Chapter 1 Gender, Work, and Health: Some Introductory Thoughts



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1.1 Introduction

Perhaps most of the practices and processes that create and recreate gender inequalities occur in organisations, in the daily activities of working and organising the work (Acker, 2006). Feminist scholars have articulated a range of critiques of formal organisations and their relative inaccessibility to women (Calás & Smircich, 2006; Gottfried, 2006). By doing so, they have affirmed that to achieve gender equality, it is necessary to study and intervene on gender issues in organisations (Acker, 1998).

Many feminists view the twentieth century as a key catalyst to breaking down, and, in turn, redefining this gender perspective on work and working lives (Annandale & Hunt, 2000). Over preceding decades, men's and women's lives have dramatically changed with growing evidence of greater similarity (Barnett & Hyde, 2001). Indeed, as women progressively enter the workforce these traditional social roles are becoming less distinct over time (Nelson & Burke, 2002).

Despite this, women continue lagging behind men in the health, safety and wellbeing opportunities available to them. Traditional gender roles assigned to men and women through a cultural process of socialisation have typically supported clear definitions of "men's" and "women's" work: namely, paid occupational labour and unpaid domestic labour and responsibilities. Feminist economics have recognised this duality by redefining work as "all human activities intended to produce goods and services that meet human needs" (Ramos, 2012, p. 397). This is an acknowledgement to the contribution of female paid and unpaid work activities to society as

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a whole, and to the fact that issues such as the gender wage gap and the sex segregation of the labour force are not only aspects of the economy or the market alone but also of organisations.

Consequently, given the significant degree of social change over the last century there is a clear empirical argument to understand the impact of these two social contexts, and their respective interaction, on both men's and women's work, health, safety and well-being. This introductory chapter seeks to provide the reader with an overview and evaluative discussion of several key issues and concepts.

1.2 Understanding Gender and its Relationship to Health

Gender is progressively being used as a substitute for, and interchangeably with, the term sex, particularly in the biomedical literature; a tendency which has often led to confusion (Fischman, Wick, & Koenig, 1999). The term "sex" refers to the biological differences between men and women; some commonly observed sex differences are chromosomes, reproductive function, endocrine/hormonal system, immune system metabolism, body fat and upper/lower body strength (Crozier, 2006). In contrast, the term "gender" refers to those characteristics of men and women that are socially and culturally determined (Vlassoff & Moreno, 2002). This broadly relates to the different behaviours, roles, expectations, and responsibilities that all men and women learn in the context of their own societies (WHO, 2006).

Sex differences are universal and remain reasonably fixed over time; whilst, in contrast, gender differences are learned, changeable, and vary both within and between cultures (Vlassoff & Moreno, 2002). Consequently, gender is not a fixed and universal entity; but evolves over time due to changes in societal norms and practices and can change over an individual's stage of life (Vlassoff & Moreno, 2002). However, it is important to note that sex and gender are not mutually exclusive, but rather dynamically interact (Crozier, 2006; Vlassoff & Moreno, 2002). Consequently, it is important when considering differences in men's and women's health to consider the relative impact of both sex and gender, and their respective interaction.

It has often been viewed as conventional wisdom in the biomedical, psychological, sociological and epidemiological fields, that in industrialised countries men tend to die earlier than women; and, conversely, women tend to have higher rates of morbidity, disability and health care use than men (Nathanson, 1977). During the 1970s and 1980s numerous studies repeatedly demonstrated that females had higher rates of illness, than males (Arber, 1997). During this time, numerous proposed explanations for these observed gender differences in health were proposed, including biological risks; risks acquired through social roles and behaviour; illness behaviour(s); health reporting behaviour(s) and differential health care access, treatment, and use (Verbrugge, 1989). However, research in the 1990s began to question this conventional wisdom. Indeed, Macintyre and colleagues (Macintyre, Hunt, & Sweeting, 1996) asked the important question: are gender differences in health in the western industrialised world so clear cut?

