FACTORS INFLUENCING HEALTH WORKERS' MENTAL HEALTH AND PRACTICES TO PROMOTE MENTAL HEALTH WITHIN THE HEALTH SECTOR WORKPLACE IN BRAZIL

Stella Maris C. P. Parreira
Brazil

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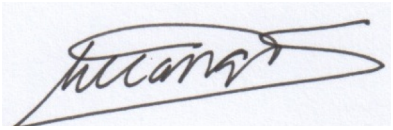
A thesis submitted in partial fulfillment of the requirement for the degree of Master of Public Health

by
Stella Maris C.P. Parreira
Brazil

Declaration:

Where other people's work has been used (either from a printed source, internet or any other source) this has been carefully acknowledged and referenced in accordance with departmental requirements.

The thesis **Factors influencing health worker's mental health and practices to promote mental health within the health sector workplace in Brazil** is my own work.



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ABSTRACT

Background: Work is an important aspect of human life. Poor working conditions, organization and context can affect the mental well-being of workers in the health sector leading to limited potential for work and a decrease in the quality of healthcare delivered to the population. In Brazil, mental disorders are the second most frequent cause of absenteeism among health workers.

Objective: This study reviews and discusses factors and practices influencing worker's mental health within the health sector workplace in order to provide recommendation for policies and practices to promote mental health in the Brazilian health sector.

Method: Literature review done on factors, Brazilian policies and practices influencing mental health among workers within the health sector workplace.

Findings: Factors such as excessive physical and mental workload, high amount of hours worked, working under time pressure, poor labor relations, violence at the workplace, and gender inequalities are all important aspects that contribute to fatigue and work-related stress in Brazil. There is lack of policies, organized structure and adequate working conditions to meet employee needs for a mentally healthy workplace.

Conclusion: Better distribution of healthcare workers within the country; policies and strategies to tackle third party violence; improvement of labor relations; quality in psychological and psychiatric assistance and implementation of strategies in work management and leadership are needed.

Recommendation: The government should reinforce worker's health policy by monitoring its implementation to ensure that the National Network of Worker's Health, and key stakeholders, implement and monitor strategies to improve wellbeing and mental health at workplace.

Key words: health workers, mental health, workplace, practices, health sector

Word count: 12,391

LIST OF ABBREVIATIONS

BIGS Brazilian Institute of Geography and Statistics

BRICS Brazil Russia India China South Africa

CPS Center for Psychosocial Support

FHP Family Health Program

GDP Gross Domestic Product

GHWA Global Health Workforce Alliance

HW Health worker

IHIN Interagency Health Information Network

ILO International Labour Organization

MGD Millennium Development Goal

MOH Ministry of Health

MOJ Ministry of Justice

MOLE Ministry of Labour and Employment

NNWH National network Worker's Health

NWHC National Worker's Health Conference

OECD Organization for Economic Co-operation and Development

OUJ Official Union Journal

RCWH Reference centers for Worker's Health

RNAO Registered Nurses' Association of Ontario

UHS Unified Health System

WAC Work Accident Communication

WHO World Health Organization

GLOSSARY

Bullying or mobbing	"Repeated vindictive, cruel, or malicious attempts to humiliate or undermine an individual or groups of employees" (International Labor Organization [ILO] & World Health Organization" [WHO] 2014a, p. 159).
Burnout	"An individual stress experience embedded in a context of complex social relationships, and it involves the person's conception of both self and others" (Maslach 2011).
Coping	"The process of dealing with internal or external demands that are perceived to be threatening or overwhelming" (American Psychological Association 2014).
Gini coefficient	"Measures the extent to which the distribution of income or consumption expenditure among individuals or households within an economy deviates from a perfectly equal distribution" (The World Bank Group 2014c).
health worker	"All paid workers employed in organizations or institutions whose primary intent is to improve health" in health sector (WHO 2006, p. 2).
INOVASUS	Brazilian prize to promote and disseminate good practices in health sector.
Physical violence	"The use of physical force against another person(s), which results in physical and/or psychological harm. Examples are pushing, pinching, beating, kicking, slapping, stabbing, shooting, and rape" (ILO & WHO 2014b, p. 87).
Psychological violence	"The intentional use of power, including threat of physical force, against another person or group that can result in harm to physical, mental, spiritual, moral or social development. It includes verbal abuse, bullying/mobbing, harassment, and threats" (ILO & WHO 2014b, p. 87).
Violence at workplace and third-party violence	"Incidents where staff are abused, threatened or assaulted in circumstances related to their work, including commuting to and from work, involving an explicit or implicit challenge to their safety, wellbeing or health. It includes physical and psychological violence, such as verbal abuse, harassment, bullying/mobbing and threat. The violence can be perpetrated by clients (third-party violence) or by colleagues" (Di Martino 2002, p. ix).
Work communication accident	Mandatory and standard accident notification that the employer has to do until the first day after the occurrence of accident in the workplace to social security (Ministry of Social Security [no date]).

INTRODUCTION

I worked as a psychologist in public general hospitals in São Paulo, southeast of Brazil. My experience there exposed me to the challenges faced by workers in their daily work within the health sector. Many of the workers who came to me for psychological help complained about fatigue and lack of energy. Most of their complaints were associated with crowded hospitals, staff shortages and increased workload; lack of modern and well maintained equipment, poorly maintained old buildings, lack of medicines, relationship problems with colleagues, and violence perpetrated by clients.

In my last job as a researcher, in the human resources department of secretariat of São Paulo state, I noticed that mental disorders were accountable for the second most important cause of absenteeism among health workers within the health sector. Absenteeism due to mental disorders is a serious problem as an affected individual may be off work for long periods of time. It also results in serious social and economic consequences for the worker who is sick; has negative repercussions for the employer due to loss of productivity and increased costs related to the absence of the worker; and has an impact on public health because of the risk of poor quality healthcare, either because the services are hindered due to a reduced number of workers or because staff are working with their potential compromised.

In Brazil, epidemiological and demographic transitions have drawn attention to problems related to non-communicable diseases, such as mental health issues. Furthermore, I believe that the timing for discussing mental health issues is crucial since worldwide, politicians and decision-makers are discussing the development of a agenda that will define the Millennium Development Goals after 2015.

Through this study I wanted to understand which factors, related to the working environment in the health sector, have affected the mental health of workers in Brazil. I have reviewed and discussed factors, policies and practices that influence workers' mental health within the health sector. I have included recommendations that contribute to promoting mentally healthy workplaces. The recommendations proposed in this study are intended to contribute to promoting mentally healthy workplaces, reduce absenteeism, improve workers' performance and, consequently, to contribute to improving the quality of health services delivered to the population.

CHAPTER 1 - BACKGROUND INFORMATION

1.1 - Brazil profile

Brazil is one of the largest countries in the world with a territorial area of 8,515,767,049 Km^2 covering almost half of the South American continent (Brazilian Institute of Geography and Statistics [BIGS] 2010a). The population was estimated at 201 million in 2013, distributed over five geographical regions (annex 1): north, south, northeast, southeast and central-west (BIGS 2013). Each region has a distinct socio-cultural, demographic and ethnic identity. The Federal republic of Brazil is ruled by a president, which for the first time is a woman, under a democratic regimen composed of 27 states and 5,565 municipalities (BIGS 2010b).

Since the establishment of economic measures to attain stability in 1994, Brazil has experienced strong growth and is currently considered an upper middle country (The World Bank Group 2014a). The Gross Domestic Product (GDP) per capita has grown from US$5,108 in 1996 to US$11,208 in 2013 (The World Bank Group 2014b). Social policies have been implemented resulting in a reduction of poverty from 34% in 2000 to 30.7% in 2010 (Paim et al 2011).

The impact of economic growth has translated into important changes for the Brazilian population. Illiteracy rates among people aged 15 or more decreased from 19.3% in 1991 to 9.3% in 2010 (Interagency health information network [IHIN] 2012), even though the functional illiteracy rate has remained high at 20.3% in 2009 (Paim et al. 2011). Living conditions have changed as well; the coverage of households (urban and rural) with piped water passed from 68% in 1991 to 84.4% in 2010, sewerage from 48.9% in 1991 to 76.1% in 2010 and refuse collection from 60.2% in 1991 to 87.5% in 2010 (IHIN 2012).

1.2 - Health sector

Advances have occurred in the health sector since the implementation of the Unified Health System (UHS) in 1988. Directed by principles of universality in access, equity, integrality, decentralization and social participation, the health in Brazil became a constitutional citizen's right and a state duty, providing comprehensive, preventive and curative care (Paim et al. 2011). Civil participation and health professionals efforts to strengthen UHS allied to the economic growth of the country resulted in important advances in availability, accessibility, acceptability and quality of care (Global Health Workforce Alliance [GHWA] & WHO 2013).

Life expectancy of Brazilians increased from 66.9 years in 1991 to 74.5 years in 2012 and the fertility rate passed from 2.73 in 1991 to 1.78 in 2011 per woman (IHIN 2012). Brazil has also seen an impressive decrease in mortality rates by half since 1990 (IHIN 2012, annex 2).

The averages of health indicators, such as life expectancy at birth, under-five mortality rate, fertility rate and maternal mortality rate, show that Brazil still has a health status below that of their neighboring countries. However, if the demographic and geographical conditions are taken into consideration, health improvements are considerably visible (WHO 2014a, annex 3). Among Brazil, Russia, India, China and South Africa (BRICS), Brazil demonstrates an advantage in terms of the situation of the health status of its citizens (WHO 2014a, annex 4).

