

**Depression on the Frontline: An Examination of the Impact of Working Conditions
and Life Stressors on Sex Workers, Stylists and Servers**

by

Katherine Jane Vallance

Bachelor of Arts, University of Victoria, 2004

A Thesis Submitted in Partial Fulfillment
of the Requirements for the Degree of

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Abstract

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Changes to the global economy over the past few decades along with growing support for neo-liberal policies in Canada have led to an increase in precarious, low-wage frontline service work. These kinds of occupations often involve sustained interaction with clients and have high job demands, low job control and insufficient monetary reward. Further, many of these jobs also tend to be gendered (i.e., they involve a large degree of ‘emotional’ labour or care work that is predominantly carried out by female workers). Working conditions such as these can have a negative impact on the mental health of frontline service workers leading to psychological distress and depression. Chronic stress or cumulative stressful life events can also increase vulnerability to depression. While these stressors can be exacerbated by poor working conditions, they can also exist independently of them.

Comparative research across two or more frontline service occupations, similar in broad strokes but differing in workplace characteristics, is especially needed to understand how structural and contextual factors in the workplace and over the life course interact to produce depression. This thesis presents data from my supervisor (Dr. Cecilia Benoit) and colleagues’ 4-wave longitudinal study entitled “Interactive service workers’ occupational health and safety and access to health services” (Benoit, Jansson, Leadbeater & McCarthy, 2005). This is a study of three types of frontline service jobs – two in the formal economy (hairstyling and food and beverage service) and one in the shadow/informal economy (sex industry). Results of this secondary analysis demonstrate that not only do working conditions have a significant impact on the mental health of frontline service workers but that stressful life events also have very strong explanatory

power in understanding why certain workers experience depression more than others. The findings indicate that sex workers have the highest levels of depression, in comparison to stylists and servers. Yet sex workers report protective factors in their jobs, including higher comparative decision latitude, that contradict much of the current literature on sex work. The thesis concludes with policy recommendations and gives direction for further research in the area of frontline service work and depression.

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Dedication

This thesis is dedicated to all the women of the Sandy Merriman House Women's Emergency Shelter: past, present and future.

Chapter 1: Introduction

Significant changes in labour markets within and across countries in the past three decades have led to more precarious forms of employment, a widening schism between high- and low income earners, and the exclusion of vulnerable workers from social citizenship rights enjoyed by the non-marginalized labour force (Kerfoot & Korczynski, 2005; Benoit, Shumka, McCarthy & Phillips, 2007; Reid, 2007). Evidence suggests that increasing numbers of low-status workers involved in frontline or face-to-face service workers in Canada and other high-income countries are not faring well in the current economic and political climate (Kerfoot & Korczynski, 2005; Benoit et al., 2007). Compared to the general population, people working in these jobs are more likely to report both poorer physical and mental health (Benoit et al., 2007; Plaisier et al., 2007). The highly gendered makeup of this subsection of employees also indicates that it is women, often juggling both workplace and household demands, who are bearing a more costly health burden in relation to men (Kerfoot & Korczynski, 2005; Morrow, Hankivsky & Varcoe, 2004). As Morrow and colleagues (2004) point out, the ‘dismantling’ of Canada’s welfare state has put women in more precarious economic positions in the formal economy with females occupying the majority of low-status, low-paying occupations. The erosion of the welfare state has also increased the likelihood of women being pushed into informal occupations, such as work in the sex industry, where they are exposed to high levels of emotional burnout and depression (Benoit et al., 2007; Reid, 2007; Vanwesenbeeck, 2005).

As working conditions in certain occupations have continued to deteriorate over the past few decades, mental illness has become a growing global concern. Poor mental health accounts for over 15 percent of the burden of disease in high-income countries, and in Canada nearly 20 percent of the population will experience a mental illness in their lifetime (Canadian Public Health Agency, 2004; Zou, Salomon, Mathers & Murray, 2001). Research has indicated that the distribution of mental illness within the general population is neither uniform nor random. Rather, a link between psychological distress and a number of determining factors, including socioeconomic status, age, ethnicity, gender and employment conditions, has been identified (Krieger, Chen, Waterman, Rehkopf & Subramanian, 2005; Annandale & Hunt, 2000; Stephens, Dulberg & Joubert, 2000; Brown & Moran, 1997; Marmot, Ryff, Bumpass, Shipley, & Marks, 1997; Ross & Van Willigen, 1997; Link & Phelan, 1995). Increasing hours and workload are becoming more commonplace and what may have previously been considered unacceptable levels of stress now seem more normative (Tennant, 2001). As employment is such a fundamental part of people's everyday lives, working conditions can have a significant impact on overall emotional health and well-being (Ibrahim, Scott, Cole, Shannon & Eyles, 2001; Marmot, Siegrist, Theorell & Feeney, 2001).

The aim of this study is to better understand some of the main social factors contributing to depression among workers in three frontline service occupations -food and beverage servers (servers), hairstylists (stylists) and sex workers¹. The data for this

¹ For this project, the term 'sex worker' will be used as it is less stigmatizing than the more common term 'prostitute' which generally carries negative connotations and is synonymous with victimization and ignominy (Falk, 2001; Phillips & Benoit, 2005; Shrage, 1994). The sex industry workers who took part in the study used for this thesis included street-based workers, agency-based escorts, independent home-based escorts, other freelance workers (bars, strip clubs, parks) and exotic entertainers and masseuses (Phillips & Benoit, 2005).

thesis come from a study conducted by my supervisor, Dr. Cecilia Benoit, entitled “Interactive service workers’ occupational health and safety and access to health services” (Benoit et al., 2005) (henceforth referred to as the *Interactive Service Workers Study*). This study collected data on the occupational health and safety of these three frontline service occupations in Victoria, Canada. The study took into account not only the work environment, but also the interface between work, family life, and social policy (Benoit, 2005). There is also a parallel study taking place in Sacramento, California that will offer cross-nationally comparable data on occupational health and safety issues in Canada and the United States, two very different health care contexts (Benoit, 2005).

The three occupations considered in this thesis are highly gendered as well as occupationally and socially marginalized. Frontline service work is located close to the bottom of what is referred to as the “occupational hierarchy”, which is a measure developed for the Canadian labour force as a way of assessing occupational prestige (Mustard, Vermeulen & Lavis, 2003; Pineo, Porter & McRoberts, 1977). While the three frontline service occupations share a number of overall characteristics, the actual tasks they perform at work differ significantly. The amount of prestige they experience, as a result of their location in the occupational hierarchy, varies as well. In Canada servers and stylists work in the context of the legal, formal economy, whereas sex workers are located in the informal or shadow economy, which is defined as being “the production, distribution and consumption of goods and services that have economic value, but are neither protected by a formal code of law nor recorded for use by government-backed regulatory agencies” (Reimer, 2006:25). Sex workers are therefore not granted the same citizen-based workplace protections and programs, such as legislated employment and

occupational health and safety standards, as servers and stylists (Conley, 2000). As a result, sex workers are at an even lower tier of the occupational hierarchy. The different structural and legal-political contexts of these workers have significant implications for their emotional health and susceptibility to negative mental health outcomes, including depression.

There is scant research shedding light on the link between mental health and working conditions, especially those of particular occupational groups. More specifically, few, if any, comparative studies (see Weigt & Solomon, 2008; Vanwesenbeeck, 2005) have been conducted to examine the similarities and differences of experiences across vulnerable frontline service occupations, especially those in both the formal and informal economies (Kerfoot & Korczynski, 2005). By studying the above-mentioned occupational groups, I was able to explore the mediating role of working conditions in relationship to varying outcomes of depression associated with the three vulnerable and gendered occupations (Bass, Phillips, Benoit, Jansson & McCarthy, 2006). I was also able to shed light on the role of stressful life events and chronic stressors in the lives of these workers and the levels of depression they experience. Stressful life events are defined as acutely stressful events that have a defined beginning and end, whereas chronic stress refers to “long term disturbances” or “on-going conditions” that do not have clear time boundaries (Ostiguy et al., 2009).

Research pertaining to the sex industry continues to be preoccupied with the uniqueness of sex workers. The bulk of the literature focuses more on the dangers involved in the sex exchange rather than the conditions of work and how they vary by context (Weitzer, 2009; Vanwesenbeeck, 2001). This thesis steps away from that trend

and approaches sex work as a form of economic activity that shares many of the habitual, ordinary qualities of other service work in the formal economy (Benoit et al., 2007).

The following research questions provide the framework for my analysis: (1) are working conditions negatively correlated with depression among frontline service workers?, (2) do working conditions play a mediating role in the differing levels of depression reported by frontline service workers? and (3) do stressful life events and chronic stressors play an mediating role in the differing levels of depression reported by frontline service workers in the formal and informal service sectors? In order to answer these interrelated questions, I use an Ordinary Least Squares multiple linear regression model (Agresti & Finlay, 1995).

The outline of this thesis is as follows: Chapter 2 highlights the current state of literature relevant to mediators of depression. The first section of the review outlines socio-structural factors that may contribute to selection into certain occupations, in this instance frontline service occupations in the formal and informal or shadow economy. This section also discusses the usefulness of the social determinants of health framework in identifying which groups in the population are at a higher independent risk of experiencing depression based on their social location. The second section of the literature review presents the effect that working conditions can have on workers' mental health outcomes. This section pays particular attention to frontline service workers, whose jobs are often highly gendered and precariously situated. Frontline service work frequently involves emotional labour (Hochschild, 1983), or management of emotions for a wage, as part of their daily work interactions. The third section of the review introduces a relatively new contribution to the literature, which looks at psychosocial stressors such

as stressful life events and chronic stressors. These sources of stress are located outside the workplace but their cumulative impact can combine with poor working conditions to greatly increase certain workers' vulnerability to depression (Reynolds & Turner, 2008; Mustard et al., 2003; Seguin, Potvin, St-Denis & Loiselle, 1999). The final section of Chapter 2 summarizes the main findings of the literature review and gaps are addressed.

Chapter 3 explains the methods used in the study, including detailed information on the study population and the background of the study data used for this thesis. This chapter also describes the measures used in the analysis, the analytical process of building the regression model, and the diagnostics tests that were run.

Chapter 4 presents the descriptive results by each occupation, including the background characteristics and the stress, depression and occupational variables. This chapter also describes the results of the regression model, the hierarchical inclusion of different variables and reports on any significant results in the model.

Chapter 5 involves a discussion of the thesis results in light of the relevant literature. The impact that working conditions and psychosocial stressors have on depression levels are discussed, as are the findings around social support.

Chapter 6 provides a brief summary of the main findings of the thesis and describes some of the limitations of the study. This chapter also points to directions for future research which include examining experiences of stigma among frontline service workers and variation in depression among sex workers working in different areas of the sex industry. The chapter concludes by identifying the potential policy implications of the findings.

Chapter 2: Background Literature

2.1 Introduction

Paid employment forms an integral part of the functioning of society and is a fundamental human activity. At its most basic, the concept of work involves an exchange of goods or services for some form of payment or in-kind trade intended to support oneself or one's dependents (Benoit, 2000; Applebaum, 1992; Hodson & Sullivan, 1990). However, the day-to-day functioning of the world of work is much more complex and involves a great many more factors than a simple exchange of goods or labour. Some types of work are highly valued, and others less so. For example, caring for a family and household is greatly undervalued in most regions of Canada and often receives little societal recognition or monetary compensation (Benoit, 2000). There is a large body of literature on paid and unpaid work and its gendered implications (Benoit & Shumka, 2009; Benoit & Hallgrímsdóttir, 2008; Carmichael, Hulme, Shephard & Connell, 2008). This thesis will focus on work for pay in both the informal private sector or shadow economy (sex work) and the formal private sector (food and beverage service and hairstyling). In Canada it is legal to sell sexual services; however, many of the practical activities associated with selling sex – communicating, operating a bawdy house, living on the avails – are illegal which pushes it into the informal or semi-legal economy (Lowman, 2005 & 1987). In the context of this thesis, the private sector refers to the segment of the economy not controlled by the state and run for private profit with an emphasis on the needs of the shareholder rather than the workers (Benoit, 2000).

While there are numerous studies looking at the health implications of certain types of jobs, such as nursing, teaching and social work, found in the public sector (Reingard, Spitzer, Blank & Scheuch, 2009; Baines, 2004; Crichton, 2001; Tennant, 2001), there has been significantly less research conducted on private sector jobs (Benoit et al., 2007; Bass et al., 2006). There is still great uncertainty about the causal links between mental health outcomes and low-status, low-paying precarious frontline service jobs in both the formal and shadow economies. The literature review below will (1) identify the factors that increase the likelihood that certain portions of the population will end up in occupations with damaging workplace environments and look at other structurally determining factors that can place certain populations at a greater risk for depression; (2) highlight the impact of negative working conditions on mental health; (3) and address the literature pertaining to stressful life events, chronic stressors and the cumulative impact that these two types of stress may have on workers' mental health and well-being.

The first section of this chapter reviews the social determinants of health literature pertaining to entry into occupation. Research on the intersection of gender, race and ethnicity, Aboriginal status and socioeconomic status is examined and discussed in relation to the organization of paid work in present-day Canada. I then review the research specific to frontline service work that involves the worker performing "emotional labour" (Hochschild, 1983). Here I review a wide range of studies examining the link between working conditions and poor mental health outcomes and vulnerability to depression. In the final section of this chapter, I discuss scholarship addressing linkages between depression and psychosocial stressors such as stressful life events and

chronic stress. The intersection between structurally determining factors such as socioeconomic status, race, ethnicity and Aboriginal status, and gender, and variation in vulnerability to psychosocial stressors is also discussed.

2.2 Entry into Occupation and Social Determinants of Depression

A large amount of our time is spent each day in various forms of employment. As well, a significant portion of our sense of self and self-esteem can be traced back to our occupational experience (Benoit, 2000). Yet despite its central importance to individual economic independence and self-worth and the fact that there is a broad spectrum of different jobs in society, workers do not end up in occupations by choice. Rather, there are structural factors that determine the types of jobs people are likely to undertake, which may be more a function of selection into occupation rather than individual choice of a particular type of work (Turner & Avison, 2003).

The social determinants of health framework offers a useful tool for understanding the different social factors operating in society that play a hand in shaping the trajectory of peoples' occupational lives (Evans, Barer, Marmor et al., 1994; Marmot & Wilkinson, 1999; Canadian Institute for Health Information, 2005; World Health Organization, 2008). As such, the social determinants of health work together as systems; and the convergence of various factors may have physical and mental health effects that are greater than effects of individual characteristics (Hankivsky, 2005; Hoglund & Leadbeater, 2004; Adamson, Ben-Shlomo, Chaturvedi & Donovan, 2003; Kobayashi, 2003; Hertzman, McLean, Kohen, Dunn & Evans, 2002). For example, gender, race, ethnicity, Aboriginal status and socioeconomic status are not independent sources of

inequality. Rather, these variables interact and interlock at a macro-level, which can influence access to key resources and, at a micro-level, can impact the experience and quality of life in a way that can have a complex cumulative effect (McMullin & Cairney, 2004; Dressel, Minkler & Yen, 1997). Further, the intersection of these particular determinants of health contributes to an individual's location in society, which may impact the type of occupations they have access to and work in. In other words, a woman, or an ethnic minority person of lower socioeconomic status (or an intersection of the above), is much more likely to find themselves in an occupation with less than average pay, poor working conditions and little control over their job (Hankivsky & Christoffersen, 2008; Turner & Avison, 2003; Benoit et al., In press). Once selected into such an occupation, lack of access to education coupled with discrimination, family responsibilities and other economic burdens such as high debt load make it extremely difficult for individuals to achieve job mobility and move up the occupational hierarchy (Hankivsky & Christoffersen, 2008; Turner & Avison, 2003; Benoit et al., In press). Further, studies have indicated that people in low paying occupations are more likely to suffer from mental health issues, such as psychological distress and depression (Warren, Carayon & Hoonakker, 2008).

Likewise, research has shown that depression is not randomly distributed throughout the population, but rather is systematically dispersed and linked to a variety of social factors, both at a proximal level, operating at the individual, household and community level, and at a distal level, operating at a national and global level (World Health Organization, 2008; Link & Phelan, 2005; Link & Phelan, 2002). These proximal and distal factors can in turn shape individual behaviour (Aneshensel, 2005; Turner &

Turner, 2005; Turner, Reynolds & Wheaton, 1995; Aneshensel, 1992). Gender, race, ethnicity, Aboriginal status and socioeconomic status are not only connected with selection into occupation, they are also independently linked to higher outcomes of depression (Reynolds & Turner, 2008). Research shows a much higher likelihood of diminished physical and mental health for people who share these characteristics, either through occupational status, or as a result of structural disadvantage and lack of access to key resources that protect individuals against psychological distress and depression (Barret & Turner, 2005; Seguin et al., 1999; Turner, Wheaton & Lloyd, 1995).