Macintyre et al. (1996) emphasise that the common expected discourse of gender differences in health, has become oversimplified and that over-generalisation has become the norm, with inconsistencies and complexities in patterns of gender differences in health being overlooked, down played, or even not reported. However, it is important to note that the authors do not deny that there is a substantial degree of evidence of gender differences in a wide range of health outcomes during much of adult life in western industrialised countries (Verbrugge, 1989; Walters, McDonough, & Strohschein, 2002; Wingard, 1984); but contemporary research highlights a variable pattern of gender disparity in health status exists and is, by no mean, as simple as conventional wisdom would suggest (McDonough & Walters, 2001).

One of the most commonly proposed explanations for the observed female excess in morbidity is the variable pattern in the way that symptoms are perceived, evaluated and acted upon among men and women (Hibbard & Pope, 1986); more specifically, with women reporting and perceiving more symptoms and states of ill-health. It is typically argued and postulated that this gender difference in reporting behaviours is driven, in part, by a greater social stigma associated to ill health, and particular issues of mental health, among men and their respective social identity (Hibbard & Pope, 1986).

Contrary to the commonly held belief that women report higher rates of morbidity and are more ready to report mental health problems, a study by Macintyre and colleagues did not find a gender difference in the initial likelihood of reporting a condition (Macintyre, Ford, & Hunt, 1999). This finding is consistent with other scientific reports (Charlton, 1997; Cohen, Forbes, & Garraway, 1995; Macintyre et al., 1996). The study by Macintyre et al. (1999) also examined the hypothesis that women are more willing to report trivial conditions and mental health problems. This study did not find evidence in support of this notion. In general, Macintyre et al. (1999) conclude that based on the results of their study, there is little support for the suggestion, by such authors as Hibbard and Pope, that there is a tendency for women to be more sensitive to illness and, in turn, to be more ready to report an illness experience at lower thresholds of severity than men.

The notion that gender differences in health is best encapsulated in the simplified notion that men die earlier and women are 'sicker', downplays the complex pattern and nuances of heath inequalities by gender. Indeed, gender differences in health have been observed to vary by symptom and ailment. A secondary data analysis of the National Population Health Survey from Canada observed women reported more psychological distress and chronic conditions than men; but gender differences were observed to be reverse for heavy drinking, and negligible for self-rated health and restricted activity (McDonough & Walters, 2001).

Therefore, if gender differences in health demonstrate a complex and variable pattern: what might be some of the reasons underpinning this observation? Firstly, the nature of gender, gender roles and relations are context specific; that is, they are intrinsically linked and shaped by the socio-historical context. Therefore, as gender roles and relations evolve and change over time, it is likely that this will have a direct and indirect impact on observed health disparities between men and women. Data from the 1958 National Child Development Study and the 1970 British Cohort study when the cohort members were 23–42 examined the effects of social class, gender, age, period and cohort on psychological distress as measured by the Malaise Inventory (Sacker & Wiggins, 2002). This study found clear social inequalities in psychological distress that were found to reduce in magnitude over this period. Women in this cohort were observed to report more psychological distress. Although, this gender difference was found to reduce in magnitude over time. The authors conclude that gender inequalities have narrowed in the last two decades of the twentieth century.

Beyond changes due to social reforms, there is also evidence to indicate that the magnitude and direction of health inequalities by gender evolve and change over the course of one's life cycle. Using two British data sets, Macintyre et al. (1996) found the direction and magnitude of sex differences in health vary according to the particular symptoms or conditions, and according to the life cycle. Indeed, the only female excess that was observed across the life span was in relation to psychological distress.

As many changes in gender roles and relations have altered in preceding decades this merits a periodic re-examination of the gender disparities and inequalities in health (Macintyre et al., 1996); and there is also a need to clarify and understand the pathways and social mechanisms that account for the differences in health that have been observed among men and women (McDonough & Walters, 2001; Messing et al., 2003; Messing & Stellman, 2006). In conclusion, summarising the morbidity experiences of men and women is exceedingly difficult (Annandale & Hunt, 1990; Clarke, 1983), and it has been shown that gender differences in health vary by age, morbidity measure and social context (Haavio-Manila, 1986; Verbrugge, 1976; Wingard, Cohn, Kaplan, Cirillo, & Cohen, 1989).