Even though advances have been achieved, huge challenges still await a solution. Inequalities and huge disparities in Brazil are spread within the national territory. The Gini coefficient was 0.5277 in 2012 (IHIN 2012) and is one of the highest in the world resulting in inequalities in living, health and social conditions among the Brazilian population.

1.3 - Human resources for health

Improvements have also been achieved in relation to the health of workers. According to GHWA and WHO report (2013), there are 81.4 skilled health professionals per 10,000 population in Brazil, a number higher than the minimum recommendation (22.8/10,000), and the ratio of nurses to physicians is 3.6:1, higher than Organization for Economic Cooperation and Development (OECD) average which is 2.8:1. This capacity gives Brazil the conditions necessary to reach aims proposed in the Millennium Development Goals (MDG). However, inequalities can be seen for the geographical distribution of nurses and physicians (WHO 2009). According to the last GHWA and WHO report (2013) the geographical distribution of physicians was 7.1 physicians per 10,000 population for low subnational density and 40.9 per 10,000 populations for high subnational density (GHWA & WHO 2013).

In terms of availability of human resources for health and accessibility, Brazil was in a better position among BRICS (GHWA & WHO 2013, annex 5).

According to Machado et al. (2006), there were 1,639,605 health workers (HWs) in Brazil in 2000. This number was composed of individuals with a high level of education (physicians, dentists, biologists, pharmaceutics, nurses, psychologists, nutritionists, social assistants and vets) and elementary or medium level of education (laboratory technicians, technical biology, technical physiotherapy, technicians and nursing assistants, dental technicians, operator of medical and dental equipment, technicians of clinical laboratory, pharmacy technicians, health and environment agents, nursing attendants, midwives, auxiliary health laboratory). Of this group 69% were women working in nursing with an average of 20 to 40 hours per week. The largest group of workers had an elementary or medium level of education and were located in the

southeast region of Brazil. They were composed of technicians and auxiliary nurses.

CHAPTER 2 – PROBLEM STATEMENT, JUSTIFICATION, OBJECTIVES, METHODOLOGY, CONCEPTUAL FRAMEWORK AND LIMITATIONS

2.1 - Problem statement

Work is an important aspect of human life because it combines the social and economic values of an individual's life and contributes to the construction of a person's identity (WHO 2005).

According to Burton (2010, p. 15), a healthy workplace "is a place where everyone works together to achieve an agreed vision for the health and well-being of workers and the surrounding community. It provides all members of the workforce with physical, psychological, social and organizational conditions that protect and promote health and safety. It enables managers and workers to increase control over their own health and to improve it, and to become more energetic, positive and contented." Hence, the workplace must be understood in a broader sense because it involves not only the physical conditions of the place, but also includes the relationships between workers.

New HWs' skills and competencies have been required to meet health needs promoted by demographic and epidemiological changes (Dal Poz 2013). Moreover, HWs have to adapt to labor market conditions in a context of global economic crisis. As a consequence of the global financial crisis countries took measures, such as freezing the nursing workforce recruitment and reducing wages, in order to cut costs. The number of job vacancies tended to decrease and as a result employees accepted the working conditions offered, even if they were unsatisfactory. In response to inadequate remuneration, workers tend to increase the number of working hours and/or accept multiple jobs to ensure personal/family income (Alameddine et al. 2012). Some people have adapted to these changes but others have suffered from an increased workload. For these people, work becomes stressful because there are "excessive demands and pressures that are not matched to workers' knowledge and abilities, where there is little opportunity to exercise any choice or control, and where there is little support from the others" (Leka, Griffiths & Cox 2003, p. 5).

Those changes have also affected the health workforce in Brazil. A study carried out by the Ministry of Health (MOH) showed inequalities in terms of training and allocation of medical specialists. Despite Brazil having 1.8 physicians per 10,000 population, 1,304 municipalities lack medical specialists in 2010 due to social, epidemiological and demographic changes. These imbalances affected not only the population, which asks for better healthcare but also HWs who have an increased workload due to the poor distribution of professionals (Dal Poz 2013).

An unhealthy workplace includes poor work organization or the poor way that the work is designed, managed and systematized. Many aspects related to job content (repetitive, unpleasant, or risky tasks), workload (excessive tasks), working hours (strict, excessive or unpredictable hours), participation and control (poor decision making or poor control over work) contribute to poor working conditions. Furthermore, aspects related to the context of work such as job insecurity, unclear or conflicting role of the organization, bullying, harassment, third-party violence, poor communication and relationship with colleagues, poor leadership, conflict between family life and work, and many more, expose HWs to high levels of work related stress (Leka, Griffiths & Cox 2003). These aspects contribute to increased frustration, sadness, disinterest, discrimination and stigmatization, tiredness and fatigue, physical problems such as high blood pressure, musculoskeletal disorders, headaches etc. (Leka, Griffiths & Cox 2003). "In extreme cases, long term stress or traumatic events [invasion of armed gangs at workplace, for example] may lead to psychological problems and be conductive to psychiatric disorders resulting in absence from work and preventing the worker from being able to work again" (Leka, Griffiths & Cox, p. 8).

Mental disorders are changes in thoughts, emotions and behaviors clinically important as described in the International Code of Diseases 10 (WHO 2005). Mental problems are characterized by similar symptoms of mental disorders but with reduced severity. Although less severe, individuals with mental problems have decreased quality of life and perceive their effectiveness, competency and esteem as less valuable and have impaired intellectual and emotional capacity (WHO 2005, p. 12). Although mental problems and disorders are not triggered just by work-related factors, an unhealthy workplace can contribute to the unleashing of a serious mental illness. There are numerous people affected by mental problems in the workplace and they are neglected and often not accounted for in mental health statistics (WHO 2005). In the health sector, workers with mental problems can have a limited capacity to deal with the daily work routine. Furthermore, if mental health problems are not addressed there is a risk of them becoming more serious, which can result in a worker becoming temporarily or even permanently unable to work.

Mental disorders are an important problem in Brazil and they are the second most frequent cause of work absence (Barbosa-branco, Souza & Steenstra 2011; Ferreira et al. 2012; Mininel et al. 2013; Zechinatti et al. 2012). It is important to mention that information about the number of workers affected by mental health disorders is underestimated due to poor awareness and stigmatization and access of available specialized services.

Mental problems and disorders, which result from an unhealthy workplace, are an important issue as they can increase the risk of serious mental health issues such as substance use, depression, anxiety and work-related stress (WHO, 2005).

2.2 – Justification

"There is no health without HWs" is what the last report about workforce for health says (GHWA & WHO 2013). Hence, the development of studies to improve healthy workplaces is important. Promotion of health and well being at the workplace contributes to building a "well-performing health workforce". The results are a high quality of health service delivery and the best health outcome for the population (WHO 2014b).

Unhealthy workplaces expose HWs to high levels of work related stress, which can lead to mental health problems. Furthermore, the quality of the work is compromised if the HW is not mentally healthy. The teamwork's morale can be affected by the presence of colleagues who are only partially able to fully exercise their activities, resulting in a decrease of productivity. Increasing work absenteeism among HWs leads to a higher workload for the remaining staff and, consequently, exposes workers to higher levels of stress (WHO 2005). The social security expenses are costly for employers and the risk of impoverishment is increased for the employee due to health treatment expenses. Furthermore, this chain can contribute to an increase in the stigma and discrimination against people affected by mental disorders (Harnois & Gabriel 2000). This reality can change by the adoption of a comprehensive package of strategies to promote a healthy workplace (Brun, Biron & Ivers 2008; Harnois & Gabriel 2000).

Mental health problems are not registered in Brazilian health statistics. It is an important topic to be studied when taking into consideration the HW's risk of developing mental disorders due to unhealthy workplaces (Di Martino 2002; Mininel, Baptista & Felli 2011).

Although there is a lack of available data, I believe there is a hidden problem related to unhealthy workplaces and their association to mental problems among HWs in Brazil. From my experience, as a psychologist in different public hospitals in Sao Paulo, HWs have endured unhealthy workplaces. The majority of their complaints are: fatigue, high levels of work related stress and verbal violence perpetrated by patients. I believe it is important to identify specific factors within the health sector workplace that lead to mental health problems in order to prevent them before they become more serious. In that sense, I want to investigate what is written about this topic and what can be useful to Brazil in order to promote better mental health within the workplace.

This study will seek to understand the factors that contribute to unhealthy/ healthy workplaces and good practices to promote health and well being in order to provide recommendations for policy makers for the promotion of healthy workplaces specifically within the health sector.

2.3 – Objectives

2.3.1 – Overall objective

To review and discuss factors and practices influencing mental health within the health sector workplace and provide recommendations and practices to promote mental health in the Brazilian health sector.

2.3.2 - Specific objectives

- To identify organizational, environmental, sociocultural and population factors influencing mental health within the health sector workplace;
- To discuss current policies and practices in place in Brazil that address mentally healthy/unhealthy workplaces in the health sector;
- To identify practices to promote mental health and well being within the health sector workplace;
- To provide recommendations to improve policies and practices in the health sector in Brazil.

2.4 – Methodology

The present study is a literature review. The main sources for the review search were *Pubmed*, *Medline*, *Google Scholar* and *Scielo*. Grey literature was also included, such as government, academic and organizational websites related to health workers and mental health in English, Portuguese and Spanish. Since studies about mental health within the workplace are relatively few the literature search covered a period of ten years from 2004 to 2014.