2.2.1 Social Class

Social class, which sociologists typically measure as a composite variable combining education, income and occupation (referred to as socioeconomic status/SES); can shape individual behaviours in ways that can be either beneficial or deleterious to mental health (Benoit & Shumka, 2009; Ross & Wu, 1995). People are born into a certain social class position, which is considered an ascribed status. Regardless of whether a person's social class changes over their life course (acquired status); their original class location has been shown to have a long term impact on their health (Benoit & Shumka, 2009; Warren, Hoonakker, Carayon & Brand, 2004; Wheaton & Clarke, 2003; Miech & Shanahan, 2000). For example, people who are more privileged gain access to greater material resources and health-promoting physical and social environments which foster social support and community participation and together contribute to lower morbidity and mortality (Benoit & Shumka, 2009; Keating, 2009; Armstrong, 2004). In contrast, women from lower class backgrounds have much higher mortality rates and are more

likely to develop negative health behaviours, including smoking and eating unhealthy foods, and are also more likely to live in unsafe neighbourhoods, perform substantial amounts of unpaid domestic labour and be responsible for most, if not all, of child or senior care (Benoit & Shumka, 2009; Spitzer, 2005; Janzen, 1998). These illustrations provide clear evidence of a cycle of disadvantage that occurs when fundamental social determinants such as social class and gender intersect to determine access to key resources, in turn influencing individual behaviours and negatively impacting mental and physical health.

Not surprisingly, then, North American children from lower class neighbourhoods perform poorly in school environments compared to those born into more advantaged neighbourhoods (Browne, 2004). Such discrepancies in educational achievement during the first two decades of life can be pivotal to adult health (Browne, 2004; Ungeleider & Burns, 2004). Wheaton and Clark (2003) also suggest that negative neighbourhood contexts earlier in life may have a time-lagged and cumulative effect on mental health status and contribute decreased mental health in later life. In contrast, those who have access to social support networks within their communities and neighbourhoods exhibit more protective behaviours against the potential onset of depressive episodes (Warren et al., 2004). Miech and Shanahan (2000) used education as a proxy measure of social class and found that people with higher levels of educational attainment were able to avoid a decrease in their overall mental health until much later in life. This reinforces the notion that social stratification and access to resources, including positive neighbourhoods and education, are determining factors in morbidity (Keating, 2009; Reynolds & Turner, 2008; Dohrenwend et al., 1992). Further, the previous

information suggests that health disparities among older populations may be indicative of socially stratified disadvantages in relation to access to education, better occupations and superior mental health outcomes over the life course.

Drawing on Canadian longitudinal and cross-sectional data, Ross and Wu (1992) show that education, which as noted above is an important determinant of social class, is both a direct and indirect cause of improved health. The health effects of education operate directly through material resources such as access to rewarding work, greater ability to implement health promoting knowledge, and perceptions of personal efficacy, and indirectly through economic and work conditions, healthy lifestyle and psychosocial resources (Ross & Wu, 1992.) For example, women who have completed college or university-level education report lower levels of depression, which has been found to be independent of other factors such as childhood health and working conditions (Warren et al., 2008). However, although educational attainment can be beneficial to women, research has also shown that they nevertheless remain disadvantaged in labour markets (Spitzer, 2005).

The quality and affordability of housing is another social determinant related to social class that can affect physical health and psychological states (Hwang & Quantz, 2005; Raphael & Bryant, 2004; Frankish, Stafford, Bartley, Mitchell & Marmot, 2001). Despite having a very large private sector housing market, Canada has the smallest social housing system of any Western nation with the exception of the United States (Canadian Policy Research Network, 2002 in Shapcott, 2004). Compounding this fact, Canada's social assistance rates have not kept pace with the rising housing costs that affect the most vulnerable families in urban settings (Capital Urban Poverty Project, 2000). Not

surprisingly, those with the lowest incomes or the poorest health are more likely to be homeless, to live in unsafe housing conditions and be subject to overcrowding. Adding to this inequality, the income gap between home owners and renters is widening (Health Canada, 2006; Shapcott, 2004). Each of these aforementioned conditions further jeopardizes mental and physical health, and people living in socially disadvantaged and disorganized localities have a much higher likelihood of experiencing worse mental health (Ross, Mirowsky & Pribesh, 2001; Silver, Mulvey & Monahan, 1999).

As discussed earlier, factors such as gender, race, ethnicity, Aboriginal status and social class can all be seen as important structural determinants in peoples' lives (Link & Phelan, 2005; Link & Phelan, 2002). Not only are these determining factors related to occupational attainment but they are also related to an increased vulnerability to depression (Plaisier et al., 2007; Roxburgh, 1996). Those from lower classes thus tend to experience greater levels of social stress, and, again, this has shown to be especially true among women in Western countries (Turner & Turner, 2005; Marmot et al., 2001; Miech, Caspi, Moffit, Wright & Silva, 1999; Dohrenwend et al., 1992).

2.2.2 Gender

Gender is arguably a fundamental social determinant of health because of its role in organizing access to both key resources and positive social relations. However, unlike social class, the influence of gender on health only exists in conjunction with other determinants of health. Simply put, gender itself is not necessarily a resource nor a burden unless it is accompanied by systems of discrimination based on cultural interpretations of gender (Benoit et al., In press). For example, women's marginalized

role in the paid labour force, in conjunction with their greater responsibility in the unpaid domestic sphere places them at greater risk of health problems associated with social class (Roxburgh, 1996). Women's marginalized role in Western society is a direct result of cultural norms regarding femininity and masculinity (Armstrong, 2004).

Researchers point to four key areas that highlight how gender results in health disparities: 1) gender roles within the domestic sphere; 2) gender segregation in the occupational sphere; 3) gender norms with respect to interpersonal relations; and 4) differences in experience of psychosocial stressors (Spitzer, 2005; McDonough & Walters, 2001; Macintyre, Hunt & Sweeting, 1996; Hall, 1992). Further to this, an additional explanation concerns whether differences in *vulnerability* or differences in *exposure* account for gender differences in stress-related health outcomes (Denton, Prus & Walters, 2004). Evidence suggests that while different exposures account for some of the health differences between men and women, differential vulnerability also plays a role (Denton et al., 2004; Lennon, 1987). Here, arguments concerning vulnerability do not refer to innate vulnerability, but rather to social vulnerability brought about by gender norms of femininity and masculinity. For example, some findings suggest that women may be more vulnerable to job demands, thereby experiencing higher levels of distress at the same level of perceived job demands as men; however, this may in fact be a result of the additional demands that women face in the home (Roxburgh, 1996; Jick & Mitz, 1985). Further, women are much more likely to be diagnosed with stress-related conditions such as anxiety disorders, and uni-polar depression while men are more likely to be diagnosed with obsessive compulsive or anti-social disorders (Jick & Mitz, 1985; Kessler & McRae, 1981; Dohrenwend & Dohrenwend, 1977, 1976). These findings

suggest that mental health diagnoses, (such as a depression) are often gender specific and are affected by socially constructed gender roles.

While it is a commonly held belief that power differences between men and women have been lessened as we move towards increased gender equality in the labour market, the importance of gender as a health determinant should still be considered in the context of remaining structural lags for roles and resources accessible to women and men (Chappell, Gee, McDonald et al., 2003). Both public and private work by women continues to be marginalized and undervalued; for women, work and family life do not intersect smoothly and in fact, often conflict (Chappell, Gee, McDonald et al., 2003). Since women are the primary custodians of the home, resources (in particular, a lack thereof) have a more immediate impact on women (Doyal, 1994). Further, women are more likely to be employed at lower paying jobs that require longer hours with less security, and with a lesser degree of control and participation in decision making structures (Roxburgh, 1996; Lennon, 1987). Women's work is also more likely to be of lower status, part-time or casual in nature, and to offer lower pay and fewer benefits (Ibrahim et al., 2001). Further, women are likely to have less opportunity to attain higher complexity positions and benefit from job mobility (Roxburgh, 1996; Jick & Mitz, 1985). As such, the gendered nature of the workforce is perpetuated, which means that women are subject to specific structural barriers that have particular health bearing consequences, often taking the form of emotional distress as well as depression (Benoit & Hallgrímsdóttir, 2008).

While paid employment has been shown to have a beneficial effect on women's mental health (Evans & Steptoe, 2002) negative workplace conditions coupled with a

double burden of household duties have been shown to result in higher levels of depression (Borrell, 2004; Borrell, Muntaner, Benach & Artazcoz, 2004; Hall, 1992; Turner & Avison 1989). The economic necessity of women's increasing labour force participation intersects with motherhood and women who work for pay experience great tension in balancing reproduction and family care with paid labour—although this tension can be mediated by access to public child and elder care and reimbursed parental leave (Benoit, 2000; Benoit & Shumka, 2009; Hankivsky & Christofferson, 2008; Benoit et al., In press). However, even controlling for occupation, international studies have shown that women are twice as likely as men to suffer from anxiety and depressive disorders—clearly this propensity cannot be explained by occupational factors alone (Plaisier et al., 2007; Alonso et al., 2002; Bebbington, 1998).

2.2.3 Race, Ethnicity and Aboriginal Status

As with gender, which is also an ascribed identity, status, race and ethnicity are other variables that impact health via mechanisms of social stratification (Kobayashi, 2003; Dunn & Dyck, 2001). Race, while primarily a socially constructed category based on shared physical traits, can also be linked to certain biologically-related health conditions that can overlap with ethnicity, which is primarily a shared socio-linguistic and cultural heritage (Benoit et al., In press). The impact of race and ethnicity on health varies according to access to economic resources, historical colonization, minority status, life course stage and patterns of migration, among other factors (Adelson, 2005; Health Canada, 1999). Depending on the ethnic or racial group membership, one could have improved or decreased chances of good health (Segall & Chappell, 2000).

Often, research on race and ethnicity is approached from an epidemiological “risk factor” tradition, comparing different groups according to the “risks” or “prevalence of disease” in particular ethnic or racial populations to shed light on the aetiology of the disease. Such studies are based on an implicit assumption of biological or cultural difference. Much of the research on race, ethnicity and disease also fails to recognize the impact of structurally determined access to social resources. Instead, cultural differences are wrongly assumed to be paramount and such studies are based on an implicit assumption of biological or cultural difference, and thus fail to investigate both race and ethnicity as socio-structural variables (Nazroo, 1998).

The reality of ethnic and visible minority groups’ socially ascribed status and resulting limited access to resources impacts not only their health, but their occupational trajectories as well (Turner & Avison, 2003; Benoit & Shumka, 2009). These limitations span both economic and cultural spheres as non-Caucasians in North America are often at an economic disadvantage and may find themselves at the lower end of the occupational hierarchy (Williams & Williams-Morris, 2000; Krieger, 1999). Despite increasing numbers of visible minorities who are university educated, they remain underemployed in white collar occupations and are more likely to work in jobs that do not reflect their level of educational attainment (Lautard & Guppy, 2004). Occupation notwithstanding, minority populations may also suffer discrimination at the hands of the cultural majority and negative stereotypes such as “stealing” of jobs, or even a lack of social recognition, can lead to damaged self-concept and deterioration of mental health (Lamont, 2009; Reynolds & Turner, 2008). As a result, ethnic and visible minority groups in predominantly white countries such as the US are more likely than Caucasians to

experience crises leading to mental distress (Reynolds & Turner, 2008). While linkages between ethnic minority status and poor mental health have been established in the existing literature, Turner and Avison's (2003) research indicated that stress resulting from social disadvantage as a result of race and ethnicity are consistently underreported in much of the US literature.

Aboriginal populations in Canada, which include Status and Non-Status First Nations, Métis and Inuit persons, have, on average, lower socioeconomic status and experience higher rates of diseases such as diabetes (Young, Moffat & O'Neil, 1993). They are also more likely to live in neighbourhoods marked by poor quality housing, crime and violence, and have a higher likelihood of adopting health damaging behaviour such as problem substance use (Adelson, 2005; Young et al., 1999). Aboriginal Canadians also have a lower overall life expectancy than non-Aboriginal Canadians, and for Aboriginal men life expectancy is seven years less and for Aboriginal females it is five years less than their non-Aboriginal counterparts (Statistics Canada, 2001). Aboriginal populations also experience health disability and higher unemployment to a greater extent than do non-Aboriginal Canadians (Adelson, 2005). Indeed there are few, if any, statistics that do not show Aboriginal populations to be at a greater health risk than other Canadians. Correspondingly there are no known measures of health that show Aboriginal populations to have a health advantage (Adelson, 2005). Aboriginal status interacts with other systems of stratification in society such that people who are deemed to be at high health risk (i.e., persons in the sex industry, children in government care, incarcerated persons) disproportionately represent Aboriginal populations (Phillips & Benoit, 2005; Benoit, Carroll & Chaudhry, 2003). It is also of no surprise, then, that in

keeping with the above, Aboriginal populations disproportionately experience unemployment, marginal employment, homelessness, poor housing, and difficulty accessing appropriate health care (Adelson, 2005; Shah, 2004; Benoit et al., 2003). For example, nearly three quarters of women working in the Vancouver's Downtown Eastside (DTES) as sex workers are Aboriginal women (Benoit & Shumka, 2009). Some of the reasons why Aboriginal women are more likely to work in the sex industry are due to lower levels of education which result in fewer job opportunities, poverty and discrimination as a result of race and gender.

2.3 Working Conditions and Mental Health

There is a substantial body of literature linking occupational conditions, which as stated above are often a reflection of income and education levels (e.g., dimensions of socioeconomic status), with physical and mental health outcomes (Warren et al., 2008; Plaisier et al., 2007; Marchand, Demers & Durand, 2005a & 2005b; Godin & Kittel, 2004; Marmot et al., 2001). Research also shows that the working conditions of particular jobs can have either a positive or negative effect on workers' mental health and emotional well-being (Cole, Ibrahim, Shannon, Scott & Eyles, 2002; Stephens et al., 2000; Niedhammer, Goldberg, Leclerc, Bugel & David, 1998; Roxburgh, 1996; Bourbonnais, Brisson, Moisan & Vezina, 1996; Pugliesi, 1995). For workers employed in the lower end of the occupational hierarchy, jobs often involve poorly organized workplace conditions and depression seems to be an increasingly common health outcome (Cole et al., 2002; Niedhammer et al., 1998; Bourbonnais et al., 1996). As described in the previous section, there are a number of socially determining factors that place certain

segments of the population at a higher independent risk of depression and may also create a selection bias into particular occupations such as frontline service work. Women, racial and ethnic minorities, Aboriginals and people with lower socioeconomic status—and the intersections between them—all form segments of the population who are more likely to end up at the lower end of the occupational hierarchy and be at greater risk of emotional distress and depression (Benoit et al., In press). This next section takes a closer look at the impact of working conditions on the mental health of workers who find themselves thusly located.

2.3.1 Frontline Service Work

As noted earlier, social science research has made great inroads into understanding the mental health of workers in many public sector service occupations (Reingard et al., 2009; Crichton, 2001; Tennant, 2001). Useful connections have been made between certain occupational characteristics and their impact on workers' health and well-being in fields such as nursing, teaching and social work (Baines, 2004; Edwards, Burnard, Coyle, Fothergill & Hannigan, 2001; Tennant, 2001; van Dick & Wagner, 2001). For example, studies have found that in the field of nursing, depression is most highly related to control over the work environment rather than the experience of being faced with challenging work situations on a daily basis (Vanwesenbeeck, 2005; Edwards et al., 2001). In contrast, the results of other nursing studies have shown that client-related stressors can contribute to depression, but only in conjunction with a lack of control over the work environment. Being one's own manager or an individual practitioner contributed greatly to job satisfaction and better mental health, and this

connection has also been noted for other types of independent contract workers (Kashefi, 2007; Edwards et al., 2001; Tennant, 2001). However, relatively less is known about private sector service occupations, especially frontline service work.

Frontline service occupations tend to be overpopulated by women and ethnic minority groups and are generally less well-paid than other jobs (England, Hermsen & Cotter, 2000). Economic restructuring and technological advancement has resulted in a reduction of manufacturing jobs and an increase in service-oriented work (Krahn & Lowe, 2005; Brotheridge & Grandey, 2002; Reskin & Padavic, 1994). The globalization of economic activity over the past twenty years has also brought about dramatic shifts in market competition and a reorganization of the labour force (Benoit et al., 2007; Reid, 2007; Kerfoot & Korczynski, 2005). These shifts have resulted in a growing gap between a privileged, relatively stable employment sector and a precarious employment sector characterized by instability, exposure to workplace hazards and poor salaries (Godin & Kittel, 2004; Edwards et. al. 2001).

