Chapter 7
Burnout: Gender Aspects

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7.1 Background

Since the term burnout was first coined by Freudenberger (1974) to describe the emotional exhaustion experienced by workers in the public services, there has been a proliferation of research. The literature on this topic has accumulated and, according to one estimate, over 2,500 publications on burnout had appeared by 1999 (Carson et al. 1999). A search with the keyword "burnout" now yields nearly 10,000 publications on PubMed. It is noteworthy that most of these publications restrict the definition of burnout to human service worker—a trend that acknowledges the unique pressures of using one's self as the "tool" in face-to-face work with needy, sometimes demanding and often troubled, clients (Carson et al. 1999). In such professions contact with people is invariably high and often a source of distress (Maslach et al. 1996). Above all, working in such demanding professional roles with chronic exposure to stressors has been said to lead to burnout (Maslach and Jackson 1986).

Researchers often disagree about the definition, causation, prognosis, prevention, and treatment strategies. An editorial observed "… so it is surprising that despite this passage of time and the resources occupational health psychologists have devoted to its study, burnout still provokes much debate" (Cox et al. 2005, p. 187). In the last three decades several definitions of burnout have emerged (Schaufeli et al. 1993). The two most widely recognized definitions, however, see it as either a three-dimensional (Maslach and Jackson 1986) or alternatively, a unidimensional, construct (Pines and Aronson 1988). The three-dimensional construct requires measures of levels of emotional exhaustion, depersonalization, and low personal accomplishment. The unidimensional model, on the other hand, simply

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describes burnout as "a state of physical, emotional, and mental exhaustion caused by long term involvement in situations that are emotionally demanding" (Pines and Aronson 1988; p. 9). The unidimensional view does not restrict itself to any particular profession (Schaufeli et al. 1993) and hence appeals to investigators of burnout across all working situations.

Not only have controversies reigned about the definition of burnout, but the jury is still out on whether it should be restricted to human services professions or whether it should be broadened to include the whole working population (Cox et al. 2005). There appears to be a growing trend toward broadening the concept of burnout to include all professions (Lindblom et al. 2006). Many general population-based studies on burnout have been conducted recently in different countries, including Finland (Ahola et al. 2006), Sweden (Norlund et al. 2010; Magnusson Hanson et al. 2008), Denmark (Kristensen et al. 2005), and the USA (Campbell and Rothman 2005). According to one general population study from Finland, burnout can be found in a wide range of vocational groups (Ahola et al. 2006). A Swedish study found that the prevalence of burnout was high in the general working population (Norlund et al. 2010). Overall, epidemiological studies of general working populations have assessed the prevalence of burnout to be between 4 and 7% (Schaufeli 2003). The view has also been put forward that up to 7% of working men and 12% of working women reported sufficient work-related stress to make it difficult for them to perform at work or at home (Swedish Work Environment Authority 2008).

This chapter examines how advances in the knowledge of burnout and work stress can be understood and applied, particularly in the context of the female workforce. In order to do that it is necessary to delineate some of the changes that have occurred in the workforce almost in parallel to our understanding of burnout advancing.

7.2 Changing Workforce and Work Environment

Major changes have occurred in working environments around the world in the last few decades. The use of information technology has increased steadily and organization restructuring has become almost the norm. Changes in labor contracts and work-time scheduling have radically transformed the work environment (Sparks et al. 2001). Alongside these changes some significant alterations in the workforce have also occurred, with increasing numbers of older workers, female employees and dual earning couples (Sparks et al. 2001). The impacts of these dramatic changes, the majority of which have occurred in the last 50 years, upon employee wellbeing were reviewed by Sparks et al. (2001). They noted that job insecurity had increased in most countries largely because of progressive restructuring and downsizing. In their review, perception of job insecurity was linked with employee ill health. This trend was further highlighted by a Belgian study of bank workers (De Witte et al. 2010) that looked at the relative strength of associations between objective (continued existence of the job) and subjective (perceived threats to valued job)

aspects of job insecurity with two types of well-being being job-related (job satisfaction and burnout) and general (psychological distress and psychosomatic complaints) as well as health-related behavior (absenteeism and medical consultation). The study found that both real and perceived job insecurity are important stressors.

There is also some evidence to suggest that job insecurity may affect women more than men in today's market economy (Green 2009) as employers tend to invest more in firm-specific jobs and protect their investments with stable jobs—a trend that may lead to the concentration of women in the occupational labor force. Green (2009) has further predicted that gender-based job insecurity differences may be more prevalent in the "coordinated market economies" (such as Denmark, Finland, Norway, Sweden, etc.) and not in the "liberal" market economies (such as Australia, Canada, the UK, Ireland, New Zealand, and the USA). The study found that workers, especially female workers, worried most about their job security in "transitional economies" (Bulgaria, Czech Republic, Hungary Latvia, Poland, etc.) and "developing economies" (Bangladesh, Dominion Republic, Mexico, Philippines, South Africa).

Another development that has occurred in the global workforce is that more and more women are being employed (International Labor Office 2008). It has often been considered that only paid activities equate to "work," which is problematic in an analysis of a subject such as burnout. Women's traditional roles as carers on the home front have not changed at the same pace. A dual role as carer and worker is known to cause significant mental health problems (Field and Bramwell 1998). For many female workers the increase in employment opportunities has led to higher levels of total stress owing to increasing responsibilities at home and at work.

As having both members of couples entering the workforce is becoming more common, interest in how demands of work affect or interfere with home life and vice versa has emerged. Work demands negatively affect private life by creating work/home interference more often than the other way round, i.e., home/work interference (van Hooff et al. 2006). Work/home interference (WHI) has been defined as "*a form of inter role conflict in which the pressures of work and family domains are mutually incompatible so that participation in one role (home) is made more difficult by participation in another role (work)"* (Greenhaus and Beutell 1985, p. 77). WHI may occur in three ways: demands that make it physically impossible to be in two places at the same time (e.g., when long paid hours prevent participation in family activities); from the spill-over of strain from one domain to another (strain build-up at work makes it more difficult to feel relaxed at home); when specific behaviors that are expected at work are incompatible with expected behaviors at home (e.g., teachers acting like teachers and not parents with their own children) (Greenhaus and Beutell 1985).