The literature search was first extended to low/upper middle-income countries in Latin America and the Caribbean group due to socio cultural similarities. Very few studies were found, most of them in Brazil. Therefore, the literature search was extended to BRICS countries due to economic similarities. However, not enough studies on good practices were found so the search was further extended to include America, Europe and Australia, due to possibility that high-income countries would give more attention to this problem. Hence, the literature search was wide enough to include as many studies as possible that analyzed mental health within the workplace including low, middle and high-income countries.

The search used the following words in different combinations: organizational, work, healthy, unhealthy, workplace, health sector, physical factors/hazards, psychological factors/hazards, biological hazards, chemical hazards, wellbeing, gender, occupational hazard, discrimination, job insecurity, bullying, intimidation, sexual harassment, harassment, frustration, anxiety, depression, work related stress, burnout, role in organization, management, reward, equity, interpersonal relations, culture, home-work, government, rule and regulations, policies, workload, participation and control, job content and working hours, practices.

2.5 - Conceptual framework

The mental health at the workplace is systematically presented, analyzed and discussed according to an adapted conceptual framework for mental health within the workplace (Figure 1) based on the conceptual framework for public health guidance (Kelly et al. 2008).

The conceptual framework for public health guidance, developed by the National Institute for Health and Clinical Excellence, was adopted and adapted to better meet the purpose of this study. The primary conceptual framework was developed to provide public health guidance on "good promotion of health and prevention and treatment of ill health" (NICE 2012, p. 2). However, this primary conceptual framework allows the adaption for the construction of a "topic-specific framework" (NICE 2012, p. 18). In this study, the conceptual framework for promoting mental well-being at work (NICE 2012, p. 19-20; annex 6) was adapted by including stress-related hazard sub factors developed by Leka, Griffiths & Cox (2003).

Figure 1 - Adapted conceptual framework for mental health at workplace

Source: Kelly et al. (2008)

Mental health is defined as "a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community" (WHO 2013) and is centered around two elements: life world and life course.

Life world is a subjective "place" where thoughts and emotions are perceived, processed, analyzed and interpreted based on a person's judgment (Kelly et al. 2008). It constitutes the "centre of existence of the person" (*Ibid*, p. e18) and it includes the real and imaginary relations that the person establishes with people day-to-day (*Ibid.*). The manifestation of this subjective place becomes evident when a person expresses their perception:

"I try to leave my work at hospital when I go home but emotions aren't that easy to control. I worry about the patients that I know are dying and I can't help but to cry…it leaves me with an empty, heavy feeling inside. " (Smit 2005, p. 25)

Life-course refers to the impact of the "significant body" (Kelly et al. 2008, p. e18) of experiences that the person has accumulated during his/her life on his/her mental health. It includes heredity, socio cultural and geopolitical issues (poverty, for example) and a psychological component (deprivation of affection and care for long periods during childhood, for instance) (WHO 2005; WHO 2012). This body of experiences "reflects the immediate physical, social, psychological and emotional environment of the growing child, and then the adult" (Kelly et al. 2008, p. e18).

Life-course and life-world are the most particular and deep structures of human behavior and they affect the vulnerability of a person's mental health. A person who was separated from a "primary caregiver or deprived of nurturing" (WHO 2005, p. 22) for long periods of his/her childhood (a life course stressor) may develop mental problems/disorders. But these life course stressors can still be moderated, mediated or amplified by the life world component (Kelly et al. 2008). The vulnerability for developing mental problems/disorders may be higher or lower depending on the capacity for coping that the individual developed during their life (life world), for example. Using the previous example, if the same person during their lifetime had managed the development of satisfactory coping strategies to deal with life course stressors, they would be less vulnerable to developing mental problems/mental disorders.

The life course and life world components are also influenced by a larger context that is composed of organizational, environmental, population and sociocultural factors. For the purposes of this study we will mainly focus on factors related specifically to the work context. These factors influence and mark the history (life course) and the subjectivity (life world) of the individual, which in turn, influence their state of well-being or mental health. For instance, a HW may have had stressful experiences during the course of their personal work history, such as the invasion of armed gangs at their workplace or accident involving biological material or the death of patients. These experiences are part of their personal history (life course) and they will be absorbed, processed and interpreted based on an individual's capacity to adapt to stressful situations (life world). The quantity and the quality of stressors experienced can create pressure on the HW's life world, which can respond adequately to situations or not. When the HW loses their capacity to respond adequately to particular situations, their mental health can be affected.

Organizational factors are related to the content of work, such as workload, participation and control, job content and working hours (Kelly et al. 2008; Leka, Griffiths & Cox 2003; WHO 2005).

Environmental factors include physical, chemical and biological hazards such as exposure to sick people who are highly contagious or chemicals

that can induce injuries. Noise, pollution or building design may expose individuals to physical hazards. A person who had a fall due to poor building maintenance resulting in a head trauma can develop postconcussional syndrome (ICD 10 2010; WHO 1999).

Population factors refer to the intermediation between state, government, corporations and civil society through their rules and regulations. The elements include economic trends, which can impact job security, career development, status, pay and occupational health regulation (Kelly et al. 2008; Leka, Griffiths & Cox 2003).

Sociocultural factors describe political, social and cultural elements placed in society such as gender roles, hierarchy, power relations and violence that can influence the context of the work, such as the role of an organization, reward, equity, interpersonal relationships, organizational culture and home-work interface (Kelly et al. 2008; WHO 2005).

These factors interact, overlap and establish the causal approach to build on the body of objective (life-course) and the subjective experiences (life-world) of the person (Kelly et al. 2008).

In this study, factors related to life world and life course were not explored because my purpose in this study was to discuss factors in a public health context and not in a psychological context.

2.6 – Limitations

Since this topic has not been extensively addressed, there are few studies that make a direct link between organizational, environmental, population and sociocultural factors and the mental health outcome for HW's in the health sector. Because of this I concentrated on factors that are likely to cause mental health problems/disorders.

The quality and quantity of the data and studies, mainly in Brazil, are poor and restricted. The studies mostly reflect contexts restricted to one or a group of organizations (hospital or health facilities), located in a municipality or group of municipalities in a state of Brazil. Studies, which reflect the whole of Brazilian reality, are rare.

CHAPTER 3 – STUDY FINDINGS

3.1 – Organizational, environmental, sociocultural and population factors influencing the mental health of HWs in the health sector workplace

3.1.1 – Organization factors

Studies performed in South Africa (Hall 2004; Smit 2005; Mudaly & Nkosi 2013) highlighted problems with a shortage of staff resulting in increased workload, overcrowded facilities, increased work under time pressure and long hours. More than 30% of HWs reported working long hours with extra workload in the study carried out by Hall (2004) due to extra tasks like cleaning and laundry services.

South African workers seem to have little power in decision-making to improve safety at the workplace resulting in poor control over the working environment. Problems related to poor maintenance of health facilities (Hall 2004) and the low quality of personnel protection equipment, such as gloves and masks, exposed workers to unsafe working conditions, this contributed to the increase of fear and tension associated with accidental contamination (Smit 2005).

Regarding job content, Smit (2005) described that the daily contact with the death of patients contributed to increased feelings of sadness, helplessness and powerlessness, which led to mental fatigue.

The South African studies emphasized that these issues (such as increased workload and working hours due to shortage of staff and fear of infection due to poor quality of personal safety equipment) contributed to an increase in work-absenteeism in the health sector (Mudaly & Knosi, 2013), an increase in work related stress, and impacted negatively on the wellbeing of HWs (Hall 2004; Smit 2005).

Faria, Barboza & Domingos (2005) examined absenteeism due to mental disorders among nurses in a hospital in Sao Paulo. The authors found that the excess of working hours and increased workload were associated with causes of mental illness. Due to low salaries, HWs increase their working hours to increase income. The high workload was related to insufficient staff.

A study (Mininel, Baptista & Felli 2011) performed in 2006, conducted with 62 nurses who worked at university hospitals in five Brazilian regions, showed that the organization and conditions of work are precarious due to the high demand of services and low availability of adequate material and equipment and human resources; these factors resulted in an increased workload and working under time pressure for HWs. Under those conditions, nurses reported feelings of anxiety and

insecurity for performing certain tasks, lack of autonomy and frustration due to poor working conditions and poor quality of management, which was described as more controlled and less supportive. Low remuneration was another aspect highlighted in this study. Due to low salaries, many workers have more than one job or accept extra shifts.

The Family Health Program (FHP) is the main strategy of primary care promoted by MOH since 1994. Besides providing care at health facilities, the team, composed of doctors, nurses and community HWs, conduct home visits. A study (Feliciano, Kovacs & Sarinho 2010) conducted with 22 nurses in Recife, northeast of Brazil, identified insufficient internal space in health facilities, lack of medicines and poor infrastructure for specialized diagnostics. The workload was high due to the large number of registered families, which they are accountable for. This in turn which generated an excess of consultations and administrative functions, which lead to feelings of frustration and tiredness. There was also a lack of training for performing activities in primary care and a lack of support for professional development.

3.1.2 - Environmental factors

A survey (Wang et al. 2012) conducted with 458 nurses in a provincial teaching hospital in China measured the prevalence of self-reported sharp injuries and the relation to self-reported dimensions of burnout. High prevalence of sharp injuries occurred at least once in twelve months (63.76%). The authors associated the occurrence of accidents among nurses with a high score of burnout (emotional exhaustion) and depersonalization (loss of enthusiasm).