The two following sections aim to examine two particular social contexts: the workplace and the home environment. They aim to provide the reader with an overview of the social mechanisms and structural gender differences present in both of these social contexts/environments. Subsequently, a discussion on how these 'gendered' environments/contexts may help to explain, or account, for observed health disparities between men and women is provided.

1.3 Gender and Occupational Health and Safety: Policy and Practice

There is growing criticism of 'gender neutrality' as an effective policy approach. Indeed, many occupational health, safety and well-being policy decisions which appear to be gender neutral may have a differential impact on men and women. Lippel (1999) examined expert witnesses' and decision makers' perceptions of men's and women's work and life circumstances, as detailed in appeal decisions related to compensation claims for psychological disability linked to work-related stress. The primary aim of this study was to examine whether the impact of perceptions surrounding gender resulted in: discriminatory practices, and/or had an effect on claim recognition. The study conducted both a qualitative and quantitative analysis of 185 written legal decisions on compensability of stress claims for psychological disability rendered by two administrative tribunals. The results of this study demonstrated both quantitative and qualitative disparities in access to compensation based on gender. The researchers specifically concluded that access to compensation for psychological disability related to stress was more difficult to access for women workers than for men. The differences in outcome were not found to be explained by personal problems, previous psychiatric history, legal representation, employer opposition, or the nature of the stressful situations giving raise to the claim. This study yields evidence to indicate that, seemingly, gender-neutral policy may result in differential outcomes and impacts between men and women.

In addition, a growing number of experts have observed that gender issues have typically been neglected in the planning and implementation of health promotion initiatives and disease prevention strategies (Messing, 1998; Messing & Stellman, 2006; Ostlin, 2002; Ostlin, Eckermann, Mishra, Nkowane, & Wallstam, 2006). In general, interventions have been described by some authors as 'gender blind'; whereby, interventions are assumed to be equally as effective for men as women, and vice versa (Ostlin et al., 2006). This is despite the growing body of evidence that indicates that integrating gender considerations into interventions results in a strong positive effect on health outcomes across various domains (Boerder et al., 2004).

In conclusion, gender mainstreaming is now a central component to policy initiatives worldwide. However, despite gender mainstreaming being advocated at a policy level, there continues to be a limited recognition and discourse of the issue of gender in the workplace, and its direct and indirect association to health and wellbeing. Arguably, this has resulted in a limited number of practitioners and organisations directly addressing the issue of gender in their internal policies.

1.4 Gender and the Labour Market and Employment Patterns

Pronounced gender differences in employment patterns can be observed, the result of a highly segregated labour market based on gender (Burchell, Fagan, O'Brien, & Smith, 2007; Fagan & Burchell, 2002; Vogel, 2003). Gender segregation refers to the pattern in which one gender is under-represented in some jobs and overrepresented in others, relative to their percentage share of total employment (Fagan & Burchell, 2002). A growing body of evidence indicates that a high level of gender segregation is a persistent feature of the employment structure globally (Anker, 1998; Burchell et al., 2007; Fagan & Burchell, 2002; Kauppinen & Kandolin, 1998; Rubery & Fagan, 1993; Rubery, Smith, & Fagan, 1999). Estimates suggest that gender segregation in the labour market is so pervasive, that in order to rectify this imbalance approximately 75% of women would have to change jobs or professions (Messing, 1998).

The jobs occupied by women are frequently spread less evenly across occupational sectors, as compared to men. This social phenomenon has been termed horizontal segregation; whereby men and women tend to work and be concentrated in different occupational sectors and perform different types of jobs and related tasks (Crozier, 2006; EU-OSHA, 2002). In short, a large number of occupational groups can be either classified as 'male-dominated' or 'female-dominated'; with a limited number being 'gender-integrated' (Burchell et al., 2007; Fagan & Burchell, 2002).

