toilet when you at work! This happens very often.	We never have time for tea break or even go to the toilet when you at work! This happens very often.
18	G26	We do have our “culture”. Indeed, more than 2/3 of the doctor and staff are Christian and also the senior always doing a good thing for the staff but nowadays the culture seem a bit change. It may the external or global environment are changing. It is making our internal culture do have changed although our hospital try hard to maintain the own culture. For example “ hospital culture refreshment day annually” in order to promote the internal staff for the senior position rather than outsider.	We do have our “culture”. Indeed, more than 2/3 of the doctor and staff are Christian and also the senior always doing a good thing for the staff but nowadays the culture seem a bit change. It may the external or global environment are changing.
19	G26	Culture of increasing number of complaining is result especially when the senior staff tried to avoid the issues. This is unfair for frontline staff involved. For example, people with unreasonable demands would achieve their goals by insisting on what they want or even by abusing the system and staff. The public are learning to use some “bullying attitude” to satisfy their needs. Finally, the staff have	Culture of increasing number of complaining is result especially when the senior staff tried to avoid the issues. This is unfair for frontline staff involved.

Number	Participant Code	Content	Key Word
		to handle routine work as well as facing the stress from customers who have rude attitude.	
20	G26	<p>1) The review system on IOD involves only system but not personality</p> <p>2) Positive attitude and methods should be used in handling medical error. Staff should not blame one another.</p> <p>3) Feedback from senior staff not only to the outsider but also to the frontline after the injury, accident or incidence and so no. Indeed, it has never got feedback to our internal when the issue is raised from either external or internal people. Since we never have any feedback from the senior staff after the investigation of the issue, we never learn to do it right without growing.</p> <p>4) Senior level only provides the hardware in related to the OH&S issue but never pay attention to the software Which are the frontline staff's need. For example, when OH&S launched a campaign about prevention of t back</p>	<p>1) The review system on IOD</p> <p>2) Attitude and methods should be used in handling medical error. Staff should not blame one another.</p> <p>3) They never got feedback to our internal when the issue is raised from either external or internal people. Since we never have any feedback from the senior staff after the investigation of the issue, we never learn</p>

Number	Participant Code	Content	Key Word
		<p>injury, the hospital arranges the electric bed for us. Do they think about the space, time for work and manpower in the ward as priority before to buy those electric beds? Finally, our hospital got the new bed but still lack of frontline staff to lift the patient and achieve the patient need. For example staff need to help the patient to operate the bed, which need to occupy our limited time when work. As a result, the electric bed does not solve the problem. We still have back or soft tissue injury. Staff don't bother to report if not immediate hurt. However, the chronic back and soft tissue injury could be another concern, which is present in different way!!</p>	<p>to do it right without growing.</p> <p>4)Senior level only provides the hardware in related to the OH&S issue but never pay attention to the software</p>

Appendix 38

The Operation of the Policies

Number	Participant Code	Content	Key Word
1	A61	All policies available in the internet portal and are not required to remember all details since too much information.	Available in the internet. Not required to remember all
2	A61	Only the mandatory program eg: fire drills and first aid program. Otherwise, no time, not interested	Only the mandatory
3	A5	With the heavy workload we don't have time to search in the internet. In a station with open setting, visitors may misunderstand that we are not doing work related thing in the internet. After work, no time and try not to touch anything related to work.	Heavy workload, don't have time. After work, no time and try not to touch anything related to work
4	A61	Only the offices staff is required to do the ergonomic evaluation .However, the nurse in the front line are not included since they have limited usage with the computer	Only the offices staff is required to do the ergonomic evaluation.
5	A61	Nurses only deal with DSE with short period of time. They need to walk around and check for the patient. Well.....lifting or human handling	Nurses only deal with DSE with short period of time.

Number	Participant Code	Content	Key Word
		work, not a problem at all	
6	A61,A5	There are 3 changes in the OHS manager within 3 years. The existing one has been only working for few months. A5 Yes, that is fact	3 changes in the OHS manager within 3 years.
7	A61	Work stress is too abstract and it is difficult to report.	Too abstract and it is difficult to report.
8	A61,A5	Majority of OH&S courses/training materials are obtained from the internet, however, other techniques and physical skills can only acquired through practices. For example, lifting the patience .A5: Have you report to the IT or related parties?A61: Don't brother!	Techniques and physical skills can only acquired through practices but not the internet course. Don't brother to report!
9	D103	Where I can get the information? In the intranet? For me, this has a technical issue. You are busy at work and have no time to get into the intranet. After work, you can't access the intranet at home.	Busy at work and have no time to get into the intranet. After work, you can't access the intranet at home.
10	E238	Staff have to know the file location. Only little information is received about infection control policy. Well, you should learn and review them if you really need to!! It is hard for the part time OHS representative to learn all	Know the file location. Only little information is received. Learn and review them if