A report organized by Physicians for Social Responsibility, American Nurses Association and Health Care Without Harm described the results of a bio monitoring investigation of twenty HWs from ten U.S. states (Wilding, Curtis & Welker-hood [no date]). Blood and urine samples were tested for six harmful chemical elements present in healthcare settings. Among those chemical elements were mercury and polybrominated diphenylethers (PBDEs), which can cause mental disorders. Mercury can be found in blood pressure gauges, thermometers, bougies, foley catheters, thermostats, fluorescent lights, switches and dental amalgams and may cause damage to the central nervous system. Polybrominated diphenylethers (PBDEs) are used in "flame retardants" on furniture and hospital equipment and can cause memory and learning problems and behavioral disorders. The majority of HWs presented with detectible levels of mercury and PBDES in their bodies.

In Brazil, a literature review conducted by Chiodi and Marziale (2006) described risk factors that expose HWs to occupational diseases and accidents. For physical hazards, inadequate temperature and presence of noise above tolerable limits exposed HWs to constant discomfort and

irritation, causing decreased levels of concentration and attention and increasing the risk for accidents. In addition, there were ergonomic factors associated to diseases, such as improper posture for vaccination and handling of patients, which increased the risk for musculoskeletal disorders. Allergy problems and dry skin were found due to the constant contact with chemical components present in soap, alcohol and latex gloves. Dryness of the skin increased the risk for injury. Concerning biological risks, the majority of accidents occurred due to inadequate conditions for the handling, transport and disposal of needles.

A study (Chiodi et al. 2010) in 2005 conducted in Ribeirão Preto, southeast of Brazil, analyzed 1816 work accident communication (WAC). Of 1816 WAC, 480 referred to accidents in the health sector. Of those 480 accidents, 39% occurred due to ergonomic factors: slippery surfaces, inadequate space for performing tasks and handling of patients, and 31% occurred due to exposure to biological material. The most affected category was nursing auxiliaries. Among the accidents with biological materials, 70.6% occurred with needles. Improper disposal of needles was responsible for 22.5% of accidents. The authors attributed these accidents to overcrowded health facilities, which increased the risk of working under time pressure. This situation contributes to an increase in mental stress and the risk for accidents.

3.1.3 – Sociocultural factors

An Indian study (Chaudhuri 2007) revealed gender inequalities with female nurses being the most vulnerable professional category. In-depth interviews were conducted with 115 women (doctors, nurses, healthcare attendants, administrative and non-medical staff) from 2 public and 2 private hospitals to investigate the perceptions and experiences of sexual harassment. Seventy-seven women had had an experience of sexual harassment, the most common being: intimidation, verbal harassment, unwanted touch, sexual gestures and exhibition. Common perpetrators within the institution were doctors, non-medical, administrative staff and colleagues in superior positions or the same hierarchical position (males) and outside the institution, patients and relatives (Chaudhuri 2007, p. 223). Only 27 HWs complained to managers and the reasons given for the low reporting of abuse were social norms, lack of awareness of their rights, fear of being fired and recognition of power relations within the institution.

Regarding the social status of the nursing profession, a South African study (Smit 2005) found that feelings of anger and frustration among HWs were associated with experiences of disrespect and verbal harassment perpetrated by patients and relatives along with a lack of appreciation of the nursing profession within the community. Additionally, the studies developed by Hall (2004) and Mudaly and Nkosi (2013) showed that HWs were dissatisfied with working conditions: low salaries,

lack of career development opportunities and rewards. Lack of professional appreciation and dissatisfaction with working conditions contributed to increased feelings of worthlessness, which did not contribute to wellbeing in the workplace.

Concerning the home-work interface, Smit (2005) observed that some aspects related to daily work could not be shared with the family in order to not increase worries associated with working conditions:

"I seldom discuss my work with people outside of the hospital. I never tell my boyfriend or my parents about the detail after a horrible day in the ward. And I certainly didn't tell them about the needle prick incident I had seven months ago. If they would have known, they would have gone insane" (Smit 2005, p.26).

In other cases it was observed that there was no clear separation from the emotional aspects experienced within the workplace when HWs returned home.

"I try to leave my work at the hospital when I go home, but emotions aren't that easy to control. I worry about the patients that I know are dying and I can't help but to cry... it leaves me with an empty, heavy feeling inside" (Smit 2005, p. 25).

Some workers can maintain a strict separation between home and work by not sharing their experiences with their family, who may become distressed at the thought of their relatives becoming accidentally infected. However, others fail to maintain a clear emotional separation of the events experienced within the workplace. Both of the above comments from HWs showed the high psychological load that workers face in daily work, which were considered by Smit (2005) as "emotionally draining."

In Brazil issues related to home-work interface have affected women HWs (Mininel, Baptista & Felli 2011). Faria, Barboza and Domingos (2005) highlighted the double workload among women in the nursing profession as a result of both their professional and domestic workload. Moreover, shifts during weekends and difficulties in participating with family events contributed to feelings of insecurity related to motherhood, which contributed to increased mental strain (Faria, Barboza & Domingos 2005, p. 18).

A report organized by Di Martino (2002) characterized some aspects related to violence in the health sector workplace, in Rio de Janeiro, southeast of Brazil. Among 1,569 HWs, 46.7% had at least one episode of physical or psychological violence in the previous twelve months. Patients and their relatives were responsible for 56.3% of all reported acts of aggression. The main reasons given by patients for assaulting staff were: delay in patient care, patient's frustration regarding expectations,

perception of poor quality of services and invasion of armed gangs. The lack of security in public health facilities was also reported as an important factor that exposed workers to violence within the workplace in São Paulo (Martino 2002).

A survey (Batista, Campos & Schall 2011) of 75 people, including HWs, government and union workers representatives from 18 health facilities of a Belo Horizonte district, southeast of Brazil, described the violence within health facilities. The types of violence committed by users were mostly verbal threats. "Keep silent" was the most common attitude of HWs after the violence. The justifications for not complaining were aggressor impunity (the perpetrator of violence leaves the health facility without penalty for offense), perception of co-responsibility in the act and the accepted idea that violence is part of daily work. Workers associated fatigue, strain and stress with this context of work. When violence is more severe (physical or repeated verbal threats) HWs can close the health facility or request municipal guard assistance. When an employee was physically assaulted they were referred to the workers' health specialized service. HWs said they were unaware about WAC and the workers' health network, including psychological assistance. As a consequence of violence in the workplace, there was increased employee turnover, difficulty allocating staff to health facilities located in areas prone to violence, increased numbers of employees asking for transfers to other units, disruption of team work and increased feelings of fear, dissatisfaction, insecurity and lack of motivation.

A qualitative study with 65 HWs of FHP in three municipalities of São Paulo, southeast of Brazil, described common forms of violence experienced by them (Lacman et al. 2009). Data was obtained from focus group discussions about violence and work. The participants were physicians, nurses, nursing auxiliaries and community HWs. The violence was described as direct (verbal and physical), perpetrated by clients and indirect. The indirect form of violence occurred when HWs were exposed to contexts of violence within the community, such as during home visits. The HWs described feelings of powerlessness when they witnessed violent acts in the community since they could not notify the relevant authorities due to the risk it placed on their own lives. The tensions that resulted from such ethical dilemmas affected the mental health of these professionals, who felt helpless in the face of misery, terrified of possible violent reprisals and unable to separate aspects related to work from their personal lives as reveal by this HW's quote:

"The limits (of involvement) are very subtle... we often pitch in to buy medicine..., to take a child home is beyond (the limits)"; "I couldn't, I'd stay awake, I couldn't sleep, I began to draw the line... when the child died, I went to the funeral and burial..."; "I couldn't sleep well for several weeks, I know the murderer, the one who was murdered, I know the

family, I know everyone" (Lancman et al. 2009, p. 5).

A survey performed in health facilities in Rio de Janeiro (Xavier et al. 2008) described bullying among 1,569 HWs. Among 963 women participants, 16.2% had at least one report of having suffered bullying or mobbing in the previous year and among male participants, 18% had experienced the same type of violence. Nursing auxiliaries are the most affected professional category. Co-workers and bosses were the most prominent group of bullying perpetrators and 27.2% of HWs did not complain because they thought that no measures would be taken. The consequences of this kind of violence in the workplace were increased strain and a state of permanent alertness among workers who had been victims of bullying.

3.1.4 - Population factors

Changes in the nature of work environments, such as globalization of markets, migration and urbanization, can be sources of health and illness among workers. While such changes can affect the workers in a positive way by increasing their chances of access to information, training and income, they can also bring negative aspects. Globalization has driven workforce decentralization and the flexibility of working conditions. These trends have increased the flexibility in labor relations, which in a context of economic global crisis, exposes the worker's job insecurity and lack of legal and social support. With regards to urbanization and migration, it has been seen that many workers move to countries with more job opportunities and better working conditions. This situation can increase the risk of culture shock, separation from family members and precariousness in establishing social support, which can lead to the development of mental disorders such as depression (WHO 2005).

Changes in the economy and globalization have affected the Brazilian economy since the 1980s. The economic growth in the past years has driven changes in labor relations. The flexibility in labor relations introduced new possibilities of working contracts, such as temporary and outsourced, and has promoted a reduction in social contributions (Martins & Molinaro 2013). In the health sector, all HWs were contracted by tender but after the changes and approval of constitutional amendment in 1998, it was possible to hire staff under different types of contracts (Martins & Molinaro 2013). A survey conducted in two hospitals in Mato-Grosso, central region of Brazil, showed that 63.12% of participants had a temporary employment contract (França et al. 2012). Currently there are a variety of working contracts in the health sector, some of them being longer term than others. Martins and Molinaro (2013) highlighted that temporary work contracts in Brazil promoted increased staff turnover and discouraged the process of continuous and organized labor in the sector. In addition, the State (employer) no longer has the responsibility to qualify the employee (Martins & Molinaro 2013).