Furthermore, as the western emphasis on gainful employment for all members of society grows it is important to recognize that sacrifices may often need to be made on the home-front or in terms of worker health. The Effort Recovery Theory states that time demands and work-related strain (two core components of WHI) will have detrimental effects on health when opportunities for recovery between successive effort expenditures are insufficient. Recovery may be insufficient because of quantity

issues (recovery time is too short) or quality (workers are too preoccupied with work matters to relax). Cumulative effects of successive periods of inadequate recovery may lead to a build-up in stress levels causing ill health (van Hooff et al. 2006). In an attempt to address the needs of an increasing number of couples in the workforce organizations have introduced strategies such as flexible work schedules or family-friendly working environments (Sparks et al. 2001). While such strategies may help dual earner couples, their impact on the rest of the workforce is poorly understood.

The increase in the female workforce has not been uniform across all professions. Women are overrepresented in certain areas such as the healthcare sector (Evans and Steptoe 2002). More often they are employed in professions or occupations that fit the stereotype society associates with gender, such as women being better at care-giving, nurturing, administrative, and supportive/administrative roles (Purvanova and Muros 2010). Even in otherwise progressive countries, and as recently as 2008, women have been underrepresented in roles such as managers, computer operators, architects, engineers, scientists, lawyers, judges, dentists, physicians, surgeons, etc. (Bureau of Labor Statistics 2008). There is however a trend that women are competing with men in occupations that have been traditionally male-dominated. A two-way consequence of this trend was examined by Purvanova and Muros (2010) who observed that women in male-type occupations often find themselves in "catch 22" situations: they are criticized for not being sufficiently feminine if they ignore their gender roles or they are criticized for being too feminine or even seductive if they act in accordance with their gender. Being perceived as "token hires," their status as a minority and having to constantly juggle to find the right level of femininity required were cited as distressing for women who work in such environments.

Gender may have some effect on factors that affect advancement in occupations. These variables include perceived competence, personality traits, leadership, etc. (Matlin 2004). A widespread trend exists in favor of a significant wage gap between men and women or women having fewer opportunities to be in senior positions. A report by Catalyst (Mulligan-Ferry et al. 2011), a research organization that tracks advancements of women in business, while reviewing the advancement of Canadian women to corporate leadership stated "in 2010, that women held 17.7% of senior officer positions at Financial Post 500 companies (The Financial Post 500 is an annual listing of the top 500 largest Canadian corporations compiled by The Financial Post), an increase of four-fifths of a percentage point since 2008. In both 2008 and 2010, more than 30% of companies had no women senior officers. Women held just 6.2% of top earner positions at public companies in 2010; in 2008, women held 5.6% of these positions. Finally, while the percentage of public companies with 25% or more women as senior officers increased 7.7 percentage points from 2008, crown (government) companies continue to have the highest representation of women senior officers compared to other types of companies." That review also found that while industry sectors, such as accommodation and food services, had the highest representation of women senior officers and the administrative and support, waste management, and remediation services had the lowest representation.

Such findings, that more women are entering the workforce, but few are advancing in rank, may not be unique to Canada. Educational backgrounds, choice of occupation, culture-specific social roles, and expectation influence the rates of elevation within professions, and are often confounded by economic and political reality, more particularly, by gender (Sulsky and Smith 2005; Maslach and Leiter 2008).

As can be seen from the above description more women have entered the workforce and may have been differentially exposed to stress than men. We argue that for a variety of reasons women may be exposed to or experience higher levels of stress than their male counterparts. Major studies have reported a higher prevalence of negative emotional states such as anxiety and depression in women (Kessler et al. 2005). Mental illnesses characterized by negative emotional states such as depression are commonly reported in women (Mellsop and Smith 2007; Wells et al. 2006).

Burnout can be considered part of a negative emotional state like depression or anxiety. It is an unpleasant state to be in. While some may argue that a significant overlap exists between the two constructs because the symptoms of depression resemble those of burnout, the two are not necessarily the same. Burnout occurs in the context of anger, is situation-specific, affects work, and often spares personal lives. Depression differs on those three issues (Benbow 1998). The relationship between burnout and depression became clearer from a Canadian study that reported a statistically significant correlation between depression and emotional exhaustion ($p < 0.0001$), a weaker correlation between depression and depersonalization, and no correlation between depression and sense of personal accomplishment (Thommasen et al. 2001). Schaufeli and Taris (2005) have argued that burnout should be conceptualized as a work-related phenomenon that manifests as fatigue and withdrawal. The third component of the MBI (Maslach Burnout Inventory), lack of personal accomplishment, was considered by them to be less central to the syndrome. Therefore, despite the significant overlap in symptoms between burnout and depression, most people agree that burnout is distinct because it exists only in relation to the work environment, whereas depression is usually more pervasive. Taking this conceptual framework one can extrapolate that among the working population the prevalence of burnout, or at least emotional exhaustion, will be higher in women. This hypothesis is also backed by some empirical research (Greenglass et al. 1990; Schaufeli and Enzmann 1998; Purvanova and Muros 2010). The factors that may be responsible for a higher prevalence of emotional exhaustion among working women will be examined in detail.

7.2.1 Reporting, Confounding Variables, and Bias

Existing evidence suggests that in general, people assume that women are more susceptible to feeling stressed, are more vulnerable, and more prone to developing burnout (Matlin 2004). Even well trained and skilled clinicians are reported to show such biases, which lead them to diagnose women with depression and anxiety more easily than they do in men, even if both sexes present with similar symptoms

(Lichtenberg et al. 1993; Wrobel 1993; Mellsop and Smith 2007). Gender role theory has been put forward to explain such attitudinal biases and predicts that women are more likely to express feelings of exhaustion than men, whereas men are more likely to report feelings of depersonalization than are women, when faced with chronic stressors (Purvanova and Muros 2010).