Number	Participant Code	Content	Key Word
		<p>policies. A full time OHS post would different since he/she should know better and able to lead the rest of the OHS representatives on the ward level.</p> <p>Most of the time, hospital paid for the OHS course for the hospital staff. Not many staff are able to join due to limited time at work or personal issue.</p>	<p>you really need to.</p> <p>Hard for the part time OHS representative to learn all policies.</p> <p>Hospital paid for the OHS course for the hospital staff.</p> <p>Not many staff are able to join due to limited time.</p>
11	G26	<p>All mentioned policies and procedures are available in the ward and in the hospital intranet.</p> <p>Never remember all related detail. If come across the related issue then will go for the reference.</p>	<p>Never remember all related detail.</p>

Appendix 39

Do not understand the Content

Number	Participant Code	Content	Key words
1	B58	Not aware of further details of the policies.	Not aware of further details.
2	B3 and B58	Not sure and not clear of the details for being able to talk to the Unit Management or senior. We are able to show our concerns immediately.	Not sure and not clear of the details.
3	D491	The radioactive materials not very understand.	Not very understand.
4	D491	Workplace harassment and violence and their related policies are not clearly written down.	Not clearly written down.
5	B58	Nurse deals with needle or sharp objects all the time at work, we should be aware of the related policy.	Nurse deals with needle or sharp objects all the time at work, we should be aware of the related policy.
6	D260	Needle stick injury is most easy to remember .We need to teach the student the proper way in handling and prevention.	Needle stick injury is most easy to remember .We

Number	Participant Code	Content	Key words
			<p>need to teach the student the proper way in handling and prevention.</p>
7	D476	<p>Definitely related to the OHS since we need to do the audit each year for the hospital staff. That's very common phenomena .You would pay more attention to the related information when you come across the issue. For example, I need to reassess the old and new staff's skill after their long leave including maternity leave and sick leave.</p>	<p>need to do the audit each year for the hospital staff.</p> <p>You would pay more attention to the related information when you come across the issue.</p>
8	E255 and 232	<p>Infection control policy in the "O" program. Staff must read the OHS policies which is an easy way in the ward level.</p>	<p>Staff must read the OHS policies which is an easy way in the ward level.</p>
9	E238	<p>Message and information are available and we should read prior the audit.</p>	<p>Message and information are available and we</p>

Number	Participant Code	Content	Key words
			should read prior the audit.

Appendix 40

Management of Injury On Duty

Number	Participant Code	Content	Key words
1	G26	<p>If someone with long sick leave, which besides the IOD, which will go to the cluster level for further management. The related service would be provided by the cluster base. Ms XX is the one to be contacted if there is related issue .There is proper procedure. She would contact the related staff right after the report. I experienced the rehabilitation service from the cluster base. That's very impressive for such 'secret association' as recalled. A lady called me who knew my injury and all the details. She asked me whether I need.</p>	<p>Long sick leave, which besides the IOD, which will go to the cluster level for further management.</p>
2	A19	<p>The ICN arranged an appointment for me with the in-house doctor who refers me to specialists. There are the HA's QEH's HIV. Last but not the least, a follow up section from the OHS Manager. A61: Yes, hospital has related protocol for such incidence.</p>	<p>The ICN arranged an appointment for me with the in-house doctor who refers me to specialists. There are the HA's QEH's HIV. Last but not the least, a follow up section from the OHS Manager. A61: Yes, hospital has related</p>

Number	Participant Code	Content	Key words
			protocol for such incidence.
3	D47 1	I experienced a needle stick injury. Reported the whole procedure to the related parties. I was arranged a medical review in the hospital. Unexpectedly, I received a letter from the Department of Health reminding me that I do have the right to claim the injury anytime in the future since this is IOD. This is my personal experience. I was very impressed the hospital reported to the related parties. I feel I was taken care and received feedback from staff of high level. I will never know if you are not in the accident.	I was arranged a medical review in the hospital. Unexpectedly, I received a letter from the Department of Health reminding me that I do have the right to claim the injury anytime in the future since this is IOD.
4	B3	Individual bulling case ,Do not think about it and report to the UM who will follow the case and work on it. The problem is addressed by the senior level and with the support from the UM,I am not worried!! I don't consider this as work stress!!	The problem is addressed by the senior level and with the support from the UM,I am not worried!!
5	D471	According to the report, injury occurred 3 to 4 times a month due to the razor blade cut. Although related talk and seminar were given, these have been happening. Finally, hospital changes the razor to	To the report, injury occurred 3 to 4 times a month due to the razor blade cut.