According to Raichelis (2013), flexible labor relations in Brazil expose HWs to increased mental strain and physical tiredness due to poor working conditions. In this context, HWs are subjected to low salaries, absence of long-term professional horizons, lack of career development perspective and lack of policies centered on professional training.

Another current problem in Brazil is the poor distribution of human resources across the health sector, which is associated with migration and concentration of professionals in urban areas. The most remote areas are the most affected by the shortage of HWs, especially doctors (Dal Poz 2013). Póvoa and Andrade (2006) conducted a data analysis to understand the determinants of the geographic distribution of physicians in Brazil. They analyzed data from the National Household Sample Survey, Federal Council of Medicine and Information System database of UHS between 1997 to 2001. They noted that migration occurred because younger doctors were seeking professional improvement that was concentrated in the south and southeast regions. Moreover, these professionals preferred to focus on areas with high GDP per capita, and where there was less density of doctors in the region. The poor distribution of human resources lead to shortage of HWs in certain regions of Brazil, which contributed to the increased workloads and poor working conditions thereby increasing the risk for development of work related stress among HWs.

3.1.5 – Summary of organizational, environmental, sociocultural and population factors

The following factors were found to influence mental health within the health sector:

- Poor distribution of human resources and overcrowded health facilities lead to excessive workload and working under time pressure; this results in fatigue, physical tiredness, work-related stress, decreased levels of concentration and increased risk of accidents.
- Poor quality of service delivery leads to client dissatisfaction increasing risk of third part violence. Brazilian HWs are unaware of the available resources to assist and protect them, which contributes to low levels of violence reporting.
- Poor infrastructure and maintenance of buildings and poor quality of equipment exposes HWs to work-related accidents and illnesses, including mental disorders, and contributes to feelings of fear of being infected and insecurity at work.
- Home-work interface issues lead to mental stress and low self-esteem, especially among Brazilian women reflecting gender inequalities.
- Temporary job contracts and outsourcing lead to a reduction of social protection and increased staff turnover resulting in poor

working conditions and fragmentation of work processes and team relations within organizations. This context promotes feelings of insecurity and contributes to fatigue and mental strain.

3.2 - Organizational, environmental, sociocultural and population policies and practices addressing mentally healthy workplace in the Brazilian health sector

3.2.1 – Organizational factors: policies and practices

Practices rewarded by INOVASUS (MOH 2013) focused, mostly, on projects of participative and democratic management. Three winning projects in the states of Acre, Rio Grande do Norte and Rio Grande do Sul (north, northeast and south of Brazil respectively), developed practices based on participatory and democratic management approach, which promoted education and ongoing professional qualification, and participative work environments for decision-making and assessment and monitoring of working processes. These practices resulted in greater worker participation and control over their work and HW's valorization and empowerment.

In 2008 a participative management approach (Martins et al. 2013) was introduced in one of Rio Grande do Norte's hospitals through "Wheel Talk", which was characterized by HWs meeting with the objective of reflecting and discussing their daily work at the hospital. From these meetings, there was demand for qualification in participative management. The course was developed according to the needs of workers and included partners from federal universities and humanization program consultants. Results showed an increase in worker participation and decision making related to hospital issues, job satisfaction, improved communication between teams beside the improvements in the hospital information system due to better understanding of the processes of data collection.

Another practice awarded (Luiz et al. 2013) was the Local Commission of Worker's Health that aimed to evaluate, identify risks and propose interventions to reduce risks, promote health and wellbeing and improve working conditions. Local committees for worker's health were developed in seven health facilities and in four hospitals in Mato Grosso, central-western region of Brazil. These committees were formed through workers' elections in health facilities. The committee was elected each year and the HWs were trained in aspects of worker's health in order to disseminate information about protection and prevention of work related accidents. After the implementation of these committees the dissemination of health information was improved and there was greater worker participation in assessment and monitoring of working conditions.

3.2.2 – Environmental factors: policies and practices

In 2005, the Regulatory Standard for Safety and Health at Workplace (NR 32) was launched to protect the safety of health of workers in the health sector. It included measures to prevent and control biological and chemical risks, ionizing radiation risks, waste management, comfort conditions during meals, laundries, and the cleaning and maintenance, maintenance of equipment and machines (Official Union Journal [OUJ] [no date]).

In 2007, a new regulation changed work accident insurance from fixed to variable percentage, which is a tribute paid by the companies to fund social security. This variable percentage was linked to an accident prevention factor, which is a score that is given by evaluating the history of accidents and occupational diseases in the company. The less number of accidents and work-related diseases the company has, the lower the percentage and hence the lower the amount of the tribute that the company has to pay. This measure aimed to encourage accident prevention and promote healthy workplaces in order to decrease the number of diseases related to work, with mental health disorders included (OUJ 2007).

In 2009, MOH inaugurated a standard technical manual with procedures for HWs who had been exposed to biological material and at risk of contracting HIV, Hepatitis B and C (MOH 2011a).

A study (Oliveira, Lopes & Paiva 2009) of 240 HWs in mobile health units in Belo Horizonte, southeast of Brazil, revealed that only 36.7% of all HWs who had been exposed to biological material had a medical assessment. Of those assessed only 18.4% of those accident cases had been notified through WAC, which showed a gap between the number of accidents that occurred and the number of accidents recorded in the national social security information system. The authors highlighted that the low rates of medical assessment and accident notifications were due to lack of information and lack of awareness of the HWs rights to health and social protection.

Although vaccination against Hepatitis B has been available to HWs since 1992 and is free of charge (MOH 2013), a study performed by Costa et al. (2013) showed that only 52.5% of 797 HWs in Montes Claros, southeast region of Brazil, had taken the full three doses of vaccine. HWs with low levels of information about risk of infection and under temporary job contracts were most affected by low vaccination coverage. According to the authors, HWs under temporary job contract presented more negligent attitudes towards their self-care than long-term employees.

3.2.3 – Sociocultural factors: policies and practices

The National Humanization Policy was launched in 2004 by MOH to introduce elements of valorization and participation of HWs and patients in the organization of healthcare, work management and health care. (MOH 2004b)

The policy included aspects in work management that valorize interpersonal relations within the workplace through communication processes, commitment to health promotion and active participation of HWs in the decision-making process, strengthening of cooperative and supportive relationships in teamwork and continuous education. These aspects are promoted by strategies such as the Support Group of Humanization, Expanded Communities of Research and Bureau of Permanent Negotiation (MOH 2004b; Pasche, Passos & Hennington 2011). The Support Groups of Humanization are meetings between HWs and patients in health facilities to assess issues related to health, propose changes, improve communication and integration between services and the community (MOH 2008). The Expanded Communities of Research encourage HWs' participation in meetings to discuss and evaluate the daily practice of the health sector and propose new strategies that ensures quality of healthcare (MOH 2004a). The Bureau of Permanent Negotiation constitutes forums with managers and HWs' representatives to discuss problems related to organization and working conditions. In these meetings it is possible to establish a joint agreement of the priority issues to be tackled and the development of a joint work plan between managers, service providers and HWs (MOH 2010). Pasche, Passos and Hennington (2011) highlighted the need to invest in policy decentralization through the establishment of regional coordinators in order to strengthen the implementation of humanization strategies. This analysis is consistent with the humanization policy perception described in the Batista et al. (2011) study, in Belo Horizonte. According to HWs' opinion in this study, strategies related to humanization policy were still not well known and they have only been developed in a limited number of health facilities.

Concerning policies to combat violence, Galheigo (2008) described the government publication "National Policy of Mortality Reduction by Accidents and Violence in 2001" in order to reduce rates of morbidity and mortality from accidents and violence in the country, among the general population. Indirectly, this policy involves violence in the health sector when it includes in its guidelines the promotion and monitoring of safe and healthy workplaces and HWs' training. In 2004, the government launched the National Network of Violence Prevention and Health Promotion and Implementation on Centers for Prevention of Violence in States and Municipalities that promotes the development of indicators to monitor violence, expertise development and dissemination of practical

information to combat violence. According to the author, the training of human resources to deal with the problem of violence is a challenge due to the necessity for high investment in resources (economic and human) that jeopardizes the implementation of such policies.

3.2.4 – Population factors: policies and practices

Three National Worker's Health Conferences (NWHC) were held since the 1980s and resulted in advances for worker's health policies. The conferences were organized in municipal, state and federal levels with representatives of trade unions, employers, universities, government, civil society and others to evaluate, discuss and establish policy guidelines for workers health, including workers from the health sector (MOH 2011b).

The consideration of mental health aspects within the workplace were gradually extended, but according to Nardi and Ramminger (2012), achievements in this area, especially in the health sector, were few and this area remains neglected. Table 5 (annex 2) describes the main resolutions that include, even indirectly, aspects of mental health in workers' health policies.

The National Network of Worker's Health (NNWH) is a government strategy to provide information and assistance in Worker's health and its main role is to "implement, monitor and promote care and quality health care already existing in UHS" to assist HWs with work-related injuries or illness (Leão & Vasconcellos 2011, p. 92). NNWH's structure is composed of Reference Centers for Worker's Health (RCWH) and a network of medical and diagnostic outpatient services responsible for assistance and notifications of work-related accidents (Leão & Vasconcellos 2011).