But can gender alone affect work stress and burnout, or does it play its role through other confounding variables? One such confounder is age. A study of 600 accountants (Goh et al. 1991) reported the non-significant impact of gender on job satisfaction, but a significant interaction between gender and age for the onset of burnout in the study subjects. Age may therefore need to be considered when interpreting gender differences in job satisfaction or burnout. That study suggested that older men were significantly more satisfied with their jobs than similarly aged women. Factors that influenced the difference could not be identified by this study. In a Finnish study, however, socio-demographic factors such as age did not protect against burnout, but low education level and low social status were reported to carry an increased risk of burnout in women, whereas being single, divorced or widowed increased the risk of burnout for men (Ahola et al. 2006). A Swedish study found that women had a higher level of burnout than men with the most pronounced difference being in the age group 35–44 (Norlund et al. 2010). Both men and women reported a decreased rate of burnout with increasing age. Demand and control at work and job insecurity were variables related to burnout. In women the level of education, socio-economic position, work objectives, and working varying hours were of importance when it came to the prediction of burnout. Interaction effects were found between gender with work objective and gender and working hours. In a multiple regression analysis almost half of the gender difference could be explained by work-related and life situational factors (Norlund et al. 2010). Conducting epidemiological studies in which age and all other confounding factors are matched would be fraught with many practical difficulties. A recent study of psychological distress and burnout levels in women working in Turkish banks reported that women scored higher than men on the emotional exhaustion dimension of burnout. That was also the case for arious measures of psychological distress including somatization, obsessive compulsiveness, depression, anxiety, phobic anxiety, paranoid ideation, and the general symptom index of the Symptom Check List 90 (SCL90). Notably, on the burnout measure younger employees (aged 20–30 years), both men and women, reported less personal accomplishment than their older counterparts (aged 31–40 years) (Bez and Emhan 2011).

7.2.2 Discrimination

Despite the positive changes in attitude in many societies and countries, significant workplace discrimination against women, especially during pregnancy, does exist. Women are known to be dismissed during pregnancy, delayed in advancing through their careers, to be allocated to inferior job roles or responsibilities, to be subjected

to unexpected changes to work hours and to sometimes experience hostility from co-workers (O'Drisscoll et al. 2007). Increasing rates of discrimination against pregnant women have been reported in countries such as the UK, the USA, and Australia (O'Drisscoll et al. 2007). In the US alone, a 40% increase in pregnancy bias complaints was reported over a 10-year period (1997–2007) with a distinct spike reported toward the later phase (Equal Employment Opportunity Commission 2007). Not only do these attitudes affect the morale of female employees there are significant cost implications for the employer and for society as well. According to conservative estimates the cost to employers due to pregnancy-based complaints alone was estimated to be around $US 10.4 million in 2006. Even leaving such physiological issues aside, it is also known that women in management and professional grades are often reported to experience gender-based barriers in career progression (Davidson and Cooper 1984; Rosin and Korabik 1991). Women of childbearing age can be also the most productive age group in the female workforce and therefore the impact of such discriminatory practices on employee morale does need to be taken seriously.

7.2.3 Biological Basis

There may be some biological basis for why the same stressor may cause different responses in men from those in women. Whether or not these differences can lead us to find biological markers for burnout is a different matter. The stress response process is an explanatory model for ill health caused by work stressors. In this model, job stressors (aspects of the work environment) are considered to lead to strain (psychological, physical and behavioral reaction) mediated by perception of the environment. Emotional responses, such as anxiety or frustration, are often the most immediate psychological strain responses that are associated with physiological changes in the body (Spector 1998). Brain pathways such as the hypothalamic–pituitary–adrenocortical axis and the sympathetic adrenomedullary systems are considered to be heavily involved in the relationship between exposure to stressors and health outcomes (Dienstbier 1989; Frankenhaeuser 1991). This relationship was investigated in a meta-analysis (Nixon et al. 2011) that summarized the impact of work stress on eight individual symptoms, including backache, headache, eye strain, sleep disturbance, dizziness, fatigue, appetite, and gastrointestinal problems. This meta-analysis categorized stressor variables, such as interpersonal conflict, lack of control, organizational constraints, role ambiguity, role conflict, workload, working hours, and physical symptoms. It concluded that physical symptoms can be related to a wide range of job stressors and that these relationships persist over time. Although this review did not report on gender differences, a biological basis for stress response was well argued in the paper. On the basis that there is a biological substrate for the stress response process, any differences in variables that affect the response itself are worth investigating. One study (Toker et al. 2005), found that burnout in women was positively associated with micro-inflammation biomarkers;

namely high-sensitivity C-reactive protein (hs-CRP) and fibrinogen concentrations. In contrast, among the men, depression was positively associated with hs-CRP and fibrinogen concentrations, but not burnout or anxiety. The study concluded that the relationship between emotional states such as burnout, depression, and anxiety and micro-inflammation biomarkers was dependent on gender (Toker et al. 2005).

Proving a biological basis for differences in stress response is not easy. If a biological basis determines why exposure to stress leads to different health responses, and many of the relevant stressors may be influenced by gender, then one can argue that men and women may be programmed biologically to respond differently when exposed to stressors. While unequivocally this view seems logical, supportive data are lacking. A systematic review of 31 studies on 38 biomarkers involved in the hypothalamic–pituitary–adrenal axis, autonomic nervous system, immune system, metabolic processes, antioxidant defense, hormones, and sleep found no conclusive biomarkers for burnout. This may be because of limited numbers in comparable studies, differences or variations in the methods used to characterize patients and controls, or to assess biomarkers, incomplete controlling for confounders, and variable operationalization of burnout (Danhof-Pont et al. 2011).

7.2.4 Preconceptions

Differences in attitude can sometimes affect what employees see as desirable self attributes. While confidence and assertiveness are often described as desirable qualities in men, the presence of the same qualities in women has been reported to draw negative reactions such as incongruous evaluations, negative attributions, and subsequent "backlash" (Amanatullah and Morris 2010). Women adopting such cognitive schemata may inhibit their assertiveness, avoid competitiveness and be content with lower outcomes (Amanatullah and Morris 2010). Furthermore, women are often employed to perform different tasks from those assigned to men. This makes it difficult to investigate the relationship between gender and burnout because it would be difficult to categorically establish whether any differences would be because of gender or because of the differences in the nature of the work (Guppy and Rick 1996). Even though men and women may have similar job roles within a given grade, it would be difficult to obtain results that are uncontaminated by role variations.