Number	Participant Code	Content	Key words
		clipper which reduce the number injury.	Finally, hospital changes the razor to clipper which reduce the number injury.
6	D491	<p>Recently, hospital has policy to protect the staff in abuses. If the patient or relative has unreasonable demand and staff are abused, patients will be black listed and never be admitted again. Not much case. There was a case last year and was reported in newspaper. The related patient was asked to be transferred to another hospital because our hospital is unable to provide the service to this patient.</p>	<p>Recently, hospital has policy to protect the staff in abuses. If the patient or relative has unreasonable demand and staff are abused, patients will be black listed and never be admitted again.</p> <p>There was a case last year and was reported in newspaper. The related patient was asked to be transferred to another hospital</p>

Appendix 41

Learning from Others

Number	Participant Code	Content	Key words
1	B3	<p>My colleague reported a case to Injury on Duty (IOD) that I learnt the reporting procedure.</p> <p>For my understanding, I shall report to the nurse in charge of the shift followed by UM and the IOD. The staff will send to the OPD for the medical assessment. The OHS department will be informed which will fill the form required by the Labour Department.</p>	<p>My colleague reported a case to Injury on Duty (IOD) that I learnt the reporting procedure.</p>
2	D260	<p>A student had eye injury because the suction secretion spread into the eye. We reported the case to the senior according to the protocol.</p>	<p>A student had eye injury..... We reported the case to the senior according to the protocol.</p>
3	D476	<p>Similar incident happened in my ward. The tracheotomy secretion spread into a student's eye while she attempted to perform the tracheotomy suction. Our staff tried to avoid this from happening but secretion did accidentally spread into eyes even she had glasses on. This is reported to senior.</p>	<p>Similar incident happened in my ward.</p>

Number	Participant Code	Content	Key words
4	D476	Staff had stretcher rolled over the foot with fracture as a result. This is reported to the senior.	Staff had stretcher rolled over the foot with fracture as a result.
5	G26	Again, soft tissue injuries, back injury and muscle strain were reported. In our hospital, in 3 to 4 cases, some staff are unable to work and have to retire early after rehabilitation. More cases relating to chronic muscle strain are found because staff are aging staff.	Soft tissue injuries, back injury and muscle strain were reported.

Appendix 42

Positive Attitude Towards OHS Activities

Number	Participant Code	Content	Key words
1	B3	We are going out with colleagues for meals instead of any work related activity.	With colleagues for meals instead of any work related activity.
2	B58	We do have activities, which is nearby the hospital. No one from the hospital arrange any activities officially. Activities such as tennis and swimming are organized by the colleagues whose has a club house in where they live. This is private in nature.	Activities such as tennis and swimming are organized by the colleagues whose has a club house in where they live. This is private in nature.
3	D491	No person was assigned with volunteer only. This does not belong to the Human Resource Department nor any department in the hospital only voluntary staff are in charge of the club.	This does not belong to the Human Resource Department nor any department in the hospital only voluntary staff are in charge of the club.
4	E232	This is not a formal or official program but it is an interest group organized the outsider.	Not a formal or official program but it is an interest group organized the outsider.
5	G26	No, these are informal and unofficial activities. Since people have different	These are informal and unofficial activities.

Number	Participant Code	Content	Key words
		<p>interests and hobbies, they group together and open classes for other to join. No enrolment is needed and just join by filling the activity form. Some do need to enrol prior the activity For example: junk trip, outing.</p>	<p>They group together and open classes for other to join. No enrolment is needed and just join by filling the activity form.</p>
6	G26	<p>There is another experience. I join the stress management and first aid for counselling. This is an on-call voluntary work besides the nursing job.</p> <p>I need to learn the basic counselling skill which is taught by the Clinical Psychologist. I am required to be on-call on roster base.</p> <p>In fact, not only the nurses from ward level are included in this voluntary work, different level of staff are recruited too in the hospital .They are HCA, social worker, physiotherapist, clerk and doctor. In general, doctor will be the coordinator in the team.</p> <p>During the participation, relationship between staff is enhanced. For example, I'm able to learn more from others and</p>	<p>I join the stress management and first aid for counselling. This is an on-call voluntary work besides the nursing job.</p> <p>During the participation, relationship between staff is enhanced. For example, I'm able to learn more from others and also know more people besides our nursing team.</p> <p>our hospital has a staff passed away unexpected. Colleagues and family had sudden shock.</p> <p>We provided a proactive service to the related wards.</p> <p>Although we were not offering any professional counselling</p>