Jobs in the new economy range from relatively high-skill and high prestige occupations including teaching, counselling or nursing, to lower-skill, lower-status service jobs that fall at the bottom of the occupational hierarchy such as work in retirement homes, call centres and retail stores (Harvey, 2005). These jobs often include sustained face-to-face or frontline interaction with customers and the jobs with the lowest prestige often involve providing personal service work to others (Kerfoot & Korczynski, 2005; Wharton, 1993; Zemke & Schaaf, 1989). As mentioned previously, hairstylists, food and beverage servers and sex workers are the three occupational groups under examination in this study. All three are considered frontline service jobs; with two

located in the formal economy and one located in the informal or shadow economy (sex industry work). Each of these occupations have a highly gendered workforce with an overrepresentation of female workers (Zimmerman, Litt & Bose, 2006; Kerfoot & Korczynski, 2005; Jick & Mitz, 1985).

Frontline service work of this type generally involves *emotional labour* (Hochschild, 1983). Emotional labour can be described as the management of workers' own emotions to successfully serve the clientele and ensure repeat business (Hochschild, 1983.). Many scholars argue that emotional labour is an increasingly common feature of work in both developed economies and at a global level and can have negative health implications for workers who must please difficult customers and demanding managers—often for insufficient monetary reward (Kerfoot & Korczynski, 2005; Ehrenreich & Hochschild, 2002; Ehrenreich, 2001; Zemke & Schaaf, 1989). For example, in order to provide satisfactory service to a restaurant's customers to ensure that they will return, servers must operate using a set 'service script' from which they can rarely deviate (Hall, 1992). Hairstylists, on the other hand, must maintain extended interaction with each customer at varying degrees of emotional intensity to build sufficient rapport to bring people back in the hopes of building a loyal clientele (Morris & Feldman, 1996).

Researchers suggest that the high levels of emotional management and effort involved in what can be called "surface acting"- (i.e. a false display of emotions to customers not actually felt by the worker) can lead to emotional exhaustion (Morris & Feldman, 1996; Hochschild, 1983). While these conditions themselves can be damaging to workers, there is an added level of strain for those working in the sex industry as they must provide emotional interaction and conduct "surface acting" within a working

environment that the general public deems to be morally wrong (Weitzer, 2000; Vanwesenbeeck, 1994; Pheterson, 1993). Conversely, other scholars argue that depending on the work context, some service workers gain a high level of satisfaction from emotional engagement with their customers and this interaction can provide an important sense of fulfillment and enhance their sense of self-worth (Sharma & Black, 2001; Wouters, 1989).

While there has been some research conducted regarding frontline service occupations in the private sector of the formal economy (Zimmerman et al., 2006; Kerfoot & Korczynsky, 2005; Hall, 1992; Zemke & Schaaf, 1989; Hochschild, 1983), there is much less known about working conditions for people working in informal occupations such as the sex industry. Unlike research on occupations in the formal economy, the study of sex work has historically been a controversial and divisive topic for academics. Much of the epidemiological research on sex work focuses on transmission of diseases such as HIV/AIDS and risk-taking behaviours, whereas the majority of other literature is focused on whether sex work is exploitative, or, conversely, characterized by choice and the potential for personal empowerment (Barton, 2002; O'Connell Davidson, 2002; Shaver, 1994; Pheterson, 1989; Pateman, 1988). More encouragingly, recent sociological studies of people working in the sex industry have begun to move beyond this polarizing debate by applying a service work perspective to the study of sex work, focusing more on the “work” rather than the “sex” aspect of sex work (Peng, 2007; Lucas, 2005; Pope, 2005; Sanders, 2005; Bernstein, 2001). Studying sex work as a type of personal service work has so far offered many useful contributions to the literature; not least of which is the shift towards treating sex work as legitimate

employment rather than focusing exclusively on the sexual element. This newer research has shed light on the heterogeneity of the sex industry workforce in areas both work-related and non-workplace related (Benoit et al., 2007; Vanwesenbeeck, 1994). An important implication of this more recent research is that it provides more accurate knowledge about the reality of the risks and rewards involved in work in this industry and allows for scholarship that may lead to an improvement in working conditions and better mental and physical health outcomes for sex workers.

2.3.2 Social Determinants of Work

Unhealthy work circumstances can occur within a variety of occupations, however, as noted earlier, they are disproportionately found among occupations that offer worse pay and require less education (Gollac & Volkoff, 2000 in Godin & Kittel, 2004; Warren et al., 2004). Research in the United States has shown that individuals who work in low income occupations, in particular irregular or marginal jobs, have access to fewer health and welfare benefits (Warren et al., 2004). These workers also tend to lack other protective workplace regulations that might shield them in the context of an unhealthy work environment (Godin & Kittel, 2004). The resulting circumstances create a double jeopardy of poor health outcomes among lower income workers (Hodson & Sullivan, 2002; Reskin & Padavic, 1994). This further reinforces the link between psychosocial and material factors and better mental health outcomes among groups of workers. Access to positive work environments, or access to the support necessary to improve unhealthy working conditions, depends greatly on the worker's position within the occupational hierarchy (Mustard et al., 2003; Griffin, Fuhrer, Stansfield & Marmot, 2002; Stansfield et

al., 1999). As a result, those who are on the lower rungs of the occupational hierarchy are more likely to experience demoralization and an eventual decline in mental health status over time (Marchand, 2007; Mustard et al., 2003; Roxburgh, 1996).

An increasing amount of research has shown that stressors in the workplace are also important determinants of mental health status (Marchand et al., 2005b; Cole et al., 2002). A number of different working conditions have been identified that create “high demand” working environments that do not protect against stress and can lead to emotional upset and depression (Plaisier et al., 2007). One example of “high demand” working conditions includes significant physical demands such as standing for long periods of time or operating in a noisy workplace (Warren et al., 2004). Another example of conditions that can lead to high levels of work stress are working environments with high psychological demands, which often consist of conflicts at work, a high volume of work and a very fast pace needed for completing tasks (Cole et al., 2002; Link, Lennon, Dohrenwend et al., 1993; Kohn & Schooler, 1973). Another source of workplace distress is unstable conditions surrounding the work, such as looming high chance of lay off, irregular working hours, involuntary part-time hours or feeling easily replaceable (Plaisier et al., 2007; Denton & Davies, 2005; Godin & Kittel, 2004; Demerouti, Bakker, Nachreiner & Schaufeli, 2000; McDonough, 2000; Zeytinoglu, de Jonge, Mulder, Nijhuis et al., 1999). High physical and psychological demands and job insecurity are three examples of working conditions that have been linked with psychological distress and that can result in higher levels of depression (Tsutsumi, Ishitake, Peter, Siegrist & Matoba, 2001; War, 1990). Further reinforcing the notion of a social gradient of

morbidity, workers most likely to experience these types of working conditions often belong to lower status and marginalized groups (Godin & Kittel, 2004).

Apart from physical demands and job instability, the literature also provides significant evidence that psychological factors such as control over decisions at work, use of skill discretion, and support (or lack thereof) in the workplace can greatly protect against or exacerbate emotional distress (Link et al., 1993; Kohn & Schooler, 1973). In fact, analyzing workers' levels of decision authority as well as their ability to use skill discretion in their job are two of the most helpful measures for better understanding the connection between mental health outcomes and different sectors of the working population (Plaisier et al., 2007; Cole et al., 2002; Ibrahim et al., 2001; Niedhammer et al., 1998; Bournonnais et al., 1996; Karasek & Theorell, 1990). Marmot et al. (2001) further suggest that in the context of work these demands can have a significant impact on both mental and physical health and the specific combination of workplace demands and workplace autonomy can determine the level of strain workers experience. For instance, workers who are able to control, plan, or direct for others, report much lower levels of depression and more job satisfaction than those who have little control over their daily tasks and interaction with co-workers (Link et al., 1993; Edwards et al., 2001). Not only are these workers less satisfied with their occupations, but they may also suffer unintended negative side effects that impact their health. Returning to gender issues, women are more likely than men to report low decision latitude at work and this has been shown to result in women experiencing higher rates of demoralization and depression (Ibrahim et al., 2001; Matthews, Hertzman, Ostry & Power, 1998; Lennon, 1987).

As noted in the previous section of this review, gender frequently intersects with occupation, and this logically extends to working conditions. In general, in comparison to men, women are more likely to have poorer working conditions and men also experience higher job prestige and more rewarding employment (Blidt & Michelsen, 2002; Pugliesi, 1999; Roxburgh, 1996; Jacobs & Steinberg, 1990). Women are also exposed to more psychological strain than men in the workforce (Roxburgh, 1996; Ibrahim et al., 2001), which may be partly a function of jobs that exhibit an imbalance between the effort expended and the reward received (Ibrahim et al., 2001). Women are consistently paid less for the work they do and female dominated occupations such as care or service work are generally less well remunerated than male dominated occupations (England, Hermsen & Cotter, 2000; Roxburgh, 1996; Jacobs & Steinberg, 1990). This pay imbalance may contribute to job strain and can be further exacerbated by difficulties managing dual roles in paid and unpaid domestic spheres (Krahn & Lowe, 2002; Roxburgh, 1996). Some research has suggested that a selection factor might be at play in which some occupations may attract individuals, such as women, that are vulnerable to mental illness (Marchand, 2007). However, significant scholarship has demonstrated that individual traits are not independently responsible for higher levels of depression in the workplace (Marchand et al., 2005b; Paterniti, Niedhammer, Lang & Consoli, 2002).

2.3.3 Protective Factors in the Workplace

Employees who work in difficult conditions, but yet have strong support from their co-workers, managers and family members tend to be more protected from the effects of stress and report a lower incidence of anxiety and depression (Sinokki et al.,

2009; Plaisier et al., 2007; Marchand et al., 2005b; Cole et al., 2002; Vermeulen & Mustard, 2000; Stansfield et al., 1999; Niedhammer et al., 1998; LaRocco, House & French, 1980). Recent studies have also shown that support in the workplace is even more effective in protecting workers from work-related psychological distress than is support from family and friends (Sinokki et al., 2009; Plaisier et al., 2007; LaRocco et al., 1980). Therefore, while family and friend support is helpful in a more general way, co-worker support can provide more specific and work-issue related help that goes further towards alleviating occupational stress. For female workers, higher levels of distress and depression seemed to be lessened by increased social integration and access to social support resources both in and outside of work (Pugliesi, 1995).

As has been highlighted, working conditions clearly play an important role in explaining why certain segments of the working population may experience comparatively greater levels of emotional distress and depression. Engaging and supportive work environments with higher worker autonomy and sufficient monetary reward can have strong protective factors against emotional distress and mental illness. In contrast, workplace settings that offer few or none of these benefits can be especially harmful.

2.4 Psychosocial Stressors

As the above discussion demonstrates, an examination of workplace settings can provide powerful insight into conditions that can contribute to emotional distress and mental illness. There are, however, other explanations put forth in the social sciences literature that offer equally compelling insight into possible underlying causes of

conditions like depression. This particular body of research suggests that psychosocial stressors associated with the context of daily life, and which are often shaped by broader structural factors of social stratification, may serve to partially explain the inequities in mental health across the general population (Marmot & Wilkinson, 2001; Marmot et al., 1997; Wilkinson, 1996). For instance, over time, emotional distress from either chronic stress or the cumulative impact of acute stressful life events may have the capacity to produce episodes of depression (Wheaton, 1995). Literature on psychosocial stressors carries on where the working conditions and social determinants of health models leave off, examining both psychosocial and broader contextual factors that may play a role in workers' vulnerability to stress and overall ability to cope with their work environment and home life. This perspective is a more recent addition to the literature on mental illness and offers powerful insights into aspects of peoples' lives that may be crucial for understanding outcomes of depression across different groups of workers.

2.4.1 Stressful Life Events and Chronic Stressors over the Life Course

Recent evidence suggests that while each phase of life is capable of adding its own protection or disadvantage against stress, early life conditions are especially important as they set in motion a complex chain of events that influence the nature of subsequent life course transitions (Hertzman et al., 2002; Blane, 1999; Wadsworth, 1999; Van de Mheen, Stronks, Looman & Mackenback, 1998; Marmot & Wadsworth, 1997). Stressful life events occurring in childhood such as physical, sexual or emotional abuse, parental death or divorce are cited as "core" traumas that can have long-term effects on mental health outcomes (Wheaton, Roszell & Hall, 1997). When these stressful

life events occur in childhood, as opposed to later in life, they have been shown to be somewhat more damaging to overall mental health (Marchand et al., 2005a; Wheaton et al., 1997). Variation in the type of stressful life events experienced in early life can also be a mediating factor in their overall impact. For instance, Kessler and Magee (1994) found that adversity resulting in violence during childhood and early life was very highly correlated with recurring episodes of adult depression. These core traumas, or stressful life events, are implicated in long-term mental health trajectories that include higher levels of depression (Barret & Turner, 2005; Turner & Turner, 2005). Other research has shown that each successive stressful life event in childhood increases the likelihood of repeated episodes of depression later on (Marchand et al., 2005a).

Wheaton et al. (1997) further suggest that childhood traumas have the strongest lagged effect on depression outcomes and that later stressful life events may therefore have a more muted effect. Their research suggests that prior stress may have the potential to invoke a “ceiling effect” whereby the addition of further stressors are less likely to have the same detrimental impact (Wheaton et al., 1997). This limited impact is due to the previously accumulated burden of stress (Wheaton et al., 1997). Other research has shown that an accumulation of stressful experiences during early life coupled with chronic stressors during adulthood can be another strong precursor to depression (Turner & Turner, 2005; Turner et al, 1995). In contrast, other studies have indicated that stressful life events can be just as damaging when they occur later in life (Wheaton & Clarke, 2003). Lifetime exposure to major or potentially traumatic life events may offer the most powerful explanation of the variation in outcomes of depression, even in relation to stress related to discrimination and recent stressful life events (Barret & Turner, 1995).

Therefore, individuals who are exposed to multiple stressful life events may experience a cumulative stress effect and the higher the number of cumulative life stressors over the life course, the higher the likelihood for repeat episodes of depression in adulthood (Marchand, 2007). It may thus be premature to focus primarily on core traumas experienced in early life as this may mean overlooking the commonalities and interdependence of potentially traumatic experiences that happen throughout the life course (Wheaton et al., 1997).

2.4.2 Intersection of Stressors and Other Determinants of Health

As shown earlier, proximal and distal level factors have a significant impact on mental health (Link & Phelan, 2002). These social determinants can also increase the level of vulnerability to stressful life events and chronic stressors that certain groups in society experience and which can have a negative cumulative effects on their long term mental health (Turner et al., 1995). Socioeconomic circumstances in early life condition exposure to other health assets and liabilities cross-sectionally, and these circumstances in turn have cumulative effects longitudinally (Wheaton & Clark, 2003). A significant portion of the variation in exposure to stress is located both in chronically stressful conditions and a cumulative effect of acute stressful life experiences that are intrinsically linked to an individual's social location (Turner et al., 1995). Differential exposure to various types of acute and chronic stress thereby enables socially based structural disadvantages to be transformed into negative mental health outcomes and, as such, adversity often seems to "follow" individuals over the course of their lives (Turner & Turner, 2005; Turner & Avison, 2003). For example, single mothers, especially those

with low socioeconomic status, are much more likely to have experienced childhood adversity and are also more likely to experience postpartum depression (Seguin et al., 1999; Davies, Avison & McAlpine, 1997).

Overall, there tend to be more experiences of stressful life events and chronic stressors among socially disadvantaged groups (Hall & Lamont, 2009; Aneshensel, 1992). Isolated or on-going incidence of trauma such as physical, sexual or emotional abuse are more likely to be found among a collection of other challenging issues such as poverty and unstable households, which can converge to form a “matrix of disadvantage” (Wheaton et al., 1997; Mullen, Martin, Anderson, Romans & Herbison, 1993). This convergence coincides not only with a greater occurrence of crises, but also with a more significant overall impact as a result of these stressors which can result in a higher incidence of depression (Reynolds & Turner, 2008; Stephens et al., 2000; Turner et al., 1995). Crises experienced by those who hold lower socioeconomic status may be felt more deeply and past cumulative experiences of adversity will often contribute to the creation of a higher level of current and ongoing stress in later life (Miech & Shanahan, 2000).

