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Running head: BURNOUT, EMPOWERMENT, AND GENDER ROLE

ORIENTATION

The Relationship between Burnout, Psychological Empowerment, and Gender Role

Orientation in Long-Term Care Nurses

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Abstract

The influence of psychological empowerment and gender roles on burnout was investigated. Ninety-six nurses employed at long-term care facilities completed the Personal Attributes Questionnaire (Spence, Helmreich, & Stapp, 1974), Spreitzer's (1995) Psychological Empowerment Scale, and the Maslach Burnout Inventory - Human Services Survey (Maslach & Jackson, 1996). No significant associations were observed between the perceived importance of empowerment factors and burnout. However, all participants' current (on-the-job) perceptions of empowerment were significantly related to global burnout ($rs = -.30$ to $-.54$, $ps < .001$). Empowerment disparity scores (perceived importance minus current perceptions) were even more strongly associated with burnout scores ($rs = .34$ to $.60$, $ps < .001$). Dominance scores were significantly associated with personal accomplishment scores ($r = .38$, $p < .001$) and global burnout scores ($r = -.25$, $p < .01$). Affiliation was only related to depersonalization scores ($r = -.27$, $p < .01$). Finally, the influence of gender role on the relationship between empowerment and burnout was examined using moderated regression analyses. Dominance and affiliation moderated a number of relationships, but the effects were modest (R^2 changes $< .052$). These findings highlight the importance of psychological empowerment as a factor associated with burnout, and suggest that gender role might interact with empowerment.

The Relationship between Burnout, Psychological Empowerment, and Gender Role

Orientation in Long-Term Care Nurses

Burnout in nurses has been studied extensively over the past few decades. Given

the significant restructural changes in health care in Canada, nurses and other health

professionals encounter many challenges as they strive to provide excellent care to

patients amidst government cutbacks, salary reductions, and technological advancements.

Nurses can be thought of as the gate keepers of the health care workers. As a result, it is

important that factors related to burnout in nurses be investigated and understood so

researchers can provide resources and prevention strategies to decrease burnout in the

Canadian health care system. When nurses are experiencing low levels of burnout, they

may have more time and resources to provide good patient care.

Burnout Research

Early Theories of Burnout

Burnout began as a colloquial term describing an emotionally depleted state

among healthcare professionals. The term was first used in the psychological literature in

an article by Herbert Freudenberger (1974) published in the Journal of Social Issues. The

creative term burnout seemed appropriate to describe American health professionals

working in pro bono clinics that were innovative solutions to costly medical treatments.

Since these clinics lacked the policies and conventions of traditional health and social

services, the methods used by health professionals to deal with their patients could be

easily observed by researchers to examine the effects of long hours, low income, limited

resources, and emotionally demanding interactions with patients. Freudenberger (1974)

concluded that working entirely on the basis of youthful enthusiasm eventually depletes the emotional energy of health professionals. Thus, the term burnout was originally used as a catch-all phrase to describe the emotional consequences experienced by health professionals working in arduous conditions.

Cherniss (1980) then applied the term burnout in his research on workload issues and value conflict. This research brought burnout from the outskirts to the forefront of psychological research. According to Cherniss (1980), burnout resulted from inconsistencies implicit in the role of health professionals, particularly in individual and organizational aspects of careers. Individual aspects include a perception of lack of support, decrease in interpersonal trust, decrease in the perception of job satisfaction or accomplishment, and role ambiguity (Duquette, Sandhu, & Beaudet, 1993). In addition, health care professionals may enter those professions with unrealistic expectations regarding their professional role (Cherniss, 1980). For example, students may expect to be able to perform their job autonomously, and interact openly and honestly with clients in meaningful encounters most of the time. However, these expectations may be unrealistic because of organizational factors, which are related to the work environment, such as staff turnover, scheduling, work overload, and conflict between organizational and personal values (Maslach & Leiter, 1997). Thus, early theories of burnout focussed on individual and organizational factors relating to burnout in health care.

Contemporary Theories of Burnout - The Burnout Syndrome

Burnout is generally viewed as a maladaptive coping process in response to demanding, stressful, and unrewarding work conditions. Contemporary theories of

burnout continue to focus on health professionals, such as nurses (Catalan et al., 1996;

Crickmore, 1987; Duquette et al., 1993; Kandolin, 1993; McElroy, 1982; Vachon, 1995),

dentists (Blinkhorn, 1992; DiMatteo, Shugars, & Hays, 1993; Gorter, Albrecht,

Hoogstraten, & Eijkman, 1998), teachers (Greeenglass, Burke, & Konarski, 1998), and

physicians, (Benbow, 1999), as well as numerous other professions such as police officers

(Burke, 1993; Burke & Kirchmeyer, 1990a, 1990b), public agencies (Golembiewski,

Boudreau, Sun, & Luo, 1998; Kossek & Ozeki, 1998), business managers (Spreitzer,

1995), and bus drivers (Aronson & Rissler, 1998).

Contemporary research on burnout is largely guided by the original work of

Maslach (1982). According to these researchers, burnout refers to a syndrome with

three components: emotional depletion, lack of personal accomplishment, and

depersonalization (Carlson, Fellows, & Maslach, 1989; Maslach & Jackson, 1986).

Burnout can be differentiated from stress in that stress is a broad term that encompasses

general negative consequences of an environment (e.g., occupation, relationships, motor

vehicle accidents) experienced physiologically (e.g., increased heart rate), emotionally

(e.g., feeling emotionally depleted), or behaviourally (e.g., avoiding a situation). On the

other hand, burnout is conceptualized as a chronic emotional consequence of working

specifically in a human service profession (e.g., nurses and physicians).

Emotional exhaustion encompasses the feeling of tiredness and depletion of

emotional resources. It is associated with the notion of mental strain which can be

linked to tension, anxiety, physical fatigue, somatic sequelae, and insomnia (Lee &

Ashforth, 1990).

Personal accomplishment refers to how a person evaluates his or her performance at a worthwhile job (Golembiewski et al., 1998). It includes aspects of self-efficacy and is linked to the ability to adjust to demanding situations (Bandura, 1986), and the perception and control of performance mastery (Ashforth & Lee, 1990). Low personal accomplishment is related to feelings of inefficacy, decreased personal competence, and negative self-evaluations, particularly in relation to one's work with clients (Jansen, Kerkstra, Abu-Saad, & Van der Zee, 1996).

Depersonalization refers to a marked tendency to think of others as objects, and to distance oneself from others (Golembiewski et al., 1998). Depersonalization is a form of coping. Through depersonalization, individuals attempt to inhibit the depletion of emotional energy by treating others as objects or numbers rather than people (Kahill, 1988a, 1988b; Maslach, 1982). Some researchers have reported that depersonalization may be a form of reactive and protective actions intended to avoid an unwanted demand or reduce a perceived threat (Ashford & Lee, 1990). Other researchers have defined depersonalization as the development of negative, cynical attitudes and feelings toward others (Jansen et al., 1996).

Depersonalization seems to be specific to human service work and it has a different meaning to those whose work does not require a personal relationship with clients (Leiter, 1991). For example, Maloney, Bartz, and Allenach (1991) found that depersonalization did not emerge as a distinct factor in the Maslach Burnout Inventory (MBI, Maslach & Jackson, 1986) in a sample of recruit trainees in the Canadian Armed Forces. He speculated that recruits focussed on the importance of training missions as

opposed to human relationships, thus reporting negligible scores on the

depersonalization dimension of burnout. For human service workers, such as nurses,

who are ethically and professionally committed to personal regard for clients,

depersonalization is a more central issue.

Thus, although not all three components are universally accepted, Maslach's

(1982) definition of burnout as a syndrome of emotional exhaustion, depersonalization

of others, and a feeling of reduced personal accomplishment, has emerged as the most

widely cited.

A considerable amount of research has been carried out on individual and

organizational factors related to burnout in professional nurses. Nurses in particular may

experience prolonged stress in reaction to continuous exposures to time-scheduling

difficulties, high turnover rate among nursing staff, and emotionally-intense patient

interactions, such as palliative care (Bussing, 1996; Duquette, Kerouac, Sandhu,

Ducharme, & Saulnier, 1995). Individual factors related to burnout in nurses include age

(Seever, 1985; Williams 1989), personality (Costantini, Solano, Di Napoli, & Bosco,

1997), education (Maloney, Bartz, & Allenach, 1991), and work experience (Vachon

1997). For example, Seever (1985) found that age correlated negatively to

depersonalization, and Williams (1989) concluded that age correlated negatively with

emotional exhaustion and depersonalization. In other words, age appears associated

with burnout: younger nurses are more likely burnt out than older ones. Lastly, it has

recently been recognized that organizational factors may play an important role in nurses

experiencing burnout such as staff-turnover, shift-work, work values, and social support

(Cherniss, 1991; Constable & Russell, 1986; Maslach & Leiter, 1997; Melchoir et al.,

1997; Thomsen, Soares, Nolan, Dallender, & Arnetz, 1999).

In the nursing and burnout literature, there is a small area examining the

relationship between the factors affecting both the development of one's career and

burnout. This relationship seems critical because both burnout and career development

may be influenced by the same individual characteristics, such as gender roles and self-

efficacy, to be discussed later. Thus, some factors related to career development may

also predict burnout levels. The following section will present a summary of vocational

research which is relevant to nurses and burnout.

Vocational Research

Early Theories of Vocational Choice

An individual's career choice is often an extension of their personality, life

experiences, familial background, and socioeconomic status. Numerous theories of

career development have been put forth since the 1950s, most notably by Super (1957)

and Holland (1959). According to Super's (1957) Developmental Self-Concept Theory

of Vocational Behaviour, an individual attempts to match his or her self-image as closely

as possible to one of a large number of occupational images. In other words, people

choose occupations that match their self-concepts. Furthermore, Super suggests that the

particular behaviours a person engages in to develop his or her self-concept vocationally

are a function of the individual's stage of life development. As one matures, the self-

concept becomes more stable. The manner in which one's self-concept influences

vocation, however, is dependent upon conditions external to the individual. Thus,

according to Super, diverse vocational behaviours can be understood better by viewing

them within the context of changing self-concepts.

Holland's Career Typology of Vocational Behaviour (Holland, 1966, 1973) is

similar to Super's theory in that it focuses on the congruence between an individual's

personality and the occupational environment. An individual's personality refers to their

personal traits, career experiences, and familial history. Occupational environment

refers to organizational demands such as shift-work, policies, salaries, and job roles.

Holland suggests that vocational choice depends on the congruence between personality

and the perceived working environment, which results in reinforcement and

environmental support. Holland's typology is based on several assumptions. First, most

people can be characterized as one of the six personality types: Realistic, Investigative,

Artistic, Social, Enterprising, and Conventional. Second, there are six kinds of

environments: Realistic (R), Investigative (I), Artistic (A), Social (S), Enterprising (E),

and Conventional (C). People search for environments or careers that allow them to

exercise their skills and abilities, express their attitudes and values, and take on

agreeable problems and roles. Third, the degree of congruence between a person and an

occupation (environment) can be conceptualized by a hexagonal model (see Figure 1).

In the hexagonal model, all scales are arranged in the form of a hexagon with each

vertex corresponding to a personality type. This arrangement (RIASEC) means that

adjacent scales are, on average, more closely related than more distant scales. For

example, the S scale is more closely related to the A and E scales and is least related to

the R scale. Furthermore, in the hexagonal model, Holland used two hexagons:

personality type (hexagon A) and environment type (hexagon B - see Figure 1). Holland

suggests that individuals who have overlapping hexagons (i.e., their personality matches

their environment) will experience greater congruence and, thus, greater work

satisfaction. Thus, Holland's theory of career choice is based on a congruency between a

person's personality type and their environment.

Contemporary Theories of Vocational Choice

Based on Super's (1957) and Holland's (1959) career theories, one can see that

traditional theories of vocational choice focus on the fit between a person and an

environment. These traditional theories focus predominantly on selecting a career based

on personality traits or career interests. Current theorists embrace a broader, more

developmental approach to career choice that stresses the importance of biological,

parental, societal, personality, and life-stage influences on career development (Betz &

Fitzgerald, 1993; Borgen, 1991; Gelso & Fassinger, 1992; O'Brien & Fassinger, 1993).

Two important areas of psychology neglected by traditional theories of career

development, but emphasized in contemporary theories, are gender role orientation and

self-efficacy. First, it has been suggested that gender role orientation can provide

additional information regarding factors important to career choice and maintenance

(Stolz-Loike, 1995). This can be particularly important when individuals enter careers

that are stereotypically female oriented (e.g., nursing) or male oriented (e.g.,

engineering). Second, self-efficacy expectations refer to individuals' beliefs in their

abilities to preform particular behaviours successfully. These beliefs are developed from

past experiences and rewards. In the next section, the impact of gender role orientation

and self-efficacy on career development, will be discussed below.

Gender Role Research

Individuals develop their gender role throughout child- and adulthood. The formulation of their gender role refers to the acquisition of a set of beliefs, attitudes, and values about oneself as feminine or masculine in many areas of social life, including relationships, family, career, and community (Giele, 1988). In general, gender role characteristics are factors that stereotypically differentiate the sexes. Based on the endorsement of gender stereotypes, there are four gender-role orientations: masculine, feminine, androgynous, and undifferentiated (Bem, 1974). Regardless of sex, masculine individuals possess typically instrumental attributes (e.g., aggressive, ambitious, analytical, assertive, self-sufficient) and do not embrace expressive attributes (e.g., affectionate, cheerful, compassionate, gentle, understanding), while feminine persons exhibit the reverse of this pattern. An androgynous orientation incorporates both instrumental and expressive attributes and is associated with behavioural adaptability in response to situational demands. Androgyny has been positively related to high self-esteem, academic achievement, social involvement, exploration of varied career options, easy decision making, and greater cognitive complexity when evaluating careers (Spence, 1984). An undifferentiated orientation is suggested when individuals endorse few instrumental and expressive attributes, and may be indicative of poorer socialization and a limited repertoire of behavioural choices. This orientation has been associated with lower self-esteem and less effective career decision-making than an androgynous orientation.

Despite their enormous popularity, however, even these four most basic

constructs, masculine, feminine, androgynous, and undifferentiated gender roles, have

consistently eluded clear definition at both the conceptual and operational levels

(Lenney, 1991). Researchers suggest that when studying gender roles, it is important to

examine specific aspects of gender roles, as opposed to studying the broad elusive

definitions of masculinity and femininity (Spence, 1984). The most widely cited gender

role scale, the Bem Sex Role Inventory (BSRI; Bem. 1974), measures global masculinity

and femininity. On the other hand, the Personal Attributes Questionnaire (PAQ; Spence,

Helmreich, & Stapp, 1974) was developed to measure self-assertive-interpersonal (i.e.,

dominance) traits and interpersonal-expressive (i.e., affiliative) traits. In adherence to

this suggestion, the following section will summarize the specific areas of gender roles

related to vocational development and burnout.

Gender Role and Vocational Development

Numerous studies illustrate that the relationship between gender role orientation

and career development is important as one proceeds from an initial career exploration

as a child to occupational choice as an adult (Cook, 1994; Kantner & Ellerbusch, 1980;

Muldoon & Kremer, 1995). In a study of 4-year-old children by Trice and Rush (1995),

girls showed a wider range of occupational aspirations than boys, and girls' aspirations

were significantly higher in educational status than boys. The boys were significantly

more likely to choose male stereotyped occupations than female stereotyped

occupations. Girls were significantly more likely to choose female stereotyped

occupations (e.g., nurses) than male occupations (e.g., physicians).

Other studies support the relationship between nursing as a chosen occupation and gender role orientation. Muldoon and Kremer (1995) examined the gender-role orientation, career choice, gender-role conflict, job commitment, and work motivation of female student nurses in the Republic of Ireland. The researchers found that aspiring towards a traditional career aspect of nursing, such as paediatrics or neonatal, was associated with higher levels of work motivation, lower levels of gender-role conflict, and higher levels of job commitment. Here, gender role conflict was the difference between an individual's aspired gender role and their actual gender role in their career area. In addition, Culkin, Tricario, and Cohen (1987) reported the tendency for male student nurses to aspire toward the less gender-typed occupational niches, while female students aspired to more traditionally female areas of nursing. Kantner and Ellerbusch (1980) argued that it was not an individual's sex but his or her gender-role orientation that influenced occupational choices. They suggested that occupational horizons of androgynous men were broader, and opting for a cross gender-typed career caused minimal gender-role conflict.

In addition to occupational choice, gender roles can also influence how traditionally masculine or feminine one rates a particular career. Mclean and Kalin (1994) assessed gender attributes in six occupational images and in the self-images of university students, and how the congruence between self- and occupational images determines occupational choice. The researchers administered The Revised Interpersonal Adjectives Scales (IAS-R; Wiggins, Trapnell, & Phillips, 1988) to university students. The students rated three female- (nurse, rehabilitation therapist, and

teacher) and three male-dominated occupations (engineer, lawyer, and physician). The results indicated that male-dominated occupations were viewed as less affiliative and more dominant than female-dominated occupations. Here, the researchers operationally defined gender roles as affiliative and dominance, a style of interpersonal interactions, as opposed to the broad term masculine and feminine. This adheres to the recommendation to analyze specific areas of gender roles, as stated earlier. If gender roles affect how students masculinize or feminize job characteristics, then perhaps gender may affect how students perceive other facets of a career, such as job satisfaction and relationships with coworkers.