Interestingly, even when men and women tend to work in the same job, evidence indicates that women and men continue to perform categorically different tasks (Kauppinen & Kandolin, 1998; Messing, 1998; Messing & Stellman, 2006; Vogel, 2003). An observational study conducted by Messing and colleagues (as cited in Messing, 1998) examined the ergonomic demands for workers in a poultry factory, with an equal proportion of male and females. Results of the study demonstrated that although men and women held the same job title, they often conducted very different tasks with different responsibilities. Male workers were found more likely to have tasks related to 'disassembling' the chicken, requiring large 'sweeping' movements, whilst females were more likely to have tasks related to fine and precise cutting (such as removing skin, access fat, or veins). Consequently, the ergonomic demands and, their respective consequences on worker's health, were found to be categorically different for women and men. This suggests that horizontal gender segregation can extend into the same occupational sector and even the same job title.

In addition to this horizontal occupational and sectoral segregation, vertical segregation can also be observed, with women being typically under-represented in higher status and higher paid jobs (Fagan & Burchell, 2002; Vogel, 2003). Men tend to hold more legislative and managerial occupations, whereas most clerical, and service and sale workers are women (Fagan & Burchell, 2002). An additional employment dimension that differs significantly between men and women is in relation to employment contracts, with more women than men opting for part-time employment (Burchell et al., 2007; EU-OSHA, 2002; Fagan & Burchell, 2002). This might play an indirect role in the stark vertical segregation between men and women.

The pervasiveness of gender segregation within the labour market has resulted in significant differences in both job content and working conditions amongst women and men (EU-OSHA, 2002; Kauppinen & Kandolin, 1998; Messing, 1998; Ostlin et al., 2006) resulting in differential exposure rates and taxonomy of workplace hazards (for example, exposure to toxic chemicals, ergonomic demands, risk of accidents, and psychosocial risks; Messing, 1998). Broadly speaking, women's jobs typically involve caring, nurturing and service activities for people, whilst men tend to be concentrated in management and the manual and technical jobs associated with machinery or physical products (EU-OSHA, 2002). Consequently, because men and women are differently concentrated in certain occupations and sectors, with different aspects of job content and its associated tasks, they will be exposed to a different

taxonomy of work-related risks (Burchell et al., 2007; EU-OSHA, 2002; Fagan & Burchell, 2002). This pervasive occupational gender segregation and working conditions may play a significant role in the observed health disparity between men and women (Burchell et al., 2007; Crozier, 2006; EU-OSHA, 2002; Fagan & Burchell, 2002; Vogel, 2003).

1.5 Gender, Work and Health

A growing body of evidence indicates that the predicative aetiological factors underpinning men's and women's health and health-related behaviours in community samples can differ from each other (Denton & Walters, 1999; Walters et al., 2002). However, limited research has looked at the contributory role of gender and its respective impact on men's and women's health in the workplace (Messing & Stellman, 2006). There is growing evidence to indicate that health differences between men and women may be accounted for by different exposure to risks, both inside and outside the workplace where the role of context plays a key aetiological role. In addition, there is evidence to indicate that psychosocial risks may have a different impact on women and men who work in similar jobs (EU-OHSA, 2002). The following sections seek to review the available evidence examining gender differences in health in the workplace.

1.5.1 Work-Related Stress and Mental Health

Stansfeld and Candy (2006) conducted a meta-analysis of longitudinal studies examining work-related psychosocial risks and common mental health disorders (depression and anxiety). The review observed job strain and reward-effort imbalance to be key risk factors for the observed depression and anxiety. Interestingly, the respective impact of these psychosocial risks on mental health was found to differ among men and women.