Number	Participant Code	Content	Key words
		<p>also know more people besides our nursing team.</p> <p>In fact, not many calls since I am voluntary. Most deeply experience was: SARS. Our team join with the cluster team and did the outreach service for the hospital which were affected by SARS.</p> <p>We were leading the team to deliver the sweet soup to the staff there. We cared our colleagues and felt the warmth that is fighting for lives to serve the public when G26 started to tearing.</p> <p>In addition, our hospital has a staff passed away unexpected. Colleagues and family had sudden shock. We provided a proactive service to the related wards.</p> <p>Although we were not offering any professional counselling for the colleague, we were there to listen and pass the tissue paper when the colleague was crying. People felt being cared and there is cohesiveness among colleagues”.</p>	<p>for the colleague, we were there to listen and pass the tissue paper when the colleague was crying. People felt being cared and there is cohesiveness among colleagues”.</p>

Appendix 43

Lack of Initiative

Number	Participant Code	Content	Key words
1	A61	Majority of OH&S courses/training materials are obtained from the intranet, however, other techniques and physical skills can only acquired through practices. For example, lifting the patience A5: Have you report to the IT or related parties? A61: Don't brother!!	Majority of OH&S courses/training materials are obtained from the intranet, however, other techniques and physical skills can only acquired through practices. For example, lifting the patience
2	A61	Only the mandatory program. For example: fire drills and first aid program. Otherwise, no time, not interested.	Only the mandatory program.
3	B3	For me, I join the Children infection disease 3 day seminar in PMH by my own interested and own pay.	For me, I join the Children infection disease 3 day seminar in PMH by my own interested and own pay.
4	E238	Most of the time, hospital paid for the OHS course for the hospital staff . Not many staff are able to join due to limited time at work or	Most of the time, hospital paid for the OHS course for the hospital staff . Not many staff are able to join

Number	Participant Code	Content	Key words
		personal issue.	due to limited time at work or personal issue.

Appendix 44

OHS Accessibility

Number	Participant Code	Content	Key words
1	A19 and A61	It would be nice if some sports and fitness class can be organized near to the community. It would be a great incentive if they are easily accessible.	If some sports and fitness class can be organized near to the community. Great incentive if they are easily accessible.
2	B58	There is room for improvement including the facility in the hospital. As I know. There are gym and rest room in other hospitals which there is none in ours.	Gym and rest room in other hospitals which there is none in ours
3	B58	We do have activities, which is nearby the hospital. No one from the hospital arrange any activities officially. Activities such as tennis and swimming are organized by the colleagues whose has a club house in where they live. This is private in nature.	No one from the hospital arrange any activities officially. Activities such

Number	Participant Code	Content	Key words
			<p>as tennis and swimming are organized by the colleagues whose has a club house in where they live. This is private in nature.</p>
4	B3	<p>We are going out with colleagues for meals instead of any work related activity.</p>	<p>For meals instead of any work related activity.</p>
5	D491	<p>The chaplain service for the patients and staff. Regular meeting is also provided for the staff if they want to join.</p> <p>About half year ago, there are resources for the frontline staff to express their feeling and to reduce their stress. A clinical psychologist provides free service keeping the client anonymous.</p>	<p>The chaplain service for the patients and staff.</p> <p>A clinical psychologist provides free service keeping the client</p>

Number	Participant Code	Content	Key words
			anonymous.
6	E232, E255 and 232	We paid \$22 will have a lunch and able to join the gathering. This talk is held on every Tuesday. The guests include popular artist, doctor and other speakers with relevant experience. E255 and 232 “Yes, I had experience to join this talk”.	have a lunch and able to join the gathering. This talk is held on every Tuesday.
7	E255	Staff are able to chat with the Chaplain anytime without any referral. We can vent out our emotion anytime if we want.	Staff are able to chat with the Chaplain anytime without any referral.
8	G26	Since our hospital has religious background, which is added value in the Oasis resource and form a group namely “XX club”. This club held few activities per year and supported by colleague. For example: game, happiness index self test, cake making then some small gift will issue to the staff after the game or gathering.	This club held few activities per year and supported by colleague.
9	G26	There is no set of activities. It really depends on the trend and the preferences of the staff. For example: in the hospital entry you can see some photographs	No set of activities. It really depends

Number	Participant Code	Content	Key words
		<p>posted showing some activities there. There are always similar activities available for staff to join.</p>	<p>on the trend and the preferences of the staff.</p>
10	B58	<p>We do have activities, which is nearby the hospital. No one from the hospital arrange any activities officially. Activities such as tennis and swimming are organized by the colleagues whose has a club house in where they live. This is private in nature.</p>	<p>Activities such as tennis and swimming are organized by the colleagues whose has a club house in where they live. This is private in nature.</p>
11	D228	<p>Other than gym, we have other classes such as Chinese Herb class, handcraft and some other leisure activities</p>	<p>Other than gym, we have other classes such as Chinese Herb class, handcraft and some other leisure</p>