In a second part of the study by Mclean and Kalin (1994), a sample of 57 women and men entering these field completed the IAS-R as a self-report measure. Analyses compared self-images to the six occupational stereotypes, and found the greatest congruence between self-image and intended occupation. Both sexes, with men in particular, entering male-dominated fields, were less affiliative than women, or participants entering female-dominated fields. Dominance did not differ between men and women, nor among subjects in different occupational fields. These results supported the congruence notion of most vocational theories (e.g., Ghanaakos, 1996; Holland, 1973; O'Brien & Fasinger, 1993; Spokane & Jacob, 1996; Super, 1957), but point to the importance of gendered attributes of self and occupational images. One criticism of this study is that students compared their self-image to the image of an occupation, as determined by the other students. Perhaps it would be more informative to study self-image compared to one's own perception of a career? This may shed some light on the

consequences of discrepancies between one's occupational image of a career and their

own self-image, such as burnout.

Gender Role and Burnout

In the nursing literature, researchers originally investigated the importance of

gender role and stress when there was an increase in males entering the nursing

profession in the 1970s (Egeland & Brown, 1988; McCutcheon, 1996; Soerlie, Talseth,

& Norberg, 1997; Zawacki, Shahan, & Carey, 1996). Male nurses were studied because

of researchers' interest in comparing male nurses' stress to both female nurses and males

who were not nurses. This initial interest in studying gender roles in male nurses lead to

studying gender roles and stress, regardless of sex, throughout the nursing literature,

particularly because nursing is often viewed as a traditionally feminine profession.

Many studies have assessed the relationship between gender roles and

psychological well-being in nurses (see reviews by Bassoff & Glass, 1982; Davies,

1996; Taylor & Hall, 1982). There is controversy as to which gender role predicts

greater psychological well-being. As stated earlier, androgyny has been associated with

good psychological health, including high self-esteem (Kirchmeyer & Bullin). On the

other hand, many researchers report that masculinity is more closely related to well-

being than either femininity and androgyny (Lenney, 1991). Inconsistencies may be due

to the type of gender role measures used (e.g., BSRI, [Bem, 1974]; PAQ, [Spence,

Helmreich, & Stapp, 1974]; or the Personality Research Form ANDRO Scales, [PRF

ANDRO, Berzins, Welling, & Wetter, 1978]), statistical analysis (e.g., median-split

method or balance approach), or type of sample (e.g., nurses, teachers, or university

students, [Lenney, 1991]).

As stated above, there is conflicting evidence as to which gender role leads to better psychological health. These inconsistencies may be due to the exclusion of other variables that moderate the relationship between gender and psychological well-being. In other words, the view that one gender role predicts psychological well-being may be oversimplistic.

Psychological health may be dependent on how gender varies with other individual characteristics. Muldoon and Kremer (1995) found that gender role may serve as a moderator between career aspirations and job satisfaction for nursing students. As stated earlier, the researchers found that committed highly-feminine students aspiring towards a traditionally female career area of nursing was associated with higher levels of job satisfaction. In addition, low-femininity student aspiring to traditional career areas experienced higher levels of burnout.

Finally, Kirchmeyer and Bullin (1997) studied gender roles and work attitudes in psychiatric nurses. The results indicted that one type of gender role does not lead to burnout; instead, gender roles represent a complex self-identity schemata. High femininity was associated with high levels of organizational commitment while high masculinity was associated with good leadership skills. Androgyny was associated with innovation characteristics such as change, patient focus, efficiency, and team relations.

Thus, from the research findings presented above, one can see that the study of gender roles can provide some additional insight into burnout in nurses. In a review by Baba, Jamal, and Tourigny (1999) on employment and mental health in Canada, the

researchers concluded that gender roles can provide an explanatory framework to explain some individual differences in burnout in nurses. However, the researchers also stated that there is no conclusive evidence about the impact of gender on burnout. This is partly due to the paucity of convincing theoretical arguments to guide the empirical research (Baba et al., 1999). Indeed, it seems too simplistic to predict that one gender role (e.g., masculinity) may predict burnout. It may be more beneficial to investigate the moderating role gender plays with other individual variables, namely components of self-efficacy. Lastly, as stated above, gender role may predict the type of career one chooses. If gender affects one's perceptions of how masculine or feminine a career is, perhaps it can also affect how one rates other facets of career development, such as career self-efficacy.

<div align="center">Self-Efficacy, Vocational Development, and Gender Roles</div>

In the past decade, researchers have used self-efficacy theory (Bandura, 1977) to explain gender differences in the perception and choice of traditional and nontraditional career paths, finding that individuals prefer careers in which demands do not exceed self-mastery estimates. Earlier work by Bem (1974) found that gender-role identity influenced an individual's perceptions of mastering tasks at work. Furthermore, the relevance of self-efficacy for career development was reinforced by Betz and Hackett (1981) who found that feminine individuals held stronger efficacy expectations for traditional female, rather than traditional male careers. Thus, self-efficacy can play an important role in career choice and career maintenance.

One interesting area of self-efficacy is the motivational aspect of how meaningful

a person perceives his or her career to be. If a career is very rewarding and meaningful, one may invest a substantial amount of time and effort into his or her career in the hopes of mastering the skills necessary to perform well.

Meaningfulness in vocational development has been operationalized in different ways. For example, Fagermoen's (1997) Norwegian study defined meaningfulness of work in nurses as "arising mainly in the relationship with patients through providing nursing care" (p. 440). However, many studies measuring meaningfulness and self-efficacy are limited to utilizing descriptive measures or use measures with inadequate psychometric qualities. For example, Thomas et al. (1999) used written descriptions from nurses to ascertain that meaning was defined as the impact they believed they had on their patients and the gratification received from such interactions. Lastly, there is no research combining nurses, burnout, and career self-efficacy that taps into career meaningfulness.

Psychological Empowerment

A recent line of organizational and self-efficacy research has proposed the concept of psychological empowerment. The notion of empowerment builds on a well-grounded body of research on alienation (Seeman, 1959), participation (Bowen & Lawler, 1992; Lawler, 1992), and job enrichment (Hackman & Oldman, 1980). Recent research, building on the basis of Conger and Kanungo (1988), defined empowerment as an intrinsic task motivation manifested in a set of four dimensions reflecting an individual's orientation to his or her work role: meaning, competence, self-determination, and impact. These dimensions are viewed from the perspective of the

individual regardless of the objective reality of the workplace environment. Also, these

components, described below, are not predictors or outcomes of psychological

empowerment, but rather comprise its very essence.

Meaning. Meaning refers to the value of a work goal or purpose, judged in

relation to an individual's own ideals and standards (Thomas & Velthouse, 1990). It

also involves a fit between the needs of one's work role and one's beliefs, values, and

behaviours. Meaning serves as the "engine" of empowerment (i.e., the mechanism

through which individuals get energized about work). If employees' are not emotionally

dedicated to their work or if work activity conflicts with their value systems, then they

will not feel empowered (Thomas & Velthouse, 1990).

The relationship between meaning and burnout is equivocal. Thomas and

Tymon (1994) found no significant relationship between meaning and stress. However,

Spreitzer, Kizilos, and Nason (1997) found positive relationships between meaning and

strain (e.g., anxiety and depression). This may suggest that individuals who experience a

strong sense of meaning develop strong emotional attachments to their work, and give

much of themselves on their jobs. These individuals would have more at stake in their

work because they take their work more personally. Consequently, because of this

strong bond to their work, individuals with a strong sense of meaning may experience

more strain on the job when engaging in unchallenging, monotonous work without

meaning or when things do not go as planned. To date, there have been no studies

investigating the relationship between meaning and burnout.

Competence. Competence is an individual's belief that he or she possesses the

skills and abilities necessary to preform a job or task well (Gist, 1987). It is analogous to

agency beliefs, personal mastery, or effort-performance expectancy (Bandura, 1989).

Without a sense of confidence in their abilities, individuals will feel inadequate, and they

will lack a sense of empowerment.

Research has found a direct relationship between competence or self-efficacy and

stress. For example, those individuals who feel more competent about their abilities are

less likely to feel significant strain on the job (Gecas, 1989).

Self-determination. Self-determination is an individual's sense of having choice

in initiating and regulating actions (Deci, Connell, & Ryan, 1989). It reflects autonomy

in the initiation and continuation of work behaviours and processes. This includes

decisions about personal control, work methods, pace, and effort. If employees believe

that they are just following the orders of someone in the hierarchy or if they feel little

autonomy or freedom, they will lack a sense of self-determination.

Researchers have studied the antecedents of burnout and found that autonomy is

an important mechanism for reducing burnout, particularly when it results in control

over potential stressors (Maslach & Leiter, 1997). It is not necessary for control over the

stressors to be exercised in order to reduce strain, but it is necessary for the individual to

believe that the control can be exercised at any time. In other words, self-determination

seems to be related to decreased levels of burnout.

Impact. Impact is the perception that one has influenced strategic,

administrative, or operating outcomes at work to make a difference. Without a sense of

progression toward a goal and a belief that their actions are influencing the system,

employees will not feel empowered. Impact is different from self-determination in that

self-determination refers to an individual's sense of control over his or her own work,

while impact refers to an individual's sense of control over organization outcomes.

Where self-determination implies job involvement, impact implies organizational

involvement (Ashforth, 1989; Spreitzer, 1996).

Theory suggests that impact should be negatively related to burnout. Ashforth

(1989; 1990) found that more opportunities to have an impact on the organization were

positively related to work satisfaction. Martinko and Gardner (1982) report from a

review of previous research that a lack of impact on the environment was related to

depression, anxiety, frustration, and hostility. Finally, researchers have found that

impact was strongly related to enhanced work satisfaction and reduced strain (Spreitzer,

1996; Thomas & Tyson, 1994).

Thus, psychological empowerment is defined as a motivational construct

manifested in four cognitions: meaning, competence, self-determination, and impact.

Together, these dimensions emphasize a proactive rather than passive orientation in

one's career (Spreitzer, 1995). This means that individuals feel that they can shape and

influence their careers. No unidimensional conceptualization of empowerment itself

would capture the full essence of the concept. Rather than being antecedents or

outcomes of each other, the four dimensions represent different facets of the

empowerment construct.

Each component of empowerment has been linked to stress consequences in the

organizational literature. However, there have been no studies that examined the

relationship between psychological empowerment and burnout as conceptualized by

Maslach and Jackson (1986). In addition, based on similarities of the operational

definitions of dominance, as measured by the PAQ, and competence and self-

determination components of empowerment, it may be that these variables are related.

For example, all three variables can be thought of as making decisions easily, being

persistent, and being independent. On the other hand, affiliation, as measured by the

PAQ, may be related to impact and meaning components of empowerment. For

example, all three variables may be defined as valuing and being emotionally committed

to both coworkers and organizational tasks. In adherence to research recommendations

proposed by Spreitzer et al. (1997) in the psychological empowerment research,

moderator variables should be examined between empowerment and its consequence,

such as burnout.

In 1995, Spreitzer developed and validated the Spreitzer's Psychological

Empowerment Scale, a tool to measure psychological empowerment based on Thomas

and Velthouse's (1990) definition of psychological empowerment. She used factor

analysis conducted with two complementary samples. This analysis demonstrated the

convergent and discriminant validity of the four dimensions of empowerment and their

contributions to an overall construct of psychological empowerment. Furthermore, in

support of the multidimensionality of the empowerment construct, Spreitzer (1995)

found that all four dimensions loaded onto a single second-order factor. Spreitzer (1995)

used structural equation modelling to examine psychological empowerment in the

workplace and found good fits between the predicted and observed models.

She suggested that future research in psychological empowerment should investigate the construct in diverse organizational settings, especially less business-oriented settings, such as health care settings. Furthermore, Spreitzer (1995) suggested that future research should examine a broad set of consequences of psychological empowerment. For example, Spreitzer, Kizilos, and Nason (1997) examined the contribution of meaning, competence, self-determination, and impact in predicting three expected outcomes of empowerment: effectiveness, work satisfaction, and lowered job-related strain. The results indicated that different dimensions are related to different outcomes and that no single dimension predicts all three outcomes. Lastly, moderators of the links between empowerment and outcomes need to be explored. Spreitzer (1995) suggested that these moderators might include individual differences, such as gender role orientation, and organizational variables. Thus, psychological empowerment has not been used to predict burnout symptoms, and gender role may serve as a moderator between psychological empowerment and burnout. Keeping in line with vocational theories of career development and satisfaction, it may be useful to study the difference between the components of empowerment individual's value as important in the career goals, and their current levels of empowerment. Career theorists hypothesize that a poor career "fit" is evident when an individual's goals or expectations of a career do not match their actual performance. Researchers have not investigated this difference in psychological empowerment and how this difference relates to burnout.

<center>Present Study</center>

Purpose

The purpose of the present study was fourfold. A first purpose was to determine the nature of the relationship between psychological empowerment and burnout. A second purpose was to determine if the disparity between valued and on-the-job (current) levels of empowerment were more associated with burnout than either valued or current levels of empowerment alone. A third purpose in accordance with the recent literature on the moderating role of gender and psychological well-being was to examine the potential moderating effects of gender role on the relationship between psychological empowerment and burnout. Finally, the fourth purpose was to examine the relationship between qualitative responses factors that may affect work performance and burnout.

Summary and Hypotheses

Contemporary theories of burnout are built on the pioneering work of Maslach (1982), who conceptualized burnout as a syndrome comprised of emotional exhaustion, depersonalization, and reduced personal accomplishment. Today, it is generally accepted that both individual factors (e.g., age, level of education, and self-efficacy) and organizational factors (e.g., poor working conditions, low salary, and shift-work) can affect burnout levels in nurses (Duquette et al., 1993).

Two important areas in vocational role development are gender roles and self-efficacy. Gender roles refers to the acquisition of a set of beliefs about oneself as feminine or masculine in many facets of social life, including relationships, family, career, and community (Giele, 1988). Generally speaking, masculine individuals endorse predominately instrumental traits (e.g., aggression, assertiveness, analytical), feminine individuals endorse mainly expressive traits (e.g., affectionate, cheerful,

gentle), androgynous individuals endorse both masculine and feminine traits, and undifferentiated have low endorsement of either masculine or feminine traits.

One inconsistent finding in the gender role research concerns the influence of differing gender roles on burnout. For example, Bassoff and Glass (1992), in a review of the relationship between gender roles and psychological health, found that masculinity is more closely related to well-being; whereas other researchers have found androgyny is related to well-being (Bem, 1974). In order to address these inconsistences, researchers have suggested that a less simplistic framework be adopted (Greenglass et al., 1998). Gender roles, for instance, may act as a moderator between individual predictors of burnout and burnout itself (Baba et al., 1999).

Another area of importance in career development, aside from gender role orientation, is psychological empowerment. Psychological empowerment refers to the motivational aspect of self-efficacy manifested in four dimensions: meaning, competence, self-determination and impact. It represents an individual's intrinsic motivation to perform well at work. Meaning refers to the value of a work goal or purpose. Competence is an individual's belief that he or she possesses the skills and abilities to perform a job or task well. Self-determination refers to an individual's sense of having choice in initiation and continuation of work behaviours. Impact is the perception that one has influenced strategic, administrative, or operating outcomes at work to make a difference (Spreitzer, 1995; Spreitzer et al.,1997). The components of empowerment have been theorized to be related to stress, but no studies have examined the relationship between psychological empowerment and Maslach and Jackson's (1986)

conceptualization of burnout.

Traditional theories of career development proposed by Super (1957) and Holland (1959) postulated the importance of a "fit" between a person and their perceived values in their work environment. Good fits were shown to be positive related to job satisfaction, career commitment, and physical illness (Stolz-Loike, 1995). Keeping in line with the notion of "fit" between current work role and general work values, the disparity between current levels of empowerment in work and valued levels of empowerment in work goals may be associated with important occupational outcomes, such as burnout.

Based on the summary of the relevant literature above, four main a priori hypotheses were made. First, all components of psychological empowerment were expected to be significantly related to all components of burnout, as measured by the Maslach Burnout Inventory - Human Services Survey (MBI - HSS, Maslach & Jackson, 1996).

Second, the disparity between the perceived importance and current functioning of all dimensions of empowerment reported by the nurses was expected to be related significantly higher to burnout than either perceived importance or actual empowerment levels related to burnout alone.

Third, the hypothesized relationships between all dimensions of empowerment and all dimensions of burnout were expected to be moderated by gender roles. This means that gender influences the relationship between empowerment and burnout. Specifically, affiliation gender role was expected to significantly increase the strength of

relationship between meaning and impact components on burnout levels. Furthermore, dominance gender role was expected to significantly increase the strength of the relationship between competence and self-determination on burnout levels.

Fourth, a positive relationship was expected between negative organizational experiences reported by the nurses that effect their self-perceived work performance and all dimensions of burnout.

Method

Participants

All professional nurses employed at St. Joseph's General Hospital and Versa Care Limited (long-term care facility) were solicited to participate. Of the 480 (450 at St. Joseph's General Hospital; 30 at Versa Care) nurses solicited, a total of 96 (86 from St. Joseph's; 10 from Versa Care) participated (20.0%). Of these, 94 (98%) were female, and 2 (2%) were male; 42 had Registered Nurse (RN) diplomas, 39 had Registered Practical Nurses (RPN) certificates, 17 had a RN Degrees in Nursing, and 22 had other degrees (e.g., Honours Bachelor of Social Work degree, Dental Assistant Diploma). The mean age was 42.4 ($\underline{SD}$ = 8.70) years, and the mean number of years worked was 15.9 ($\underline{SD}$ = 8.93) years. The nurses in the sample had various areas of expertise (42 long-term care, 31 gerontology, 20 in rehabilitation, 16 in palliative care, 14 in mental health, 10 in medical, 2 in surgical, 2 in emergency, 1 in community health, and another 16 fell into the category labelled "other"). The employment status of the nurses was 55 regular full-time, 34 regular part-time, 9 causal, 2 temporary full-time, and 4 temporary part-time.