A cross-sectional study of 7484 full-time employees conducted in Canada found similar results, with psychosocial risks having a different impact on men and women. The data for this study was extracted from a nation-wide health survey with men and women working full- time being included in the analysis. Women reported more frequently high strain jobs; although this was not observed to translate into an increased incidence of psychological distress. Interestingly, negative psychosocial work characteristics demonstrated a stronger association with psychological distress among men (Vermeulen & Mustard, 2000). Bultman, Kant, Schroer, and Kasl (2002) conducted a cross-sectional survey of 11,020 employees from across 42 schools, including vocational schools, and secondary and primary schools in the Netherlands. The study found that men and women reported similar levels of physical fatigue and psychological distress. However, the psychosocial factors

significantly associated with fatigue and psychological distress were found to differ between men and women. Among men, fatigue was significantly associated with emotional demands at work, job insecurity, physical demands and conflict with supervisor. In contrast, high psychological demands were the only psychosocial characteristic to have a significant association with fatigue among women. In relation to psychological distress, a strong association with emotional demands and conflict with supervisors was observed in both men and women. A key limitation of both the aforementioned studies is that men and women in the same or similar occupations were not comparatively examined: thus, comparing 'apples to pears' rather than 'apples to apples'. This may introduce a series of confounding variables. Consequently, the observed gender differences may be interpreted as inherent differences in the psychologically vulnerability between men and women to psychosocial risks or may be evidence to indicate a gender-based taxonomy of workrelated risks due to horizontal segregation of men and women between, and within, occupational sectors.

Emslie and colleagues (2002) examined the distribution of minor psychiatric morbidity among men and women working in similar jobs within three whitecollar organisations from private and public sector; after controlling for domestic and socioeconomic circumstances. Self-report data was collected from a Bank (n = 2176), a University (n = 1647), and the Civil Service (n = 6171). The gender patterning of minor psychiatric morbidity in white-collar employees was found to differ from that observed in the general population and in addition, was found to vary between the three organisations and within occupational grades. Across the three organisations, women reported a higher prevalence of minor psychiatric morbidity; however, this trend reached statistical significance only in one organisation, the civil service. Interestingly, within both high and middle occupational grades, there was a significantly higher prevalence of psychiatric morbidity among women. The characteristics of the women found in the higher occupational grades were found, by the researchers, to be categorically different from their male colleagues across all three organisations. Women in the top grades were less likely than men to be married/ cohabiting and/or a parent, and were on average younger and better educated than their male peers. The authors concluded that gender differences in minor psychiatric morbidity may vary according to social context, and therefore, concluded that gender patterning of minor psychiatric morbidity should not be understood as an essential and constant relationship. Studies examining the role of gender in work and health should be aware of the role of context and be sensitive to the particular occupational setting.

1.5.2 Physical Health

Niedhammer, Tek, Starke, and Siegrist (2004) examined longitudinal data collected through the GAZEL cohort. Both cross-sectional and prospective analyses were conducted to examine the current status of workers' health and their health trends

over time. The GAZEL cohort was established in 1989 to collect data regarding workers' health and working conditions from workers in a French electricity and gas company. The current study comparatively examined data collected in 1998 (n = 10,175; 71% men) and in 1998 to 1999 (n = 6286, 71% men). The analysis revealed both effort-reward imbalance and over-commitment were significantly associated with self-reported health for both men and women. When effort and reward were examined as independent variables, reward was found to be a significant risk factor for both men and women, whilst effort was found to be a significant risk factor only for men. The prospective analysis demonstrated that effort reward imbalance was found to be a significant predictor of poor self-rated health for both genders; however, effort was found not to predict poor-self rated health, whilst reward did. For men, only over-commitment was found to be a predictor of poor self-rated health.

Muhonen and Torkelson (2003) compared men and women in the same occupational status and position to examine the gender differences in the relationship between self-reported health and psychosocial hazards in a Swedish telecom company. Self-report data was collected from 134 female and 145 male employees in similar occupations. Irrespective of gender, a significant relationship between job strain and low social support was observed. However, different psychosocial factors were found to predict this relationship among men's and women's health. In women, only job demands were found to predict women's self-reported health, whereas both demands and lack of social support were found to predict men's health.