7.2.5 Attitudinal Issues

In addition to work environment issues, differences in attitudes to workforce involvement may explain differences in work-related absenteeism and ill health. Men are known to be competitive and are often driven by materialistic gains, whereas women reinforce the work ethic and are intrinsically driven (Martin and

Kirkcaldy 1998). Men's positive self image, at least in economically developed cultures, is closely linked to their employment, whereas with women, the equivalent self-image component is often related to their unpaid, mothering, activities. Rosenblatt et al. (1999) found that while men may pay more attention to the mechanics of their jobs and felt more obligated to their work, women enjoy building rewarding interpersonal relationships, focus on work circumstances, look for attractive work hours, interesting work and aim to find a match between who they are as people and the work they do. A Japanese study of resident physicians (Nomura et al. 2010) found that more women chose family as the most important thing in life more often than men. However, compared with men, women physicians were less confident in the majority of competency areas even after adjusting for the number of years of clinical experience (Nomura et al. 2010). A study found that young female employees may have the general feeling of having to prove themselves in the labor market (Bakker et al. 2002). Such gender-based differences in work attitude and values are important because they can influence stress levels or at least the perception of stress.

7.2.6 Response Pattern to Stressors

There are gender-based differences in the perception of, or reactions to, stressors. It is the manner of responding to a stressor that often determines the consequences of the exposure. When faced with a stressor humans may take one of two approaches: problem-focused or emotion-focused (Folkman and Lazarus 1980). In the former, efforts are made to solve the problem in front of us or we try to change a difficult situation. Those who employ emotion-focused strategies do not seek to change the problem or situation. They try to ascribe new meaning to the problem or difficult situation. Their energies are spent on regulating the emotions that are aroused by such situations. Some authors (Lazarus and Folkman 1984) believe that the problem-focused strategy is more adaptive and is a healthier approach because it sets out to eliminate the source of stress and not just to modify our response. This is, however, not a universally accepted position. Some studies have not found any significant relationship between gender and perception of stress (Martocchio and O'Leary 1989), while others have even suggested that taking a problem-focused approach in some situations may in fact increase rather than decrease stress levels (Ashford 1988).

In any event, gender-based differences are reported in these two strategies. Men are reported to use problem-focused coping strategies more than women (Folkman and Lazarus 1980; Hurst and Hurst 1997). Women on the other hand are said to use more emotion-focused strategies (Muhonen and Torkelson 2001; Tamres et al. 2002), although a Japanese study of coping strategies in the general population did not find any gender-based differences between problem-solving strategies, but reported gender-based differences in emotion-focused and avoidant strategies (Nagase et al. 2009). Differences in the way people try to address a problem may therefore dictate the levels of stress they experience and to some extent this may

depend on gender. Critics of this position question the suggestion that gender-based differences exist in coping skills or that women cope in a more passive manner (Long and Cox 2000). Another school of thought believes that because expressing emotion is associated with psychological distress, such behavior is feminine, whereas all behavioral parameters that suppress emotional expression are masculine and show psychological strength (Landrine 1988; Sprock and Yoder 1997). An imbalance between levels of stressors and the constitutional or external resources available to us ultimately decides whether we cope or fall apart when faced with the former.

7.3 How Do Differential Levels of Stress Affect Health in Women?

We have seen from the above description that the proportion of women in many workplaces is increasing and that women are exposed to greater levels of stressors, some internal and some external. But does this difference in exposure lead to difference in health outcomes? Studies have examined differential rates of sickness, absenteeism, and productivity between men and women (Mastekaasa 2000; Vagg et al. 2002). Most developed countries have recorded higher rates of sickness absenteeism in women than in men (Bekker et al. 2005). Mastekaasa (2000) found that the number of sick leave days compensated for under the Norwegian Health Insurance system for women was 1.65 times higher than for men. Some authors have suggested that absence due to sickness in women employees may be age-dependent. For instance, men were more absent among workers aged 55–64 years and women among workers aged 20–54 years (Bliksvær and Helliesen 1997). It could be hypothesized that these findings relate to cumulative workforce years in the men and pregnancy and childcare prioritizing in women.

A similar gender-based differential trend emerges when employees taking short versus long term sickness leave are compared. Women are over-represented in short-term absences (7 days or less) especially in the younger age group (Bekker et al. 2005). Physiological causes (like menstruation) and childcare-related factors are often cited as reasons for higher rates of short-term absences. To explain the trend of younger women taking more short-term sickness-related leave in such terms is however likely to be simplistic. Some compelling evidence has emerged to suggest that job and organizational characteristics might play a role in the higher sickness absence rate of women (Bekker et al. 2005). Women working in female minority occupations seem to suffer more from psychological problems, whereas women do better in male minority occupations (Hunt and Emslie 1998; Evans and Steptoe 2002). According to the Bureau of Labor Statistics data (2008), occupations such as managers, computer operators, architects, engineers, scientists, lawyers, and judges, dentists, physicians, surgeons, police officers, and correctional officers are "female minority," whereas nursing, physician assistants, community and social workers, educators, librarians, telemarketers, customer service representatives,

childcare and elderly care workers, office support workers, paralegals, claim adjusters, accountants, auditors, and food preparation and serving workers are "male minority." This is certain to vary by country and over time.

Many of the indices reviewed above are those with a short-term impact on health. Burnout, however, develops with chronic exposure to stressors. If one accepts that prolonged exposure to workplace stressors leads to burnout then one can also deduce that prevalence of burnout in women may be higher than in men. Indeed, even the authors of one of the most widely recognized constructs of burnout have stated that burnout may be more of a female experience (Maslach et al. 2001). Caution has been expressed about such views being held because they may not only lead to women being discriminated against by employers, but also men, who by extrapolation may be seen as less susceptible to burnout and therefore may not receive appropriate help (Purvanova and Muros 2010).

Specific research evidence about gender and burnout is ambiguous. Some studies have reported a higher prevalence of burnout in women (Bakker et al. 2002; Poulin and Walter 1993), whereas others have reported higher prevalence in men (Van Horn et al. 1997) and that various moderating factors may affect the relationship between burnout and gender. A general consensus does however emerge, that women score higher on the emotional exhaustion component of burnout, whereas men score higher on depersonalization (Schaufeli and Enzmann 1998). It has been suggested that this finding might be explained on the basis of gender role stereotypes of women being more likely to be emotionally responsive and to disclose emotional problems, whereas men tend to depersonalize people and to exhibit negative attitudes (Greenglass et al. 1990).