Number	Participant Code	Content	Key words
			activities
12	D260	Sports and classes like badminton, tennis and basketball. In public recreational centre near the hospital.	Sports and classes like badminton, tennis and basketball. In public recreational centre near the hospital.
13	D491	There are stress management yoga and I join swimming. There are wellness and fitness class. Staff can go to gym room at the physio centre and badminton class is available too. We have staff corner. There are different activities. For example: , there are singing club, tennis club, golf club, hand craft , badminton club and whatever you can think of .No political issue!! Haha....This concept is raised by the senior level who wants to open a channel for the staff to show their concerns. More clubs and activities are organized. No person was assigned with volunteer only. This does not belong to the Human Resource Department nor any department in the hospital only voluntary staff are	There are stress management yoga and I join swimming. There are wellness and fitness class. Staff can go to gym room at the physio centre and badminton class is

Number	Participant Code	Content	Key words
		<p>in charge of the club.</p>	<p>available too.</p> <p>We have staff corner. There are different activities. For example: , there are singing club, tennis club, golf club, hand craft , badminton club and whatever you can think of .No political issue!!</p>

Appendix 45

Timing

Number	Participant Code	Content	Key words
1	B58	Only the enrolment when I'm still on duty . I will join if I am released from my work duty. Otherwise, rarely.	I will join if I am released from my work duty. Otherwise, rarely.
2	D491	The nursing staff would have difficulty to join the club due to the shift work Sometime, the activity is held by the club in the hall. There are about 20 people join the activities. Not all the members.	The nursing staff would have difficulty to join the club due to the shift work
3	D491	Sometime, the activity is held by the club in the hall. There are about 20 people join the activities. Not all the members.	The activity is held by the club in the hall. There are about 20 people join the activities. Not all the members.
4	E232, E255 and 232	The talk is held on every Tuesday. The guests include popular artist, doctor and other speakers with relevant experience. Yes, I had experience to join this talk.	The talk is held on every Tuesday. E255 and 232:Yes, I had experience to join this talk.
5	E238	Most of the time, hospital paid for the OHS course for the hospital staff . Not	Most of the time, hospital paid for the OHS course for the

Number	Participant Code	Content	Key words
		many staff are able to join due to limited time at work or personal issue.	hospital staff.
6	G26	<p>One or twice a year because of limited time schedule. Seem better now. The related activity occurs during lunch time at 1300 , 1530 , 1700 or later in order to fit the various duty times.</p> <p>Since our hospital has religious background, which is added value in the Oasis resource and form a group namely “XX club”. This club held few activities per year and supported by colleague. For example: game, happiness index selftest, cake making then some small gift will issue to the staff after the game or gathering.</p>	<p>One or twice a year because of limited time schedule. Seem better now. The related activity occurs during lunch time at 1300 , 1530 , 1700 or later in order to fit the various duty times.</p> <p>This club held few activities per year and supported by colleague</p>

Appendix 46

Right Facilities but Wrong Approach

Number	Participant Code	Content	Key words
1	A61	There are 3 changes in the OHS manager within 3 years. The existing one has been only working for few months.A5: Yes, this is the fact	There are 3 changes in the OHS manager within 3 years.
2	A61	Majority of OH&S courses/training materials are obtained from the internet, however, other techniques and physical skills can only acquired through practices. For example, lifting the patient	Majority of OH&S courses/training materials are obtained from the internet, however, other techniques and physical skills can only acquired through practices.
3	D103	Where I can get the information? In the intranet? For me, this has a technical issue. You are busy at work and have no time to get into the intranet. After work, you can't access the intranet at home.	Busy at work and have no time to get into the intranet. After work, you can't access the intranet at home.
4	D471	If more administrative personnel take a look at the service at the, it will be helpful .Instead of face to face communication; we usually have communication in written form only. It feels better if there are more face to face	We usually have communication in written form only. It feels better if there are more face to face