The social contexts which give rise to the increased exposure to stress among different segments of the population can also limit the ability to cope with stressful experiences (Hall & Taylor, 2009; Turner & Avison, 2003). For example, women tend to be more affected by their own eventful experiences and those of people close to them than do men. This gendered difference results in greater recurrence of depressive episodes (Stephens et al., 2000; Niedhammer et al., 1998; Turner, Williams & Avison, 1989). Research has also suggested that the differences in stress exposure among

different visible minority or ethnic groups in combination with as well as in addition to those of lower socioeconomic status have been greatly underestimated in prior research (Turner & Avison, 2003).

2.4.3 Protective Factors against Depression

Protective factors against acute and chronic stress include access to social support at work and in the home, and support from family and friends (Hall & Taylor, 2009; Link & Phelan, 1995; Avison & Gotlieb, 1994). Access to social support can be a crucial for minimizing the long term impact of stressful life events and personal networks are especially helpful for women (Barret & Turner, 2005). Intimate and love partnerships offer another means of buffering life stress and there is evidence that those who are in relationships have less highly correlated associations with depressive disorders (Turner & Turner, 2005; Turner et al., 1995). Research has shown, however, that protective factors stemming from social support and family cohesion are often linked to socioeconomic status (Barret & Turner, 2005). Therefore, people with higher socioeconomic status are less likely to experience negative mental health outcomes over the long-term, even taking into account acute stressful life events (Barret & Turner, 2005). Access to key material resources, including strong social support, can help minimize psychological damage over the life course (Barret & Turner, 2005; Seguin et al., 1999).

In addition to social support as a protective factor, some research has shown that stressful life events can actually have a *positive* impact on mental distress. Particular critical events, while still stressful, can give way to coping benefits if they alter a prior situation that was causing an even more chronic stress (Reynolds & Turner, 2008;

Wheaton, 1990). This evidence suggests that a contextual approach for studying life transitions is useful as there may be occurrences of acute life stressors that can actually alleviate chronic stress-induced depression (Reynolds & Turner, 2008; Wheaton, 1990).

The body of research regarding stressors indicates that it is acute stressful life events, both current and past, in combination with chronic stress that can affect an individual's ability to cope with daily life—especially when coupled with negative working conditions (Reynolds & Turner, 2008; Mustard et al., 2003; Seguin et al., 1999). Literature concerning stressful life events and chronic stressors highlights that they often come together with experiences of adversity to form a “matrix of disadvantage” (Mullen et al., 1993). These stressful life events and chronic stressors may be exacerbated by other factors discussed above, such as low levels of social support, lack of access to key resources and the addition of a poor working environment can result in emotional distress and depression. While negative events can occur throughout the life course, research has demonstrated that they often have the largest impact the earlier on they occur (Hertzman et al., 2002; Blane, 1999; Wadsworth, 1999; Van de Mheen et al., 1998; Marmot & Wadsworth, 1997).

2.5 Summary of Review Findings

Based on the preceding review of the relevant literature, it is clear that there are three main areas that must be considered in order to understand the variation in levels of depression among private sector frontline service workers in both the formal and informal economies: socio-structural factors, working conditions, and psychosocial stressors. The first body of literature discussed in this chapter looked at work in the context of other determinants and showed that these workers tend to share a great number of social

determinants, such as their gender, socioeconomic background and ethnicity. These occupations are predominantly populated by women and in the case of sex work in Canada, there is a vast overrepresentation of Aboriginal women (Kerfoot & Korczynski, 2005; Benoit et al., 2003). Many of these workers also have lower levels of education and come from families that have suffered financial hardship (Turner & Avison, 2003). As a result, it can be argued that it is not random chance that has led all of these women to specific types of precarious employment, but rather mediating factors such as poverty, lack of access to education, and discrimination (Benoit & Shumka, 2009; Roxburgh, 1996). As the social determinants of health literature indicated, these populations are also at a greater independent risk of experiencing depression, even outside working conditions (World Health Organization, 2008; Canadian Institute for Health Information, 2005; Marmot & Wilkinson, 1999; Evans et al., 1994).

The second body of literature focused on structural factors, such as working conditions within a globalized, capitalist economy and interpersonal factors such as interactions with managers, co-workers and clients to help explain variation in levels of depression among vulnerable service workers in the private sector (Plaisier et al., 2007; Cole et al., 2002; Ibrahim et al., 2001; Niedhammer et al., 1998; Bournonnais et al., 1996; Karasek & Theorell, 1990). This section reviewed research on frontline service workers in the formal and informal economies, in particular highlighting how sex workers are most often considered within the literature (Barton, 2002; O'Connell Davidson, 2002; Shaver, 1994; Pheterson, 1989; Pateman, 1988). Research showed that workplace demands can help explain why certain segments of the working population may experience comparatively greater levels of emotional distress and depression than

others (Hodson & Sullivan, 2002; Reskin & Padavic, 1994). Engaging and supportive work environments with higher worker autonomy and sufficient monetary reward were shown to have strong protective factors against emotional distress and mental illness (Edwards et al., 2001; Link et al., 1993). In contrast, workplace settings offering few or none of these benefits were shown to be especially harmful (Marchand, 2007; Mustard et al., 2003; Roxburgh, 1996).

The third and final body of literature on psychosocial stressors suggested that even when taking into account both working conditions and other social determinants of health; there is still some variation in mental health outcomes among workers in these frontline service occupations that remains unexplained. This research is a fairly new addition to the literature. It looks at psychosocial factors, such as stressful life events and chronic daily stressors, and places them in the context of broader social factors that may increase workers' likelihood of exposure to these types of stress over the life course (Marmot & Wilkinson, 2001; Marmot et al., 1997; Wilkinson, 1996). While more general determinants may be associated with higher levels of depression, the psychosocial stressors literature seeks to address variation in depression and offers powerful insight into why some workers have a greatly reduced ability to cope in their working lives (Turner & Avison, 2003; Miech & Shanahan, 2000).

The connection between economic, political, cultural factors and systems of social stratification (that accords some segments of the population more access to resources than others) and levels of depression seems very clear. Occupations also appear to be divided based on gender, race, ethnicity, Aboriginal status and class. Those groups who suffer the lowest levels of mental health as a result of working conditions or psychosocial

stressors are not evenly distributed among the working population. There is a dearth of research comparing similar occupations to ascertain the different factors that might explain higher levels of depression for some workers. By comparing groups of workers who find themselves in similarly structured work environments it is possible to tease out the variation among them to point towards some explanatory factors around mental illness and depression.

This thesis considers the workplace as a centrally determining factor in mental health outcomes, in particular depression. Specifically, I am concerned with the mental health costs associated with being employed in working environments that are non-standard, low-status, gendered, and stigmatized to varying degrees. Another objective of my thesis is to assess the long-term impact of stressful life events and chronic stressors and how they relate to depression as an alternative or additional explanation to working conditions. In my thesis research I seek to combine existing research findings on working conditions and psychosocial stressors and select theoretical constructs reviewed in this chapter to contribute to some areas of the existing literature in relation to depression. The reason for doing so is to offer a fuller analysis of mental health outcomes of depression among a specific set of occupational groups. In particular, this research will seek to answer the following questions: (1) are working conditions negatively correlated with depression among frontline service workers; (2) do working conditions play an mediating role in the differing levels of depression reported by frontline service workers; and (3) do stressful life events and chronic stressors play an mediating role in the differing levels of depression reported by frontline service workers in the formal and shadow economies.

In the following chapter I describe the study population included in the *Interactive Service Workers Study*, and discuss the study's research design and ethical considerations. I also outline the measures included in the regression model, discuss the analysis procedures and describe the diagnostic tests that were run on the final model.

Chapter 3: Research Design and Methodology

3.1 Introduction

In this chapter I first discuss the study population of the *Interactive Service Workers Study* and the research rationale for selection of the three occupations included in the project. Next I outline the study design and data collection methods used, as well as the ethical procedures followed by the research team. I then describe the measures chosen for my quantitative model, and discuss the analytical procedures used in building the Ordinary Least Squares hierarchical regression model. Lastly, I describe the diagnostic tests run on the final model.

3.2 Study Population

This thesis uses data from the *Interactive Service Workers Study*, an existing four-wave qualitative and quantitative longitudinal study. The study sample is composed of workers from three frontline service occupations located in Victoria, BC. Two of the occupations are located in the formal employment sector (hairdressing and food and beverage service), and one occupation which is predominantly located in the more hidden, informal economy (sex industry). There is a parallel study occurring in Sacramento, California, and the data from the two studies are being combined at this time of writing for future analyses.

At first glance, the three occupations may seem too disparate to warrant a comparative analysis; yet, upon closer inspection we realize they in fact share several characteristics. All three occupational groups are female-dominated (i.e., women

outnumber men 3:1 or more), report modest incomes from their work, have minimal or no workplace educational requirements, and report precarious working conditions, including high turnover rates and non-standard schedules (Benoit et al., 2007). These occupations are therefore matched in broad ways on a number of the social determinants of mental health discussed in Chapter 2 – gender, education, and income. In addition, workers in these occupations also share a number of working conditions, including frequent and sustained interactions with members of the public and income security that is directly linked to their ability to please customers. Stylists, servers and sex workers, to a varying degree, rely on tips from customers in order to make a living (Benoit et al., 2007). Interestingly, Benoit and Millar (2001) also report that two of the jobs that sex workers had most commonly worked in prior to, or in conjunction with sex work, were hairstyling and serving. The fluidity between sex work and the other two occupations suggests that there may be some crossover in the skills necessary to undertake each job, such as emotional management and customer service skills.

In addition to sharing some workplace characteristics, all three occupational groups share relatively low social status and some job-related stigmatization; however sex workers significantly more so than stylists or servers. Like other stigmatized work (refuse disposal, janitorial work), sex industry work is often characterized as menial, dirty and dangerous and it is among the lowest ranked occupations in occupational prestige scales (Matsueda, Gartner, Piliavin & Polakowski, 1992). In fact, sex work is not even included on the Treiman Status Scale, which is an internationally recognized system of measuring occupational prestige and status attainment (Treiman & Ganzeboom, 1977). For their part, stylists and servers have a very low ranking on the Treiman Status Scale

due to low educational attainment associated with these two occupations and job requirements that include carrying out mundane tasks such as cutting hair and serving food (Treiman & Ganzeboom, 1990; Treiman & Yip, 1989). However, while stylists and servers experience relatively low occupational status, it is to a lesser degree than sex work as selling sexual services is seen as morally questionable and is often framed within a context of victimization, criminality and health risk (Weitzer, 2009; Benoit et al., 2007; Hallgrímsdóttir et al., 2006; Vanwesenbeeck, 2001; Sanders, 1994).

By examining sex work in relation to the other two service occupations—occupations that are similar in broad strokes to the sex industry, but differ in workplace characteristics, I hope to illuminate not only the contextual factors that set this line of work apart from the jobs in the formal economy, but also to investigate the features shared by all three. In doing so, my thesis highlights both the impact of employment policy and other social protections on the mental health of workers, and the intersection of workplace vulnerability and other sources of socioeconomic marginalization. In addition to the impact that low prestige/relative stigmatization has on the groups of workers discussed above, it is expected that sex workers will likely experience the greatest levels of depression of the three groups but that stylists and servers will also experience depression to a certain degree.

3.3 Study Background

Although a random sampling technique is usually preferable, these three populations do not have comprehensive sampling frames. Instead, a variety of strategies were used to sample respondents in the *Interactive Service Workers Study*. Business lists

were available for salons and food and beverage serving establishments and for some types of sex industry workplaces (e.g., exotic dance clubs). In these cases, establishments were selectively sampled to attain representation from small to large businesses.

Information packages were sent to the managers of these businesses, followed by onsite visits to talk about the project and requests to have flyers posted in staff lunchrooms or other places where employees would be likely to view them. Respondents were also recruited through advertisements in local newspapers and through the web (for sex workers who use the internet to advertise).

One additional recruitment approach was used primarily for the sex workers: *respondent-driven sampling* (Heckathorn, 1997). This technique is especially appropriate for studying “hidden” or “hard-to-reach” populations when no sampling frames exist (such as for drug users and in my thesis, sex workers). Respondent-driven sampling begins with a small number of respondents who serve as “seeds”. After their interview, “seed” individuals receive recruitment coupons that describe the study and invite others to do an interview. Respondent-driven sampling is a variation on snowball sampling and is based on the assumptions that members of hidden or hard-to-reach populations typically belong to similar networks and are more likely to respond to the appeals of their peers than those of unfamiliar researchers. The “seeds” and any subsequent recruits who go on to enlist additional respondents are paid a nominal “finder” fee for each peer who agreed to participate in the study (the fee is paid at the respondent’s next interview).

Once recruited, the study incorporated several techniques used in other longitudinal studies of hidden/hard-to-reach populations in order to minimize participant attrition. These techniques included the following: collecting contact telephone numbers

for respondents and their significant others at the first wave interview; phoning respondents periodically between waves to maintain contact; and establishing a study-specific email address so respondents could contact the study directly. Many of these techniques were used in a study of almost 500 homeless youth in Toronto and Vancouver in which more than 70 percent of respondents returned for a follow-up interview (Hagan & McCarthy, 1997).

At each of the waves, which occurred approximately four months apart, respondents were interviewed and also asked to complete self-report questionnaires. This combination of methods was chosen because respondents from hidden/hard-to-reach populations often find personal interviews more satisfying than telephone or mailed studies (Mangione, Hingson & Barrett, 1982). Participants were interviewed in a small downtown research office located within walking distance of many of their workplaces which allowed privacy for answering questions in the self-report section of the questionnaire. Due to anticipated difficulties in gaining rapport and keeping in contact with individuals working in various parts of the sex industry, former sex workers were hired and trained to work with graduate students to help conduct interviews with respondents from this population. The study followed respondents across the four interview waves even if they exited their line of work and/or changed geographical locations. Respondents received an honorarium of twenty-five dollars cash for each interview. Ethics approval was granted from the research ethics board of the University of Victoria in 2002 and prior to being interviewed, participants were required to sign a consent form (refer to Appendix A and B for a copy of the ethics approval certificate and consent form). The consent form detailed the purpose and objectives of the study, the

ways in which their confidentiality would be ensured, what their participation would entail and also outlined any risks associated with participation in the study (Benoit et al., 2007).

3.4 Measures

The data collection instruments for the *Interactive Service Workers Study* combined standardized measures, items used in studies of populations with high health risk (e.g., AIDS research), and measures unique to the research project. Briefly, data were collected on the following: demographic and background information; family history; current physical and mental health status; working conditions, occurrence and time of onset of serious health conditions (e.g., substance use, Sexually Transmitted Infections (STIs), violent victimization, etc.), occupational health and safety issues; and frequency and type of health service use.

The following measures were selected from the Wave 1 and Wave 2 interview questionnaires for inclusion in a multiple regression model of the mediating factors affecting levels of depression among sex workers, stylists and servers.

Depression

A slightly modified version of the Beck Depression Inventory (BDI) was used to measure depression levels (Beck, Rush, Shaw & Emery, 1979). The BDI contains twenty-one items measuring symptoms of depression² – including hopelessness, irritability, cognitions of guilt, and so forth. One item concerning suicidal ideation and

² Cronbach's Alpha 0.937

attempts of suicide was excluded from the questionnaire for ethical reasons as the research team did not have access to professional counselling services if participants revealed suicidal thoughts during the interviews. Responses were based on a four point scale ranging from 0-3. The sum of all scores for the twenty item modification of the BDI could potentially range from 0-60.

Self-Rated Mental Health Status

A second, self-rated measure of mental health status was used to control for previous mental health status. This self-rated measure was based on a five-point Likert scale ranging from “Excellent” to “Poor”. Self-rated mental health was observed in Wave 1 whereas the BDI score was observed in Wave 2, approximately 4 months later.

Stressful Life Events

A scale of stressful life events was compiled using thirteen dichotomous stressful life events that could have occurred beginning in childhood up to and including the present. These events included: “Your parents/guardians separated/divorced”, “You experienced separation/divorce in a significant relationship”, “You were involved in a serious accident”, “A family member or close friend became seriously ill”, “You became seriously ill or suffered a serious health condition”, “Someone close to you was the victim of a violent crime”, “You were the victim of a violent crime”, “A close friend/companion/partner passed away”, “A close family member (other than parent) passed away”, “One or both of your parent(s) or guardian(s) passed away”, “You were the victim of physical abuse”, “You were the victim of sexual abuse”, “You were the

victim of emotional abuse”. These variables were combined into a scale called “STRESSORS”³ with a potential range of 0 to 13.