Bond, Punnett, Pyle, Cazeca, and Cooperman (2004) examined the respective impact of working conditions on work and health conditions in non-faculty university employees (n = 208, response rate of 30%), and the role of gender, gender relations, and the role of context. Unlike previous research, Bond and colleagues stratified the data by sex and by the male-female ratio in each job category (femaledominated, male-dominated, and gender-integrated). Just under half of the sample worked in 'gender-integrated' jobs (49%); and slightly more participants were in female-dominated jobs (29%, largely clerical) than male-dominated jobs (23%, mostly maintenance and police). The study found the relationship between working conditions and the outcomes variables (physical health, psychological distress, and job satisfaction) differed by the respondent's gender and even more so by the gender ratio of their job. Workplace sexism was associated with diminished job satisfaction for both men and women. However, this was only in those positions in which there was a gender imbalance (either male or female dominated), but not when there was more equal representation. The results of this study should be interpreted with some caution as the response rate was quite low (30%), and consequently could lead to a moderate degree of sample bias. However, like the study conducted by Emslie et al. (2002), the derived findings highlight the importance of considering the role of context when examining gender differences in the workplace. The following section seeks to address the role of unpaid labour as one contextual aspect that may play a role in gender and occupational health.

1.6 Gender, Unpaid Domestic Labour and Duties, and Health

There is an established gender gap in the division of domestic labour (Breen & Crooke, 2005; Sullivan, 2000), and it is argued that to fully understand the health disparities in relation to gender, the role of non-occupational factors should also be taken into consideration (Artazcoz, Borrell, & Benach, 2001; Bird, 1999; EU-OSHA, 2002). Time-use studies show that women specialise in unpaid domestic and care work while men specialise in market work. (Rubiano-Matulevich & Viollaz, 2019). However, it is important to note that, particularly in relation to household work, this discrepancy has narrowed over time, with an overall increase in time spent cooking and cleaning by men and an overall decrease for women. However, despite the substantial reduction in the ratio of female to male participation in cooking and cleaning, this remains highly gendered, with women continuing to contribute several times more time than men.

Artazocz and colleagues (2001) emphasis that when gender differences in health are analysed, both paid and unpaid domestic work, and their respective interaction, should be of central consideration. Indeed, Lorber (1997) states "... jobs and families are complex variables with good and bad effects on the physical and mental health of women and women. Both are areas for social support, which is beneficial to health; both are sometimes hazardous environments with detrimental physical effects; both product stress" (p. 27). Therefore, there is growing research interest and, in turn, focus on understanding what conditions, relating the working and home environment, can be harmful or beneficial for women's and men's health and resiliency.

Indeed, numerous studies in the past have observed an association between the gendered division of household labour and women's higher distress rates (Baruch, Biener, & Barnett, 1987; Ross & Bird, 1994; Ross, Mirowsky, & Huber, 1983; Thoits, 1983). However, a study by Bird (1999) observed this association to be more than just how many domestic duties one performs, but is also a function of how equitably the division of work is perceived by both parties. More specifically, using a national longitudinal survey of a representative sample of adults Bird (1999) found clear evidence that men's lower contribution to household labour explained part of the observed gender difference in depression. Interestingly, inequity in the division of housework had a greater impact on depression than did the overall amount of domestic labour.

Two competing hypotheses have been offered to try and explain this varied pattern among men's and women's health and reported ailments: the differential exposure and the differential vulnerability hypothesis (Turner, Wheaton, & Llyod, 1995; Walters et al., 2002). The following section seeks to provide a brief account of these hypotheses and to explore the evidence-base examining the validity of these theories. However, the evidence for the predictive validity of these two hypotheses is limited and, moreover, provides contradictory findings.