In the case of mental health problems/disorders related to work HWs should be assisted by existing healthcare providers within the public health sector (UHS) in Centers for Psychosocial Support (CPS) (Daldon & Lancman 2013). In reality, the medical and psychological assistance to HWs is mainly provided by NNWH, through RCWHs. However, some authors (Leão & Vasconcellos 2011; Leão & Castro 2013) have reported that whilst NNWH and RCWHs have done a lot in terms of health assistance, little has been done in terms of worker's health surveillance, technical assistance to UHS and evidence based information development.

The stigma against HWs with mental health issues is a common problem and the lack of technical assistance to provide specialized care and lack of integration between CPS and RCWHs contribute to the issue. According to Bernardo and Garbin (2011) there is lack of training to UHS professionals to understand the process of mental illness related to work, which contributes to poor quality of care.

In 2011, the government launched the National Policy on Safety and Health at Work which aims "to promote health and improve quality of life of workers, to prevent accidents and damage to health related to workplace or occurring in this course through elimination or reduction of hazards in the work environment" (Tripartite commission on health and safety at work 2012). The Ministry of Labor and Employment (MOLE), MOH and Social Security were responsible for implementation and enforcement of this policy. This policy intended to direct more attention to prevention, health promotion in the workplace and the necessity of improvements on workers health information system. According to Chiavegatto and Algranti (2013) and Daldon and Lacman (2013) the worker's health information system is weak and leads to lack of data to support activities of planning and monitoring of worker's health.

Poor distribution of physicians is a problem in Brazil and to tackle this issue the government launched the More Doctors program (MOH 2013). The program began in 2013 and has aimed to improve infrastructure of hospitals and health facilities and medical hiring in regions where there are shortages of qualified doctors. It also includes changes in the curriculum of medicine courses by adding two years of mandatory student participation in primary care and emergency services and it supports the opening of medical schools in regions prioritized by UHS. The National Board of the Brazilian Center for Health Studies (2013) published a statement supporting the program as urgent measure but disagreed that this program was a long-term solution of poor distribution of human resources in Brazil. They argue that poor distribution of doctors within the country is the result of years of UHS under funding and socio and economic inequities. This situation contributes to poor quality of healthcare, which increases the dissatisfaction among the population. Those people who can afford to do so have migrated to private sector. Hence, the market of the health sector finds favorable conditions for expansion and recruitment of physicians (Brazilian Center for Health Studies 2013). Campos (2013) criticizes the temporary job contract offered by the program, stating that this form of contract contributes to a lack of interest for the program by Brazilian doctors. The author emphasizes that precarious forms of contract in the UHS do not promote career development and therefore the retention of doctors in remote regions of the country.

3.2.5 – Summary of organizational, environmental, sociocultural and population policies and practices addressing mentally healthy workplace in the Brazilian health sector

The following Brazilian policies and practices that specifically address HWs' mental health were found:

- The humanization policy promotes participatory and democratic management through the Support Group of Humanization,

Expanded Committees of Research and the Bureau of Permanent Negotiation, but these are not implemented across all health facilities in Brazil.

- Policies to combat violence are in place but they do not directly focus on health sector violence.
- Three NWHCs were held in Brazil and mental health aspects were taken into consideration in worker's health policies but they remain neglected.
- NNWH and RCWH are two main government strategies to provide information and assistance on worker's health. The improvements achieved by implementation of NNWH and RCWH are few in terms of surveillance, technical assistance to UHS and evidence-based information development.
- The last government strategy to deal with poor distribution of physicians within the country was the More Doctors program.

3.3 - Practices to promote mental health and wellbeing within the health sector workplace

Yassi (2005) emphasizes that the promotion of mental health within the workplace, by building healthy workplaces, should be addressed by a comprehensive system, which includes as many determinants as possible, and a multilevel approach (from the individual level to community level) because it is more effective than a one level approach. The involvement of key stakeholders in the process is critical. The participation of trade unions, for example, should be part of the process to improve working conditions, to advocate for stable job contracts, to improve working hours and social security.

3.3.1 – Good practices: organization

The participatory approach in management was analyzed in an organizational intervention among HWs in Canada (Lavoie-Tremblay 2004). The aim of this practice was to improve teamwork relations and contribute to building a healthy workplace. The results showed that this strategy contributed to analysis and solution of problems within the organization, improved communication and cooperation among participants making employees more committed and responsible for their actions.

A study conducted in Canada (Brun, Biron & Ivers 2008), described an intervention to prevent work related stress based on the participatory approach and analyzed its effectiveness. A hospital was one of the settings used for the intervention. Questionnaires were administered to measure aspects of mental health and job satisfaction before and after intervention. The sources of stress, such as lack of professional recognition by the management, lack of team unity, problems related to structure and organization of management and work, lack of incentives

and training for the managerial performance were identified by HWs and managers who also pointed suggestions for improvement. A committee of workers designed a plan of action to tackle these problems based on given suggestions. Researchers monitored the implementation process of the suggestions and 18 months later a reassessment of aspects related to mental heath and job satisfaction was performed. The questionnaires were also administered to a control group where suggested interventions were not performed. The results showed that 15 of those 16 sources of stress were improved and 68.3% of HWs reported positive results for job satisfaction, emotional exhaustion and psychological distress indicators. In the control group, only 6 of those 16 factors were improved and 37.8% of the workers noticed improvements on the same indicators.

Practices in the organization, at individual level, were found in the review performed by Czabala et al. (2011). Programs focused on modifying individual behavior by training and substitution of maladaptive behaviors for others more adaptive. Implementation of techniques for stress control showed positive results for stress control, job satisfaction and reduction of absenteeism.

The Registered Nurses' Association of Ontario (RNAO), in Canada, have organized best practice guidelines (2011) for preventing fatigue in the health sector workplace. Among recommendations they have suggested the development of training programs (prevention and control), creation of mechanisms to measure and monitor fatigue in the workplace, reduction of shortage of human resources in order to reduce workload, development and monitoring of "safe schedules" respecting standard guidelines for rest breaks between shifts.

3.3.2 – Good practices: environment

The European Commission guidelines for occupational health (2011) highlighted that the participation and involvement of HWs in prevention and occupational health activities are fundamental. They mentioned the good practice performed by St Elizabeth hospital in Tilburg, in The Netherlands, which, since 1998 has managed and controlled the services of health and safety at work, previously done by outside groups at the hospital. The team responsible promoted information and supported health promotion among managers and employees. They developed measures to assess the impact of interventions. The service improved the strength and confidence among hospital workers who joined the programs developed by the team. The interventions contributed to reduced absenteeism rates and increased employee satisfaction.

Clear procedures for handling instruments and clear instructions for conducting cases of accidents with biological material were available in the Emergency Medical Faculty at the University Clinic of Jena. Moreover, there was availability of regular courses in safety promotion developed for

HWs and new employees. The workplace was inspected once a year and risks were reported to the employer (European Commission 2011).

The RNAO (2011) reinforces the need for training that includes issues such as recognition of occupational hazards prevention, factors that increase exposure to occupational risks, implications on patient safety and well being in the workplace.

A research (Yassi et al. 2010) conducted in British Columbia, Canada, collected the opinions of 83 HWs on facilitators and barriers to promote influenza vaccination in three geographic health regions, which helped to improve the vaccination campaign among HWs. The information was collected through focus groups and revealed HWs interest in the development of interventions that promoted a culture of safety in the workplace. The results indicated that the workers wanted more specific information about vaccination, safety and prevention and that vaccination should be a worker's choice instead of an imposition by the organization. The communication disseminated by campaigns should include scientific information, infection control and healthy lifestyle choices.

3.3.3 – Good practices: sociocultural

Kerr and Mustard (2007) highlighted that the "hierarchical culture of health care" is an aspect of an organizational culture that does not contribute positively to build teamwork relations and should be considered in the development of healthy workplaces. The authors refer that the quality of relationships and teamwork are essential to healthy workplaces and elements such as leadership, clarity in the role of organization, interpersonal relationships based on trust, respect and values are components to build strong teamwork.

A study carried out by Laischinger et al. (2003) assessed the impact of work empowerment model among 192 nurses in a hospital in Ontario, Canada. In this model, work empowerment is achieved when the HWs have access to information, support, resources (human, working hours and workload distributed in a way that they can provide good and safe care) and opportunities to learn and develop professionally. The establishment of a workplace like this contributed to increased feelings of pride and fulfillment among staff. It also observed a decline in emotional exhaustion perception and an increase in worker participation within the organization. They added that the role of leadership is essential to promote work empowerment and support staff. Laschinger (2007) advocated for the development of empowered workplaces through strategies that strengthen teamwork. The study mentioned the initiative of the committee "Quality Worklife - Quality Healthcare Collaborative" which has collaborated to develop evidence based healthy workplaces and has expanded the monitoring of the quality of worklife in Canada.

After several episodes of third party violence, Westfries Gasthuis Hospital, in Hoorn, The Netherlands developed a program of zero tolerance to violence. HWs identified risk areas and an alarm system was adopted. There was a clear description of situations that the alarm could be operated and the consequences for perpetrators of violence. Physical violence against HWs fell by 30% and verbal violence fell by 27% after the adoption of these measures (ILO & WHO 2014a).

In Thailand, a HW team was assigned to prevent and solve conflict situations between HWs and patients or relatives. The team did hospital inspections or could be called in when cases of violence had occurred. In case of third party violence the team invited the patient or relatives for a private conversation to reach an understanding of the conflict situation and possible solutions (ILO & WHO 2014a).