Race, Ethnicity and Aboriginal Status

Race/ethnicity was measured using two dichotomous variables. The first dichotomous variable measured visible minority status according to the Canadian Employment Equity Act definition: “those, other than Aboriginal persons, who are non-white in colour or non-Caucasian in race” (Employment Equity Act, 1995) (1= Visible minority; 0= Other). The second dichotomous variable measured Aboriginal status and compared all Aboriginal and Métis participants, whether status or non-status, to all other respondents (1= Aboriginal or Métis; 0= Other).

Minority Sexual Orientation

Minority sexual orientation was measured using a dichotomous variable “SEXMIN” (1= Homosexual, Bisexual or Other; 0= Heterosexual).

Ever Given Birth to, Fathered or Adopted a Child

This variable, ever given birth to, fathered or adopted a child, was measured using a dichotomous variable “CHILDPRESENT” (0= No children; 1= Has ever had at least one biological or adopted child). This variable was not an indicator of having a current minority dependent living in one’s home, but simply an indicator of having given birth to, fathered, or adopted at least one child.

³ Cronbach’s Alpha (.769)

Educational Achievement

The variable “EDUCATION” was compiled from two variables, one indicating highest elementary or secondary school grade achieved, and another measuring participation in various types of postsecondary training. Five categories were developed: “0= Incomplete high school”, “1= Complete high school”, “2= Complete apprenticeship”, “3= Complete diploma or trade school”, “4= Complete postsecondary degree”.

Gender

The variable gender was measured dichotomously (1= Female; 0= Male or Other). Five transgender male to female participants were included in the “Other” category as they did not identify as female, and females were the main participant group under study.

Relationship Status

This variable, in an intimate relationship, asked whether respondents were currently in an intimate/love relationship (which included marriage, common-law, and dating relationships) and was measured using a dichotomous variable (0= Single; 1= Currently in an intimate/love relationship).

Age

The variable age was re-coded into years based on the participant’s birth date and the date of the first interview.

Current Housing Situation

The variable unstable housing was measured dichotomously based on whether respondents currently had stable or unstable housing (0= Renting a house or apartment, owning a house or apartment, having a purchased share in co-op housing, renting subsidized housing or other⁴; 1= Staying in temporary housing, staying in a shelter or without housing)

Ability to Cover Basic Expenses

This variable, financial hardship, offered a proxy measure of social class and assessed how often respondents had had problems paying for basic necessities in the past four months using a five-point Likert scale ranging from “Rarely, Never” to “Almost always, Always” able to pay for basic necessities.

Occupation

This variable, occupation, was based on respondents main service job at the time of the first interview and was measured using a dichotomous variable (0= Hairstylist or Food and Beverage Server; 1= Sex Worker)

Work Place Characteristics

The “Framingham Version” of the Job Content Questionnaire (Karasek, 1985) was used to measure workplace characteristics. Most items were measured with a five-

⁴Individual responses in the ‘other’ category were checked in the data set and all represented some form of stable housing such as living with parents or owning a trailer or RV.

point Likert scale ranging from “Strongly disagree” to “Strongly agree”. This version of the job content questionnaire contained recommended scales for skill utilization, decision authority, skill discretion, psychological job demands, physical job demands, and job insecurity. The decision latitude scale used in the model combined measures of skill discretion (learning new things, repetitive work, developing own abilities, creativity) and measures of decision authority (allowed own decisions, lots of say, decision freedom). The reliability test⁵ showed that decision authority and skill discretion had the highest alpha levels of any of the Job Content Questionnaire scales. These two scales were also most strongly correlated with the depression variable and therefore selected to include in the model. The decision latitude scale was labelled “JCQDL”, for Job Content Questionnaire Decision Latitude.

3.5 Analytical procedures

The Beck Depression Inventory (Beck et al., 1979) was chosen as the dependent variable for the model as this inventory is one of the most widely used self-rated measures of depression and has proven to be a reliable measure of emotional distress (Furlanetto, Medlowicz & Bueno, 2005). This set of mental health-related questions was asked during the second wave of the study. In order to control for change over time and to ensure that there was consistent measurement of mental health, the variable of self-rated mental health from the first wave of the study was also included in the model. Self-rated mental health is recognized as another reliable measure of emotional health (Marchand, 2007).

⁵ Cronbach’s Alpha (.776)

The sample was divided by occupational group for entry into the regression model. The servers and stylists were analysed together to serve as a reference category and the sex workers were coded as the second occupational grouping. The stylists and servers were grouped together as they share many similar occupational characteristics and, as the descriptive statistics below demonstrate, they had similar outcomes on a number of the different variables. As will be discussed in more detail in the following chapter, the main area where stylists and servers diverged was in the JCQDL scale. In this instance servers reported less decision latitude and skill discretion; however, their overall similarity allowed them to act as a very useful comparison group for the sex worker sample.

A combination of univariate, bivariate, and multiple regression techniques were employed in the analysis using Statistical Package for the Social Sciences (SPSS) 16.0 software. First, univariate techniques such as frequency distributions and measures of central tendency were used to assess the characteristics of the sample for all of the variables included in the regression model. Bivariate correlation tables were used as preliminary indicators of variable interaction. Alpha tests and factor analyses were used to determine the validity of the scales and all scales had alpha levels higher than 0.7, which is the standard cut-off point for measuring scale reliability (Field, 2006). In addition, pre-analysis diagnostic testing for multicollinearity, linearity, normality and heteroscedasticity was conducted to satisfy the assumptions of OLS regression (Agresti & Finlay, 1995). The sample size for the descriptive analysis included two-hundred and fifty cases. Finally, variables were entered into a hierarchical regression model, beginning with distal determinants (e.g., background factors) and moving towards proximal

determinants as (e.g., occupational variables) as outlined in Link and Phelan's (2001) theory of fundamental determinants of health⁶. The sample size for the multiple regression analysis included two-hundred and eleven cases.

Hierarchical entry of variables into the model began with the Wave 1 self-reported mental health status variable to control for the effect of change over time (approximately four months) until the Wave 2 BDI score was taken. Next, the background variables were added as a way to control for demographic variation and other factors not directly related to occupation. With the next step of the model, the stressful life events variable was added as well as the other chronic stressor variables, inability to pay for basic necessities and unstable housing. The final two variables added to the model were the employment related measures, the JCQDL and occupation type. These were added last so that occupation and the JCQDL scale could be used to test the model for the effect of working conditions.

As a final check, the full model was run separately with the sex worker occupational group, and then with the combined stylist and server group. There were some differences observed in direction of slopes for the first group (sex workers) and the second group (stylists and servers). For a few of the variables there may have been particular reasons why each of the two groups might have been affected in a certain way.

⁶ Preliminary control variables selected for the model included having lived in foster care, a 5-point Likert scale of stress level at work, a dichotomous variable of ever having experienced an occupational health injury, and total household income. The living in care variable was not included as it was too highly correlated with the sex worker sample and therefore unable to show sufficient variation between the different occupational groups. The variable pertaining to stress levels at work was not included as it duplicated the JCDL. The occupational health injury variable was not included as it became apparent that it fell outside the scope of the theoretical model. Total household income was not used as it duplicated financial hardship as captured in the respondents' ability to pay for basic necessities. The original scale for the "stressors" variable included "You or your parents experienced serious financial difficulty" as well as "You became homeless" but these two measures were removed as they overlapped with two of the other variables about respondents' ability to pay for basic necessities and their current housing status.

For example, sex workers may suffer more distress if they have had children who have subsequently been removed from their care. In contrast, for stylists and servers children may be more likely to live at home and their presence may therefore act as more of a protective factor against depression. Overall the sex worker group and stylist and server group shared sufficient similarities to warrant being included in the same regression model.

3.6 Assumptions:

Multicollinearity:

The collinearity statistics for the dependent, independent and control variables showed that the tolerance values were greater than 0.4 and the VIF values were all smaller than 2.5, therefore collinearity was not present in this model.

Linearity and heteroskedasticity:

Curve estimation tests were conducted for the control variables gender, sexual minority, Aboriginal status, visible minority status, being in an intimate/love relationship, ever given birth to, fathered, or adopted a child, self-rated mental health, respondent able to pay for basic necessities, and unstable housing. Scatterplot tests were conducted for the dependent variable BDI, the independent variable JCQDL and stressful life events, and control variable age. All tests showed that residuals for the variables were not significantly curvilinear and that there was a relatively evenly distributed standard error across the linear regression line. There were also fairly equal variances in the regression errors suggesting that the model was not significantly heteroskedastic.

Normality:

A check for skewness was conducted on the variables. While the residuals for some of the variables were slightly skewed with a negative value greater than one, they were sufficiently normally distributed around the regression line to be left unaltered.

3.7 Summary:

In this chapter I have outlined the study population, the research rationale, and the procedures and methods used in the *Interactive Service Workers Study*. I also described the measures chosen for inclusion in the regression model, discussed the analytical procedures used in building the model and the diagnostic tests run on the individual variables as well as the final model.

In Chapter 4 I outline my findings. Specifically, I present a summary of the descriptive statistics of the sample and then outline the results of the OLS hierarchical regression model used to analyze variation in depression levels among the workers.

Chapter 4: Results

4.1 Introduction

Chapter 4 begins by presenting descriptive statistics for each of the three occupations, including demographic characteristics such as gender, sexual orientation, age, and visible minority and Aboriginal status. Descriptive results for variables measuring educational attainment; current relationship status and ever having given birth to, fathered or adopted a child are also reported and discussed. The next section continues with the descriptive results, presented by occupation, of the Beck Depression Index (BDI), self-reported mental health status and the Job Content Questionnaire Decision Latitude (JCQDL) scale. This section also highlights the results of the stressful life events scale and the two chronic stress variables, experiencing financial hardship and having unstable housing. The results of the Ordinary Least Squares (OLS) hierarchical multiple regression analysis are presented in the third section. While the descriptive summary describes each of the three occupations individually, as noted in Chapter 3, the regression model groups stylists and servers together to act as a reference category for the sex worker sample. The progression of the hierarchical multiple model measuring depression levels is then discussed starting with the first step, the addition of self-report mental health status. The second and third steps, which consisted of incorporating background variables and the stressful life events and chronic stressors variables, are addressed next. Finally, the results of the fourth and final model, which included the addition of the occupation variable and the JCQDL scale, are reported and discussed.

4.2 Descriptive Summary of Background Factors

Table 1 provides a descriptive summary of the background characteristics for each of the three occupations, as well as results for the sample as a whole. As might be expected, given the female-dominated nature of the occupations under study, over three quarters (78%) of participants were female, with little variation between the three occupations. The average age of the sex workers (34) and servers (31) was slightly younger than the average age of the stylists (41). Visible minorities were underrepresented most among the server sample (3%) as compared to both the stylist (10%) and sex worker sample (8%), both of which were more comparable to the percentage of people in the Victoria Census Metropolitan Area (CMA) who identified as visible minorities (10.4%) in the 2006 census (Statistics Canada, 2006). By contrast, Aboriginal persons were highly overrepresented among sex workers (20%), whereas the percentage of Aboriginal stylists (3%) in the sample was the same as the Victoria CMA population average for Aboriginal people (3%) and the percentage of Aboriginal servers (7%) was only slightly higher than the CMA average (Statistics Canada, 2006). These results indicate a disproportionate representation of Aboriginal people (primarily women), within the sex industry which is a finding that has been reported elsewhere (Benoit et al., 2003; Benoit & Millar, 2001).

The predominance of Aboriginal respondents in the sex worker sample is not overly surprising as it has been found previously that marginalized populations are often overrepresented in the sex industry, in part because of their more limited access to mainstream employment (Benoit et. al. 2006). For instance, sexual minorities were also highly overrepresented in the sex worker sample, with nearly half (46%) of the sex workers identifying as not being heterosexual compared to only 6 percent of stylists and 9

percent of servers. As Benoit and Millar (2001) point out, non-heterosexuality may operate as a “pull” factor towards the sex industry, while at the same time, the stigma associated with marginalized sexualities may also be a “push” factor towards the sex industry. Stylists and servers were also more likely than sex workers to be in an intimate or love relationship (67%, 73% vs. 44%). Some sex workers may choose to keep their occupation hidden from their partners which could cause significant stress, outweighing the supportive benefits of being with a partner (Benoit & Millar, 2001). Also, the fact that a partner could be subject to legal recourse under the criminal code for “living on the avails of prostitution” might also be a deterrent for pursuing intimate relationships (Lowman, 2005 & 1987). The stylists and sex workers had almost double the likelihood of the servers of having had at least one child (57%, 62% vs. 24%). The lower numbers of children among the servers may be a reflection of the slightly younger sample of respondents in this occupational group.

One quarter of the stylists reported not having completed high school, however, they were much more likely than sex workers and servers to have completed educational training other than high school. The stylists’ post-secondary training may consist of one-year vocational programs specific to the hairstyling industry that salons may require for employment, but which might not call for a high school diploma in order to enroll. Just over 11 percent of the servers reported not completing high school and of the three occupations, sex workers reported by far the lowest levels of education, with over half (57%) not having completed high school. These results provide further evidence of the greater degree of structural marginalization faced by sex workers as compared to stylists and servers. It may also point to a greater vulnerability to poor mental health as low

educational attainment often predicts higher rates of depression, especially among women (Dohrenwend et al., 1992). Lower levels of education may also be a contributor to the sex workers' involvement in an informal work environment in the first place (Phillips & Benoit, 2005; Benoit & Millar, 2001).

Overall, it appears that sex workers are significantly more marginalized than stylists or servers with regard to their structural location in Canadian society, though both of the other two occupational groups fit the economically-marginalized, highly-gendered, frontline service work model discussed in the personal service work literature reviewed in Chapter 2 (Zimmerman et al., 2006; Kerfoot & Korczynski, 2005; Zemke & Schaaf, 1989).

4.3 Depression, Working Conditions and Stressors

Table 1 also presents the mean scores of the BDI, self-reported mental health, the stressful life events scale, chronic stressors and the JCQDL scale by occupation and for the sample as a whole. For both stylists and servers, average depression scores fell roughly within what is considered to be normal emotional ups and downs (7 vs. 9), but their scores were slightly closer to the higher end of the range that may indicate minimal depressive symptoms (Beck et al., 1979). In contrast, the sex workers' average depression scores were much higher (20) and ranked well within the category of moderate depression (17 and above) that may be severe enough for a depression diagnosis from a qualified professional (Beck et al., 1979). The outcome of the self-reported mental health measure was similar to the BDI scores, with sex workers, again, reporting lower average

mental health outcomes (3 “Good”) compared to stylists (2 “Very Good”) and servers (2 “Very Good”).

Servers reported the lowest skill discretion and decision authority scores of the three occupations (51) which is not surprising as they work in what Karasek (1979) would consider a fairly highly controlled and demanding work environment. Servers must often interact with a high volume of customers whose demands must be met concurrently. They must also work using a set of “service scripts” from which they are not easily able to deviate (Leidner, 1993). Stylists reported the best working conditions across the skill discretion and decision authority measure of working conditions (62) for the three occupations. Stylists arguably have more opportunity for creativity within their working environments and this creativity may be reflected in their experience of interacting with clients. Stylists also have more opportunity to work independently (i.e., out of their own homes), which gives them more control over the number and type of clients they see in a day.

To a slightly lesser extent job autonomy was also found among the sex workers, who reported the second highest level of skill discretion and decision authority (56). Like hairstylists, some sex workers may have the opportunity to work independently which allows them to decide which services they will provide to how many clients, and under what conditions. As has been reported elsewhere (Vanwesenbeeck, 2005), personal decision-making can allow sex workers to maintain a sense of autonomy over their work. However, in instances where sex workers’ control is compromised, there can be devastating effects. For example, when a situation with a client puts them at risk of violence, sex workers are less likely to feel empowered to seek protection or assistance

from the police due to the occupation's current semi-legal status (Phillips, 2004). As a result of such risks, a sex worker's emotional toll may be greater and more damaging than for the other two occupations. As noted earlier, mean scores on the dependent variable demonstrated quite starkly the higher levels of depression among sex workers and because of their relatively high scores on the JCQDL, these elevated BDI scores may not be adequately explained by their working conditions.

Finally, for the measure of stressful life events, stylists and servers reported comparable average scores (4 vs. 4) while in contrast, sex workers reported nearly double the average number of stressful life events (7) of the other two occupations. On average, the sex workers experienced over half of the thirteen possible major stressful life events, which could include experiencing different types of abuse or losing a parent. Sex workers also showed higher levels of chronic stress as measured by difficulty paying for basic necessities (2.6, between "Some of the time" and "Half of the time"), than stylists (1.4 "Rarely/Never") and servers (1.6, between "Rarely/Never" and "Some of the time"). The chronic stress of financial difficulty has been shown to be related to depression in some studies (Warren et al., 2008). As for the other measure of chronic stress, sex workers also reported fairly high levels of unstable housing (20%), while stylists reported no unstable housing and servers reported only a minimal amount (4%).