There were no significant differences between St. Joseph's General Hospital and Versa Care for age (t[85] = .89, p = .384) and years of experience (t[90] = 1.87, p = .065, see Table 1). Also, there were no significant differences in the other demographic variables listed in Table 2 (sex, X^2[1, N = 96] = 1.92, p = .67; educational background, X^2[3, N = 96] = 2.88, p = .441; current employment status, X^2[4, N = 95] = 1.08, p = .897; and primary area of expertise, X^2[11, N = 95] = 5.49, p = .905) between St. Joseph's and Versa Care.

Measures

The variables of interest were operationalized by means of self-report measures and incorporated into a questionnaire (see Appendix A). The questionnaire asked nurses to indicate their age, sex, educational background, years employed as a nurse, current employment status, primary area of responsibility, and an open-ended question inquiring about other significant concerns impacting their work. It also included the following measures of burnout, gender roles, and psychological empowerment.

Maslach Burnout Inventory - Human Services Survey. The MBI-HSS (Maslach, & Jackson, 1996, Appendix A - Part D) is a 22-item instrument created to measure the frequency of the three aspects of the burnout syndrome: emotional exhaustion (EE), depersonalization (DE), and personal accomplishment (PA). The MBI-HSS has the same items as the original MBI (Maslach & Jackson, 1981) but it has been renamed Human Services Survey to differentiate this scale from the authors other burnout scales used to measure burnout in the general workplace (Maslach Burnout Inventory - General Survey; Schaufeli, Leiter, Maslach, & Jackson, 1996) and educational settings (Maslach

Burnout Inventory - Educators Survey; Maslach, Jackson, & Schwab, 1996).   A score is

calculated for the frequency (how often a feeling occurs) on each of the three

dimensions. The emotional exhaustion subscale contains nine items that measure

feelings of being emotionally overextended and exhausted by one's work (e.g., "I feel

emotionally drained from my work" and "I feel burned out from my work.") The

depersonalization subscale contains five items and assesses the exhibition of detachment

that is excessively impersonal and unfeeling beyond that required for a "professional

distance." Some items include "I've become more callous toward people since I took

this job" and "I feel that I treat some members of the public as if they were impersonal

objects." Lastly, the personal accomplishment subscale has eight items that measure

feelings of competence and successful achievement in one's work with people (e.g., "I

deal effectively with the problems of members of the public," and "In my work, I deal

with emotional problems very calmly." Possible responses to each question are 0 =

never, 1 = a few times a year or less, 2 = once a month or less, 3 = a few times a month,

4 = once a week, 5 = a few times a week, and 6 = everyday. The possible range of scores

for the EE, DE, and PA subscales are 0 - 54, 0 - 30, and 0 - 48, respectively. Thus,

burnout is reflected in higher scores on the depersonalization and emotional exhaustion

subscales and lower scores on the personal accomplishment subscale.

The MBI - HSS is the most widely accepted measure of burnout (Greenglass,

1991) and is supported because of its favourable psychometric qualities such as good

internal consistency (alphas = .90 [EE], .79 [DE], and .71 [PA]) and test-retest reliability

(.82, .60, and .80, respectively).

Personal Attributes Questionnaire. The PAQ (Spence, Helmreich, & Stapp, 1974) is a measure of gender roles and is used widely throughout the literature (see Appendix A - Part C). The PAQ provides independent assessments of masculinity and femininity in terms of the respondents' self-perceived possession of personality traits stereotypically believed to differentiate males and females, but considered socially desirable in both sexes (Lenney, 1991). Spence and her colleagues (e.g., Spence, 1984; Spence & Helmreich, 1978; Spence & Helmreich, 1979) have stated that the PAQ measures not global masculinity, but self-assertive or *instrumental* traits; and not global femininity, but interpersonal or *expressive* traits. Usually, the developers of the PAQ and other researchers still use the terms "masculinity" and "femininity" as labels for the trait clusters measured by the PAQ, although Spence stated that these labels "can be used only as descriptive, atheoretical terms that call attention to the fact that males and females differ stereotypically and in self-reports" (Spence, 1984, p. 7).

The PAQ is a 24-item self-administered questionnaire which takes about 15 minutes to complete. There are eight items for each of the three scales: dominance (masculinity or M) scale, affiliation (femininity or F) scale, and sex-specific (masculinity-femininity or sex-specific) scale. Each item on the PAQ is a personality characteristic, presented in a five-point bipolar format. Respondents are asked to select a number that best describes where they fall along each continuum (e.g., 0 = not at all aggressive, to 4 = very aggressive). Each item is scored from 0 to 4. High scores on the dominance scale refer to endorsement of ratings towards the masculine pole. This scale is characterized by self-assertive and instrumental traits. High scores on the affiliation

scale refer to endorsement of ratings towards the feminine end. This scale is

characterized by interpersonal and expressive traits. High scores on the sex-specific

scale mean that ratings of female traits were toward the feminine pole and ratings of

male traits were toward the masculine pole. Overall, the affiliation scale items are

considered to be socially desirable in both sexes, but females are believed to possess

them to a greater degree; dominance scale items are considered to be socially desirable

in both sexes but males are believed to possess them in greater abundance; and the sex-

specific scale items are characteristics that are socially desirable for males (3 items;

aggressive, dominant, loud) and females (5 items; needs approval, feelings hurt, cries

easily, need for security, home-oriented, Spence & Helmreich, 1978). Hence, for the 24-

item PAQ, scores can range from 0 - 32 for each of the three scales. Spence and

Helmreich (1978) reported Cronbach alpha values for the 24-item PAQ for male and

female college students of .85, .82, and .78 for the M, F, and M-F scales respectively.

Lenney (1991) reviewed the PAQ and reported good concurrent and predictive validity.

Spreitzer's Psychological Empowerment Scale.

The Spreitzer's Psychological Empowerment Scale (SPES) was developed and

validated by Spreitzer (1995). It has four scales measuring meaning (4 items),

competence (4 items), self-determination (4 items), and impact (4 items; see Appendix A

– Part B and E). The meaning subscale measures the value of a work goal or purpose

(e.g., "The work I do is very important to me.") The competence subscale is related to

self-efficacy or an individual's belief in his or her capability to perform activities with

skill (e.g., "I am competent about my ability to do my job.") The self-determination

subscale measures an individual's sense of having choice in initiating and regulating actions (e.g., "I have significant autonomy in determining how I do my job.") Lastly, the impact scale measures the degree to which an individual can influence strategic, administrative, or operating outcomes at work (e.g., "My impact on what happens in my department is large.") Each item is measured on a 7-point Likert scale. Cronbach's alpha coefficient for the overall empowerment construct was .72 in an industrial sample and .62 in an insurance sample (Spreitzer, 1995). This scale has also been used to measure empowerment in mid-level supervisors (Spreitzer, De-Janasz, & Quinn, 1999), and managers and lower-level employees (Spreitzer et al., 1997).

As stated earlier, the SPES has 16 items which assess empowerment levels (e.g., "My job activities are personally meaningful to me.") The present study modified the SPES to create two measures of empowerment with two different intents: current and perceived importance. First, current empowerment refers to an individual's current feelings about his or her on-the-job performance for each dimension on the SPES. To create this scale the researchers added "currently" to the beginning of each statement of the original SPES (e.g., "Currently, my job activities are personally meaningful to me.") Second, perceived importance empowerment refers to an individual's perceptions of how important each SPES item is in his or her ideal career goals. To develop this scale, the researchers added "It is very important that" to each item on the original SPES (e.g., It is very important that my job activities are personally meaningful to me.")

Procedure

Letters were sent to the President (Appendix B) and the Director of Research and

Education (Appendix C) at St. Joseph's Care Group, and the Director of Care at Versa Care (Appendix D). Ethics approval was obtained from Lakehead University (see Appendix E), St. Joseph's General Hospital (see Appendix F), and Versa Care (oral consent). Four hundred fifty nurses at St. Joseph's General Hospital and 30 nurses at Versa Care were given a research package via the Director of Research and Education at St. Joseph's Care Group, and the Director of Care at Versa Care. This envelope contained an Informed Consent Letter (see Appendix G), a questionnaire (see Appendix A), a large and a small self-addressed stamped envelope, and an address label. The Informed Consent Letter explained the purpose of the research, confidentiality issues, and the right to refuse participation. The questionnaire contained the Maslach Burnout Inventory, the Personal Attributes Questionnaire, the Psychological Empowerment scale, demographic questions, and an open-ended question inquiring about other concerns that were affecting the participants' work. Nurses were asked to return the questionnaire in the large self-addressed stamped envelope to the researchers at Lakehead University. Lastly, a small prepaid envelope addressed to the researchers was available if nurses requested information about results of the study upon completion. The nurses were asked to write their name on the mail label, place the label in the small envelope, and it mail it separately from the questionnaire to the researchers. Two weeks after the initial questionnaire was distributed, a follow-up letter (Appendix H) from the researchers was sent to all nurses who had received a questionnaire package.

Data Reduction and Analyses

The data analysis involved 23 variables: eight obtained measures of

empowerment (perceived importance and current functioning in each of meaning, competence, self-determination, and impact), seven computed measures of empowerment (described below), three measures of gender role (dominance, affiliation, and sex-specific scale), three burnout measures (emotional exhaustion, depersonalization, and personal accomplishment), and two computed burnout measures (discussed below, see Table 3 for a list of these variables).

Missing variables. Prior to analyses, missing scores on the perceived importance and current empowerment subscales (competence, impact, meaning, and self-determination), gender role subscales (dominance, affiliation, and sex-specific), and burnout subscales (emotional exhaustion, depersonalization, and personal accomplishment) were replaced with the average of the remaining items if two or fewer items were missing. Ten participants had less than two items missing on a scale. If more than two items were missing on a subscale, it was not included in the analyses. Eight participants had more than two items missing on a scale, and were not included in the analyses involving that scale.

Outliers. Prior to analyses, outliers, or extreme scores, on each measure were truncated as recommended by Tabachnich and Fiddell (1998). Specifically, scores more than three standard deviations above or below the mean were changed to the raw score equivalent of exactly three standard deviations above or below the mean. Table 4 lists the nine extreme scores that were truncated to plus or minus three standard deviations from the scale mean.

Scale internal consistency. Cronbach alpha coefficients were computed for each

subscale on the burnout, gender role, and psychological empowerment measures.

Computed variables. In order to examine the relationship among overall empowerment, gender role, and burnout variables, global empowerment, empowerment disparity, and global burnout variables were computed. Global empowerment scores were computed by summing the four empowerment subscales. Table 3 lists the new computed variables and their components. As stated earlier, based on the vocational literature, it has been postulated that individuals who experience a good "fit" between their current feelings at work and their valued ideals or goals at work, will experienced increased job satisfaction. The present researchers hypothesized that the difference between the two measurements of empowerment (current and perceived importance) could have an important role in predicting burnout. A *disparity* score was therefore computed by subtracting his or her current empowerment scores from his or her perceived importance scores. This is not a measure usually extracted from SPES. Disparity scores were computed for all subscales and global measures of empowerment (i.e., competence, impact, meaning, self-determination, and global empowerment).

In the burnout literature, a high degree of burnout is reflected in high scores on the emotional exhaustion (EE) and depersonalization (DE) subscales, and low scores on the personal accomplishment (PA) subscale. This combination of two high scores and one low score indicating burnout does not allow for a global burnout score on the MBI - HSS. In this study, a reversed Personal Accomplishment (revPA) subscale was created where an individual's original PA score was subtracted from 30 (the maximum possible score on the PA scale). This allowed the EE, DE, and revPA scores to be added to

create a global burnout score.

Bivariate Analyses. Bivariate analyses involved assessing the predicted

relationships between empowerment levels, burnout, and gender roles using zero-order

Pearson product-moment correlation coefficients. A significance level of .01 was used

in order to minimize potential Type I errors that might result form the large number of

correlations tested.

Regression Analyses. Moderated multiple regression analysis was employed to

test the potential moderating effects of the gender role (dominance and affiliation)

variables. In these analyses, predictors, moderators, and independent variables were

entered into a SIMPLE-1 SPSS program (O'Connor, 1998). This program provides

complete simple slope statistics and plots for each multiple regression, thus avoiding

complicated and time-consuming simple slope analyses. An interaction is said to occur

when a significant incremental change in R^2 results from entering the cross-product of

the predictor and moderator into the regression equation. In the present study, the extent

to which a particular moderator variable was in fact moderating the relationship in

question was then determined by examining the strength of the relationship at different

levels of the moderator variable (i.e., low, moderate, high). The levels of the moderator

were represented by the mean of the moderator variable, and one standard deviation

below and above the mean to reflect average, low, and high levels, respectively. These

were then plotted to minimum and maximum levels of the predictor variable.

Qualitative analyses. For the analysis of qualitative data six categories of general

organizational factors affecting burnout based on the work of Maslach and Leiter (1997)

were created. These included work overload, lack of control, insufficient reward, breakdown in community, absence of fairness, and conflicting values. Based on the work of Duquette et al. (1993), six additional categories of organizational factors specific to nursing were created: education; personal problems; patient concerns; RPN issues; policy guidelines, and reviews; and physician concerns. *Work overload* refers the nature and number of tasks a nurse performs in relation to the amount of time allotted. *Lack of control* refers to an individual's perception of low autonomy and lack of involvement with work. *Insufficient reward* refers to monetary, prestige, and job security rewards for work. *Breakdown in community* refers to a loss of community, conflict, and decreased mutual support, respect, and teamwork among co-workers. *Absence of fairness* refers to managerial issues such as lack of trust, lack of openness, and perceived lack of procedural justice. *Conflicting values* refers to personal versus organizational values, governmental discrepancies between governmental policies and personal values and other ethical conflicts. *Education* refers to concerns related to initial job orientation and continuing education. *Personal problems* refers to home stressors, demographic factors (e.g., age), and physical problems. *Technology* refers to issues related to computers, new diagnostic tools, and increasing complexity in nursing tools. *Patient concerns* refers to concerns related to the needs of patients and their families. *Policy guidelines, and reviews* refers to a lack of performance reviews, vague policies, and lack of direction by others. Finally, *Physician related concerns* refers to physician shortages, difficulties in contacting physicians, and lack of communication between the physician and the nurse.

One hundred sixteen responses from the questionnaires were categorized into the

12 categories explained above by two independent reviewers. The inter-rater kappa

between the two reviewers was $\kappa = .78$. Subsequently, 19 items that were rated

differently by each reviewer were independently assessed by a third reviewer. These

items were assigned to a category determined by the third reviewer.

For all categories of analyses, only significant findings are reported unless

otherwise specified.

Results

Table 3 lists all the variables utilized in the analyses, as well as means, standard

deviations, and scale reliabilities.

Scale Internal Consistency

Table 3 reports the Cronbach's alpha for each scale. All subscales on the SPES

and the MBI - HSS showed good reliability. The PAQ gender role measure showed

good reliability for the dominance and affiliation subscales. However, the sex-specific

(masculine-, feminine-valued or M-F) subscale on the PAQ was excluded from

additional analyses in the study because of low scale internal consistency (Cronbach's

alpha = .36). Other studies have excluded the sex-specific scale because investigators

have had difficulty assimilating this scale into their theoretical models which examine

the relationship between gender roles and other variables (Spence, 1984).

Bivariate Analysis

Bivariate analysis involved assessing the relationships between psychological

empowerment, gender roles, and burnout by using correlation coefficients. Table 5

presents the resulting correlation matrix. Again, a significance level of .01 was used in

order to minimize potential Type I errors that might result from a large number of

correlations tested.

Psychological Empowerment and Burnout

Current psychological empowerment and burnout. The first hypothesis predicted

that all components of psychological empowerment (competence, impact, meaning, and

self-determination) would be related to burnout. The prediction was confirmed (see

Table 6a) for 15 out of 20 (75%) correlations between current empowerment and

burnout. Current levels of competence were related to global burnout ($r = -.30$). Current

levels of impact were related to emotional exhaustion ($r = -.40$), depersonalization ($r = -.44$), personal accomplishment ($r = .33$), and global burnout ($r = -.49$). Current levels of

meaning were related to emotional exhaustion ($r = -.45$), depersonalization ($r = -.53$),

and global burnout ($r = -.52$). Current levels of self-determination were related to

emotional exhaustion ($r = -.35$), personal accomplishment ($r = .27$), and global burnout

($r = -.37$). In addition, global current empowerment (total of current competence,

impact, meaning, and self-determination scores) was related to depersonalization,

emotional exhaustion, personal accomplishment, and global burnout ($rs = -.48, -.46$, and

.34, and -.54 respectively).

Perceived importance psychological empowerment and burnout. On the other

hand, none of the empowerment variables rated as important in a respondent's ideal

career goals (*perceived importance*) were related to burnout (see Table 6a).

Disparity psychological empowerment and burnout. Disparity empowerment

was related to depersonalization, emotional exhaustion, personal accomplishment, and

global burnout (competence, rs = .37, .29, -.24 [NS], and .36; impact, rs = .54, .48, -.29,

and .55; meaning, rs = .54, .43, -.15 [NS], and .47; and self-determination, rs = .37, .34, -

.16 [NS], and .37). Global disparity empowerment scores were significantly related to

depersonalization, emotional exhaustion, personal accomplishment, and general burnout

scores (rs = .60, .52, -.27, and .60, respectively). In summary, most subscales of

disparity empowerment were related to all burnout subscales. Personal accomplishment

was related to disparity competence, meaning, and self-determination.

Supplementary analysis: gender role and burnout. Additional correlational

analyses were done to compare the all the dimensions of burnout to dominance and

affiliation gender role. The analyses found that dominance scores were significantly

associated with personal accomplishment scores (r = .38, p < .001) and global burnout

scores (r = -.25, p < .01). Affiliation scores were significantly related to

depersonalization scores (r = -.27, p < .01).