Number	Participant Code	Content	Key words
		<p>communication for this shows the care and warmth from them.</p>	<p>communication for this shows the care and warmth from them.</p>
5	D476	<p>Yes, this is true!! Action rather than documentation are needed to express their concern. Most of the time, the senior staff do not have much feedback. However, busy is not an excuse. For the senior staff to understand what is happening in the frontline, they should experience it.</p> <p>They cannot just observe and leave but never stand on our shoes!! Sometimes, the senior staffs does watch the frontline staff verbally abuse by the patient, relative or even the doctor. They should know how difficult our positions are. I very much appreciated if the senior staff could do it!!</p>	<p>Action rather than documentation are needed to express their concern.</p>
6	G26	<p>The review system on IOD involves only system but not personality</p> <p>Positive attitude and methods should be used in handling medical error. Staff should not blame one another. Feedback from senior staff not only to the outsider but also to the</p>	<p>Review system on IOD involves only system but not personality.</p> <p>Positive attitude and methods should be used in handling medical</p>

Number	Participant Code	Content	Key words
		<p>frontline after the injury, accident or incidence and so no. Indeed, it has never got feedback to our internal when the issue is raised from either external or internal people. Since we never have any feedback from the senior staff after the investigation of the issue, we never learn to do it right without growing.</p>	<p>error. Staff should not blame one another.</p>
7	G26	<p>Senior level only provides the hardware in related to the OH&S issue but never pay attention to the software Which are the frontline staff's need. For example, when OH&S launched a campaign about prevention of t back injury, the hospital arranges the electric bed for us. Do they think about the space, time for work and manpower in the ward as priority before to buy those electric beds? Finally, our hospital got the new bed but still lack of frontline staff to lift the patient and achieve the patient need. For example staff need to help the patient to operate the bed, which need to occupy our limited time when work. As a result, the electric bed does not solve the problem. We still have back or soft tissue injury. Staff don't bother to report if not immediate hurt. However, the chronic back and</p>	<p>Senior level only provides the hardware in related to the OH&S issue but never pay attention to the software Which are the frontline staff's need.</p>

Number	Participant Code	Content	Key words
		soft tissue injury could be another concern, which is present in different way!!	

Number	Participant Code	Content	Key words
1	B6	<p>“I can see there is room for improvement in the OHS department even they are improving the service. With limited resource, They try to help the staff at work. 1) They are using their heart to help the staff. For example: the only lift is going for the maintainer but the OHS department using various way to teach the frontline staff in lift and transfer the patient from floor to floor in order to minimize the related risk. 2) Good communication between staff and department eg: Follow-up work with the related incidence, any incidence from the public hospital (HA) then immediate to share the case with the hospital staff in order to prevent the similar incidence happen. 3) Using the reminder to remind the hospital staff for important event and activities, try to make the OHS poster to remind the hospital staff any work hazard”. frontline, they should experience it.</p>	<p>With limited resource, They try to help the staff at work.</p> <p>1) They are using their heart to help the staff.</p> <p>2) Good communication between staff and department.</p> <p>3) Using the reminder to remind the hospital staff for important event and activities, try to make the OHS poster to remind the hospital staff any work hazard”.</p>

Number	Participant Code	Content	Key words
2	C3	Staff concerned in the OHS issue would be isolated and affected negatively at work.	Staff concerned in the OHS issue would be isolated and affected negatively at work.
3	D471	“If more administrative personnel take a look at the service at the, it will be helpful .Instead of face to face communication; we usually have communication in written form only. It feels better if there are more face to face communication for this shows the care and warmth from them”.	We usually have communication in written form only. It feels better if there are more face to face communication for this shows the care and warmth from them”.
4	D476	Yes, this is true!! Action rather than documentation are needed to express their concern. Most of the time, the senior staff do not have much feedback. However, busy is not an excuse. For the senior staff to understand what is happening in the frontline, they should experience it. They cannot just observe and leave but never stand on our shoes!! Sometimes, the senior staffs does watch the frontline staff verbally abuse by the patient, relative or even the doctor. They should know how difficult our positions are. I very much appreciated if	Action rather than documentation are needed to express their concern. They cannot just observe and leave but never stand on our shoes!!

Number	Participant Code	Content	Key words
		the senior staff could do it!!	
5	D491	<p>We have staff corner. There are different activities. For example: , there are singing club, tennis club, golf club, hand craft , badminton club and whatever you can think of .No political issue!! Haha....This concept is raised by the senior level who wants to open a channel for the staff to show their concerns. More clubs and activities are organized</p>	<p>We have staff corner. There are different activities. For example: , there are singing club, tennis club, golf club, hand craft , badminton club and whatever you can think of .No political issue!! This concept is raised by the senior level who wants to open a channel for the staff to show their concerns.</p>

Appendix 48

Implication for Each Individual Hospital Involved in the Study

Hospital A:

- 1) Communication between hospital administrative, middle management and frontline staff have barrier.
- 2) Inadequate knowledge of OH&S by middle management.
- 3) Frequent to change the OHSP within short period of time: three change of OHSP within three years doe one site.
- 4) Re-active approach between OHSP and frontline staff.
- 5) The wording for the OH&S policy and terminology with difficulty for frontline nursing staff to understand.
- 6) Inadequate OHS ownership in different stakeholders.
- 7) No clear definition and direction of OHS.
- 8) The existing OH&S training method may not suit for all level of staff for example manual handling only focusing online but limited with practical section.
- 9) Part time and casual staff are off loop in OH&S knowledge.
- 10) Less attendance rate in non- mandatory OH&S course.
- 11) Under reporting the OH&S concern and incidence.
- 12) Employees lack of belonging to the hospital.