In St. Elizabeth hospital, in Tilburg, The Netherlands, they conducted training in customer friendliness to combat third-party violence within the workplace. The training included instructions on communication skills, concepts of violence at workplace and establishment of levels of tolerable situations. Regarding the violence perpetrated by co-workers, they developed mechanisms such as confidential consultations and an "external person of trust" to ensure that HWs feel confident to talk when cases of violence occur (European Commission 2011).

3.3.4 – Good practices: population

Practices to combat job insecurity are almost inexistent. The search did find a report (Independent inquiry into insecure work 2012), commissioned by the Australian Council of Trade Unions on the general context of work in Australia. The document highlights recommendations to ensure that labor laws in the country protect workers. The report reinforces the need to promote discussion to regulate flexibility in labor relations ensuring employer flexibility in labor relations, which is part of a global market context, but also ensuring worker time and income security and dignity at work. Furthermore, the government should make use of its influence as an employer, funder and purchaser to ensure secure forms of employment.

A study performed by Straume and Shaw (2010) described the retention strategy used in Norway to tackle poor distribution of physicians within the country. Firstly they did a survey to explore facilitators and barriers among physicians working in remote areas. They found that a lack of opportunities for professional development was the main barrier. A strategy to provide postgraduate medical training in remote areas was designed. The results showed a positive effect in retention of human resources. This strategy opens an opportunity for the trainee to grow roots within the community during the training period. The rural training was not perceived as "second class" for doctors due to a modern and

well-designed training curriculum and there was establishment of tutorial groups to tackle professional isolation.

3.3.5 – Summary of practices to promote mental health and wellbeing within the health sector workplace

The following key points to promote a healthy workplace arose from the reviews:

- Participatory approach management that includes the involvement of all HWs in aspects such as training, health and safety and good staffing levels.
- Clear procedures and accountability policies relating to work practices, performance and health and safety, which should include programs of modifying individual behavior to improve coping mechanisms, and monitor fatigue.
- Zero tolerance policy for violence in the workplace, which should improve the quality of interpersonal relations, provide conflict resolution teams and the availability of mechanisms for violence denouncing.
- Development of surveys to collect the opinions of HWs about occupational health issues, the results of which can be used to develop retention strategies and promote health and safety in the workplace.
- There is a specific need to regulate flexibility in labor relations in order to improve job security and the engagement of the government is crucial in this role.

CHAPTER 4 – DISCUSSION

This study has explored the factors that influence HWs' mental health in the workplace. It has also examined the current Brazilian policies and practices that directly or indirectly address mental health issues in the workplace.

Social inequality and the UHS' underfunding of services (National Board of the Brazilian Center for Health Studies 2013) have impacted on Brazilian healthcare leaving poorer and remote areas with inadequate services. Health centers located in these regions tend to be overcrowded due to unequal and often poor distribution of HWs (Dal Poz 2013) contributing to increased tensions among the population who become frustrated by the lack of quality in care (Di Martino 2002). The MOH is responsible for the current human resources distribution within the country and the use of temporary work contracts for hiring HWs in poor and remote areas is an example of the lack of an effective workers' retention policy. This places the remaining HWs at further risk of excessive workload, which leads to fatigue and work-related stress (Hall, 2004; Smit, 2005; Mundaly & Nkosi 2013; Faria et al. 2005). The Norwegian study (Straume & Shaw 2010) demonstrated that the establishment of postgraduate training in places where there is a shortage of professionals can contribute to the retention of HWs in remote areas. This experience could inspire the MOH to develop efficient retention policies for Brazilian HWs.

Temporary job contracts and outsourced hiring are common practices in the Brazilian health sector. This has promoted job insecurity, low salaries, lack of opportunities for professional growth, and high rates of staff turnover (Martins & Molinaro 2013; Raichelles 2013; França et al. 2012). All these factors contribute to the development of fatigue, work-related stress and an increased risk for work-related accidents. In my own professional experience I noted the lack of control over the amount of extra shifts that the employee undertook. Employers did not monitor the number of hours worked nor if workers took mandatory rest-breaks, thereby compromising the safety of HWs in the workplace and the quality of patient care. The MOH decreased its responsibility in worker protection since it introduced temporary job contracts (França et al. 2012) and brought in outsourced companies without ensuring the high employment contract standard that protects all HWs. Workers' unions can play a crucial role in overseeing and advocating protection rights in labor relations and work empowered environments (Lashinger 2007), as demonstrated by the Australian report (Independent inquiry into insecure work 2011). According to my experience the relationship between unions and government has done little to collaborate on the provision of healthy workplaces for HWs due to disagreements that contribute to reinforce a relationship based on infightings instead of partnerships.

Poor quality management (Mininel, Baptista & Felli 2011), the lack of training to support professional and career development (Oliveira, Kovacs & Sarinho 2010), and the violence perpetrated by colleagues in the workplace reflect the failure of the Humanization Policy in implementing an organization culture based on HWs' participation and cooperation (MOH 2004). The MOH has an important role in this failure since it has not monitored the policy's implementation. The NNWH in partnership of Support Groups of Humanization should strengthen the implementation of good strategies in work management and leadership such as participative work management (Lavoie-Tremblay 2004; Brun, Biron & Ivers 2008) and 'wheel talks' (Martins et al. 2013) in order to decrease work-related stress and bullying and improve interpersonal relations.

Despite the majority of HW roles being dominated by women (such as the nursing profession) there are no specific policies to protect women's mental health in the Brazilian health sector (Machado et al. 2006). Those in the nursing profession are most at risk of physical and mental problems/disorders due to daily contact with activities that expose them to heavy physical and mental workloads. Furthermore, nursing is one of the groups of HWs at the greatest disadvantage in terms of wage. The MOH, MOLE and Social Security are responsible for strengthening the workers' health information system and unions can also play an important role by expanding research related to women HWs' health and advocate for better working conditions.

There is no specific policy to combat third party violence in the health sector leaving HWs unprotected (Galheigo 2008). In my own experience I have seem many workers "keeping in silence" (Batista et al. 2011) when they experience violent encounters at work due to a complete lack of strategies to protect them. Employers should develop security strategies based on proven practices, which have demonstrated that the presence of mechanisms to trigger immediate security and the establishment of punishment for violent perpetrators are effective (ILO & WHO 2014). Improving communication (EU 2011) and negotiation skills (ILO & WHO 2014) are useful in conflict situations and contribute to decreased violence at work. In addition, the Support Group of Humanization can be an important tool to strengthen dialogue between HWs and the community, to analyze issues related to quality of health care provided and to propose solutions (MOH 2008).

Brazilian HWs have poor services for assistance and guidance with work-related accidents or illness (Bernardo & Garbin 2011; Batista at al. 2011; Daldon & Lancman 2013; Leão & Vasconcellos 2011; Leão & Castro 2013). The lack of technical assistance and training for UHS' workers on work-related factors that influence the development of mental problems/disorders by NNWS and RCWA's contributes to increased stigmatization and thereby prevents HWs coming forward to seek help

(Bernardo & Garbin 2011). The NNWS can build a supportive culture for HWs by providing appropriate training to UHS' workers. Moreover, NNWS in partnership with social security can improve information about WAC and ensure that work accidents are reported, resulting in data that can be used to plan strategies to improve mental health in the workplace.

Studies related to workers' health in Brazil need to be expanded. The Brazilian studies found were small and restricted to health units and municipalities and did not reflect a complete picture of the Brazilian health sector. Using local committees examining workers' health are interesting strategies that can contribute to the production of data throughout the country. The NNWS should have a key role in coordinating and monitoring this project.

Although health and safety policies are in place in Brazil they are rarely implemented or monitored resulting in unsafe and unhealthy working conditions (Chiodi & Marziale 2006). There is a lack of clear information on standards, procedures and behaviors on work safety among HWs (Oliveira et al. 2009). The RCWH should ensure information safety and awareness of mental health aspects by providing training in fatigue prevention (RNAO 2011), safety monitoring (EU 2011) and promotion of 'safe schedules' (RNAO 2011).

I have seen for myself, working within the Brazilian health sector, that the separation between emotional aspects related to work and personal life are not always easy to overcome for some individuals. The long-term contact with "emotionally draining" situations (Smit 2005) can lead to burnout. Training in individual behavior modification (Czabala 2011) can strengthen coping mechanisms and help HWs deal with emotional stress. NNWH through RCWH has an important role in this by ensuring adequate training to HWs and managers, which can help by identifying signs of emotional exhaustion in HWs and support them.

Finally, mental health promotion in the workplace involves the adoption of a comprehensive package of strategies, as described in this study, and in varying levels of approach (Yassi 2005). The implementation and monitoring of interventions should always include the participation of key stakeholders. The set of practices highlighted in this literature review can promote healthy workplaces and, consequently, promote HWs' mental health.

CHAPTER 5 – CONCLUSIONS AND RECOMMENDATIONS

5.1 - Conclusions

This study identified several factors (organizational, environmental, sociocultural and population) that influence HW's mental health in Brazil. It also found Brazilian policies and practices that can promote mental health within the health sector workplace.

Practices from other countries provided information and alternatives that can be useful in the Brazilian context. The majority of them are feasible because they demand the reallocation of resources, implementation and strengthening of already existing policies, the clarification of the role of organizations, and intensification of overseeing, monitoring and accountability process.