Disparity Psychological Empowerment compared to Current Psychological

Empowerment

The second hypothesis predicted that the disparity between the perceived

importance and current levels of empowerment reported by nurses would be more

stronger associated with burnout than either perceived or current empowerment levels

alone. The correlations between both *current* and *disparity* empowerment and burnout

were compared using stepwise multiple regressions. It was expected that disparity

empowerment would explain more of the variance in burnout scores than current

empowerment. Table 7 reports the results supporting this hypothesis. 11 out of 24

disparity empowerment and burnout correlations were more related than current

empowerment and burnout correlations. Using a computational procedure described by

Bruning and Kintz (1987) to calculate a significant difference between related

correlations, it was found that three of the 11 disparity and burnout correlations were

significantly greater than current empowerment and burnout. The relationship between

disparity impact and depersonalization was significantly greater than the relationship

between current impact and depersonalization. The relationship between disparity self-

determination and depersonalization was significantly greater than the relationship

between current self-determination and depersonalization. Finally, the relationship

between global disparity and depersonalization was significantly greater than the

relationship between global current empowerment and depersonalization.

The following findings found a greater strength of association between disparity

and burnout compared to *current* empowerment and burnout: competence, impact, and

global disparity to emotional exhaustion, depersonalization, and global burnout; and

meaning and self-determination related to depersonalization. In contrast, emotional

exhaustion and global burnout were more strongly linked to current meaning and self-

determination empowerment than to the corresponding disparity empowerment.

Personal accomplishment was more associated with current impact, current self-

determination, and global current empowerment than to disparity impact, disparity self-

determination, and disparity global empowerment, respectively.

Disparity Psychological Empowerment compared to Perceived Importance

Psychological Empowerment

Hypothesis two also predicted that disparity empowerment would be more strongly related to burnout than perceived empowerment was related to burnout. The prediction was confirmed for 17 out of 20 (85%) relationships comparing the association between *perceived importance* empowerment and burnout, to *disparity* empowerment and burnout (see Table 6a and 6b).

All significant correlations between disparity empowerment and burnout components were stronger than the correlations between *perceived importance* and burnout components that were not significant. Specifically, emotional exhaustion, depersonalization, and global burnout were more associated with all disparity empowerment components (global, competence, impact, meaning, and self-determination). Personal accomplishment was more associated with disparity impact and global disparity than with perceived importance.

Regression Analyses: Moderated Relationships

Using multiple regression (hierarchical procedure), empowerment and gender roles variables accounted for 59% of the variance in global burnout scores, ($R^2 = .588$, F (12, 76) = 9.04, $p < .001$). Forward step-wise regression analysis revealed that current empowerment meaning and dominance gender role were the most significant predictors of burnout and accounted for 31% of variance on their own, ($R^2 = .311$, F (1, 87) = 31.57, $p < .001$).

Table 8 (moderator: dominance) and Table 9 (moderator: affiliation) depict the variables involved in the regression analyses, as well as the relevant bivariate association

(main effect), and any significant interaction effect (partial correlation). Figures 2 to 14 demonstrate the extent and direction of the interactions.

Dominance Gender Role

Current *competence and current self-determination* psychological empowerment and burnout. Dominant gender role was expected to increase the strength of any significant association between current empowerment levels (*competence and self-determination*) and burnout. This hypothesis was partially supported. The effects of *self-determination* empowerment on personal accomplishment (R^2 = .180, F (1, 86) = 9.55, p < .001) were moderated by dominant gender role (R^2 change = .052, p = .018). As shown in Figure 2, contrary to expectations, individuals who had the lowest degree of dominance showed the greatest increase in feelings of personal accomplishment as *self-determination* empowerment increased, relative to individuals with moderate and high levels of dominance. This result should be interpreted with caution because the correlation between personal accomplishment and current self-determination empowerment was significant at the p < .05 level.

Disparity psychological empowerment and burnout. Second, the effects of the disparity between perceived importance and current *competence* empowerment on emotional exhaustion (R^2 = .088, F (1, 86) = 4.22, p = .018) were moderated by dominance (R^2 change = .042, p = .046). As illustrated in Figure 3, as expected, individuals with the highest degree of dominance showed the greatest increase in feelings of emotional exhaustion as the disparity *competence* empowerment increased, relative to individuals with moderate and low levels of dominance.

Third, the effects of the disparity between perceived importance and current *self-determination* empowerment on depersonalization (R^2 = .144, F (1, 87) = 7.40, p = .001) was moderated by dominance (R^2 change = .039, p = .046). As shown in Figure 4, as expected, individuals who had the highest degree of dominance showed the greatest increase in feelings of depersonalization as disparity *self-determination* empowerment increased, relative to individuals with moderate and low levels of dominance.

Supplementary dominance analyses: global empowerment and burnout. Exploratory analyses revealed the following significant moderated relationships between empowerment and burnout by dominance gender role. First, the effects of *global* current empowerment on personal accomplishment (R^2 = .213, F (1, 86) = 11.75, p < .001) were moderated by dominance gender role (R^2 change = .037, p = .041). As depicted in Figure 5, individuals who had the lowest degree of dominance showed the greatest increase in feelings of personal accomplishment as *global* current empowerment levels increased, relative to individuals with moderate and high levels of dominance.

Second, the effects of the disparity between perceived importance and current *impact* empowerment on depersonalization (R^2 = .293, F (1, 87) = 18.24, p < .001) were moderated by dominance (R^2 change = .043, p = .020). As shown in Figures 6, individuals who had the highest degree of dominance showed the greatest increase in feelings of depersonalization as the disparity *impact* empowerment increased, relative to individuals with moderate and low levels of dominance.

Third, the effects of the *global* disparity between perceived importance and current empowerment on emotional exhaustion (R^2 = .274, F (1, 85) = 16.19, p < .001)

were moderated by dominance (R^2 change = .031, p = .055). As shown in Figure 7, individuals with the highest degree of dominance showed the greatest increase in feelings of emotional exhaustion as the *global* disparity between perceived importance and current empowerment increased, relative to individuals with moderate and low levels of dominance.

Finally, the effect of the global disparity between perceived importance and current empowerment on personal accomplishment (R^2 = .189, F (1, 86) = 10.14, p < .001) was moderated by dominance (R^2 change = .046, p = .025). As shown in Figure 8, individuals with the lowest degree of dominance showed the greatest decrease in feelings of personal accomplishment as the *global* disparity between perceived importance and current empowerment increased, relative to individuals with moderate and high levels of dominance.

Affiliation gender role

Current *impact and* current *meaning* empowerment and burnout. Affiliative gender role was expected to undermine the strength of any significant association between *impact* and *meaning* current empowerment levels and burnout. This hypothesis was partially supported. The effect of *impact* empowerment on personal accomplishment (R^2 = .150, F (1, 85) = 7.57, p = .001) was moderated by affiliation (R^2 change = .041, p = .041). As shown in Figure 9, contrary to expectations, individuals who had the lowest degree of affiliation showed the greatest increase in feelings of personal accomplishment as current *impact* empowerment increased, relative to individuals with moderate and high levels of affiliation.

The effects of *impact* empowerment on global burnout ($R^2 = .274$, F (1, 84) = 16.06, $p < .001$) were moderated by affiliative gender role (R^2 change = .030, $p = .060$). As shown in Figure 10, contrary to expectations, individuals who had the lowest degree of affiliation showed the greatest decrease in feelings of global burnout as *impact* empowerment increased, relative to individuals with moderate and high levels of affiliation.

The effect of the disparity between perceived importance and current *impact* empowerment on personal accomplishment ($R^2 = .120$, F (1, 85) = 5.85, $p = .004$) was moderated by affiliation (R^2 change = .047, $p = .031$). As shown in Figure 11, contrary to expectations, individuals with the lowest degree of affiliation showed the greatest decrease in feelings of personal accomplishment as the disparity *impact* empowerment increased, relative to individuals with moderate and high levels of dominance.

Supplementary affiliation analyses: current psychological empowerment and burnout. Exploratory analyses revealed the following significant moderated relationships between empowerment and burnout by affiliation gender role. First, the effect of current *self-determination* empowerment on personal accomplishment ($R^2 = .117$, F (1, 85) = 5.68, $p = .005$), was moderated by affiliation (R^2 change = .052, $p = .023$). As shown in Figure 12, individuals who had the lowest degree of affiliation showed the greatest increase in feelings of personal accomplishment as current *self-determination* empowerment increased, relative to individuals with moderate and high levels of affiliation. This result should be interpreted with caution because the correlation between personal accomplishment and current self-determination

empowerment was significant at the $p < .05$ level.

Second, the effects of *global* current empowerment on personal accomplishment ($R^2 = .149$, F (1, 85) = 7.53, $p = .001$) were moderated by affiliative gender role (R^2 change = .041, $p = .040$). As depicted in Figure 13, individuals who had the lowest degree of affiliation showed the greatest increase in feelings of personal accomplishment as *global* current empowerment levels increased, relative to individuals with moderate and high levels of affiliation gender role.

Finally, the effect of the *global* disparity between perceived importance and current empowerment on personal accomplishment ($R^2 = .109$, F (1, 85) = 5.27, $p = .007$) was moderated by affiliation (R^2 change = .039, $p = .053$). As shown in Figure 14, individuals with the lowest degree of affiliation showed the greatest decrease in feelings of personal accomplishment as the *global* disparity between perceived importance and current empowerment increased, relative to individuals with moderate and high levels of affiliation.

<div align="center">Qualitative Analysis</div>

The results indicated that the most common area of concern was overload (21%), followed by lack of control (14%), breakdown in community (12%), absence of fairness (11%), insufficient reward (9%), conflicting values (9%), patient concerns (8%), education (4%), technology (4%), personal problems (3%), physician concerns (3%), RPN issues (2%), and policy guidelines and reviews (2%). There were significant correlations between an individual's total numbers of concerns listed and both emotional exhaustion ($r = .27$, $p = .006$) and global burnout ($r = .22$, $p = .039$).

Discussion

Overview of Results

Several main conclusions may be drawn from the results. First, correlational analyses showed that each component of burnout was associated with different components of empowerment. Greater levels of emotional exhaustion were associated with lesser levels of current impact, meaning, and self-determination. Greater levels of depersonalization were associated with lesser levels of current impact and meaning. Greater levels of personal accomplishment were related to greater levels of current impact and self-determination. Greater levels of global burnout were related to lesser levels of current competence, impact, meaning, and self-determination. Greater levels of global current empowerment were related to lesser levels of emotional exhaustion, depersonalization, and global burnout, and greater levels of personal accomplishment. Furthermore, greater levels of disparity between all subcomponents of the perceived importance and current empowerment measure (competence, impact, meaning, self-determination, and global) were related to greater levels of emotional exhaustion, depersonalization, and global burnout. Increased personal accomplishment was linked to increased impact disparity and global disparity. Dimensions of perceived importance empowerment were not related to dimensions of burnout. Finally, high dominance gender role was associated with high personal accomplishment and low global burnout while high affiliation was related to low depersonalization.

Second, correlational analyses demonstrated that a greater number of correlations between disparity empowerment and burnout were stronger than the correlations

between both current and perceived importance empowerment and burnout. All significant correlations between disparity empowerment and burnout components were stronger than the correlations between *perceived importance* and burnout components. Specifically, higher levels of emotional exhaustion, depersonalization, and global burnout were more associated with a greater disparity between all perceived importance empowerment components (global, competence, impact, meaning, and self-determination) and burnout. High personal accomplishment was more associated with lesser levels of impact disparity and global disparity than with perceived importance empowerment.

Additional analyses revealed that the relationship between empowerment *disparity* and burnout was overall greater than association between *current* empowerment and burnout. Increased levels of competence disparity, impact disparity, and global disparity were related to increased levels of emotional exhaustion, depersonalization, and global burnout; and increased levels of meaning and self-determination disparity were related to increased levels of depersonalization. In contrast, increased levels of emotional exhaustion and global burnout were more strongly linked to current meaning and self-determination empowerment than to the corresponding disparity empowerment. Personal accomplishment was more associated with current impact and global current empowerment than to disparity impact and disparity global empowerment, respectively. Lastly, analyses revealed that disparity impact, disparity self-determination, and global disparity were significantly more related to depersonalization than current impact, current self-determination, and global current

empowerment and depersonalization, respectively.

Third, regression analyses demonstrated that several empowerment-burnout associations were moderated by gender role. Dominant gender role was expected to increase the strength of any significant relationship between current competence and self-determination empowerment and burnout. This hypothesis was partially supported. Specifically, in nurses with high dominance, emotional exhaustion increased with greater competence disparity and global disparity. They also reported greater depersonalization with greater self-determination disparity and impact disparity. In nurses with low dominance, personal accomplishment increased with greater global current empowerment and decreased with greater global disparity.

Affiliation gender role was expected to increase the strength of any significant relationship between impact and meaning empowerment and burnout. This hypothesis was partially supported. The following relationships were found involving nurses with low affiliation gender role. These nurses reported greater personal accomplishment with greater current impact and global current empowerment. However, they experienced less personal accomplishment with greater impact disparity and global disparity. Finally, nurses with low affiliation reported less global burnout with greater current impact empowerment.

Fourth, the qualitative findings indicated that the most significant concern was work overload (21%) followed by lack of control (14%) and breakdown in community (12%). Nurses' total number of concerns was related to both increased levels of emotional exhaustion and global burnout. The following paragraphs offer an

explanatory elaboration on each set of findings.

Current Psychological Empowerment and Burnout

The correlations found between current psychological empowerment and burnout are consistent with research done by Spreitzer et al. (1997) examining strain. Spreitzer et al. (1997) found that the different dimensions of psychological empowerment are related to different outcomes of work satisfaction, effectiveness, and job strain, and that no single dimension predicted all three outcomes. Specifically, Spreitzer et al. (1997) found that meaning and competence, but not impact and self-determination, were related to work strain. The present research found that emotional exhaustion was related to current meaning, impact, and self-determination dimensions of empowerment. The similar finding that meaning is related to strain in Spreitzer's et al. (1997) study and burnout in the present study may be explained by the similar operational definitions of burnout and strain. Spreitzer et al. (1997) defined strain as symptoms of depression, anxiety, and somatic symptoms, and Maslach and Jackson (1985) associated emotional exhaustion with the notion of mental strain which can be linked to tension, anxiety, physical fatigue, and somatic sequelae. In other words, low levels of current meaning may create high levels of emotional exhaustion because individuals may feel little personal connection to their work, and thus, experience physical fatigue and anxiety because they feel obligated to perform duties in a labourious work environment. As stated earlier, emotional exhaustion was also positively correlated with work overload, which further supports the finding that excess job duties is related to depletion of emotional resources. Low meaning was also related to increased levels of

depersonalization and global burnout. Individuals who do not feel personally invested in their work might distance themselves from others. Again, nurses who are not personally invested in their work, may feel detached from their patients and colleagues.

Also, low current impact and self-determination were related to increased levels of emotional exhaustion and global burnout. This means that nurses who feel they do not have control over organizational outcomes (impact) or control over their own work (self-determination) experience depletion in their emotional resources and more burnout overall. These findings support previous research that has examined the antecedents of job-related stress. Previous studies have frequently cited autonomy as an important mechanism for reducing burnout, particularly when it results in control over potential stressors (Lee & Ashforth, 1996).

Current impact, current self-determination, and global current empowerment were the only psychological empowerment dimensions related to personal accomplishment. This result is consistent with Leiter's (1991) belief that personal accomplishment develops largely independently of emotional exhaustion and depersonalization. This independence is evident in the present research where most dimensions of empowerment were related to emotional exhaustion and depersonalization, and not personal accomplishment. This means that low control over organizational outcomes (impact) and low control over personal work (self-determination) were associated with feelings of inefficacy, decreased personal competence, and the inability to adjust to demanding situations (personal accomplishment). This suggests that nurses who encounter difficulties in adjusting to

demanding situations, and feelings of ineffectiveness and incompetence may also feel

that their actions and opinions have little influence over organizational and personal

work decisions.

Global empowerment was related to all dimensions of burnout. Global

empowerment can be conceptualized to reflect a proactive orientation to their work role,

involving a sense of meaning, competence, self-determination, and impact. In a general

sense, increased levels of burnout were associated with decreased levels of psychological

empowerment in nurses. Nurses who experience a passive orientation to one's work

role, in that they experience low personal investment, low control over their personal

work, low control over their organizational outcomes, and the inability to perform their

job well, experience greater emotional exhaustion and depersonalization, and decreased

personal accomplishment. However, in light of the previous findings, the specific

relationships between the subcomponents of empowerment and burnout can be more

informative than the comparison of global levels of burnout and empowerment.

Finally, the dimensions of gender roles and components of burnout were

compared in supplementary analyses. Individuals with high dominance gender role may

experience increased personal accomplishment because they possess self-assertive and

instrumental traits necessary to develop feelings of efficacy and adaptability to

demanding work conditions. High dominance may also be associated with low global

burnout because instrumental traits contribute to the overall development of skills that

increase emotional resources and attachment to others, in addition to an increased sense

of personal accomplishment. These general skills may include taking the initiative to

share work concerns with coworkers and using active problem-solving skills to resolve

conflicts. High affiliation was related to depersonalization. This infers that nurses with

high interpersonal skills, such as compassion, empathy, and kindness, facilitated the

development of a sense of attachment to others, including patient relationships.