It does appear that at least some of the higher reported prevalence of burnout in women might be due to the definitions used in the studies. A meta-analysis of gender differences in burnout did find that women scored higher on emotional exhaustion and men on depersonalization scales (Purvanova and Muros 2010). This meta-analysis, which classified world market economies on the basis of having liberal, socially progressive, or socially conservative labor policies (details available from Purvanova and Muros 2010), highlighted the impact of gender on burnout possibly being mediated by a number of variables, such as the type of occupations, i.e., women were more emotionally exhausted if they worked in male-type occupations, whereas more men might be more depersonalized in female-type occupations. The latter trend did not reach statistical significance (Purvanova and Muros 2010). A striking finding from this meta-analysis was that women were more emotionally exhausted than men in the USA, where labor policies were more conservative than in the European Union, where labor policies were progressive (Purvanova and Muros 2010). The differences in emotional exhaustion in Canada and Australia, where labor policies fell in the middle of the conservative/progressive continuum, gender differences in emotional exhaustion scores were small (Purvanova and Muros 2010). The meta-analysis highlighted the significance of considering wider socio-political factors while examining the relationship between gender and burnout.

This argument is strengthened by the findings of a study designed to look at the role of gender-relevant variables. Childcare obligations, job characteristics, and

work attitudes on emotional exhaustion and sickness absence in a study of male and female nurses found that women did not have higher sickness absence rates (Bekker et al. 2005). More importantly, although a gender-based difference appeared in the emotional exhaustion score it was in the opposite direction from that predicted, i.e., men scored higher on emotional exhaustion. As expected for men and women emotional exhaustion had a significant positive effect on sickness absence. This study highlighted that it was not gender but load – workload as well as care load – that predicted emotional exhaustion and thus sickness absence.

7.4 Gender, Burnout, and Therapeutic Considerations

7.4.1 Employment Policies

The usual dictum "prevention is better than cure" applies particularly to burnout. As the numbers of dual-earning couples and women in the workforce have increased, many countries in the world are adopting "family-friendly working conditions." This approach is said to improve staff recruitment and retention (Lo 2003), as well as high levels of employee job commitment and job satisfaction (Brough and O'Driscoll 2005). Taking such an approach may also help in managing workplace stress and modifying attitudes. Developing a family-friendly work environment may shift the focus from whether it is being a woman that increases the risk of burnout, to looking at the need to have a work/life balance. As noted previously, the notion that women by virtue of their gender are predisposed to being stressed and vulnerable to burnout not only disadvantages women, but also men. In reality, it could be the added strain of looking after the family, over and above the usual and sometimes gender-specific workplace strains, that could be responsible for the higher stress levels in female employees. This view was supported by a Dutch study cited previously (Bekker et al. 2005), which found that workload and care load, but not gender, predicted emotional exhaustion. Encouraging family friendly policies will shift the focus from women to where attention needs to be in order to manage stress. There may be fiscal incentives as well to adopt a family-friendly philosophy. Burton (2008) has estimated that the annual cost to Canadian employers due to work/family conflict may be as high as 1.1 billion Canadian dollars.

7.4.2 Stress Reduction Strategies

Differences are reported to exist between men and women about what works for reducing work stress. A study that looked at gender differences in the effect of coping systems on the reduction of burnout in academic staff (van Emmerik 2002) found that a supportive departmental climate and practical assistance reduced

emotional exhaustion for women more than it did for men. Whether this is a finding that can only apply to women in academic positions or can be generalized to all women will need to be tested with well-designed studies. A body of literature on what works for reducing work stress has built up. Broadly speaking these interventions may be applied at an individual or an organizational level. Examples of individual level interventions include counseling or therapy, whereas organizational level interventions address the health and wellbeing of relatively large groups of workers in a uniform way through strategies such as job re-design, training, and education. A recent editorial found that organizational level interventions often fail to achieve the desired results (Cox et al. 2010) and concluded that little progress was being made in intervention research for burnout.

7.4.3 Intervention Strategies for Burnout

It appears that we may be beginning to understand what works against burnout once it sets in, especially work at an individual level. Two excellent systematic reviews have examined strategies that are designed to work for an individual who is experiencing burnout (van Wyk and Pillay-van Wyk 2010; Marine et al. 2006). Stress management programs are often suggested for managing staff burnout. However, the systematic review by van Wyk and Pillay-van Wyk (2010) found no evidence of effectiveness of brief stress management training interventions in reducing job stress. The authors did find limited evidence to support the effectiveness of stress management training of moderate intensity (more than 6 h contact) over 1 month or longer in the short-term reduction of job stress levels, but the beneficial effects diminished without booster sessions. The review found strong evidence to support the effectiveness of intensive, long-term stress management training programs in reducing the job stress and risk of burnout among a wide range of health workers working in a variety of settings. Given this robust and potentially generalizable finding, future researchers may wish to include periodic refresher sessions over an 18-month period to maintain the beneficial effects of stress management interventions.

The systematic review by Marine et al. (2006) grouped intervention strategies against burnout into person-directed (cognitive behavioral therapy, relaxation, music-making, massage, and multi-component programs) and work-directed (attitude change and communication, support from colleagues, participatory problem-solving and decision-making, and changes in work organization). The authors found that there was only limited evidence to support the efficacy of either person- or work-directed intervention strategies in reducing burnout in healthcare workers, but concluded that the benefits of such interventions may be visible for up to 6 months to 2 years. This review highlighted the need for good-quality intervention studies for burnout.

Combining the two systematic reviews, one could conclude that perhaps an intense stress management program with booster sessions delivered over a 2-year period might yield better results for treating burnout in employees.

7.5 Future Recommendations

Energy needs to be invested in creating a positive work environment for women. Applying the Job Demands Resource (JDR) model, which is a concept that has been emerging in the recent literature, to employees in general and women in particular may fulfill this need. JDR brings the well-being and ill health of employees, along with the antecedents and consequences of well-being and ill health, together (Hakanen et al. 2008). This model can be applied to any type of work and categorizes the aspects of the job that affect stress into two groups: job resources and job demands (Hakanen et al. 2008). Job resources refers to the physical, psychological, social, and organizational factors that reduce job demands, assist in achieving work goals, and stimulate personal growth. They do this by enhancing external motivation (necessary for dealing with job demands and achieving goals) and internal motivation (by fulfilling the basic psychological needs of autonomy, belongingness, and competence). Job demands are those aspects of a job that require sustained physical and or psychological effort. The greater the job demand, the greater the strain on workers. Richness in job resources is said to increase work engagement. As we have seen from the description in the preceding sections, gender-based differences may exist in job demands and job resources. Developing our understanding of these differences may enable us to develop targeted policies for prevention and intervention strategies that may work better for women employees.