Table 1 Descriptive Statistics

<i>Measure</i>	<i>PWSI</i> (<i>N</i> =95)	<i>Servers</i> (<i>N</i> =114)	<i>Stylists</i> (<i>N</i> =41)	<i>All</i> (<i>N</i> =250)
% Female (Female coded as 1)	78.3	75.7	82.4	78.2
Occupation (Sex worker= 1; Servers= 2; Stylists= 3)	39.5	38.2	22.4	100.0
Mean Age	33.8	30.5	40.5	34.1
% Visible Minority (Visible minority coded as 1= yes)	8.4	3.4	10.4	7.0
% Aboriginal (Aboriginal status coded as 1= yes)	20.3	6.9	2.9	11.3
% Sexual Minority (Sexual minorities coded as 1= yes)	46.2	8.8	6.0	22.8
% Currently in a Relationship (In a relationship coded as 1= yes)	41.5	73.0	67.2	59.3
% Has had at least one Child (one or more children coded as 1= yes)	61.7	23.7	57.4	46.4
% Education (Incomplete high school= 1)	57.1	11.3	25.0	32.5
% with Unstable Housing (Unstable housing coded as 1= yes)	20.2	4.3	0.0	9.6
Mean Problems paying for basic necessities (Std. Dev.) 1= never to 5= almost always	2.55 (1.4)	1.62 (1.0)	1.39 (.72)	1.89 (1.2)
Mean Beck Depression Index Score (Wave 2) (Std. Dev.) *60 items	20.1 (13.1)	9.0 (7.7)	7.1 (6.9)	12.5 (11.1)
Mean Self-Report Mental Health (Wave 1) (Std. Dev.) 1= Excellent to 5= Fair	3.2 (1.1)	2.3 (.97)	2.2 (.86)	2.6 (1.1)
Mean Decision Latitude/Skill Discretion (Std. Dev.) *possible range of JCQDL 24-96	56.0 (8.7)	50.5 (8.5)	62.4 (8.1)	55.4 (9.7)
Mean # of Stressors (Std. Dev.) *possible range of 0-13 items	6.8 (2.8)	4.1 (2.6)	4.0 (2.5)	5.1 (3.0)

4.4 Regression Output

Table 2 presents the standardized regression coefficients (betas) for each variable included in the four hierarchical regression models. The first step of the model showed a significant positive relationship with the dependent variable of depression level at Wave 2 and the control variable of self-reported mental health status at Wave 1 ($p < 0.001$). This result indicates that as a respondent's self-reported mental health status approaches "Poor", their level of depression is likely to increase and it also confirms that previous mental health is a very good predictor of current mental health. This strong positive relationship also suggests that the dependent variable is an accurate measure of depression across the two waves of data and is an indicator of validity for the Wave 2 depression scores.

In the second step of the model, background factors were added to the self-reported mental health variable and this addition did not decrease the size or significance of the self-reported mental health coefficient. Within this step of the model education was the only background variable shown to be significant ($p < 0.05$). Education was negatively related to depression indicating that the less education respondents had, the more likely they were to experience higher levels of depression.

At the third step of the regression model the stressful life events variable and the chronic stress variables, difficulty paying for basic necessities and lack of stable housing were incorporated. With the addition of these stress-related measures, self-reported mental health continued to be statistically significant at the $p < 0.001$ level, however, education became non-significant. The education measure may have lost significance due to a correlation with the stress-related variables causing it to drop out of significance once they were added to the model. The intimate relationship variable, which was not

significant in the first two steps of the model, was significantly and positively related to depression in the third step ($p < 0.05$) indicating that respondents who were in relationships were more likely to experience higher depression levels. Whereas being in a relationship might be expected to be a protective factor against depression (Benoit & Miller, 2001; Turner et al., 1995), relationships in this model included dating as well as marriage and common-law partnerships which may have had an impact on the overall benefit of being in a relationship. For sex workers in particular, relationships may also pose a unique set of challenges. While neither of the chronic stress variables were significantly related to the dependent variable in the third step of the model, the stressful life events variable was significant at the < 0.01 level, suggesting that it had a robust positive relationship with the dependent variable. Therefore, respondents who had experienced a higher number of stressful life events were more likely to suffer from depression.

The fourth and final step of the model incorporated the work variables, occupation and the JCQDL scale. As highlighted in Table 2, the highest variance (adjusted $R^2 = .40$) in the dependent variable depression was observed following the addition of the work variables to the model. Self-reported mental health status remained significant at the $p < 0.001$ level in the final model. With the exception of the relationship variable, all of the other background variables showed no significance at the fourth step. The stressful life events variable remained significant in the final model ($p < 0.01$), demonstrating its importance as a predictor of depression outside working conditions. For the occupation-related variables, the sex worker group showed significance at the $p < 0.05$ level, suggesting that they were more vulnerable to depression than the reference

category of stylists and servers. The JCQDL variable was also significant at the $p < 0.05$ level of significance in the final model, indicating that working conditions were also an important mediator of depression for this sample. Both the two employment variables and the stressful life events variable had similarly strong relationships with the dependent variable, suggesting that the likelihood of depression is significantly related to both major life stressors as well as one's type of occupation and decision latitude at work. This relationship may be particularly illustrative for sex workers who report moderate working conditions and have both the highest levels of depression and the highest number of stressful life events.

Table 2 Multiple Regression Output

	1		2		3		4	
N=211	Beta	p-values ⁷	Beta	p-values	Beta	p-values	Beta	p-values
Self-Report Mental Health (Wave 1)	.535	0.000***	0.473	0.000***	.417	0.000***	.338	0.000***
Aboriginal Status			-0.012	0.840	-.049	0.411	-.048	0.401
Visible Minority			-0.083	0.155	-.067	0.255	-.044	0.436
Sexual Minority			0.112	0.069	.083	0.175	.013	0.833
Has one or more children			0.023	0.738	.009	0.893	-.038	0.576
Education			-.149	0.015*	-.112	0.065	-.059	0.320
Gender			.091	0.129	.074	0.204	.081	0.150
In a relationship			.102	0.087	.143	0.017*	.144	0.012*
Age			.002	0.976	-.003	0.960	.049	0.445
Unstable housing					.113	0.56	-.010	0.873
Stressors					.203	0.002**	.164	0.012*
Problems paying basic necessities					.005	0.931	-0.17	0.760
Sex Worker (HS and FB Comp.)							.286	0.000***
JCQDL							-.165	0.008**
Adjusted R-Square	0.283		0.315		0.351		0.404	

Dependent Variable: Beck Depression Index

* Statistically Significant to p < 0.05

** Statistically Significant to p < 0.01

*** Statistically Significant to p < 0.001

N=211

⁷ Significant results are highlighted in bold font and significant p-values < 0.05 are indicated with one star, p-values < 0.01 are indicated with two stars and those significant at the p < 0.001 are marked with three stars.

4.5 Summary

This chapter began by providing a descriptive summary of the background characteristics of the sample. Results indicated that all three occupations were composed mainly of female workers between the ages of thirty and forty. A much higher percentage of sex workers reported Aboriginal status and all three groups had very few visible minorities. Sex workers also reported a relatively higher proportion of sexual minorities who identified as non-heterosexual compared to the stylists and servers. Fewer than half of the sex workers reported being in intimate relationships whereas closer to two thirds of both the stylists and servers reported being in an intimate relationship. The number of stylists and sex workers who had given birth to, fathered or adopted a child was more than twice that of the servers. Of the three groups, just over eleven percent of servers reported not completing high school, while one quarter of the stylists and over fifty percent of sex workers had not completed high school.

The next section of chapter 4 discussed the results of stress-related measures, the depression scores and the working conditions variable for the three occupational groups. Sex workers reported the highest levels of depression, the lowest self-reported mental health and the highest number of stressful life events. In contrast, the scores for stylists and servers were comparable on all three of these measures. Chronic stressors, measured by financial difficulty and unstable housing, also showed that sex workers reported much worse outcomes than the other two occupations. In contrast, looking at the working conditions scores, stylists reported the highest levels of decision authority and skill discretion, with sex workers not too far behind them. Servers reported the lowest scores of all three groups on the JCQDL measure.

The final section of this chapter outlined the findings of the hierarchical multiple regression model, with results reported for each of the four steps. The three occupations were divided into two groups, with stylists and servers combined to act as a reference category for the sex workers. At the first step, the self-reported mental health variable was tested against the dependent variable depression and was shown to be significant. The next step incorporated background factors into the model and self-reported mental health remained significant and education was the only background variable to emerge as significant in the second step. At the third step the stressful life events and chronic stressors variables were incorporated into the model and self-reported mental health status remained significant, being in a relationship emerged as significant and stressful life events showed significance as well. The education variable dropped out of significance at the third step of the model. At the fourth and final step, the work variables consisting of occupation and the JCQDL were incorporated. Both the JCQDL variable and the occupation variable were shown to be significant and self-reported mental health, being in a relationship, and stressful life events were also all significant in the final model.

Chapter 5 discusses the findings of the descriptive statistics and results of the regression model in light of the research literature reviewed in the second chapter. The first section addresses the impact of occupation and working conditions on the depression outcomes of this sample of frontline service workers. The second section looks at the role that psychosocial stressors play in affecting depression levels. The third and final section addresses how social support can either protect against or contribute to outcomes of depression for these workers.

Chapter 5: Discussion

5.1 Introduction

This thesis examined the impact of working conditions and psychosocial stressors on outcomes of depression among workers in the frontline service sector. It was hypothesized that working conditions, acute stressful life events and chronic stress would be significant mediators of depression for frontline service workers in three different occupations. The results of the linear regression analysis presented in Chapter 4 confirmed this hypothesis with the exception of chronic stressors. Both the Job Content Questionnaire Decision Latitude (JCQDL) measure of working conditions and the occupation variable were significant in the final model, which indicated that the type of frontline service work undertaken, as well as the conditions of work can have a significant impact on mental health. Although the two chronic stressor variables did not show significance in the final model, the stressful life events variable did prove to be significant and these results demonstrated that psychosocial stressors can play an equally noteworthy role in mediating depression levels. The findings offer support for research suggesting that working conditions examined in combination with stressful life events can have strong explanatory power for at least part of the relationship between occupation and mental health status, in this case among frontline service workers (Godin & Kittel, 2004; Cole et al., 2002; Eaton, Muntaner, Bovasso & Smith, 2001; Seguin et al., 1999).

As discussed in literature review, the individuals in the three occupations considered in this study are already located within a framework of relative vulnerability.

The cumulative effect of previous and recent stressful life events can create fertile ground for emotional distress to combine with unhealthy working conditions and incrementally reduce these service workers' ability to cope (Turner & Turner, 2005; Turner & Avison, 2003; Wheaton & Clark, 2003).

Below I discuss the findings in more detail. First, I examine the role that occupation and working conditions played in the levels of depression among the occupational groups in my study. Next, I examine the relationship between depression and psychosocial stressors, paying specific attention to the results for sex workers. The third section of this chapter discusses how social support provided by intimate partners can mediate the affect of working conditions and psychosocial stressors on depression levels.

5.2 Working Conditions and Depression

Looking specifically at working conditions, my analysis found that depression levels were impacted by the degree of decision authority and skill discretion workers were able to exert within their jobs. This echoes the literature discussed in Chapter 2 linking working conditions and mental health outcomes (Warren et al., 2008; Plaisier et al., 2007; Marchand et al., 2005a & 2005b; Godin & Kittel, 2004; Marmot et al., 2001), but also tailors the context of these findings more specifically to lower income service occupations as well as the informal and semi-legal sector in which sex work occurs. Control over factors such as work schedules as well as having flexibility in how tasks are performed could go some way in reducing preventing outcomes of depression among these particular service workers (Link et al., 1993; Kohn & Schooler, 1973). Thus it is no

surprise that the group of servers, who had the least amount of personal discretion in their ability to do their jobs and were most likely to work under the close eye of managers or bosses, had lower scores on the JCQDL scale compared to the other two occupations. Stylists had the highest decision latitude and skill discretion scores, which suggests that they are at less risk of emotional burnout and distress as a direct result of their work environment (Edwards et al., 2001; Tennant, 2001). Sex workers also reported relatively high levels of decision latitude, which counters many stereotypes of sex workers being in the industry under duress or with little autonomy due to the presence of a pimp (Hallgrímsdóttir, 2006; Sanders, 2004; Benoit & Millar, 2001; Vanwesenbeeck, 1994).

Further considering the role of occupation in mental health outcomes, frontline service workers in the private sector of the service industry are also under a great deal of pressure to ‘sell’ themselves. They must successfully sell the service that they are providing in order to establish a good client base, be seen as a good worker within their establishment, and earn the tips which form a significant portion of their income (Mears & Finlay, 2005; Hochschild, 1983). While the same is largely true for sex workers, their knowledge of work must be understood within a context of semi-legality surrounded by a stronger degree of social stigma than the other two frontline service occupations (Shumka & Benoit, 2008; Phillips & Benoit, 2005; Benoit & Millar, 2001). Control over client selection, safety of the work environment, range of services offered and hours of work are some of the ways for sex workers to create manageable parameters within which to conceptualize their service (Vanwesenbeeck, 2001; Sanders, 2004).

Sex workers must also develop a support system for their work through more informal means than the other two occupations. Specifically, sex workers require an

informal support network because they do not have access to the same federally legislated workplace protections as stylists or servers (Shaver, 1994). They are without these workplace protections because many of the activities associated with selling sex are still illegal in Canada (Lowman, 2005 & 1987). This lack of formal workplace protections for sex workers suggests that some of the occupational factors examined in this analysis may not have been adequately captured by the working conditions measure (Bass et al., 2006). However, despite the formal workplace elements that may have been missed by the JCQDL scale, this measure was still able to capture some of the key features of working conditions within the sex industry despite it being largely unregulated (Bass et al., 2006).

As supported by the working conditions literature discussed earlier (Cole et al., 2002; Niedhammer et al., 1998; Bourbonnais et al., 1996), my findings have demonstrated that rather being an inherently negative occupation, sex work offered some benefits to workers such as higher levels of both decision authority and skill discretion. This meant that workers could exert some freedom over elements of their work such as hours of work, client selection and rate of pay. However, despite these positive findings, being a part of the sex worker occupational group was still a significant predictor of depression in this analysis. This may be in part due the negative working conditions often associated with work in the sex industry, which are primarily related to street-level sex work, often involving higher rates of violence and less control over service interactions (Vanwesenbeeck, 2005, Sanders, 2004; Benoit & Millar, 2001). There may also be additional barriers surrounding those who work on the streets, such as substance dependence and unstable housing, and these different issues can combine to contribute to

higher levels of emotional distress and depression (Stolz et al., 2009). Such factors further reduce workers' ability to negotiate safe and fair transactions (Stolz et al., 2009). Simply put, there is no legal safety net to protect them. This particular segment of workers in the sex industry may have also had a higher incidence of adversity in their early life (Seib, Fischer & Najman, 2009). In comparison to stylists and servers, sex workers may additionally have a higher likelihood of worse mental health irrespective of their involvement in the sex industry (Seib et al., 2009). This level of adversity may predict not only their entry into sex work, but also their greater propensity towards "street work" as opposed to other venues, such as escort agencies or home-based independent businesses (Seib et al., 2009).

As noted in Chapter 2, much of the literature considers sex work as a category unto itself, which further isolates and stigmatizes this group of already vulnerable workers rather than shedding light on their actual circumstances (Vanwesenbeeck, 2005 & 1994). In contrast, my results have indicated that there are number of areas, such as working conditions, chronic stressors and background factors including education levels, in which sex workers have fairly comparable results to stylists and servers. The practical, everyday demands placed on sex workers make their occupation not terribly dissimilar to a host of other frontline service jobs which involve the everyday management of emotions and provision of personal services (Owings, 2002; Leidner, 1993; Wouters, 1989). The positive reports of working conditions among the sex worker group thus lends support to an emerging literature calling for a more nuanced understanding of the nature of "sex work" (Peng, 2007; Lucas, 2005, Pope, 2005; Sanders, 2005; Bernstein, 2001). Further, drawing comparisons between sex work and other relatively similar service

occupations offers a more robust and insightful way of understanding working conditions not only in the sex industry, but in the serving and hairstyling industries as well (Bass et al., 2006; Shumka, Phillips, Benoit, Jansson & McCarthy, In process).