- 13) Fragmented OHS in different department for example: infection control , Human Resource Department and Chaplaincy
- 14) Always over run the hand over time for more than half hour
- 15) Only half hour meal break and no official tea break during the work

Hospital B:

- 1) Backup and monitoring system for new join staff is inadequate.
- 2) Limited sport and leisure activities in hospital level.
- 3) Inadequate OHS ownership in different stakeholders.
- 4) Definition of OH&S and OHS is not clear.
- 5) Part time staff is off loop in OH&S knowledge.
- 6) Less attendance of non-mandatory OH&S course.
- 7) Under report of OH&S concern and incidence.
- 8) Some staff are working hard and ignore their personal health issue.
- 9) Fragmented OHS in different department for example: infection control, Human Resource Department and Chaplaincy
- 10) Only half hour meal break and no official tea break during the work

Hospital C:

- 1) Backup system for the frontline staff when implement a new system or process a new project onsite.

- 2) The confidentiality and privacy are inadequate in the OH&S reporting system.
- 3) Inadequate follow-up, review and feedback the reported OH&S issue to staff.
- 4) Fragmented OHS in different departments for example: infection control, Human Resource Department and Quality Assurance Department.
- 5) Under reporting the OH&S concern and incidence.
- 6) OHS operation is not transparent enough to the frontline staff.
- 7) No clear definition of OHS and related terminology for example: bullying, dermatitis.
- 8) Inadequate backup system to support the new comer.
- 9) Less attention and reporting with non-mandatory OH&S course and incidence

Hospital D:

- 1) Without official and regular review for OH&S unit representative.
- 2) OH&S unit representative and staff with limited report onsite OH&S concern for example: senior staff bullying junior staff or new comer.
- 3) Shift working staff lack of chance to participate the hospital wellbeing program.
- 4) Lack of evidence to review the OH&S policies and content.
- 5) Part time staff with difficult to access and update their OH&S knowledge.
- 6) Communication between senior management and clinical staff has gap.
- 7) OH&S Handover always overrun and without compensation to staff.
- 8) Gap between senior management to modify the clinical working system.

- 9) Inadequate OHS knowledge to the frontline staff for example: skin problem, MRSA, ESBL reporting.
- 10) The existing new comer buddy system is not effectiveness.
- 11) Under report the bullying case especially senior staff to junior staff.
- 12) No full time OHS position to handle and analysis the OH&S issue and data.
- 13) Fragmented OHS in different department for example: infection, Human Resource Department, Chaplaincy and clinical psychologist
- 14) Always over run more than a hour in the hand over time
- 15) Only half hour meal break and no official tea break during the work

Hospital E:

- 1) No full time OHS position to handle and analysis the OH&S issue and data.
- 2) The existing back up and buddy system for new comer is not effectiveness.
- 3) Lake of clear definition in OHS, OH&S and related terminology for example: bullying, occupational dermatitis.
- 4) Inadequate OH&S ownership in frontline staff.
- 5) Inadequate OH&S activities to the staff family.
- 6) Inadequate resting space and facility for staff during the meal break and after work.
- 7) Less attendance in non- mandatory OH&S items.
- 8) Under report with non-mandatory OH&S concern and incident.

- 9) Fragmented OHS in different departments for example: infection control, Human Resource Department and Chaplaincy

Hospital G:

- 1) Lack of communication between senior management level and the frontline staff when implement or install a new system into the worksite.
- 2) Limited feedback and follow-up with staff after OH&S incident is happened.
- 3) Lack of transparent when processing the OH&S policy to the frontline staff.
- 4) Less effectiveness in existing new comer buddy system.
- 5) Replacing system for staff sickness is not working.
- 6) Under report the non-mandatory OH&S incident and concern.
- 7) Less attendance in non-mandatory OH&S courses and programs.
- 8) Fragmented OHS in different departments for example: infection control, Human Resource Department and Chaplaincy

Appendix 49

For Each Individual Hospital

Hospital A:

- 1) To keep a good practice in handling the reported IOD.
- 2) To evaluate and follow-up the long sick leave employee's need and step by step arrangement for return to normal duty.
- 3) To consult the user prior implement the new facility or system.
- 4) Communication between hospital administrative, middle management and frontline staff can be improved through the transparent during the work process.
- 5) To reinforce the OH&S knowledge and important to the middle management, since OH&S is part of the job.
- 6) To investigate the reason three changed of OHSP within three years and set up the strategic plan to correct the existing problem.
- 7) The wording for the OH&S policy can be considered an easy understanding by all level of staff.
- 8) Has room to enhance the OHS ownership in different stakeholders.
- 9) Clear definition of OHS is required.
- 10) To review the existing OH&S training whether is all appropriate and effective for the different level of staff for example: whether the manual handling training need extra practical time rather only on-line training.