Similarly, future researchers may wish to investigate what happens when employees are enjoying and deriving pleasure and/or a sense of purpose from their work. We have noted previously that the sources of reward and sense of fulfillment may vary between men and women. Work engagement is a concept that is increasingly used in the occupational health psychology literature (Bakker et al. 2008). Work engagement is a positive attribute and in many ways just the opposite of burnout. It is characterized by vigor, dedication, and absorption, each of which have been operationally defined (Hakanen et al. 2008). High levels of mental energy, persistence, and resilience are considered to characterize vigor, whereas a sense of significance, enthusiasm, inspiration, pride, and challenge characterize dedication. Absorption is characterized by being engrossed in work, which gives rise to the feeling that time at work passes quickly. Learning about factors that enhance vigor, dedication, and absorption among women will help us learn about work engagement among them. It has generally been recognized that engaged workers have high levels of energy and identify strongly with their work (Bakker et al. 2008).

7.6 Conclusion

Definitive understanding of most aspects of burnout in women is lacking. We conclude that there is no consensus on whether burnout is a unidimensional or a multidimensional construct or indeed whether it is profession-specific. The multiplicity

of likely statistical confounders contributes to this, as does the relatively recent history of empirical research. The evolving issue of societal roles of women complicates research and analysis. This issue notwithstanding, it appears likely that in some areas of employment, women are particularly likely to demonstrate burnout and the numbers of women being exposed to identified risk factors for burnout are increasing. It does appear that, compared with men, women may score higher on the emotional exhaustion dimension of burnout and lower on personal accomplishment.

Workplace environment and societal role expectations are central to understanding the genesis of this phenomenon. Rather than fixating on gender-specific vulnerabilities for burnout, perhaps we need to consider the possibility that it could be the "load," i.e., combined effects of work and carer load, that could cause the higher prevalence of stress experienced in female workers. The increased rates of societal evolution are providing fertile soil for these changes. Unsurprisingly, actual workload appears to relate to emotional exhaustion, the central component in burnout, especially in women.

Qualitative research may provide some guidance on how to mitigate these clinical and societal developments. It would be difficult to generalize findings from such qualitative studies with any degree of reliability in the absence of well-designed population-based studies. Individual interventions (therapies) and workplace-based interventions are showing both therapeutic and preventative promise. Family-friendly employment policies rather than female worker-specific stress reduction strategies may be needed as the number of female workers grows globally.

Workplace environment and attendance to peoples' variably distributed needs can be important for prevention and management.

References

Ahola, K., Honkonen, T., Isometsä, E., Kalimo, R., Nykyri, E., Koskinen, S., Aromaa, A., & Lönnqvist, J. (2006). Burnout in the general population. Results from the Finnish Health 2000 Study. *Society of Psychiatry and Psychiatric Epidemiology, 41*, 11–17.

Amanatullah, E. T., & Morris, M. W. (2010). Negotiating gender roles: Gender differences in assertive negotiating are mediated by women's fear of backlash and attenuated when negotiating on behalf of others. *Journal of Personality and Social Psychology, 98*, 256–257.

Ashford, S. J. (1988). Individual strategies for coping with stress during organizational transitions. *The Journal of Applied Behavioral Science, 24*, 19–36.

Bakker, A., Demerouti, E., & Schaufeli, W. (2002). Validation of the Maslach Burnout Inventory-general survey: An internet study. *Anxiety, Stress and Coping, 15*, 245–260.

Bakker, A., Schaufeli, W., Leiter, M., & Taris, T. (2008). Work engagement: An emerging concept in occupational health psychology. *Work and Stress, 22*, 187–200.

Bekker, M. H. J., Croon, M. A., & Bressers, B. (2005). Childcare involvement, job characteristics, gender and work attitudes as predictors of emotional exhaustion and sickness absence. *Work and Stress, 19*, 221–237.

Benbow, S. (1998). Burnout: Current knowledge and relevance to old age psychiatry. *International Journal of Geriatric Psychiatry, 13*, 520–526.

Bez, Y., & Emhan, A. (2011). Psychological distress in women working in banks. *Asia-Pacific Psychiatry, 3*, 145–150.

Bliksvær, T., & Helliesen, A. (1997). *Sickness absence: A study of 11 LES countries*. Norway: Norwegian Social Research, Mimeo NOVA.

Brough, P., & O'Driscoll, M. (2005). Work-family conflict and stress. In A. Antoniou & C. Cooper (Eds.), *Research companion to organisational health psychology* (pp. 346–365). Cheltenham: Edward Elgar.

Bureau of Labor Statistics. (2008). *Employed persons by detailed occupation, sex, race and Hispanic or Latino ethnicity*. http://www.bls.gov/cps/wlf-table11-2009.pdf. Accessed 10 Sept 2009.

Burton, J. (2008). *The business case for a healthy workplace*. Industrial Accident Prevention Association. http://www.iapa.ca/pdf/fd_business_case_healthy_workplace.pdf. Accessed 15 Dec 2011.

Campbell, C., & Rothman, S. (2005). A psychometric assessment of the Maslach Burnout Inventory (General Survey) in a customer-service environment. *Management Dynamics, 14*, 16–28.

Carson, J., Maal, S., Roche, S., Fagin, L., De Villiers, N., O'Malley, P., & Holloway, F. (1999). Burnout in mental health nurses: Much ado about nothing? *Stress Medicine, 15*, 127–134.

Cox, T., Tisserand, M., & Taris, T. W. (2005). The conceptualizaton and measurement of burnout: Questions and directions. *Work and Stress, 19*, 187–191.

Cox, T., Kuk, G., & Leiter, M. P. (2010). Burnout, health, work stress and organizational healthiness. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds), *Professional burnout: Recent developments in theory and research* (pp. 117–197). Washington, DC: Taylor & Francis.

Danhof-Pont, M. B., van Veen, T., & Zitman, F. G. (2011). Biomarkers in burnout: A systematic review. *Journal Psychosomatic Research, 70*, 505–524.

Davidson, M., & Cooper, C. (1984). Occupational stress in female managers: A comparative study. *Journal of Management Studies, 21*, 185–205.