5.2 – Recommendations

To promote HWs' mental health within the health sector workplace the following recommendations are advised for government (police-makers), employers, NNWH and work unions. The recommendations are listed by priorities:

Government (police-makers):

1. The MOH in partnership with NNWH and RCWH should develop surveys to identify facilitators and barriers among HWs working in poor and remote areas in order to develop an effective human resources retention policy.
2. The MOH and MOLE should improve existing information systems ensuring up-to-date information and access to data on workers' health to improve planning, development and monitoring of interventions.
3. The MOH should redistribute vacancies for postgraduate medical and nursing training out to the south and southeast regions of the country through the reallocation of technical and financial resources for health centers and teaching hospitals located in regions with scarce human resources.
4. The MOH should promote long-term contracts, further education/training and opportunities for career development to attract and retain HWs in remote and poor areas.
5. Policies to tackle violence in the health sector workplace should be developed in partnership with MOH, Ministry of Justice (MOJ) and MOLE, along with the participation of NNWH, representatives of state commissions of humanization, HWs' unions and the community.

Employers:

1. Employers should improve and expand existing security strategies in the workplace through the implementation of security alarm systems and the immediate activation of local security. The RCHW should provide information and discussions about factors related to third-party violence and bullying in the health sector and establish clear parameters of types and levels of violence in the health sector that would not be tolerated. Through these meetings, regulations and procedures for activating security mechanisms and levels of punishment for violent perpetrators should be developed.
2. The employer should provide adequate working conditions and intensify the monitoring of health and safety in the workplace by overseeing the amount of extra shifts among HWs and promoting "safe schedules". Employers, in partnership with RCWH, should provide information and awareness on work safety, especially for fatigue and work-related stress and training in individual behavior modification as a strategy to strengthen coping mechanisms.

NNWH:

1. RCWH in partnership with Support Groups of Humanization should intensify implementation of good strategies in work management and leadership such as participative management and 'wheel talks', training to improve team relations, communication and negotiation skills. NNWH should monitor its implementation.
2. NNWS should promote actions to improve integration between RCWSs and the CPS. The RCWSs should develop training, evidence based-information and technical assistance on mental health and prevention issues. The CPS should promote medical and psychological assistance to HWs and perform the notification of accidents or occupational diseases related to mental health in the workplace. NNWS in partnership with social security should improve information systems for reporting accidents at work and promote the WAC through RCWH and CPS.

Work unions:

1. HWs' union should develop more studies on the impact of the extra workload related to housework and childcare work on women's mental health.
2. Unions should examine the cost-effectiveness of temporary job contracts and their impact on staff turnover and quality of health care in order to provide evidence-based recommendations to MOH and MOLE to advocate for better standards of employment contracts that ensure HWs' social protection.
3. Unions should examine the impact of temporary and outsourced contracts on the mental health of Brazilian HWs (especially nurses).

4. The trade unions of HWs should advocate for empowered work environments and intensify promotion of information and awareness about HWs' rights to adequate and safe working conditions.

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ANNEXES

Annex 1

Figure 2- Map of Brazil

Source: http://www.brazilintl.com/maps/mapbrregions/map-brazil-regions-trans.gif

Annex 2

Table 1 - Mortality rates in Brazil

	1990	2000	2011
Neonatal mortality (per 1000 live births)	23.13	16.71	10.58
Under-five mortality rate (per 1000 live births)	53.70	30.13	17.71
Maternal mortality (per 100000 live births)	143.19	73.30	64.75

Source: Mortality indicators (IHIN 2012)

Annex 3

Table 2 - Brazilian health indicators compared to Argentina, Chile and Uruguay

	2011				
	Argentina	**Chile**	**Uruguay**	**Average**	**Brazil**
Population (2012)	41.087.000	17.465.000	3.395.000		199.000.000
Life expectancy (years)	76	79	77	77	74
Under-five mortality rate (per 1000 live births)	14	9	10	11	16
Fertility rate (per woman)	2.2	1.8	2.1	2.0	1.8
Maternal mortality rate (per 100000 live births)	77	25	29	43	56

Source: WHO 2014a

Annex 4

Table 3 - Brazilian health indicators compared to BRICS

	2011					
	Russia	**India**	**China**	**South Africa**	**Average**	**Brazil**
Population (2012)	143.000.000	1.240.000.000	1.390.000.000	52.386.000		199.000.000
Life expectancy (years)	69	65	76	58	67	74
Under-five mortality rate (per 1000 live births)	12	61	15	47	34	16
Fertility rate (per woman)	1.5	2.6	1.6	2.4	2.0	1.8
Maternal mortality rate (per 100000 live births)	34	200	37	300	143	56

Source: WHO 2014a

Annex 5

Table 4 - Availability of human resources for health and accessibility

	Human Resources for Health			
	Availability (per 10000 pop.)	**Accessibility** (national average)	**Acceptability** Nurses: physicians	**Quality**
China	29.9	14.6	1.0:1	No information
India	15.8	6.5	0.1:1	There are accredited training institutions; partial regulation and license mechanisms
South Africa	43.3	7.6	4.8:1	There are accredited training institutions and regulation mechanisms; partial license mechanisms
Brazil	81.4	17.6	3.6:1	There are accredited training institutions and regulation mechanisms and partial license mechanisms

Source: WHO 2013

Annex 6

Figure 3 - Conceptual framework for promoting mental well being at work

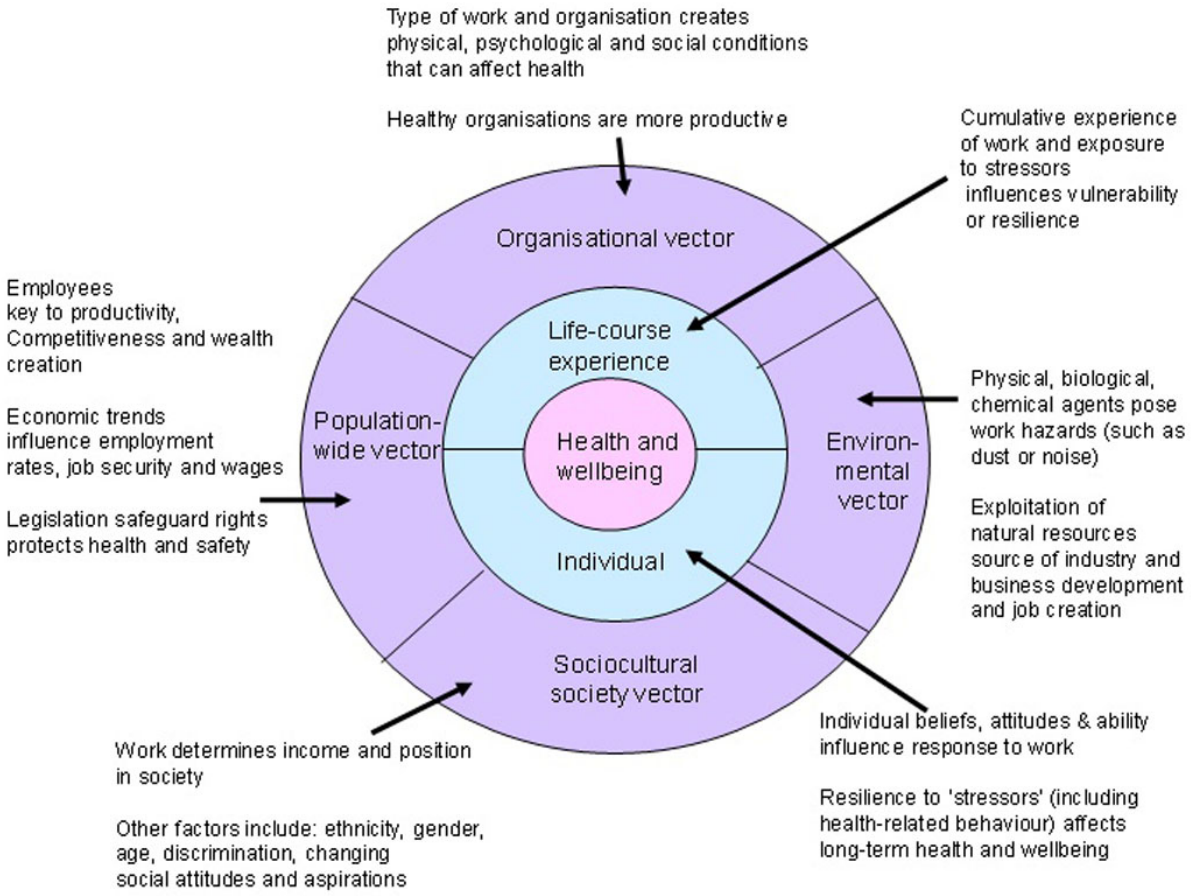

Figure - Conceptual framework for promoting mental well being at work

Source: Nice 2012

Annex 7

Table 5 - NWHC resolutions

Conference/ Year	Agreements regarding Mental Health at work
I CNST (1986)	Sureties to impaired person their right to work and access to health care (including mental health). Replaced the certificate of physical and mental health (focused on impairment of functions) for certificate of skill to function.
II CNST (1994)	Expanded mental health disorders list and included in them the occupational diseases contained in pension legislation. Implemented the development of educational programs about alcoholism by public and private companies.
III CNST (2005)	Included measures of attention to moral harassment at the workplace. Included mental health in health care for workers. Established punishment for unhealthy working conditions (physical and mental). Supported the inclusion of workers with mental disorders at work. Supported methods and practices for prevention of physical and mental illness. Supported research in the mental health field related to the issue of pesticide use. Inclusion of human resources policy for mental health to meet workers in the health sector.

Source: Nardi & Ramminger (2012)