- 11) Part time and casual staff also requires to keep up to date OH&S knowledge and loop on the system.
- 12) To extend the OH&S item into mandatory course and reporting item Hospital B:
- 13) To maintain a good support in middle management for the OHS.
- 14) To consider the backup and monitoring system for new join staff in order to get through the adaptation period an easy way.
- 15) To investigate the intra work break system for clinical staff
- 16) To investigate the reason for over run handover time

Hospital B:

- 1) To consider sport and leisure activities in hospital level.
- 2) To consider to enhance the OHS ownership in different stakeholders.
- 3) Clear definition of OHS is required.
- 4) Part time staff need to reinforce and up to date OH&S knowledge.
- 5) To extend the OH&S item into mandatory course and report.
- 6) Some staff is working hard and ignores their personal health issue, OHS should have proactive role to follow-up and monitor.
- 7) To investigate the intra work break system for clinical staff
- 8) To investigate the reason for over run handover time

Hospital C:

1. To consider backup system the frontline staff when implement a new system onsite.
2. To consider the confidentiality and privacy during the OH&S reporting system.
3. Follow-up, review and feedback the reported OH&S issue from staff.
4. To considerate a full time person to coordinate and monitor OHS related data for example: needle stick injury, back injury, bullying, workplace violence and work stress in order to have evident base to make a practical recommendation.
5. Make OHS operation more transparent into the frontline staff, in order to encourage the frontline staff for OH&S concern reporting.
6. Clear definition of OHS is required.
7. The backup or buddy system to support the new comer.
8. To extend the OH&S items into mandatory course and report.

Hospital D:

1. Regular review for example every two years and change the OH&S unit representative could provide more change for different staff to participate the related activities.
2. OH&S unit representative and staff should be encouraged for onsite reporting OH&S concern for example: senior staff bullying junior or new comer.
3. To consider the shift working staff into the wellbeing program for example: to hold the program besides the office hour.
4. Regular monitor and refresh the frontline staff in relation of OH&S policies

5. To reinforce the OH&S policies content to the frontline staff and review the relation wording on regular basis in order to confirm the different level of staff is understand the related content.
6. To consider the part time staff can have easy access to read and update their OH&S knowledge.
7. To considerate a full time person to coordinate and monitor OHS related data for example: needle stick injury, back injury, bullying, workplace violence and work stress in order to have evident base to make a practical recommendation.
8. Clinical round by the Senior management can be considered in order to review the existing clinical operation and staff need for example: how to shorten the handover time in order to get the staff able to off on time, to confirm the frontline staff has a proper meal break at work, whether the existing practice can minimize the drug administration distraction.
9. To reinforce the OHS knowledge to the frontline staff and encourage for related reporting for example: skin problem, MRSA, ESBL reporting
10. New comer buddy and backup system can be considered
11. Encouraged to report the bullying case either by the victim or witness with anonymous.
12. Make OH&S process with transparent status to the frontline staff.

Hospital E:

- 1) To considerate a full time person to coordinate and monitor OHS related data for example: needle stick injury, back injury, bullying, workplace violence and work stress in order to have evident base to make a practical recommendation.

- 2) To review the existing back up and buddy system for new comer is required any modification or not.
- 3) To keep the existing long sick leave staff workplace arrangement.
- 4) To make a clear definition of OHS for the frontline staff.
- 5) To reinforce the staff that OH&S is part of their duty and ownership.
- 6) OH&S activities can extend to the staff family.
- 7) Whether the existing resting facility is adequate for the staff need.
- 8) To consider extend the mandatory OH&S items

Hospital G:

- 1) To consult the frontline staff or user when implement or install a new system into the worksite.
- 2) Make the OH&S process with transparent for the frontline staff.
- 3) New comer buddy system is helping the related parties.
- 4) OH&S feedback to all related parties should be reviewed.
- 5) Replacing system for staff sickness.
- 6) To reinforce the OH&S reporting case.
- 7) To keep the existing IOD and long sick leave handling way.