De Witte, H., De Cuyper, N., Handaja, Y., Sverke, M., Näswall, K., & Hellgren, J. (2010). Associations between quantitative and qualitative job insecurity and well-being: A test in Belgian banks. *International Studies of Management and Organization, 40*, 40–56.

Dienstbier, R. A. (1989). Arousal and physiological toughness: Implications for mental and physical health. *Psychological Review, 96*, 84–100.

Equal Employment Opportunity Commission. (2007). *Pregnancy discrimination charges EEOC & FEPAs combined: FY 1997-FY2006*. http://www.eeoc.govt/stats/pregnanc.html. Accessed 5 Dec 2011.

Evans, O., & Steptoe, A. (2002). The contribution of gender-role orientation, work factors and home stressors to psychological well-being and sickness absence in male- and female-dominated occupational groups. *Social Science & Medicine, 54*, 481–492.

Field, S., & Bramwell, R. (1998). An investigation into the relationship between caring responsibilities and the levels of perceived pressure reported by female employees. *Journal of Occupational and Organizational Psychology, 71*, 165–170.

Folkman, S., & Lazarus, R. S. (1980). An analysis of coping in middle-aged community sample. *Journal of Health and Social Behavior, 21*, 219–239.

Frankenhaeuser, M. (1991). The psychophysiology of workload, stress, and health: Comparison between the sexes. *Annals of Behavioural Medicine, 13*, 197–204.

Freudenberger, H. J. (1974). Staff burnout. *Journal of Social Issues, 30*, 159–165.

Goh, C. T., Koh, H. C., & Low, C. K. (1991). Gender effects on the job satisfaction of accountants in Singapore. *Work and Stress, 5*, 341–348.

Green, F. (2009). Subjective employment insecurity around the world. *Cambridge Journal of Regions, Economy and Society, 2*, 343–363.

Greenglass, E. R., Burke, R. J., & Ondrack, M. (1990). A gender-role perspective of coping and burnout. *Applied Psychology: An International Review, 39*, 5–27.

Greenhaus, J. H., & Beutell, N. J. (1985). Sources and conflict between work and family roles. *The Academy of Management Review, 10*, 76–88.

Guppy, A., & Rick, J. (1996). The influences of gender and grade on perceived work stress and job satisfaction in white collar employees. *Work and Stress, 10*, 154–164.

Hakanen, J., Schaufeli, W., & Ahola, K. (2008). The job demands-resources model: A three-year cross-lagged study of burnout, depression, commitment, and work engagement. *Work and Stress, 22*, 224–241.

Hunt, K., & Emslie, C. (1998). Men's work, women's work? Occupational sex roles and health. In K. Orth-Gomer, M. Chesney, & N. I. Wenger (Eds.), *Women, stress and heart disease*. Mahwah: Erlbaum.

Hurst, T. E., & Hurst, M. H. (1997). Gender differences in mediation of severe occupational stress among correctional officers. *American Journal of Criminal Justice, 22*(1), 121–137.

International Labor Office. (2008). *Decent work for all*. Retrieved from http://www.ilo.org/global/About_the_ILO/Mainpillars/WhatisDecentWork/lang-en/index.htm. Accessed 2 Dec 2011.

Kessler, R. C., Chiu, W. T., Demier, O., Merikangas, K. R., & Walters, E. E. (2005). Prevalence, severity and comorbidity of 12 months DSM-iv Disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry, 62*, 617–627.

Kristensen, T. S., Borritz, M., Villadsen, E., & Christensen, K. B. (2005). The Copenhagen Burnout Inventory: A new tool for the assessment of burnout. *Work and Stress, 19*, 1996–2007.

Landrine, H. (1988). Depression and stereotypes of women: Preliminary empirical analyses of the gender-role hypothesis. *Sex Roles, 19*, 527–541.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.

Lichtenberg, P. A., Gibbons, T. A., Nanna, M. J., & Blumenthal, F. (1993). Physician detection of depression in medically ill elderly. *The Journal of Aging and Mental Health, 13*, 81–90.

Lindblom, K. M., Linton, S. J., Fedeli, C., & Bryngelsson, H. (2006). Burnout in the working population: Relations to psychosocial work factors. *International Journal of Behavioral Medicine, 13*, 51–69.

Lo, S. (2003). Perceptions of work-family conflict among married female professionals in Hong Kong. *Personnel Review, 32*, 376–390.

Long, B. C., & Cox, R. C. (2000). Women's way of coping with employment stress: A feminist contextual analysis. In P. Dewe, M. Leiter, & T. Cox (Eds.), *Coping, health and organisations* (pp. 109–123). London: Taylor & Francis.

Magnusson Hanson, L. L., Theorell, T., Oxenstierna, G., Hyde, M., & Westerlund, H. (2008). Demand, control and social climate as predictors of emotional exhaustion symptoms in working Swedish men and women. *Scandinavian Journal of Public Health, 36*, 737–743.

Marine, A., Ruotsalainen, J., Serra, C., & Verbeek, J. (2006). Preventing occupational stress in healthcare workers. *Cochrane Database of Systematic Reviews*, *4*. Art. No.: CD002892. doi: 10.1002/14651858.CD002892.pub2.

Martin, T., & Kirkcaldy, B. (1998). Gender differences on the EPQ-R and attitudes to work. *Personality and Individual Differences, 24*, 1–5.

Martocchio, J. J., & O'Leary, A. M. (1989). Sex differences in occupational stress: A meta-analytic review. *Journal of Applied Psychology, 74*, 495–501.

Maslach, C., & Jackson, S. (1986). *Maslach Burnout Inventory manual* (2nd ed.). Palo Alto: Consulting Psychologist Press.

Maslach, C., & Leiter, M. P. (2008). Early predictors of job burnout and engagement. *The Journal of Applied Psychology, 93*, 498–512.

Maslach, C., Jackson, S., & Leiter, M. (1996). *Maslach Burnout Inventory manual* (3rd ed.). Palo Alto: Consulting Psychologist Press.

Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology, 52*, 397–422.

Mastekaasa, A. (2000). Parenthood, gender, and sickness absence. *Social Science and Medicine, 50*, 1827–1842.

Matlin, M. W. (2004). *The psychology of women* (5th ed.). Belmont: Thomson Wadsworth.

Mellsop, G., & Smith, B. (2007). Reflections on masculinity, culture and the diagnosis of depression. *The Australian and New Zealand Journal of Psychiatry, 41*, 850–853.