Perceived Importance Psychological Empowerment and Burnout

The present study found that there was no relationship between perceived

importance empowerment and burnout dimensions. The lack of significant findings

between dimensions of perceived importance empowerment that are valued in career

goals, and burnout, is inconsistent with other research on burnout (Maslach & Leiter,

1997). Although the research on valued or meaningful components of career roles and

burnout is sparse, the existing research suggests that individuals who value their job

experience more stress (Reilly, 1994). In the present study, "It is very important that I..."

items on the psychological empowerment scale measured perceived importance

empowerment. It may be that valued components of empowerment tap into

conceptualizations of burnout, other than Maslach and Jackson's (1985). Perhaps,

important aspects of career goals are related to other negative outcomes of job

dissatisfaction, such as general unhappiness with career direction, intentions to quit, and

career commitment. These variables are not measured by Maslach's Burnout Inventory.

A second alternative explanation may be that burnout, defined as a maladaptive coping

process in response to prevailing circumstances, is more related to current performance

at work, and not future ideal career goals. Nurses may be continually dealing with

present concerns, and in turn, their career goals become secondary to their actual daily

job performance. As a result, valued levels of empowerment have less association with burnout than current empowerment levels.

Disparity Empowerment and Current Psychological Empowerment

The present study found that most of the associations between disparity empowerment and burnout were stronger than current empowerment and burnout. Specifically, emotional exhaustion, depersonalization, and global burnout were more associated with disparity empowerment components (global, impact, competence) than current empowerment burnout. Disparity meaning and disparity self-determination were more related to depersonalization than current meaning and current self-determination, respectively. In contrast, current meaning and self-determination were more related to emotional exhaustion and global burnout, than disparity meaning and self-determination. Finally, current global empowerment, current impact, and current self-determination were more associated with personal accomplishment than their disparity counterparts. The section above already explained the theoretical explanations for the relationships between dimensions of current empowerment and dimensions of burnout.

The stronger relationship between empowerment disparity and burnout than both current and perceived importance empowerment, is supported by the notion of "fit" found in vocational theories (e.g., Holland, 1959; Super, 1957). Vocational theories predict that individuals will experience greater academic achievement and job satisfaction when there is congruence between their ideal career goals and current career performance, thus the notion of career "fit" (Muldoon & Kremer, 1996). The present research found that the greater the congruence between current and valued empowerment

levels, the lower the burnout was experienced. Specifically, as congruence between impact, competence, and global empowerment increased, emotional exhaustion, depersonalization, and global burnout decreased. One interpretation of this is that when one feels that there is a congruence between his or her ideals and on-the-job influence over administrative outcomes, and possessing the skills necessary to perform a task well, then he or she will experience less emotional depletion, more attachment to others, and less burnout overall. In other words, when individuals are working in a career where their vocational expectations match their performance, they experience less symptoms of burnout.

Furthermore, congruence between valued and current meaning and self-determination empowerment dimensions are associated with less depersonalization. In other words, individuals who find a match between experiencing purpose and autonomy in their work and career goals, experience less detachment and negative feelings towards others. This may infer that nurses who strive towards meaning and autonomy in work and achieve these goals, will have positive feelings towards their patients, especially if they gain meaning and autonomy from patient relationships.

Some findings in the present study did not support this relationship between congruency and burnout. Specifically, current meaning and self-determination were more associated with emotional exhaustion and global burnout than their disparity counterparts. This means that low current feelings of purpose and autonomy in work were more associated with depletion of emotional resources and overall burnout, than disparity between valued and current performance. However, these findings do support

research that reports that emotional exhaustion is the dimension of burnout which is most usually associated with current levels of psychological strain compared to depersonalization and personal accomplishment (Lee & Ashforth, 1990, 1996). Thus, emotional exhaustion and global burnout may be more predictive of prevailing meaning and self-determination levels, as opposed to valued ideals, which influence other dimensions of burnout.

Furthermore, current impact, current self-determination, and global current empowerment were more associated with personal accomplishment than impact disparity , self-determination disparity, and global disparity. This means that on-the-job feelings of autonomy over personal work and organizational outcomes, as well as overall feelings of empowerment, were more related to personal accomplishment than the disparity between valued and current self-determination and impact goals. This makes sense because, as stated above, personal accomplishment may be more related to on-the-job empowerment levels than ideal goals.

<u>Moderated Relationships</u>

<u>Dominance.</u> The third hypothesis postulated that *high* dominance gender role would increase the strength of the relationship between competence and self-determination and decreased burnout levels was partially supported. It was found that in nurses with high dominance, their emotional exhaustion increased with greater competence disparity and global disparity. They also reported greater depersonalization with greater self-determination disparity and impact disparity empowerment.

Once again, the above findings can be explained using vocational theories and

the notion of "fit". Nurses with high dominance, or self-assertion traits, experience more

burnout when the disparity between perceived importance and current empowerment is

large. This means that nurses with high dominance may encounter high

depersonalization and emotional exhaustion when there is great incongruence between

their valued and current self-determination, competence, impact, and global tasks. One

explanation for this finding is that when dominance individuals feel there is a low "fit"

between current and perceived importance empowerment, they feel less attached to

others and less emotionally fulfilled. High self-assertive traits (e.g., independence,

competitive, and being active) may lead to more aggressive tendencies than low

dominance traits (Helgeson, 1994). In turn, more aggressive individuals may be more

competitive and controlling of others in their interpersonal relationships, and thus may

experience more conflicts or competition with colleagues as they strive to decrease the

disparity among their empowerment levels in their job tasks (Helgeson, 1994).

Additional analyses revealed that in nurses with low dominance, personal

accomplishment increased with greater global empowerment and decreased with greater

global disparity. It is interesting that dominance did not moderate the relationships

between subscales of empowerment and personal accomplishment, but instead

moderated the relationship between global empowerment and personal accomplishment.

The findings indicate that individuals who experience low instrumentality also feel more

personal accomplishment as their on-the-job global empowerment increases and global

disparity decreases. This means that when less instrumental individuals had a good

match between their current perceptions and valued empowerment goals, then they

experienced more personal accomplishment. In turn, less competitiveness traits may

have allowed individuals to work with others and feel that they were performing well

when their current empowerment levels were high and when their disparity levels were

low.

Affiliation. The third hypothesis also predicted that high affiliation gender role

would significantly increase the strength of the relationship between meaning and impact

empowerment on burnout levels. This hypothesis was partially supported. Nurses with

low affiliation reported greater personal accomplishment with current impact and global

current empowerment. However, they also experienced less personal accomplishment

with higher impact disparity and global disparity. Finally, nurses with low affiliation

reported less global burnout with greater current impact empowerment.

Once again, these results may be interpreted using vocational theories of a match

between individual traits and career expectations. Nurses with low interpersonal and

expressive traits may experience low personal accomplishment when the disparity

between current and valued impact tasks is higher. Possessing low interpersonal traits

may contribute to individuals lacking the resources to decrease this disparity. They may

not have the necessary interpersonal skills, such as empathy, and being helpful to others,

to help them attain their goals of having an impact on their organizational outcome.

Similarly, individuals with low interpersonal traits may experience high personal

accomplishment and low global burnout when their current impact increases, because

they are experiencing a positive contribution to their environment. The means that

impacting their organization may not be dependent on good relations with others, but

may instead depend on independent skills.

Nurses with low affiliation showed the greatest increase in personal

accomplishment as global current empowerment increased. This may imply that nurses

with low interpersonal skills experience high personal accomplishment when they

experienced an overall active style of empowerment. Perhaps high affiliation is not a

necessary trait for experiencing control over present job requirements. Moreover, nurses

with low affiliation showed the greatest decrease in personal accomplishment as global

disparity increased. Perhaps nurses with low interpersonal skills experience less

personal accomplishment because their overall goals for active empowerment are not

being accomplished, especially if interpersonal skills are required for personal

accomplishment. This may be the case because personal accomplishment requires the

ability to perform well with others and on tasks.

Qualitative Analysis

The qualitative data revealed that other organizational concerns were affecting

nurses at work, including, most importantly, work overload, followed by lack of control

and breakdown in community. These three factors are part of the initial stages of

burnout found in an organization according to Maslach and Leiter (1997). These

researchers report that burnout begins when individuals experience work overload,

which is in essence having "too much to do in too little time with too few resources", (p.

10). Work overload can be a result of downsizing, so less people have to do the same

amount of work done in less time. In turn, individuals start to feel a lack of control in

their environment. Next, individuals feel that they are being insufficiently rewarded at

work (e.g., salary increase, performance appraisals) and this causes negative attitudes to

flourish at work. In turn, this may result in a breakdown in the work community.

Community may be undermined through the loss of job security and the focus on short-

term profit that excludes personal relationships between staff and patients. Thus,

according to Maslach and Leiter (1997), the organizational concerns found in this study,

namely work overload, lack of control, and breakdown in community, are precursors to

continued experiences of burnout in the workplace followed by feelings of unfairness

and conflicting values.

The present study also found that the greater the number of concerns reported by

nurses, the greater the emotional exhaustion and global burnout. Once again, this makes

sense because emotional exhaustion seems to be more associated with prevailing job

circumstances than either personal accomplishment and depersonalization. In addition

to regular work load, nurses with work-related concerns may experience an over-

exertion of emotional resources and overall feelings of burnout.

Strengths and Limitations

Keeping in line with the most recent empirically-based understanding of stress

among nurses, this study has a number of strengths. First, no other researchers have

investigated the concept of disparity between current and perceived important levels of

self-efficacy in relationship to stress. Maslach and Leiter (1997) emphasize that burnout

is a result of organizational stressors influencing the relationship between an individual's

expectations of work and their actual work performance. Usually, researchers

predetermine what is valuable to all employees and then ask each participant to rate each

item. It seems that it may be more important to examine what each person perceives is important and then inquire if he or she is actually attaining these goals.

Second, the present research provided additional evidence for the psychometric properties of Spreitzer's Psychological Empowerment Scale. This was evident in the SPES's high scale reliabilities and in the pattern of associations with other measures. Third, the inclusion of qualitative response questions about other additional areas of concerns affecting a nurses' career performance was beneficial. This question provided an opportunity for nurses to discuss other significant concerns that may be related to burnout. It also provided an opportunity to study organizational variables that may affect stress in nurses. Fourth, the combination of three large areas of research (burnout, vocational development, and gender roles) provided a unique theoretical template in which to investigate burnout. This highlights the importance of studying burnout in terms of general career development and gender role socialization. Most studies only look at how one variable (such as personal or organizational variables) affects burnout. However, the present study demonstrated that it is also important to study variables that moderate the relationship between career development variables and burnout. Fifth, this study examined nurses in long-term health facilities. Gerontology and chronic care facilities are undergoing many changes in the present political and aging population atmosphere. It is beneficial to study nurses working in this climate to address their unique needs compared to nurses working in acute care facilities. Lastly, the use of global burnout and empowerment scores was used in this study. The global scores provided unique information about factors contributing to global burnout, which is not

computed in other burnout studies.

Although efforts were made in the present study to take a scientifically sound approach to studying stress among nurses, and to incorporate existing relevant theories, several limitations must be acknowledged. First, this study had a relatively low-response rate (20%). Second, the correlational nature of the study prevents any assertions regarding causality, which would require longitudinal studies. Third, more in-depth analysis and questioning of qualitative responses were needed. A large percentage of nurses made comments about work environment variables, such as work overload, that were related to dimensions of burnout. More reliable and valid measures of assess general organizational factors would be useful. Lastly, because there was no relationship between perceived importance empowerment and burnout levels, it may be beneficial to include another measure that measures values in the workplace.

Implications

Practical implications. There are four practical implications for nurses associated with the present research. First, the present research found that current levels of psychological empowerment are significantly related to dimensions of burnout in long-term care nurses. This means that higher levels of empowerment (competence, impact, meaning, and self-determination) are associated with lower levels of burnout. Health administrators and nurses should strive to create a work environment that provides opportunities for nurses that foster psychological empowerment. This may mean ensuring that a nurse has autonomy in determining work load, opportunity to influence departmental outcomes, meaningful relationships with patients, and possession of skills

necessary to perform job duties well.

Second, the present research found that the disparity between an individual's valued career goals and actual performance is associated to burnout. More specifically, some nurses experience better psychological health when their empowerment goals are congruent with their current work performance. In particular, it seems important for nurses to experience a "fit' between their valued goals of possessing the necessary skills to perform their vocation well and feeling that they are influencing their organizational outcomes, and their actual work performance in these areas. By attaining this congruence, nurses experience less depletion of their emotional resources, feel more emotionally connected to others, and experience less burnout overall. These are a few examples that highlight the importance of nurses being aware of their goals at work and striving to attain these goals.

Third, the present research found that several relationships between burnout and empowerment can be moderated by gender roles. It seems that a dominance gender role (e.g., independent, instrumental, competitive) was associated with more emotional exhaustion and depersonalization as an individual's impact goals, self-determination goals and actual performance were similar. In addition, affiliative gender role (e.g., emotional, helpful, kindness) was associated with personal accomplishment when nurses felt they were positively affecting their environment and experienced an overall active empowered role at work.

Fourth, the present research highlights the importance of organizational concerns. The qualitative data suggested that other organizational concerns were affecting nurses

at work, including, most importantly, work overload, followed by lack of control and breakdown in community. As stated earlier, these three factors are part of the initial stages of burnout found in an organization according to Maslach and Leiter (1997). It is important that nurses are aware of the development of burnout in these stages and both nurses and researchers address these issues before subsequent levels of burnout increase.

Theoretical implications. There are five theoretical implications that arise from the present research. First, psychological empowerment can provide insight into the antecedents of burnout. Second, the concept of disparity between vocational aspirations and current performance can provide additional insight into how burnout develops. The present research found that disparity was more associated with burnout than both valued and current work performance for most empowerment-burnout associations. This is a novel finding in that no other studies have tested a disparity variable. Third, it is important to investigate the global computed measures of burnout and psychological empowerment. There have been no other studies which have computed a global measure of burnout, mainly because burnout had been originally conceptualized as high scores on emotional exhaustion and depersonalization, and low scores on personal accomplishment, thus making an additive burnout score difficult. However, in the present study a reversed personal accomplishment scores was created that when added to the other two burnout scales, resulted in a global burnout measure. This measure was the only burnout dimension associated with competence empowerment. Fourth, it may be useful to study the relationship between burnout and empowerment moderated by gender in more detail. In the present study, although dominance and affiliation gender

roles were not strong predictors of burnout by themselves, they did appear to interact

with psychological empowerment to influence burnout. Perhaps by increasing the

sample size or using other measures of gender role, this relationship can be elucidated.

Fifth, Maslach's operational definition of organizational causes of burnout needed to be

adapted to work environments of nurses. To get a better sense of the unique concerns of

nurses, additional categories were created (e.g., physician related concerns, on-going

education, patient concerns, and the impact of technology). Lastly, the present research

highlights the importance of studying both personal (e.g, empowerment and gender role)

and organization (e.g., work overload, lack of control) factors that contribute to burnout.

Many researchers focus on either personal or organizational outcomes, stating that one is

more predictive of burnout than the other (Duquette et al, 1995). However, the present

research illustrates the valuable information that can be obtained by studying both

organizational and individual antecedents of burnout.

Directions for Future Research

The present research suggests further study of the vocational and gender roles

variables related to burnout. First, it would be beneficial to replicate the present study to

ensure the accuracy and predictability of the results by including more nurses employed

in both long-term care and acute care health settings. Second, it would be useful to

examine the development of the "fit" between current and ideal psychological

empowerment. What individual and organization factors influence this "fit"? Third,

future research should focus on other moderating variables between empowerment and

burnout. Fourth, the present research found that perceived importance empowerment

was not related to burnout. Perhaps, perceived importance empowerment is related to other variables than burnout or maybe it is related to stress, but not Maslach's conceptualization of stress. Maslach's conceptualization of stress focuses on stress as a syndrome affecting current feelings of burnout. Perhaps, valued empowerment is related to stress as conceptualized decreased job satisfaction related to unattained goals.

Summary of Research

In summary, the present study investigated the psychological empowerment and gender role influences on Maslach and Jackson's (1986) conceptualization of burnout. Overall, the results indicated that in long-term care nurses, high psychological empowerment is related to low levels of burnout. Furthermore, a greater number of disparity dimensions of empowerment were related to burnout than both current and perceived importance empowerment alone.

Although dominance and affiliation gender roles were not strong predictors of burnout by themselves, they did appear to interact with psychological empowerment to influence burnout. Specifically, in nurses with high dominance, their emotional exhaustion increased with greater competence disparity and global disparity. They also reported greater depersonalization with greater self-determination disparity and impact disparity. In nurses with low dominance, their personal accomplishment increased with greater global current empowerment and decreased with greater global disparity. Nurse with a low affiliation role had high personal accomplishment with greater current impact and global current empowerment. However, they experienced less personal accomplishment with greater impact disparity and global disparity. Finally, nurses with

low affiliation reported less global burnout with greater current impact empowerment.

Lastly, the number of concerns reported in qualitative responses was related to increased levels of emotional exhaustion and global burnout. The most common concerns were work overload (21%), followed by lack of control (14%), and breakdown in community (12%).

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Appendix A

Questionnaire

QUESTIONNAIRE   A

We would appreciate about **1 hour** of your time to complete this questionnaire.
We are not requesting your signature for informed consent as this may identify you in this project.
Instead, by completing this questionnaire, you have understood:
☞ There are **no risks and benefits** associated with this research.
☞ **All your responses are confidential.** Each questionnaire is coded by only a letter.
☞ If you do not wish to answer a particular question, please omit this question and complete the remaining questions. Please return the completed questionnaire in the **self-addressed postmarked BROWN envelope** provided and **MAIL IT DIRECTLY TO THE RESEARCHERS** within two weeks (see address at end). **Please note that questions are on BOTH SIDES of the paper.**

PART A: Please answer the following background questions as indicated.