1.7 Gender Differences in Health: Different Exposure or Vulnerability?

Early research postulated that the inequalities of health observed between men and women could be explained by differential exposure of hazards in society due, in part, to the social roles prescribed and reinforced by society. This notion resulted in the development of the differential exposure hypothesis, whereby observed differences in men's and women's health and well-being are the direct result of differential exposure to hazards (Turner et al., 1995). This theory postulates that there are no, or limited, gender differences in the effects of work-related hazards and stressors, but rather it is the patterns of occupational segregation and the associated different work and job conditions men and women are exposed to, which cause the observed health disparity between the sexes (Pugliesi, 1999). This theory assumes the way men and women 'experience' is inherently similar, and that the observed disparity in health and well-being between the sexes is the direct result of different exposure to stressors (McDonough & Walters, 2001).

Early evidence, however, was unable to exclusively account for gender differences in health, indicating that additional or different mechanisms were affecting this relationship. Indeed, the weight of evidence suggests that differential exposure to stressful living conditions plays a negligible role in accounting for gender differences in health (Roxburgh, 1996). However, McDonough and Walters (2001) note that the majority of this early research examined life events as stressors, rather than long term chronic stressors (such as those experienced in the workplace). In addition, Turner et al. (1995) postulate that the lack of empirical support for the differential exposure hypothesis stems from the inadequate measurement of stress exposure.

Consequently, this has led many researchers to speculate whether gender differences in health could be aptly explained by different biological and psychological vulnerability to health risks between men and women (Turner et al., 1995). That is, men and women experience a similar amount and intensity of life stressors, but the disparity in observed health and well-being outcomes is due to the different way the sexes experience and embody stress. Specifically, the differential vulnerability hypothesis suggests life events and ongoing strain are experienced in equal measure between men and women. Rather it is difference between the way men and women experience, embody and cope with stress, which results in different health outcomes (McDonough & Walters, 2001). There is piece-meal evidence to support the validity of this theory.

1.7.1 Different Exposure or Vulnerability: The Evidence-Base

A limited number of studies have examined the validity of these two theories (Pugliesi, 1995, 1999; Roxburgh, 1996; Tytherleigh, Jacobs, Webb, Ricketts, &

Cooper, 2007). None, however, to the knowledge of the author, have examined the validity of these theories over the individual's life course. The current section will outline the findings of the limited number of studies that have examined these two competing hypotheses.

McDonough and Walters (2001) conducted an analysis on a randomised population-based sample of Canadians to examine the degree to which the differential exposure or different vulnerability accounted for the observed health differences between men and women. Like previous studies, general female excess in distress and self-reported chronic conditions was observed and a general excess in drinking among men. Differential exposure to chronic stressors and life events was found to account for some of the observed gender differences in distress scores; however, such exposure was found to play a negligible role in understanding the gender differences in chronic conditions and drinking behaviour. Surprisingly, differential vulnerability to stressors among men and women was found not to contribute to our understanding of gender differences. This preliminary study demonstrates that understanding the aetiological mechanisms of health discrepancy may not only differ based on the theoretical model, but also across health outcomes.

A limited number of studies have looked at the validity of these two competing hypotheses in explaining and, moreover, understanding the aetiological underpinning of sex and gender differences in work-related health outcomes (Pugliesi, 1995, 1999; Roxburgh, 1996; Tytherleigh et al., 2007). However, community-based studies provide some preliminary and foundational knowledge on the prevalence of gender differences across health outcomes; and highlight the validity of the differential exposure and differential vulnerability hypotheses. However, a growing body of evidence indicates that the role of gender in understanding the relationship between psychosocial hazards and workers' health and well-being is dependent on the context. Liu, Spector, and Lin (2008) collected qualitative and quantitative data on the psychosocial working conditions and self-reported health among university faculty staff. Both the qualitative and quantitative data demonstrated a significant interactive effect between gender and occupation. A number of other studies have also found evidence to support the importance of considering the role of context in examining the gender health connection: for example, organisational context (Emslie et al., 2002), the gender-ratio of an occupation (Bond et al., 2004).