Muhonen, T., & Torkelson, E. (2001). A Swedish version of the COPE inventory. *Lund Psychological Reports, 2*, 1.

Mulligan-Ferry, L., Soares, R., Combopiano, J., Cullen, J., & Riker, L. (2011). 2010 Catalyst census: Financial post 500 women senior officers and top earners. *Catalyst (2010)* http://www.catalyst.org/publication/467/2010-catalyst-census-financial-post-500-women-senior-officers-and-top-earners. Accessed 12 Sept 2011.

Nagase, Y., Uchiyama, M., Kaneita, Y., Li, L., Kaji, T., Takahashi, S., Konno, M., Mishima, K., Nishikawa, T., & Ohida, T. (2009). Coping strategies and their correlates with depression in the Japanese general population. *Psychiatry Research, 168*, 57–66.

Nixon, A. E., Mazzolab, J. J., Bauera, J., Kruegerc, J. R., & Spectora, P. E. (2011). Can work make you sick? A meta-analysis of the relationships between job stressors and physical symptoms. *Work and Stress, 25*, 1–22.

Nomura, K., Yano, E., & Fukui, T. (2010). Gender differences in clinical confidence: A nationwide survey of resident physicians in Japan. *Academic Medicine, 85*, 647–653.

Norlund, S., Reuterwall, C., Höög, J., Lindahl, B., Janlert, U., & Birgander, L. S. (2010). Burnout, working conditions and gender – results from the northern Sweden MONICA Study. *BMC Public Health,10*, 326. http://www.biomedcentral.com/1471-2458/10/326.

O'Drisscoll, M., Brough, P., & Biggs, A. (2007). Work-family balance: Concepts, implications and interventions. In J. Houdmont & S. McIntyre (Eds.), *Occupational health psychology: European perspectives on research, education and practice* (pp. 193–217). Portugal: ISMAI.

Pines, A., & Aronson, E. (1988). *Career burnout: Causes and cures*. New York: Free Press.

Poulin, J. E., & Walter, C. A. (1993). Burnout in gerontological social work. *Social Work, 38*, 305–310.

Purvanova, R. K., & Muros, J. P. (2010). Gender differences in burnout: A meta-analysis. *Journal of Vocational Behavior, 77*, 168–185.

Rosenblatt, Z., Talmud, I., & Ruvio, A. (1999). A gender-based framework of the experience of job insecurity and its effects on work attitudes. *European Journal of Work and Organizational Psychology, 8*, 197–217.

Rosin, H. M., & Korabik, K. (1991). Workplace variables, affective responses, and intention to leave among women managers. *Journal of Occupational Psychology, 64*, 317–330.

Schaufeli, W. (2003). Past performance and future perspectives of burnout research. *South African Journal of Industrial Psychology, 29*, 1–15.

Schaufeli, W., & Enzmann, D. (1998). *The burnout companion to study and practice: A critical analysis*. London: Taylor & Francis.

Schaufeli, W. B., & Taris, T. W. (2005). Commentary: The conceptualisation and measurement of burnout: Common ground and worlds apart. *Work and Stress, 19*, 256–262.

Schaufeli, W., Enzmann, D., & Girault, N. (1993). Measurement of burnout: A review. In W. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research* (pp. 199–212). Washington, DC: Taylor & Francis.

Sparks, K., Faragher, B., & Cooper, C. L. (2001). Well-being and occupational health in the 21st century workplace. *Journal of Occupational and Organizational Psychology, 74*, 489–509.

Spector, P. E. (1998). A control model of the job stress process. In C. L. Copper (Ed.), *Theories of organisational stress* (pp. 153–169). London: Oxford University Press.

Sprock, J., & Yoder, C. Y. (1997). Women and depression: An update on the report of the APA task force. *Sex Roles, 36*, 269–303.

Sulsky, L., & Smith, C. (2005). *Work stress*. Belmont: Thomson Wadsworth.

Swedish Work Environment Authority. (2008). *Work related disorders 2008* (Arbetosorasakade besvAr, Vol. 5). Orebro: SCB-Tryck.

Tamres, L. K., Janicki, D., & Helgeson, V. S. (2002). Sex differences in coping behaviour: A meta-analytic review and an examination of relative coping. *Journal of Personality and Social Psychology Review, 6*, 2–30.

Thommasen, H., Lavanchy, M., Connelly, I., Berkowitz, J., & Grzybowski, S. (2001). Mental health, job satisfaction, and intention to relocate. Opinions of physicians in rural British Columbia. *Canadian Family Physician, 47*, 737–744.

Toker, S., Shirom, A., Shapira, I., Berliner, S., & Melamed, S. (2005). The association between burnout, depression, anxiety, and inflammation biomarkers: C-reactive protein and fibrinogen in men and women. *Journal of Occupational Health Psychology, 10*, 344–362.

Vagg, P. R., Spielberger, C. D., & Wasala, C. F. (2002). Effects of organizational level and gender on stress in the workplace. *International Journal of Stress Management, 9*, 243–261.

Van Emmerik, I. J. H. (2002). Gender differences in the effects of coping assistance on the reduction of burnout in academic staff. *Work and Stress, 6*, 251–263.

Van Hooff, M. L. M., Geurts, S. A. E., Kompier, M. A. J., & Taris, T. W. (2006). Work–home interference: How does it manifest itself from day to day? *Work and Stress, 20*, 145–162.

Van Horn, J. E., Schaufeli, W. B., Greenglass, E. R., & Burke, R. J. (1997). A Canadian-Dutch comparison of teachers' burnout. *Psychological Reports, 81*, 371–382.

Van Wyk, B., & Pillay-Van Wyk, V. (2010). Preventive staff-support interventions for health workers. *Cochrane Database of Systematic Reviews, 3*. Art. No. D003541. doi: 10.1002/14651858.CD003541.pub2.

Wells, J. E., Oakley Browne, M. A., Scott, K. M., McGee, M. A., Baxter, J., Kokaua, J., & The New Zealand Mental Health Survey Research Team. (2006). Te Rau Hinengaro: The New Zealand Mental Health Survey: Overview of methods and findings. *The Australian and New Zealand Journal of Psychiatry, 40*, 835–844.

Wrobel, N. H. (1993). Effects of patient age and gender on clinical decisions. *Professional Psychology: Research and Practice, 24*, 206–212.