1. Age *(Please indicate)* → _____ years
2. Sex ☐ Female   ☐ Male

3. What is your educational background?
    1☐ RPN Certificate   3☐ RN Degree in Nursing
    2☐ RN Diploma   4☐ Other degree(s) or diploma(s): please specify
    _____

4. How many years have you worked as a nurse? *(Please indicate equivalent full-time years)* → ___years

5. Which of the below best describes your current employment status?
    1☐   Regular full-time
    2☐   Regular part-time
    3☐   Casual
    4☐   Temporary full-time
    5☐   Temporary part-time

6. What is your primary area of responsibility?
    1☐   Surgical   12☐   Critical care
    2☐   Medical   13☐   Ambulatory care
    3☐   Emergency care   14☐   Operating room
    4☐   Psychiatric/mental health   15☐   Rehabilitation
    5☐   Pediatric   16☐   Palliative care
    6☐   Oncology   17☐   Other *(Please specify)*
    7☐   Gerontology   _____
    8☐   Long-term care
    9☐   Community health   18☐   Combination of above
    10☐ Social services   *(Please specify)*
    11☐ Occupational health   _____

PART B:
Listed below are a number of self-descriptions that people may use to describe their role at work. Using the following scale, please indicate the extent to which you agree or disagree with each statement.

☞ Please answer each question based on how **IMPORTANT** it is in your **CAREER GOALS**, *REGARDLESS OF IF YOU ARE ACTUALLY ACHIEVING THESE GOALS.*

☞ For example, the statement may read "It is very important that I am confident about my ability to do my job." Choose "7" if you **VERY STRONGLY AGREE** that having confidence in your abilities is a *valuable and important professional goal that you strive to attain.* Please write the number in the space before the question.

In summary, please indicate below the importance of each statement in your ideal career goals.

1	2	3	4	5	6	7
Very Strongly Disagree	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Very Strongly Agree

7. _____. It is very important that I am confident about my ability to do my job. [a]

8. _____ It is very important that the work that I do is important to me. [c]

9. _____ It is very important that I have significant autonomy in determining how I do my job. [d]

10. _____ It is very important that my impact on what happens in my department is large. [b]

11. _____ It is very important that my job activities are personally meaningful to me. [c]

12. _____ It is very important that I have a great deal of control over what happens in my department. [b]

13. _____ It is very important that I can decide on my own how to go about doing my own work. [d]

14. _____ It is very important that I really care about what I do on my job. [c]

15. _____ It is very important that my job is well within the scope of my abilities. [a]

16. _____ It is very important that I have considerable opportunity for independence and freedom in how I do my job. [d]

17. _____ It is very important that I have mastered the skills necessary for my job. [a]

18. _____ It is very important that my opinion counts in departmental decision-making. [b]

19. _____ It is very important that the work I do is meaningful to me. [c]

20. _____ It is very important that I have significant influence over what happens in my department. [b]

21. _____ It is very important that I am self-assured about my capabilities to perform my work activities. [a]

22. _____ It is very important that I have a chance to use personal initiative in carrying out my work. [d]

Note. [a]Competence. [b]Impact. [c]Meaning. [d]Self-determination.

PART C:

The items below inquire about the kind of a person you think you are. Each item consists of a pair of characteristics, with the scale of 0-4 in between. For example:

Not at all artistic   0 . . . . . 1 . . . . . 2 . . . . . 3 4   Very Artistic

Each pair describes contradictory characteristics – that is, you cannot be both at the same time, such as very artistic and not at all artistic.

The numbers form a scale between the two extremes. You are to choose a number which describes where *you* fall on the scale. For example, if you think you have no artistic ability, you would choose *0*, if you think you are pretty good, you might choose *4*. If you are only medium, you might choose *2*, and so forth. *Please circle the number that best describes yourself for each question.*

[redacted]	[redacted]	[redacted]
24. Not at all independent	0 . . . . . 1 . . . . . 2 . . . . . 3 4	Very independent[a]
[redacted]	[redacted]	[redacted]
26. Very submissive	0 . . . . . 1 . . . . . 2 . . . . . 3 4	Very dominant[c]
27. Not at all excitable in a MAJOR crisis	[redacted]	[redacted] Very excitable in a MAJOR crisis[c]
28. Very passive	0 . . . . . 1 . . . . . 2 . . . . . 3 4	Very active[a]
29. Not at all able to devote self completely to others	0 . . . . 2 4	Able to devote self completely to others[b]
30. Very rough	0 . . . . . 1 . . . . . 2 . . . . . 3 4	Very gentle[b]
31. [redacted] to others	[redacted]	[redacted] to others
32. Not at all competitive	0 . . . . . 1 . . . . . 2 . . . . . 3 4	Very competitive[a]
33. [redacted]	[redacted]	[redacted]
34. Not at all kind	0 . . . . . 1 . . . . . 2 . . . . . 3 4	Very kind[b]
35. Indifferent to others' approval	[redacted]	Highly needful of others' approval
36. Feelings not easily hurt	0 . . . . . 1 . . . . . 2 . . . . . 3 4	Feelings easily hurt[c]
37. Not at all aware of others' feelings	[redacted]	More aware of others' feelings[b]
38. Can make decisions easily	0 . . . . . 1 . . . . . 2 . . . . . 3 4	Has difficulty making decisions easily[a]
39. Gives up very easily	[redacted]	[redacted]
40. Never cries	0 . . . . . 1 . . . . 2 . . . . . 3 4	Cries very easily[c]
41. Not at all self-confident	[redacted]	[redacted]
42. Feels very inferior	0 . . . . . 1 . . . . . 2 . . . . . 3 4	Feels very superior[a]
43. Not at all understanding	[redacted]	Very understanding of others
44. Very cold in relations with others	0 . . . . . 1 . . . . . 2 . . . . . 3 4	Very warm in relations with others[b]
45. Very little need for security	[redacted]	Very strong need for security
46. Goes to pieces under pressure	0 . . . . . 1 . . . . . 2 . . . . . 3 4	Stands up well under pressure[a]

Note. [a]Dominance. [b]Affiliation. [c]Sex-specific (Masculine-, feminine-valued).

PART D:
The following are statements of job-related feelings. Please read each statement carefully and decide if you have ever felt this way ABOUT YOUR JOB. If you have never had this feeling, write a "0" (zero) in the space before the statement. If you have had this feeling, indicate HOW OFTEN you have felt it by writing the number (from 1-to-6) that best describes how frequently you have felt that way.

0	1	2	3	4	5	6
never	a few times a year or or less	once a month or less	a few times a month	once a week	a few times a week	every day

47. _____ I feel emotionally drained from my work. [a]
48. _____ I feel used up at the end of the workday. [a]
49. _____ I feel fatigued when I get up in the morning and have to face another day on the job. [a]
50. _____ I can easily understand how members of the public feel about things. [c]

51. _____ I feel that I treat some members of the public as if they were impersonal objects. [a]
52. _____ Working with people all day is really a strain for me. [a]
53. _____ I deal very effectively with the problems of members of the public. [c]
54. _____ I feel burned out from my work. [a]

55. _____ I feel that I'm positively influencing others people's lives through my work. [c]
56. _____ I've become more callous toward people since I took this job. [b]
57. _____ I feel that this job is hardening me emotionally. [b]
58. _____ I feel very energetic. [c]

59. _____ I feel frustrated by my job. [a]
60. _____ I feel that I'm working too hard on my job. [a]
61. _____ I don't really care what happens to some members of the public. [b]
62. _____ Working with people directly puts too much stress on me. [a]
63. _____ I can easily create a relaxed atmosphere with members of the public. [c]

64. _____ I feel exhilarated after working closely with members of the public. [c]
65. _____ I have accomplished many worthwhile things in this job. [c]
66. _____ I feel like I'm at the end of my rope. [a]
67. _____ In my work, I deal with emotional problems very calmly. [c]
68. _____ I feel that members of the public blame me for some of their problems. [b]

Note. [a]Emotional exhaustion. [b]Depersonalization. [c]Personal accomplishment.

PART E:

Listed below are a number of self-descriptions that people may use to describe their role at work. Using the following scale, please indicate the extent to which you agree or disagree with each statement.

☞ Please answer each question based on how you are CURRENTLY FEELING ABOUT YOUR WORK Please do not refer to other questions in this questionnaire to answer these questions.
 ☞ For example, the statement may read "Currently, I am confident about my ability to do my job." Choose "7" if you VERY STRONGLY AGREE that you currently feel confident about your abilities at work. Please write the number in the space before the question.

In summary, please indicate below your current feelings about your work performance.

1	2	3	4	5	6	7
Very Strongly Disagree	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Very Strongly Agree

69. ____ Currently, I am confident about my ability to do my job. [a]
70. ____ Currently, the work that I do is important to me. [c]
71. ____ Currently, I have significant autonomy in determining how I do my job. [d]

72. ____ Currently, my impact on what happens in my department is large. [b]
73. ____ Currently, my job activities are personally meaningful to me. [c]
74. ____ Currently, I have a great deal of control over what happens in my department. [b]

75. ____ Currently, I can decide on my own how to go about doing my own work. [d]
76. ____ Currently, I really care about what I do on my job. [c]
77. ____ Currently, my job is well within the scope of my abilities. [a]

78. ____ Currently, I have considerable opportunity for independence and freedom in how I do my job. [d]
79. ____ Currently, I have mastered the skills necessary for my job. [a]
80. ____ Currently, my opinion counts in departmental decision-making. [b]

81. ____ Currently, the work I do is meaningful to me. [c]
82. ____ Currently, I have significant influence over what happens in my department. [b]
83. ____ Currently, I am self-assured about my capabilities to perform my work activities. [a]
84. ____ Currently, I have a chance to use personal initiative in carrying out my work. [d]

Note. [a]Competence. [b]Impact. [c]Meaning. [d]Self-determination.

PART F:

85. Please describe BELOW your *most significant* concerns that are impacting on your work that are not covered by the above questions. If you need additional space, please use the blank page at the end of the questionnaire or attach an additional sheet.

Thank you very much for your assistance in this survey. If you would like a copy of the results please *PRINT your NAME (optional) and ADDRESS* on the enclosed self-adhesive LABEL. Please place the unpeeled label INSIDE the WHITE envelope, and mail it separately from the questionnaire. Please feel free to add any additional comments below.

Please seal and return the completed questionnaire in the BROWN self-addressed stamped envelope
provided directly to:

Jennine Rawana, HBSc   or Dwight Mazmanian, Ph.D., C. Psych.
MA Clinical Psychology Candidate   Associate Professor
Department of Psychology   Psychology Department
Lakehead University   Lakehead University
955 Oliver Road   955 Oliver Road
Thunder Bay, Ontario P7E 5B1   Thunder Bay, Ontario P7E 5B1
Phone: (807) 939-1806   Phone: (807) 343-8257
Email: rawana@tbaytel.net   Email: dwight.mazmanian@lakeheadu.ca

Appendix B

Introduction Letter to President of St. Joseph's Care Group

Lakehead
UNIVERSITY

Tel. (807) 343-8441
Fax (807) 346-7734

25 April 2000

Mr. Carl White
President of St. Joseph's Care Group
63 Carrie Street
Thunder Bay, ON P7A 4J2

Dear Mr. White,

We are writing to request your assistance in a research project that we are conducting on nurses and job stress. Jennine Rawana is currently in the Masters of Arts program in Psychology at Lakehead University, and undertaking this project as her thesis. Dr. Mazmanian is a faculty member of the Psychology Department, a registered clinical psychologist, and the supervisor of this project.

The purpose of our present research is to investigate the relationship between psychological empowerment and job stress as moderated by gender role orientation in nurses. Participants in this study will be registered nurses employed by the St. Joseph's Hospital. Information collected on the nurses will include measures of gender role orientation, burnout, and psychological empowerment. For more details about our research, please refer to the attached research proposal.

We would be interested in distributing questionnaires to randomly chosen nurses employed at St. Joseph's Hospital. We would not be meeting directly with any nurses at St. Joseph's Hospital. Rather, we are requesting permission to distribute our questionnaires in collaboration with Ms. Tracy Buckler, VP and Chief Nursing Officer at St. Joseph's Care Group. We have already had an introductory meeting with Mrs. Verna Ortgise, and she suggested that Ms. Buckler be the primary contact person at St. Joseph's Hospital. We are very appreciative of this suggestion.

All the data that we record will be kept confidential and anonymous, and in accordance with the regulations at Lakehead University, will be kept in secure storage at Lakehead University for a period of 7 years. After that, it will be destroyed. We will not code any identifying information from nurses. Instead, each nurse will be identified with a numerical code.

955 Oliver Road Thunder Bay Ontario Canada P7B 5E1 www.lakeheadu.ca

We are presently undergoing the process of obtaining ethics approval from Lakehead University. We will also go through ethics procedures at St. Joseph's Care Group, if our request to distribute questionnaires to nurses is considered. We will comply with any procedure that you deem necessary to protect the confidentiality of your cases.

We will be very pleased to share the results of our work with St. Joseph's Care Group and Hospital if you are interested. This study will proceed only after ethics approval from St. Joseph's Hospital, and Lakehead University.

We very much hope that you will consider our request. We would be most pleased to answer any questions that you have. Please feel free to contact Ms. Jennine Rawana or Dr. Mazmanian (please see our telephone numbers below). Thank you very much for time and consideration in this matter.

Sincerely,

Ms. Jennine Rawana, HBSc
MA Clinical Psychology Candidate
Psychology Department
Lakehead University
Phone: (807) 939-1806 (h)
Email: rawana@tbaytel.net

Dwight Mazmanian, Ph.D., C. Psych.
Associate Professor/Clinical Psychologist
Psychology Department
Lakehead University
Phone: (807) 343-8257
Email: dwight@mazmanian.lakeheadu.ca

Appendix C

Introduction Letter to Director of Research and Education at St. Joseph's Care Group

Lakehead
U N I V E R S I T Y

Tel. (807) 343-8441
Fax (807) 346-7734

25 April 2000

Mrs. Verna Ortgise
Nursing Research and Education
St. Joseph's Hospital
35 Algoma Street
Thunder Bay, ON P7B 5G6

Dear Mrs. Ortgise,

We are writing as a follow-up to our meeting about the research project that we are conducting on nurses and job stress. As you may remember, Jennine Rawana is currently in the Masters of Arts program in Psychology at Lakehead University, and undertaking this project as her thesis. Dr. Mazmanian is a faculty member of the Psychology Department, a registered clinical psychologist, and the supervisor of this project.

The purpose of our present research is to investigate the relationship between psychological empowerment and job stress as moderated by gender role orientation in nurses. Participants in this study will be registered nurses employed by the St. Joseph's Hospital. Information collected on the nurses will include measures of gender role orientation, burnout, and psychological empowerment. For more details about our research, please refer to the attached research proposal.

We would be interested in distributing questionnaires to randomly chosen nurses employed at St. Joseph's Hospital. We would not be meeting directly with any nurses at St. Joseph's Hospital. Rather, we are requesting permission to distribute our questionnaires in collaboration with Ms. Tracy Buckler, as you suggested. We are very appreciative of this suggestion and look forward to her added expertise to this project.

All the data that we record will be kept confidential and anonymous, and in accordance with the regulations at Lakehead University, will be kept in secure storage at Lakehead University for a period of 7 years. After that, it will be destroyed. We will not code any identifying information from nurses. Instead, each nurse will be identified with a numerical code.

We are presently undergoing the process of obtaining ethics approval from Lakehead University. We will also go through ethics procedures at St. Joseph's Care Group, if our request to distribute questionnaires to nurses is considered. We will comply with any procedure that you deem necessary to protect the confidentiality of your cases.

We will be very pleased to share the results of our work with St. Joseph's Care Group and Hospital if you are interested. This study will proceed only after ethics approval from St. Joseph's Hospital, and Lakehead University.

We very much hope that you will consider our request. We would be most pleased to answer any questions that you have. Please feel free to contact Ms. Jennine Rawana or Dr. Mazmanian (please see our telephone numbers below). Thank you very much for time and consideration in this matter.

Sincerely,

Ms. Jennine Rawana, HBSc
MA Clinical Psychology Candidate
Psychology Department
Lakehead University
Phone: (807) 939-1806 (h)
Email: rawana@tbaytel.net

Dwight Mazmanian, Ph.D., C. Psych.
Associate Professor/Clinical Psychologist
Psychology Department
Lakehead University
Phone: (807) 343-8257
Email: dwight@mazmanian.lakeheadu.ca

Appendix D

Introduction Letter to Director of Care at Versa Care

Lakehead
U N I V E R S I T Y

9 August 2000

Tel.:(807) 343-8441
Fax (807) 346-7734

Ms. Kathy Simpson
Director of Care
Versa-Care Centre
135 Vickers St. S.
Thunder Bay, ON P7E 1J2

Dear Ms. Simpson,

     I am writing to thank you for your assistance in the research project that I am conducting on nurses and job stress. I am currently in the Masters of Arts program in Clinical Psychology at Lakehead University, and undertaking this project as my thesis. Dr. Mazmanian, my supervisor, is a faculty member of the Psychology Department, and a registered clinical psychologist.

     The purpose of this present research is to investigate the relationship between psychological empowerment and job stress as moderated by gender role orientation in nurses. Participants in this study will be registered nurses employed by Versa Care. Information collected on the nurses will include measures of gender role orientation, burnout, and psychological empowerment. For more details about this research, please refer to the attached research proposal.

     As I stated over the phone, I hope to distribute questionnaires to all professional nurses employed at Versa Care. I will not be meeting directly with any nurses at Versa Care. Rather, I will be distributing the questionnaires indirectly with your assistance.

     All the data that I record will be kept confidential and anonymous, and in accordance with the regulations at Lakehead University, will be kept in secure storage at Lakehead University for a period of 7 years. After that, it will be destroyed. I will not code any identifying information from nurses. Instead, each nurse will be identified with a numerical code.