5.3 Psychosocial Stressors and Depression

In addition to working conditions, the measure of stressful life events was also a very good predictor of depression among all three groups of workers. As previously noted, for sex workers, many stressful life events may initially occur outside of sex work and date back to social barriers that began to accumulate well before their entry into the sex industry (Seib, et al., 2009; Phillips & Benoit, 2005). While these stressful life events may have been factors which contributed to initial entry into sex work, it does not suggest that it is the nature of the work itself that poses main the problem (Seib et al., 2009; Benoit et al., 2007; Shaver, 2005). Rather, my results point to the broader structural factors that deny certain segments of the population access to education, stable living conditions and access to formally regulated and protected occupations and this exclusion can promote negative reasons for entry into sex work (Seib et al., 2009; Shannon, 2009; Sanders, 2004).

My findings indicated that sex workers were also more likely than stylists or servers to be located within a “matrix of disadvantage” which, as discussed in Chapter 2, encompasses a range of factors such as socioeconomic status and access to education (Mullen et al., 1993). This particular social location puts them at a greater risk of experiencing more deeply traumatic and higher numbers of stressful life events (Wheaton et al., 1997; Mullen et al., 1993). The overrepresentation of Aboriginal people in the sex

industry sample also increases the chances that this group of workers will have suffered from more adversity over the life course thus leading to higher a higher likelihood of depression (Benoit & Shumka, 2009; Benoit et al., 2003). Even if the sex workers in the sample were not from economically disadvantaged backgrounds, it was still more likely for them to have experienced a higher cumulative number of stressful life events (Seib et al., 2009; Potter, Martins & Romans, 1999; Boyle et al., 1997).

Not unlike the sex workers, adversity over the life course may explain lower educational attainment associated with those entering into the hairstyling and food and beverage service industries and may also place these workers at a slightly higher risk of experiencing stressful life events (Keating, 2009; Reynolds & Turner, 2008; Mustard et al., 2003; Seguin et al., 1999). For stylists and servers, a higher accumulation of stressful life events also predicted an increase in depression levels and a lowered ability to cope with restrictive working conditions (Turner & Avison, 2003). If the workers in these frontline service occupations were not able to alter ongoing stressful circumstances which, as noted earlier, could relieve stress (Reynolds & Turner, 2008; Wheaton, 1990), the ongoing emotional strain may be highly conducive to episodes of depression (Wheaton & Clark, 2003). Clearly, the particular intersection of factors such as a history of adversity, greater exposure to acute and ongoing stress, and restrictive working conditions can produce the same result (depression) regardless of whether workers are working in the formal or informal economies.

5.4 Social Support and Depression

While the literature reviewed in Chapter 2 suggests that social support in the personal sphere can serve as a strong protective factor against depression (Plaisier et al., 2007; Marchand et al., 2005b; Barret & Turner, 1995; Turner et al., 1995), my findings suggested the opposite. Across all occupations, those who were in an intimate or love relationship were more likely to experience depression than those who were not. Literature on the sex industry has shown that relationships can have mixed outcomes in providing the type of emotional support that sex workers need (Sanders, 2004; Benoit & Millar, 2001). Research has shown that a fairly high percentage of sex workers may not to disclose their occupation to their intimate partners (Sanders, 2004). This secrecy can generate a high level of ongoing and acute stress not only from trying to keep their work lives separate but also from a fear of being found out and also the potential loss of their partner (Sanders, 2004). Another source of relationship stress may stem from the criminal code, which states that anyone living in the same household as a sex worker is considered to be “living on the avails of prostitution” and this brings an additional element of criminality into their personal relationships that may further reduce any supportive benefits (Lowman 2005 & 1987). As a result, the amount of social and emotional support sex workers receive from intimate relationships may be far outweighed by the stress associated with fear of legal action and/or trying to maintain occupational secrecy. It could be argued that this may be why some sex workers refrain from participating in intimate relationships while involved in the sex industry (Sanders, 2004).

While stylists and servers are unlikely to keep their occupations a secret from their partners, they too may not receive adequate emotional support from their relationships, depending on the tenure and commitment of the partnership. These findings

may be more concretely reflected in the qualitative narratives found interview data from the *Interactive Service Workers Study*. A lesser degree of control within the relationship or an imbalance of household responsibilities could also contribute to emotional distress and compound the impact of restrictive working conditions and other life stressors (Glass & Fujimoto, 1994). The variable measuring intimate and love relationships in this model included marriage, dating and common-law partnerships which may have had an impact on the overall experience of emotional support for workers in each of the three occupations (Frank & Brandstatter, 2002). The literature in Chapter 2 also suggested that social support is more effective when combined with higher levels of socioeconomic status. Therefore, the effectiveness of personal relationships for workers in these three relatively similar low status, low prestige occupations with few educational requirements may further be limited.

5.5 Summary:

This chapter discussed the descriptive results and findings of the regression model in light of the research literature reviewed in Chapter 2 of this thesis. The first section discussed the impact of occupation and working conditions on the mental health outcomes of the different occupational groups. For stylists, workplace autonomy combined with control over decision making and the ability to exert skill discretion seemed to be protective of their mental health as they scored the highest on the JCQDL and also reported the lowest depression scores. Servers were at a slightly higher risk of emotional burnout as they reported the lowest levels of skill discretion and decision authority and scored slightly higher on the depression index than stylists. Like stylists,

sex workers reported fairly high scores on the skill discretion and decision authority scale; however, being in the sex worker occupational group was in itself a predictor of depression and these more positive working conditions were not reflected in their mental health reports. They had by far the highest depression scores and lowest self-reported mental health outcomes of the three groups. These mixed results suggest that for the sex workers, occupation and working conditions were not the only factors predicting higher levels of depression.

The second section of this chapter addressed the role that psychosocial stressors, specifically stressful life events, played in mediating depression levels among these service workers. Psychosocial stressors were shown to be a very strong predictor of depression overall and especially among the sex worker group. Early experiences of adversity and higher rates of stressful life events occurring in and outside of sex work may have accounted for higher depression levels among the sex workers (Seib et al., 2009; Stoltz et al., 2007; Benoit et al., 2007). Sex workers, stylists and servers from low socioeconomic backgrounds were all more likely to experience a higher vulnerability to acute and chronic stress over the life course, which has been shown to result in worse mental health (Wheaton et al., 1997; Mullen et al., 1993). The regression results indicated that the higher the number of stressful life events and the worse employment conditions experienced by the worker, the more likely they were to report increased depression scores.

The final section discussed how support in personal life could mediate emotional distress and depression. My findings indicated that for these occupational groups, intimate relationships contributed to depression instead of acting as a protective element.

This result is in contrast with much of the social support literature (Plaisier et al., 2007; Marchand et al., 2005b; Barret & Turner, 1995; Turner et al., 1995) and may be particular to this sample of three highly gendered frontline service occupations. For the sex workers, stress associated with hiding their occupation from their partner and the illegality of living with a partner may result in increased stress that outweighs the protective elements of a relationship (Sanders, 2004; Benoit & Millar, 2001). For stylists and servers, the high proportion of females in this sample may mean that these workers bear an increased burden of household responsibility at home and have less control within the relationship. For all the occupations, level of commitment in their intimate relationships may also impact the overall emotional benefits they receive and as noted in the literature review, social support has less protective benefits when combined with low socioeconomic status. Coupled with restrictive working conditions, intimate relationships may act as a more of a source of stress than of emotional support for these workers.

The next and final chapter in this thesis briefly reviews the main findings, outlines the study limitations, and presents some directions for future research. Chapter 6 concludes by proposing some policy and programming recommendations based on the findings discussed in this thesis.

Chapter 6: Summary & Conclusions

6.1 Introduction

This final chapter begins with a brief summary of some of the main findings found in this thesis. The next section addresses some of the limitations of the study, including a discussion of my experience analysing secondary data. In the third section some directions for future research are presented, such as examining occupational stigma experienced by frontline service workers and investigating the variation in depression levels among sex workers in different areas of the sex industry (e.g., escorts, home-based workers, strippers, street-based workers). The chapter concludes with some policy and programming recommendations around working conditions for frontline service workers. Recommendations are also made regarding the current socio-legal conditions under which sex workers must continue to operate in Canada, and finally an example of the experience of decriminalization of sex work in New Zealand is discussed.

6.2 Summary of Main Findings

There were a number of interesting findings reported in this thesis. Perhaps most significantly, psychosocial stressors and working conditions both proved to be significant predictors of depression among the frontline service workers analysed. The significance of psychosocial stressors in the model is especially important for the sex worker group as it indicates that it may not entirely be the work itself that is detrimental to mental health, as is often suggested. Outcomes of depression could therefore also be linked stressful experiences that may have occurred outside of their occupation, or potentially negative

events that could have occurred due to the lack of formal workplace protections associated with sex work. In fact, the sex worker sample reported relatively positive working conditions and they exercised comparable, if not higher, decision authority and skill discretion than stylists and servers. However, their relatively positive working conditions were in contrast to high levels of depression indicating that working conditions alone were not fully able to explain the variation in depression levels among the sex worker sample.

Another unexpected result of this analysis was that being in an intimate relationship actually contributed to higher depression levels for these workers rather than protecting against it, as much of the literature would suggest (Plaisier et al., 2007; Marchand et al., 2005b; Barret & Turner, 1995; Turner et al., 1995). For sex workers this may be related to the stigma and illegality attached to their occupations which may impact the support they are able to ask for and receive in their partnerships. For the other frontline service workers it may be a reflection of the tenure of their relationships or an imbalance of mutual support and responsibility sharing they may experience with their partners. For all three groups of workers, their lower socioeconomic status may also limit the effectiveness of the support they receive from their personal relationships.

Overall, working conditions, interpersonal relations, and the daily emotional strain of work do have a strong impact on the experience of employment for the individual worker and can also influence their long term mental health and well-being (Benoit et al., 2007; Marchand et al., 2005a; Cole et al., 2002). While not initially expected, my analysis indicated that acute emotional stress was a powerful underlying factor connected to depression within the context of marginalized groups of workers such

as the three examined in this thesis (Plaisier et al., 2007; Bass et al., 2006; Turner & Avison, 2003). Consideration of the impact of psychosocial stressors and restrictive or unregulated working conditions may offer the most comprehensive insight into experiences of emotional distress that can contribute to some frontline service workers experiencing higher levels of depression. This more comprehensive perspective may also help guide the way for future research initiatives and effective policy recommendations.

6.3 Study Limitations

Working with secondary data offered both rewards and limitations. Analysis of secondary data was extremely time-efficient and collecting, collating and analysing primary data would have been very time consuming. Further, it would not have been possible for a graduate student to launch a study of this size and gather the kind of rich data that existed in this extensive dataset. Also, the costs associated with this magnitude of data collection would certainly be prohibitive. Another benefit of using secondary data in this case was that the data were local and it was therefore possible to have direct consultation with the principle investigators to clarify issues and seek confirmation of different aspects of the study. There were also some challenges associated with using secondary data. One of these drawbacks was that rather than being able to design and gather desired information tailored specifically to the topic, the statistical model had to be built from pre-existing variables that may not quite have been a perfect fit. Also, preliminary analysis and potential insights into the data may have been limited by not experiencing data collection first hand. By being one step removed from the data gathering stage means it was not possible to engage in observations about the

participants, or assist in the evolution of concepts or measures over the course of data collection.

This study has certain limitations. Firstly, undertaking qualitative analysis of the interview data in addition to the statistical analysis presented here might have further explained and verified the findings and offered deeper insights into the participants' experiences. Secondly, the cross sectional design precluded claims of causality, which will likely be handled in further analyses of the entire data set. It is also possible that there were other factors related to depression that have not been addressed in this study. The extent that working conditions and psychosocial stressors, as opposed to predisposing personality factors effect depression outcomes has been questioned in the literature (Marchand et al., 2005b). Personality characteristics might contribute to poorer mental health outcomes as people with pre-existing mental health conditions are more likely to negatively assess their working environments (Paterniti et al., 2002). Low self-esteem or generally negative affectivity may further intervene in the relationship between psychosocial conditions at work and mental health outcomes (Sherrington, Hawton, Fagg, Andrew & Smith 2001; Miller, Smith, Turner, Guijarro & Hallet, 1996; Andrew, Hawton, Fagg & Westbrook, 1993). However, longitudinal studies that measure how changes in these individual psychosocial dimensions affect health over time would help to sort out these questions.

Finally, the study was limited by sample selection and sample size. Due to the nature of the populations under study, collecting a random sample was not possible and thus it was difficult to make any major generalizations based on the findings. Notwithstanding these limitations, the innovative sampling techniques, comparative

research design and standardized measurements were some notable strengths of the project.

6.4 Directions for Future Research

Potential areas for further investigation, either by the principle investigators of the *Interactive Service Workers Study*, or as my doctoral dissertation, could involve a more in-depth examination of the role of occupational stigma in depression outcomes among the three frontline service occupations examined in this thesis. A qualitative look at the narratives around depression among the sample of workers might also provide a more nuanced look at the experience of depression and the meanings associated with working conditions and stress within frontline service work. A qualitative analysis might also help verify and explain the findings presented in this thesis and highlight some themes left undiscovered by my quantitative analysis. Further exploration of these workers' perception of treatment by the general public and mental health providers could also present a fuller picture of the impact of stigmatizing interactions these workers experience in their everyday lives which may have a cumulative impact on their mental health trajectories over the long term.

Another line of future inquiry could be a comparative investigation of a slightly larger sample of only sex workers looking at mental health outcomes within different sex industry venues (e.g. strip clubs, escort agencies, home and street based locations). This might provide a broader understanding of the subtle variation in mental health outcomes within the different areas of the sex industry, and indicate specific changes to working conditions which might help protect against poor mental health and depression. Again, a

complementary qualitative investigation could delve more deeply into the range and type of depression sex workers experience, such as episodic, severe, mild and chronic.

Exploration of these varying experiences in addition to sex workers' reports of access to, and experience of, emotional support services could increase knowledge around maximizing access to appropriate mental health services. For instance, offering recommendations for sex-worker specific training programs geared towards mental health providers who spend time working with this population.

6.5 Policy and Programming Recommendations

Though in need of further verification, the research findings in this thesis contain some general implications for policy and programs designed to address working conditions and mental health. Depression is becoming a significant health concern in the workplace and according to some estimates it will emerge as a key determinant of chronic illness over the next decade (Bass et al., 2006). Addressing depression in the workplace also means addressing its structural determinants. Researchers have shown that service work is becoming a leading employer of women in the new economy. Changes to employment conditions such as fewer workplace protections, increased job demands and lack control over work hours and schedules are just some of the factors thought to increase experiences of stress in the service sector (Bass et al., 2006; Kerfoot & Korczynski, 2005). My results support these claims and point to the need for policy makers and relevant organizations to take heed of the type of working conditions that place people at risk of poorer health.

The findings presented here suggest that both population wide social policies and sex industry specific policies (i.e. criminal code legislation) are necessary to improve the working conditions of sex workers in particular and frontline service workers more generally. The results of this study further support health researchers' claims that child care, education, housing, income assistance and employment programs are integral to improving the mental health of working populations and their families. Moreover, precariously located workers also have a need for better access to mental health care services such as counselling, which can help with the management of chronic and acute stress within or outside of their occupations. In addition to this, a counter force to institutionalized discrimination against historically marginalized segments of the population such as women, visible minorities and Aboriginal peoples is necessary to ensure equal access to job opportunities and decreased vulnerability to depression.

For sex workers, the most marginalized group of workers in this study, changes to the legal context of their work is warranted. This would include decriminalization of all aspects of sex work and the implementation of occupational health and safety policies directed at harm reduction for sex workers operating in both indoor and outdoor venues (Rekart, 2005). Changes to the criminal code in countries such as New Zealand have produced positive outcomes for sex workers who have subsequently reported feeling more supported by their employers as well as the police (Abel, Fitzgerald & Brunton, 2008). Further, sex workers in New Zealand feel they have more power in their negotiations with clients now that they are extended the same workplace protections and legal recourse as other occupations in the formal economy. These legal changes have led to a decrease in nonuse of condoms and there has also been evidence of a decrease in sex

workers' experience of violence (Abel & Fitzgerald, 2009). Despite these positive changes, sex workers in New Zealand still face significant discrimination and stigmatization at the hands of the public and as a result of stereotypical portrayals in the media (Abel & Fitzgerald, 2009). However, overall, the decriminalization of sex work in New Zealand has led to positive outcomes for the health and well-being of these workers and, if anything, there are now increased protections and supports in place for individuals who might risk entering the sex industry under negative and therefore potentially health-damaging circumstances (Abel & Fitzgerald, 2009).