An early study conducted by Pugliesi (1995) examined the role of different exposure and vulnerability in understanding the contribution of employment and work characteristics in relation to men's and women's self-reported well-being. Data was obtained from a national probability sample of adults from the United States in 1976 with both full-time and part-time workers considered in the analysis. This study found that gender and self-esteem were the most important determinants of distress; in contrast, no direct relationships were observed between working conditions and distress. However, results indicated that the effects of employment were indirect. Specifically, work characteristics were found to affect well-being primarily through intervening variables, especially through self-esteem and job satisfaction. The results of this study suggest that different vulnerability to job characteristics exist primarily

in indirect effects of specific working conditions on well-being operating through intervening resource variables.

Conger and colleagues (Conger, Elder, Simons, & Ge, 1993) suggest that genderbased reactivity to stress may be dependent on the health outcome of interest. This highlights the importance of considering the various facets of health: namely, variables associated with physical and physiological functioning, mental health, and social well-being. Macintyre and colleagues (1996) challenge the notion that gender differences in health are constant over the life course of men and women. A longitudinal study of a cohort of British workers found the magnitude and direction of gender differences varied across men's and women's life course (only a consistent female excess in psychological distress was observed). This preliminary evidence highlights two key points for consideration: firstly, the interactive role of age and gender over the individual's life course and how this may, in turn, affect the validity of the different exposure and vulnerability hypotheses; and, secondly, the importance of considering each facet of health as a unique dependent variable in its own right, and the need to gather further evidence on how these two theories differentially predict the different health outcomes.

1.7.2 Limitations of the Two Theories

There are a number of limitations in the relation to the two competing theories for understanding gender and health, which have been outlined above. Firstly, the literature base has conceptualised these two theories as competing in nature: an either-or scientific philosophy. However, to the knowledge of the authors, there has not been a systematic investigation of the potential interactive combination of the two theories. However, this may be the results of the associated scientific challenges in rigorously testing these empirical relationships. Additionally, none of the reviewed studies which have assessed the validity of the differential vulnerability and exposure models have looked at the role of non-occupational factors in the understanding this relationship, despite a significant body of evidence indicating their respective importance in understanding gender differences in health (Pugliesi, 1995, 1999; Roxburgh, 1996; Tytherleigh et al., 2007).

1.8 Conclusions

Regardless of increasing female labour participation, women continue to lag behind men in the health, safety and well-being opportunities available to them. Inequality continues to be a world challenge and it is particularly expressed in gender differences and discrimination against women at work. As a response, gender mainstreaming is therefore now a central component to policy initiatives worldwide. However, despite gender mainstreaming being advocated at a policy level, there continues to be a limited recognition and discourse of the issue of gender in the workplace, and its direct and indirect association to health and well-being. Arguably, this has resulted in a limited number of practitioners and organisations directly addressing the issue of gender in their internal policies.

By mainstreaming gender in health, safety and well-being policies at work and measuring their impact, organisations can improve and sustain performance, as well as contribute to sustainable development for all. By doing so, they can create more inclusive and egalitarian workplaces advancing the achievement of the sustainable development goals (SDG) related to gender equality (SGD 5), decent work and economic growth (SDG 8), and reduction of inequality in general (SDG 10). However, this is not an individual quest. International organisations and civil society should support this process as well as emphasise social priorities when they have not received enough attention. Similarly, while companies have to engage in gender equality issues, governments have to create the conditions for this to happen.

The primary aim of this book is to understand the role of gender in health, safety and well-being research, practice and policy by bringing together the various threads of research and practice in this field. The following chapters outline and reflects on current best practice examples of gender-sensitive policies, interventions and research initiatives. A central theme of the book is to adopt an international and global perspective on gender in relation the design and management of work and organisational systems. Based on and informed by critical discussions of the academic and practice literatures, this book aims to draw lines of thinking and avenues of research, as well as provide overarching conclusions and recommendations to support gender mainstreaming approaches in health, safety and well-being at work.

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