     I have already obtained ethics approval from Lakehead University. I will comply with any procedure that you deem necessary to protect the confidentiality of your nurses. I will be very pleased to share the results of this work with Versa Care and to answer any questions that you have. Please feel free to contact myself (see phone number below) or Dr. Mazmanian (Psychology Department, Lakehead University, phone: (807) 343-8257 or dwight.mazmanian@lakeheadu.ca). Thank you very much for your time and consideration in this matter.

Sincerely,

Ms. Jennine Rawana, HBSc
MA Clinical Psychology Candidate
Psychology Department
Lakehead University
Phone: (807) 939-1806 (h); Email: rawana@tbaytel.net

Appendix E

Ethical Approval Letter from Lakehead University

19 May 2000

Ms. Jennine Rawana
Department of Psychology
Lakehead University
THUNDER BAY, ONTARIO
P7B 5E1

Dear Ms. Rawana:

Based on the recommendation of the Research Ethics Board, I am pleased to grant ethical approval to your research project entitled: THE RELATIONSHIP BETWEEN BURNOUT, PSYCHOLOGICAL EMPOWERMENT AND GENDER ROLE ORIENTATION IN NURSES.

Best wishes for a successful research project.

Sincerely,

Dr. Richard Maundrell
Acting Chair, Research Ethics Board

/lw

cc: Dr. D. Mazmanian, Supervisor

Appendix F

Ethical Approval Letter from St. Joseph's Care Group

ST. JOSEPH'S CARE GROUP

CORPORATE OFFICE

P.O. Box 3251, 35 N. Algoma Street, Thunder Bay, Ontario - P7B 5G7 • Tel. (807) 343-2431 • Fax (807) 345-4994
Web Site: www.sjcg.net

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• MEDICAL & FUNCTIONAL EVALUATIONS
• PSYCHOLOGICAL AND
    NEUROPSYCHOLOGICAL ASSESSMENTS

DIABETES HEALTH THUNDER BAY
• COMMUNITY PROGRAMS
• DIABETES EDUCATION

• LONG TERM CARE
• LONGER TERM MENTAL HEALTH

May 18, 2000

Jennine Rawana
Department of Psychology
Lakehead University
955 Oliver Road,
Thunder Bay, ON   P7B 5E1

Dear Ms. Rawana:

Re: Research Proposal - The Relationship Between Burnout, Psychological
      Empowerment, and Gender Role Orientation in Nurses

On May 17, 2000, the Board of Directors of St. Joseph's Care Group, on the
recommendation of the Ethics Committee, approved the above research proposal
pending approval from the Ethics Committee at Lakehead University and the
following amendments in the submission process.

The Ethics Committee made the following requests: that the questionnaire
include a stamped, self-addressed envelope to make the submission of the
questionnaire by the nurses more direct instead of involving their supervisors;
and, that it be stressed in the letter that by doing the questionnaire, the nurses
have given their consent that the information contained therein can be used in
the study.

Sincerely,

ST. JOSEPH'S CARE GROUP

Carl White, CHE
President.
:cm
cc: T. Buckler

Appendix G

Informed Consent Letter

Lakehead
U N I V E R S I T Y

Tel. (807) 343-8441
Fax (807) 346-7734

June 2000

Dear Colleague,

We are conducting a research project on stress and job satisfaction in professional nurses in Thunder Bay. In order to better understand the experiences of nurses in today's health care system, we are very much interested in your views. We are investigating the different factors affecting burnout such as personal factors (e.g., years of experience, perceptions of work) and organizational factors (e.g., shift work, hospital restructuring).

The reason we are contacting you is that we hope you can help us out. We have randomly selected nurses to complete this questionnaire on burnout. The questionnaire will take approximately one hour to complete. If you agree to participate, please complete the questionnaire and mail it in the brown post marked envelope provided within two weeks of receipt to the researchers.

Your participation in this study is totally voluntary. You may choose not to participate. No one will know whether you did or did not participate. If you choose to participate, there are no psychological or physical risks or benefits associated with completing the questionnaire. Also, you are free to choose not to answer any specific questions. To ensure anonymity of response, the study has been designed so that no individual can link names to responses. There is nothing in the questionnaire that can identify you. All your responses will be kept confidential and anonymous. We will not be looking at any individual responses. Instead, we will look at overall responses to this study. Your responses will not effect your employment. The data that we collect will be kept in a secure and confidential storage at Lakehead University for a period of 7 years. After that, it will be destroyed. No individual response will be identified in any research publication resulting from this study. If you agree to participate, we ask that you *retain* this letter for your information or if you would like to contact the researchers in the future. **Lastly, by completing the questionnaire, you have given informed consent to participate in this study. This means that by doing the questionnaire, you have given your consent that the information contained in your responses can be used in the study.** We are not asking you to sign an informed consent form because this may identify you when you return your questionnaire to the researchers below.

If you are interested in a summary of the results of the study, we would be more than happy to share this with you at the end of the study. **To request a summary of the results, please print your NAME (optional) and ADDRESS on the enclosed self-adhesive LABEL. Please place the unpeeled label INSIDE the white envelope, and mail it separately from the questionnaire.** If you have any questions or concerns regarding the study, please feel free to contact Ms. Jennine Rawana or Dr. Dwight Mazmanian at Lakehead University. We thank you very much for taking the time and effort to consider our requests.

Sincerely,

Ms. Jennine Rawana, HBSc
MA Clinical Psychology Candidate
Psychology Department
Lakehead University
Phone: (807) 939-1806 (h)
Email: **rawana@tbaytel.net**

Dwight Mazmanian, Ph.D., C. Psych.
Associate Professor
Psychology Department
Lakehead University
Phone: (807) 343-8257
Email: **dwight.mazmanian@lakeheadu.ca**

Appendix H

Follow-Up Letter

Lakehead
U N I V E R S I T Y

Tel. (807) 343-8441
Fax (807) 346-7734

DATE

Dear Colleagues,

Recently, we distributed to you and many other nurses a questionnaire and information letter for our research project on the factors affecting burnout in nurses. You were given a questionnaire in the hope that you would agree to help us out by completing the questionnaire and returning it directly to the researchers in the self-addressed postmarked envelope.

We are sending this letter out to every nurse who received our questionnaire and information letter to inform you that several of you have completed and returned the questionnaire to us. We would like to thank you very much for your invaluable assistance. We would like to reassure you that your questionnaire was mailed directly to us to preserve your anonymity. Also, all your responses were kept confidential as nobody except us had access to your materials.

If you have not filled in the research questionnaire, we hope that you will consider doing so and mail the questionnaire to us directly, preferably within a week's time. If you have misplaced the questionnaire or the information letter, please contact your supervisor or Mrs. Verna Ortgise (Nursing Education) at St. Joseph's Care Group. These individuals can forward another copy to you.

We hope to collect all questionnaires back from participating nurses within a couple of weeks. If you have requested a summary of the results of our study, we will be forwarding them to you in a few months' time after the project has been completed.

Once again, thank you so much for your help in this study. If you wish to have more information, please do not hesitate to contact either of us (see below). We will be happy to clarify any questions you have. Thank you.

Sincerely,

Ms. Jennine Rawana, HBSc
MA Clinical Psychology Candidate
Psychology Department
Lakehead University
Phone: (807) 939-1806 (h)
Email: **rawana@tbaytel.net**

Dwight Mazmanian, Ph.D., C. Psych.
Associate Professor
Psychology Department
Lakehead University
Phone: (807) 343-8257
Email: **dwight.mazmanian@lakeheadu.ca**

955 Oliver Road Thunder Bay Ontario Canada P7B 5E1 www.lakeheadu.ca

Table 1

Demographic Variables: Means (Standard Deviations) by Health Facility

Demographic Variables	Health Facility		
	St. Joseph's Hospital	Versa Care	TOTAL
Age	42.66 (8.45)	40.10 (10.68)	42.37 (8.70)
Number of years worked	16.45 (8.90)	10.67 (7.81)	15.88 (8.93)

Table 2

Categorical Demographic Variables and Number of Participants (Percentages) by Health Facility

Demographic Variable	Versa Care	St. Joseph's	TOTAL
1. Sex			
Female	10 (10%)	84 (88%)	94 (98%)
Male	0 (0%)	2 (2%)	2 (2%)
2. Educational Background			
RPN Certificate	4 (40%)	35 (41%)	39 (41%)
RN Diploma	6 (60%)	36 (42%)	42 (44%)
RN Degree in Nursing	0 (0%)	17 (20%)	17 (18%)
Other degree(s) or diploma(s)	1 (10%)	21 (25%)	22 (23%)
3. Current Employment Status			
Regular full-time	6 (60%)	49 (58%)	55 (57%)
Regular part-time	4 (40%)	30 (35%)	34 (35%)
Casual	1 (10%)	8 (9%)	9 (9%)
Temporary full-time	0 (0%)	2 (2%)	2 (2%)
Temporary part-time	0 (0%)	4 (5%)	4 (4%)
4. Primary area of expertise			
Long-term Care	10 (100%)	32 (38%)	42 (44%)
Gerontology	3 (30%)	28 (33%	31 (32%)
Rehabilitation	0 (0%)	20 (24%)	20 (21%)
Palliative	2 (20%)	14 (16%)	16 (17%)
Mental Health	0 (0%)	14 (16%)	14 (15%)
Medical	1 (10%)	9 (11%)	10 (10%)
Surgical	0 (0%)	2 (2%)	2 (3%)
Emergency	0 (0%)	2 (2%)	2 (3%)
Community Health	0 (0%)	1 (1%)	1 (1%)
Other	0 (0%)	16 (19%)	16 (17%)

Table 3

Means. Standard Deviations (SD). and Reliabilities for Empowerment. Burnout. and Gender

Role Variables

Variable/Scales	Mean (SD)	Cronbach's Alpha
Current empowerment		
Competence (ECc)	25.03 (12.11)	.86
Impact (ECi)	15.87 (6.30)	.96
Meaning (ECm)	22.24 (5.19)	.94
Self-determination (ECs)	20.99 (4.79)	.89
Global (GEC)	82.88 (15.95)	
Perceived importance empowerment		
Competence (EPIc)	25.87 (2.26)	.87
Impact (EPIi)	21.16 (3.73)	.86
Meaning (EPIm)	24.29 (3.25)	.92
Self-determination (EPIs)	23.80 (3.31)	.87
Global (GEPI)	95.14 (10.10)	
Disparity between current and perceived importance		
Competence (Dec)	1.95 (3.09)	
Impact (Dei)	5.29 (6.28)	
Meaning (Dem)	2.10 (4.90)	
Self-determination (Des)	2.81 (4.32)	
Global (TDe)	12.23 (14.62)	
Burnout		
Emotional exhaustion (EE)	25.03 (12.12)	.92
Personal accomplishment (PA)	33.40 (7.61)	.72
Depersonalization (DE)	7.20 (5.65)	.71
Reversed personal accomplishment (revPA)	14.60 (7.61)	
Global (Gburn)	46.98 (20.28)	
Gender role		
Dominance (Dom)	21.98 (3.97)	.75
Affiliation (Affil)	25.55 (4.06)	.79
Sex-specific (Masculine/Feminine Valued or M-F)	14.50 (3.13)	.36

Note. Computed variables are italicized.

Table 4

Truncated Scores

Variable (Subject Number)	Old Score	Truncated New Score
current empowerment *mastery* (54)	4	6
current empowerment *mastery* (69)	4	6
current empowerment *self-determination* (69)	4	6
perceived importance empowerment *competence* (69)	4	17
perceived importance empowerment *impact* (69)	9	10
perceived importance empowerment *meaning* (69)	4	13
perceived importance empowerment *self-determination* (69)	4	13
depersonalization (96)	27	24
affiliation gender role (17)	13	14

Table 5

Overall Pearson Correlations

	1	2	3	4	5	6	7	8	9	10	11
1. ECc		.28*	.48**	.60**	.66**	.50**	.26*	.47**	.48**	.51**	-.77**
2. ECi			.55**	.65**	.83**	.05	.30*	.21	.28*	.28*	-.29*
3. ECm				.57**	.82**	.31*	.10	.40**	.23	.31*	-.32*
4. ECs					.87**	.27*	.21	.37**	.48**	.42**	-.49**
5. GEC						.31**	.28*	.42**	.43**	.45**	-.52**
6. EPIc							.34**	.59**	.50**	.70**	.17
7. EPIi								.44**	.66**	.80**	-.04
8. EPIm									.59**	.81**	-.10
9. EPIs										.87**	-.17
10. GEPI											-.07
11. Dec											
12. Dei											
13. Dem											
14. Des											
15. GDE											
16. EE											
17. DE											
18. PA											
19. RevPA											
20. Gburn											
21. Dom											
22. Affil											

Note. See Table 3 for full variable names for abbreviated variables above.
*$p < .01$, **$p < .001$.

Table 5 continued

Overall Pearson Correlations

	12	13	14	15	16	17	18	19	20	21	22
1. ECc	-.13	-.19	-.30**	-.37**	-.26	-.26	.22	-.22	-.30**	.25*	.12
2. ECi	-.82**	-.45**	-.50**	-.71**	-.40**	-.44**	.33**	-.33**	-.49**	.22	.04
3. ECm	-.50**	-.80**	-.46**	-.68**	-.45**	-.53**	.25	-.25	-.52**	.08	.15
4. ECs	-.52**	-.36**	-.74**	-.66**	-.35**	-.24	.27*	-.27*	-.37**	.24	.05
5. GEC	-.67**	-.59**	-.63**	-.78**	-.46**	-.48**	.34**	-.34**	-.54**	.23	.10
6. EPIc	.16	.07	.08	.15	-.01	.09	.01	-.01	.01	.05	.14
7. EPIi	.30*	.19	.27*	.26*	.11	.16	.08	-.08	.08	.08	-.10
8. EPIm	.06	.24	.05	.11	-.13	-.07	.17	-.17	-.16	.07	.19
9. EPIs	.12	.15	.24	.15	-.07	.14	.18	-.18	-.06	.19	-.11
10. GEPI	.20	.21	.21	.21	-.03	.10	.14	-.14	-.04	.12	.02
11. Dec	.26*	.27*	.40**	.53**	.29*	.37**	-.24	.24	.36**	-.25*	-.03
12. Dei		.56**	.66**	.87**	.48**	.54**	-.29*	.29*	.55**	-.17	-.10
13. Dem			.52**	.79**	.42**	.54**	-.15	.15	.47**	-.04	-.04
14. Des				.84**	.34**	.37**	-.16	.16	.37**	-.12	-.14
15. GDE					.52**	.60**	-.27*	.27*	.60**	-.17	-.10
16. EE						.65**	-.37**	.37**	.91**	-.13	-.15
17. DE							-.24	.24	.78**	-.11	-.27*
18. PA								-1.0**	-.68**	.38**	.21
19. RevPA									.68**	-.38**	-.21
20. Gburn										-.25*	-.24
21. Dom											.24
22. Affil											

Note. See Table 4 for full variable names for abbreviated variables above.
*$p < .01$, **$p < .001$.

Table 6a

Hypotheses One and Two Correlations

Burnout subscale/ Empowerment Subscale	Empowerment		
	Perceived Importance	Current	Disparity between *Current* and *Perceived Importance*
Emotional Exhaustion			
Competence	-.01	-.26*	.29**
Impact	.11	-.40***	.48***
Meaning	-.13	-.45***	.42***
Self-determination	-.07	-.35***	.34***
Depersonalization			
Competence	.09	-.26*	.37***
Impact	.16	-.44***	.54***
Meaning	.07	-.53***	.54***
Self-determination	.14	-.24*	.37***
Personal Accomplishment			
Competence	.01	.22*	-.24*
Impact	.08	.33***	-.29**
Meaning	.17	.25*	-.15
Self-determination	.18	.27**	-.16
Global Burnout			
Competence	.01	-.30***	.36***
Impact	.08	-.49***	.55***
Meaning	-.16	-.52***	.47***
Self-determination	-.06	-.37***	.37***

*p < .05. **p < .01. ***p < .001.

Table 6b

Hypothesis Two Correlations

Burnout subscale	Global Empowerment		
	Perceived Importance	Current	Disparity between *Current* and *Perceived Importance*
Emotional Exhaustion	-.03	-.46***	.52***
Depersonalization	.10	-.48***	.60***
Personal Accomplishment	.14	.34***	-.27**
Global Burnout	-.04	-.54***	.60***

**p < .01. ***p < .001.

Table 7

Summary of Stepwise Multiple Regression for Variables Comparing Disparity Empowerment and

Burnout Correlations with Current Empowerment and Burnout Correlations.