In Canada, the decriminalization of the elements of sex work that are still illegal, such as living on the avails of prostitution and operating a “bawdy house”, combined with the implementation of occupational health and safety guidelines and social supports for sex industry workers, could go a long way in granting the citizenship rights that people working in the sex industry have so long been denied (Benoit & Shaver, 2006; Rekart, 2005; Shaver, 2005). Also, dissemination of knowledge based on accurate research pertaining to the sex industry could contribute to more positive public support for social welfare policies and political responses to the sex industry and its workers.

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Appendix A

Interactive Service Workers Occupational Health and Safety and Access to Health Services Canadian Institutes of Health Research/University of Victoria Participant Consent Form

You are being invited to participate in a community-academic collaborative study. This is a study about the health of interactive service workers and their children. Professors Cecilia Benoit, Bill McCarthy, Mikael Jansson and Bonnie Leadbeater are the research leaders for this study. The main funding for this project comes from the Canadian Institute of Health Research.

What is the purpose of this project?

This is a study about the health impact of providing "emotional labour" in interactive service jobs where part of the worker's income is dependent on tips from customers and where he/she is also required to develop (or contribute to the development of) a regular clientele base. For the purposes of the study, emotional labour is defined as managing your own feelings, communication and body language to enhance the customers experience and perception of the service they receive. The impact of emotional work on workers in these occupations has not been studied before and this study will be the first of its kind in Canada. The researchers hope to shed light on interactive service workers' occupational health and safety and access to health services and, where applicable, that of their children. They also hope to provide knowledge to policy makers and service workers about health hazards both on and off the job and strategies for improving the health of service workers and their families.

Who is being asked to participate?

We have chosen to study three interactive service occupations, two of which are socially recognized as legitimate service occupations – hairstyling and food and beverage serving – and one of which is not commonly regarded as a legitimate service occupation: sex work. You are being asked to participate in this study because you are aged 19 or older and have worked in one of the above interactive service occupations in the Greater Victoria area for a minimum of one year at the time we contacted you.

Why is this research important and how will the information be used?

We hope the resulting report will be of interest to local service providers, work organizations and members of the general public. We also hope that the findings will help inform social policy regarding service workers' occupational health and safety, as well as that of their children. The research leaders will ensure that members of government, workers, and business owners, and in particular, workers themselves have access to the findings so that they are informed of the important issues that emerge. After we have issued the final report, some of the data may be analyzed so that we can present our findings in books or other publications. When we publish our findings we will only

describe groups of individuals. We will not provide data on single individuals and no one will be able to identify who participated in the study.

What am I being asked to do?

If you agree to participate in this research you will be asked to sign this consent form. Your participation will include answering a number of questions posed by me for this project. With your permission, I will tape-record the interview. We hope that you will agree to be interviewed four times over the life of the project, with interviews taking place at approximately four-month intervals. At these follow-up interviews, I will ask you some of the same questions posed in the original interview plus some additional questions about your work, health, the health of your children, and your access to health services. The reason for the follow-up interviews is to gather information on any changes in your work and health since the last interview. Each interview will take approximately one and a half to two hours. We offer you a modest honorarium of \$25.00 at each interview, but you should not participate if you only do so because of the honorarium.

Is my participation voluntary?

Your participation in this research must be completely voluntary. You may choose not to answer any question. You may withdraw at any time without any consequences or any explanation. If you withdraw part way through the first interview, we will destroy the data already collected. If you decide to withdraw from the study (by not returning for or agreeing to a subsequent interview), we will use the data collected in earlier interview(s), unless you ask us not to do so. You will be asked to sign a consent form at each follow-up interview.

Are there any risks involved?

There are some potential risks to you by participating in this research. Some of the questions may remind you of difficult events from the past. In addition, some questions may be perceived as private and you may feel uncomfortable sharing the information. We have placed potentially sensitive questions in a separate section of the interview questionnaire so that you may complete them without telling the interviewer your answers. If the interview raises concerns and you would like to meet with a qualified counsellor we will help you to do that free of charge. We will also give you a list of local health services and take steps to put you in touch with local health services or emergency aid if needed.

How important is my privacy?

We would like you to know that we will always keep your name and contact information separate from the information you share with us in order to ensure that the information you provide remains anonymous. Only the research leaders and the interview coordinator will have access to your name and contact information, and this information will only be looked at when we contact you to book a follow-up interview. We will also maintain confidentiality by keeping the data under lock and key at all times. The interview questionnaires, tapes and contact information will be destroyed once the project is complete.

What are the benefits of my participation?

There are many potential benefits from your participation in this research. First, your participation may provide you with insights into your own experiences as well as useful information and ideas about your health and occupation and the health of your children (where applicable). Second, your experience will be combined with others in order to provide better general knowledge of the health and well-being of workers in your specific occupation at this point in time. The study will allow us to make recommendations about the prevention of health problems and ways of increasing early and appropriate access to services for your co-workers and their children (and others in service-related jobs). As mentioned earlier, we will ensure that government representatives (such as the Worker's Compensation Board), business owners, and workers themselves have access to the findings of the study so that they may use the information to become better informed of the health needs of persons employed in these occupations and advocate for occupational supports or conditions that will benefit workers and their families. Third, the research may place you in contact with services (including emergency services) that you may have been previously unaware of.

How are participants selected?

Most participants have been selected for this study through a random draw of businesses that have municipal or provincial licenses. We are also interested in contacting those who work in establishments that are not licensed and we would appreciate your assistance in making these workers aware of our research. If you are willing to help us we offer a modest finder fee (\$10) for each eligible respondent you refer to the project and who comes forward for an interview. (Handout sheet explaining referral system).

In addition to contacting Dr. Cecilia Benoit about this project (see above), you may raise any concerns you might have, by contacting Dr. Howard Brunt, Associate Vice-President, Office of Vice-President Research, University of Victoria, and phone (250) 721-7971.

Your signature below indicates that you understand this consent form and that you have had the opportunity to have your questions answered by myself.

Would you like to have a copy of this consent form? Yes No

Name of Participant:

Signature:

Date:

Appendix B

Interactive Service Workers' Occupational Health and Safety and Access to Health Services

Research Instrument: Wave 1

Main Questionnaire

Q5a. Are you an Aboriginal person?

1. Yes.
2. No go to Q6

Q6. The employment equity act defines visible minorities as persons, other than Aboriginal people, who are non-Caucasian in race or non-white in colour. Are you a visible minority member according to this definition?

1. Yes
2. No

Q7. In what month and year were you born? Month: _____ Year: _____

Q29. How many biological/adopted children have you ever had? _____

Q32a. Are you currently in an intimate/love relationship?

1. Yes
2. No, I am single at this time. Go to Q39a.

Q40. What is your current living situation?

1. Rent house or apartment
2. Own house or apartment
3. Purchased share in Co-op Housing
4. Rent Subsidized Housing
5. Temporary housing Go to Q42
6. Without housing (includes those staying in nightly shelters) Go to Q42
6. Other, please specify:

Q43a. What was the last school grade you completed? Grade _____

Q44b. What type of education/training do you have? I will mark all that apply.

1. Short Certificate Programs
2. Incomplete Apprenticeship
3. Complete Apprenticeship
4. Incomplete Diploma Program/Trade School
5. Complete Diploma Program/Trade school
6. Incomplete post secondary degree program: Specify number of years completed
7. Complete post-secondary degree program
8. Other

Interactive Service Workers' Occupational Health and Safety and Access to Health Services

Research Instrument: Wave 1
Self Administered Questionnaire

Q87a. What do you refer to yourself as?

1. Female
2. Male
3. Other _____

Q87b. What is your sexual orientation?

1. Homosexual
2. Heterosexual
3. Bisexual
4. Other: Please specify _____

Q95. In general, how do you rate your mental health?

1. Excellent
2. Very good
3. Good
4. Fair
5. Poor

Q86. Beginning with your childhood and up to and including the present, have any of the following stressful life events occurred? Check all that apply and your approximate age when the event occurred. You may indicate more than one age if the event has occurred in your life more than once. Please take your time.

1. Your parents/guardians separated/divorced Y N
2. You experienced separation/divorce in a significant relationship Y N
3. You were involved in a serious accident Y N
4. You became homeless Y N
5. A family member or close friend became seriously ill Y N
6. You became seriously ill or suffered a serious health condition Y N
7. You and/or your family experienced serious financial difficulty Y N
8. Someone close to you was the victim of a violent crime Y N
9. You were the victim of a violent crime Y N
10. A close friend/companion/partner, etc. passed away Y N
11. A close family member (other than parent) passed away Y N
12. One or both of your parent(s) or guardian(s) passed away Y N
13. You were the victim of physical abuse Y N
14. You were the victim of sexual abuse Y N
15. You were the victim of emotional abuse Y / N
16. Other: _____ Y / N

**Interactive Service Workers' Occupational Health and Safety and Access to Health
Services
Wave 2
Main Questionnaire**

Part I: Job Content

The following questions are standard questions used to measure the experience of workers in various occupations. We are aware that some of the questions may seem repetitive and perhaps only partially relevant to your job. Despite this, we would like you to pick the answers that best describe your experience in your service job. It will take about 7 to 10 minutes to complete this portion of the questionnaire and we thank you in advance for your patience.

Q1. My job requires that I learn new things. (JCQ3)

1. Strongly disagree 2. Disagree 3. Agree 4. Strongly agree

Q2. My job involves a lot of repetitive work. (JCQ4)

1. Strongly disagree 2. Disagree 3. Agree 4. Strongly agree

Q3. My job requires me to be creative. (JCQ5)

1. Strongly disagree 2. Disagree 3. Agree 4. Strongly agree

Q4. My job allows me to make a lot of decisions on my own. (JCQ6)

1. Strongly disagree 2. Disagree 3. Agree 4. Strongly agree

Q5. My job requires a high level of skill. (JCQ7)

1. Strongly disagree 2. Disagree 3. Agree 4. Strongly agree

Q6. On my job, I have very little freedom to decide how I do my work. (JCQ8)

1. Strongly disagree 2. Disagree 3. Agree 4. Strongly agree

Q7. I get to do a variety of different things on my job. (JCQ9)

1. Strongly disagree 2. Disagree 3. Agree 4. Strongly agree

Q8. I have a lot of say about what happens on my job. (JCQ10)

1. Strongly disagree 2. Disagree 3. Agree 4. Strongly agree

Q9. I have an opportunity to develop my own special abilities. (JCQ11)

1. Strongly disagree 2. Disagree 3. Agree 4. Strongly agree

Q10. My job requires working very fast. (JCQ19)

1. Strongly disagree 2. Disagree 3. Agree 4. Strongly agree

Q11. My job requires working very hard. (JCQ20)

1. Strongly disagree 2. Disagree 3. Agree 4. Strongly agree

Q12. My job requires lots of physical effort. (JCQ21)

1. Strongly disagree 2. Disagree 3. Agree 4. Strongly agree

Q13. I am not asked to do an excessive amount of work. (JCQ22)

1. Strongly disagree 2. Disagree 3. Agree 4. Strongly agree

Q14. I have enough time to get the job done. (JCQ23)

1. Strongly disagree 2. Disagree 3. Agree 4. Strongly agree

Q15. I am often required to move or lift very heavy loads on my job. (JCQ24)

1. Strongly disagree 2. Disagree 3. Agree 4. Strongly agree

Q16. My work requires rapid and continuous physical activity. (JCQ25)

1. Strongly disagree 2. Disagree 3. Agree 4. Strongly agree

Q17. I am free from conflicting demands that others make. (JCQ26)

1. Strongly disagree 2. Disagree 3. Agree 4. Strongly agree

Q18. My job requires long periods of intense concentration on the task. (JCQ27)

1. Strongly disagree 2. Disagree 3. Agree 4. Strongly agree

Q19. My tasks are often interrupted before they can be completed, requiring attention at a later time. (JCQ28)

1. Strongly disagree 2. Disagree 3. Agree 4. Strongly agree

Q20. My job is very hectic. (JCQ29)

1. Strongly disagree 2. Disagree 3. Agree 4. Strongly agree

Q21. I am often required to work for long periods with my body in physically awkward positions.(JCQ30)

1. Strongly disagree 2. Disagree 3. Agree 4. Strongly agree

Q22. I am often required to work for long periods with my head or arms in physically awkward positions. (JCQ31)

1. Strongly disagree 2. Disagree 3. Agree 4. Strongly agree

Q23. Waiting on work from other people or departments often slows me down on my job. (JCQ32)

1. Strongly disagree 2. Disagree 3. Agree 4. Strongly agree

Q24. My job security is good. (JCQ34)

1. Strongly disagree 2. Disagree 3. Agree 4. Strongly agree

Q136. The next set of questions contains groups of statements. Please read each group of statements carefully. Then, please check the one statement in each group that best describes the way you have been feeling the past week, including today. Be sure to read all the statements in each group before making your choice.

1. '0. I do not feel sad.

'1. I feel sad.

'2. I am sad all the time and I can't snap out of it.

'3. I am so sad or unhappy that I can't stand it.

2. '0. I am not particularly discouraged about the future.

'1. I feel discouraged about the future.

'2. I feel I have nothing to look forward to.

'3. I feel that the future is hopeless and that things cannot improve.

3. '0. I do not feel like a failure.

'1. I feel I have failed more than the average person.

'2. As I look back on my life, all I can see is a lot of failures.

'3. I feel I am a complete failure as a person.

4. '0. I get as much satisfaction out of things as I used to.

'1. I don't enjoy things the way I used to.

'2. I don't get real satisfaction out of anything anymore.

'3. I am dissatisfied or bored with everything.

5. '0. I don't feel particularly guilty.

'1. I feel guilty a good part of the time.

- '2. I feel quite guilty most of the time.
'3. I feel guilty all of the time.
6. '0. I don't feel I am being punished.
'1. I feel I may be punished.
'2. I expect to be punished.
'3. I feel I am being punished.
7. '0. I don't feel disappointed in myself.
'1. I am disappointed in myself.
'2. I am disgusted with myself.
'3. I hate myself.
8. '0. I don't feel I am any worse than anybody else.
'1. I am critical of myself for my weaknesses or mistakes.
'2. I blame myself all the time for my faults.
'3. I blame myself for everything bad that happens.
10. '0. I don't cry more than usual.
'1. I cry now more than I used to.
'2. I cry all the time now.
'3. I used to be able to cry, but now I can't cry even though I want to.
11. '0. I am no more irritated now than I ever am.
'1. I get annoyed or irritated more easily than I used to.
'2. I feel irritated all the time now.
'3. I don't get irritated at all by the things that used to irritate me.
12. '0. I have not lost interest in other people.
'1. I am less interested in other people than I used to be.
'2. I have lost most of my interest in other people.
'3. I have lost all of my interest in other people.
13. '0. I make decisions about as well as I ever could.
'1. I put off making decisions more than I used to.
'2. I have greater difficulty in making decisions than before.
'3. I can't make decisions at all anymore.
14. '0. I don't feel I look any worse than I used to.
'1. I am worried that I am looking old or unattractive.
'2. I feel that there are permanent changes in my appearance that make me look unattractive
'3. I believe that I look ugly.
15. '0. I can work about as well as before.
'1. It takes an extra effort to get started at doing something.

'2. I have to push myself very hard to do anything.

'3. I can't do any work at all.

16. '0. I can sleep as well as usual.

'1. I don't sleep as well as I used to.

'2. I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.

'3. I wake up several hours earlier than I used to and cannot get back to sleep.

17. '0. I don't get more tired than usual.

'1. I get tired more easily than I used to.

'2. I get tired from doing almost anything.

'3. I am too tired to do anything.

18. '0. My appetite is no worse than usual.

'1. My appetite is not as good as it used to be.

'2. My appetite is much worse now.

'3. I have no appetite at all anymore.

19. '0. I haven't lost much weight, if any, lately.

'1. I have lost more than 5 pounds lately.

'2. I have lost more than 10 pounds lately.

'3. I have lost more than 15 pounds lately.

I am purposely trying to lose weight by eating less. " Yes / " No

20 '0. I am no more worried about my health than usual.

'1. I am worried about physical problems such as aches and pains; or upset stomach; or constipation.

'2. I am very worried about physical problems and it's hard to think of much else.

'3. I am so worried about my physical problems that I cannot think about anything else.

21 '0. I have not noticed any recent change in my interest in sex.

'1. I am less interested in sex than I used to be.

'2. I am much less interested in sex now.

'3. I have lost interest in sex completely

**Interactive Service Workers' Occupational Health and Safety and Access to Health
Services
Wave 2**

Self Administered Questionnaire

Q144. In the last 4 months, how often did you have problems paying for basic necessities (like food, clothing or rent)?

1. Rarely/Never

2. Some of the time

3. Half of the time

4. Most of the time

5. Almost always/Always