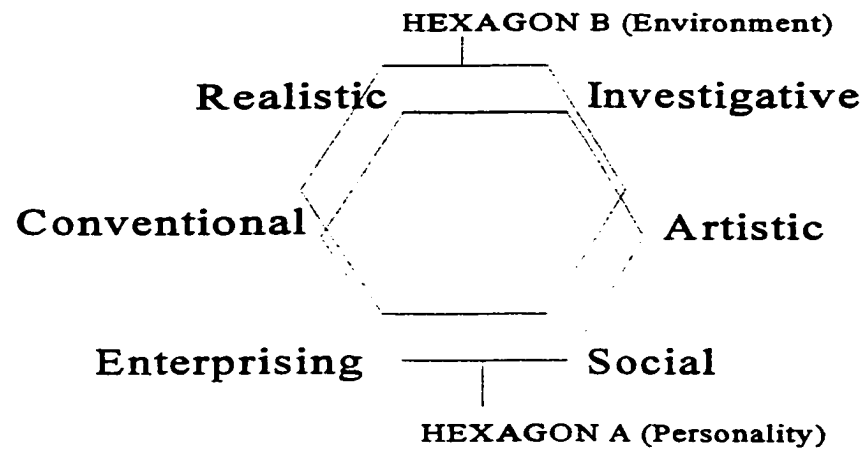| Predicted Variable	Significant Empowerment Variable	B	SE B	β	R²
Emotional exhaustion	Competence disparity	1.15	.40	.29	.086
Emotional exhaustion	Impact disparity	.92	.18	.48	.228
Emotional exhaustion	Global disparity	.43	.08	.52	.273
Depersonalization	Competence disparity	.68	.18	.37	.139
Depersonalization	Impact disparity	.49	.08	.54	.292
Depersonalization	Meaning disparity	.62	.10	.54	.288
Depersonalization	Self-determination disparity	.49	.13	.37	.138
Depersonalization	Global disparity	.23	.03	.60	.360
Global burnout	Competence disparity	2.38	.66	.36	.132
Global burnout	Impact disparity	1.78	.29	.55	.304
Global burnout	Global disparity	.83	.12	.60	.360
Emotional exhaustion	Current meaning	-1.06	.22	-.45	.204
Emotional exhaustion	Current self-determination	-.88	.25	-.35	.102
Personal accomplishment	Current impact	.40	.12	.33	.110
Personal accomplishment	Current self-determination	.43	.17	.27	.073
Personal accomplishment	Global current	.16	.05	.34	.116
Global burnout	Current self-determination	-1.58	.42	-.37	.140
Global burnout	Current meaning	-2.02	-.36	-.52	.266

Table 8

Summary of Hierarchical Regression Analyses for Dominance Variables Moderating the

Relationship between Empowerment and Burnout.

IDV	DV	Moderator	Bivariate Association	R^2	R^2 Change	Partial Correlation
Current empowerment self- determination	PA	Dominance	.27*	.180	.052	-.25*
Global current empowerment	PA	Dominance	.34**	.213	.037	-.22*
Disparity empowerment competence	EE	Dominance	.29**	.088	.042	.21*
Disparity empowerment impact	DE	Dominance	.54**	.293	.043	.25*
Disparity empowerment self-determination	DE	Dominance	.37**	.144	.039	.21*
Global disparity empowerment	EE	Dominance	.52**	.274	.031	.21m
Global disparity empowerment	PA	Dominance	-.27**	.189	.046	.24*

Note. m = marginally significant.
EE = Emotional Exhaustion. DE = Depersonalization. PA = Personal Accomplishment.
*p < .05. **p < .01.

Table 9

Summary of Hierarchical Regression Analyses for Affiliation Variables Moderating the Relationship

between Empowerment and Burnout.

IDV	DV	Moderator	Bivariate Association	R^2	R^2 Change	Partial Correlation
Current empowerment *impact*	PA	Affiliation	.33**	.150	.041	-.22*
Current empowerment *impact*	Global Burnout	Affiliation	-.49**	.274	.030	.20m
Current empowerment *self-determination*	PA	Affiliation	.27*	.117	.052	-.24*
Global current empowerment	PA	Affiliation	.34**	.149	.041	-.22*
Disparity empowerment *impact*	PA	Affiliation	-.29**	.120	.047	.23*
Global disparity empowerment	PA	Affiliation	-.27**	.109	.039	.21m

Note. m = marginally significant (see Results).
PA = Personal Accomplishment subscale.
*p < .05. **p < .01.

HEXAGON B (Environment)

Realistic _____ Investigative

Conventional _____ Artistic

Enterprising _____ Social

HEXAGON A (Personality)

Figure 1. Hexagonal model of Holland's Typology.
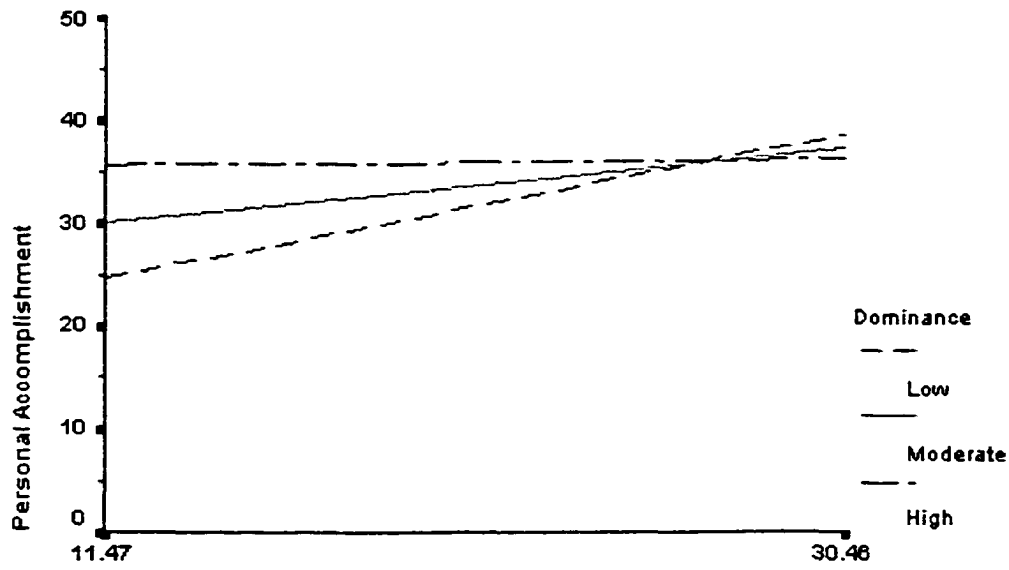
Figure 2. The relationship between current self-determination empowerment and personal accomplish. (burnout) by dominance.
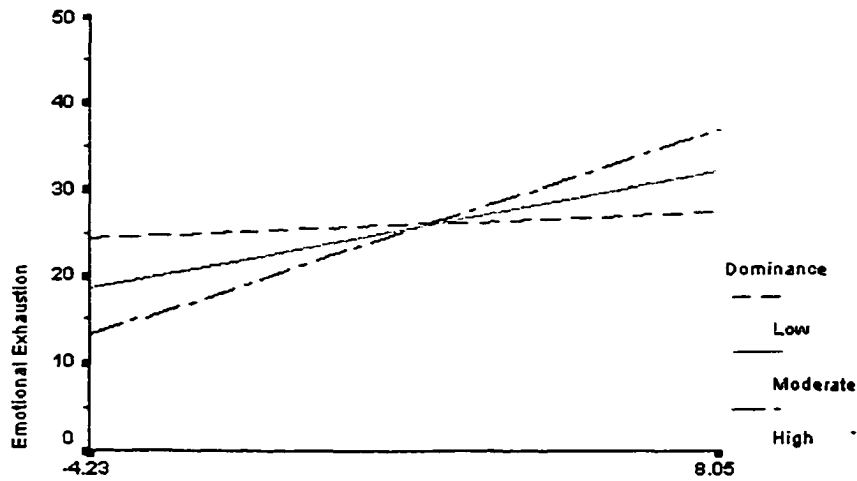
Figure 3. The relationship between disparity competence empowerment and emotional exhaustion (burnout) by dominance.
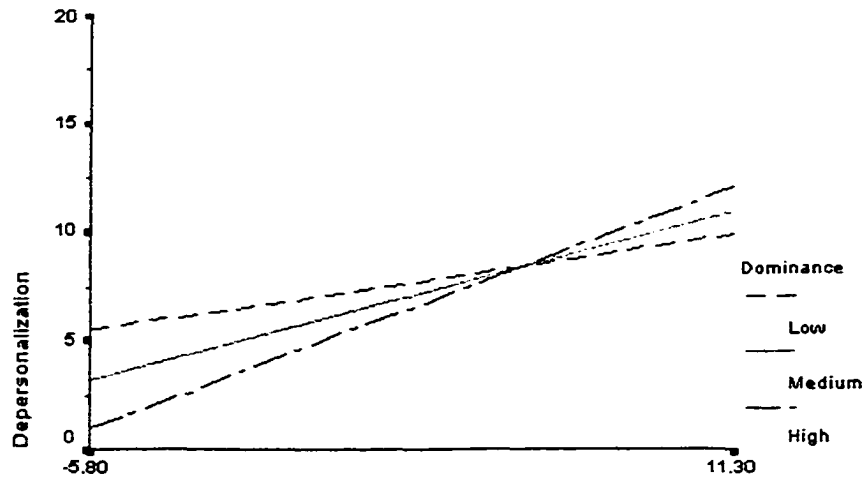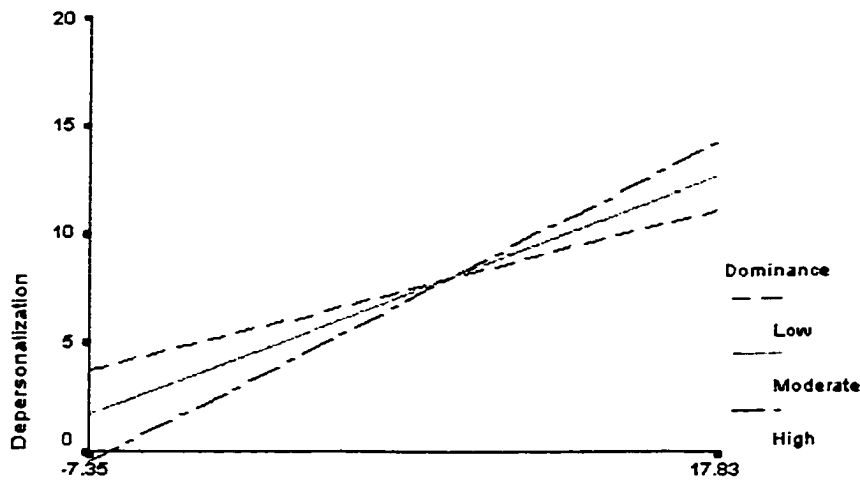
Disparity Self-Determination Empowerment

Figure 4. The relationship between disparity self-determination empowerment and depersonalization (burnout) by dominance.
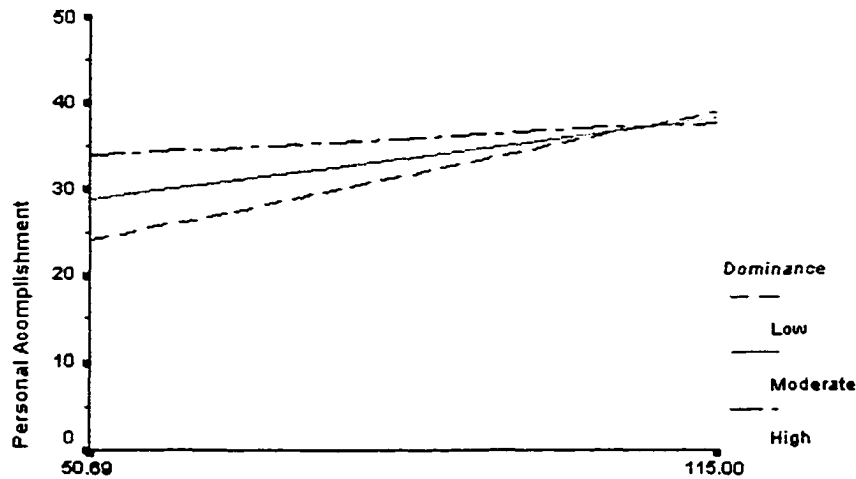
Global Current Empowerment
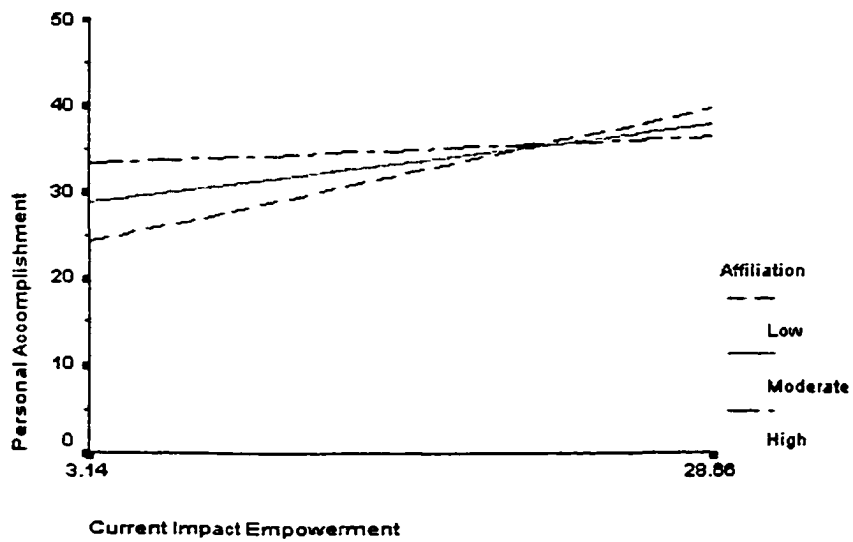
Figure 5. The relationship between global current empowerment and personal accomplishment (burnout) by dominance.

Figure 6. The relationship between disparity impact
empowerment and depersonalization (burnout) by dominance.
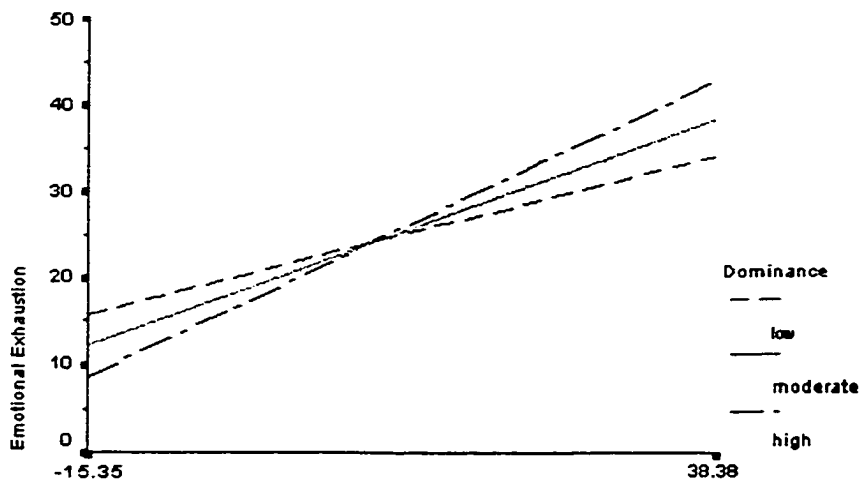
Figure 7. The relationship between global disparity empowerment
and emotional exhaustion (burnout) by dominance.

Global Disparity Empowerment
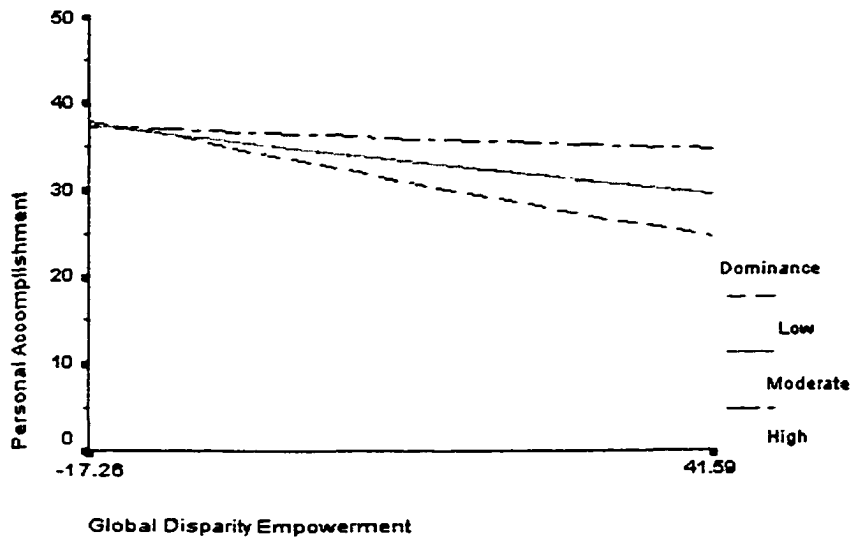
Figure 8. The Relationship between global disparity empowermer
and personal accomplishment (burnout) by dominance.

Current Impact Empowerment

Figure 9. The Relationship between current impact empowerment
and personal accomplishment (burnout) by affiliation.
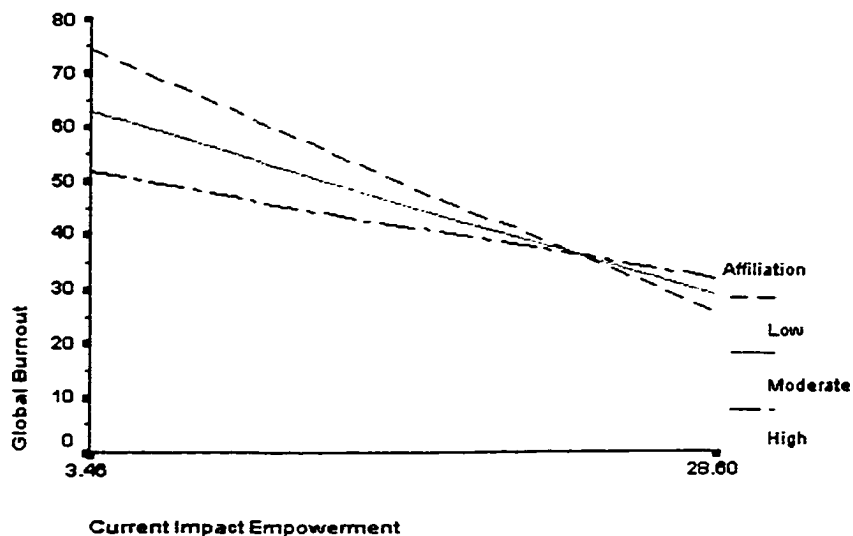
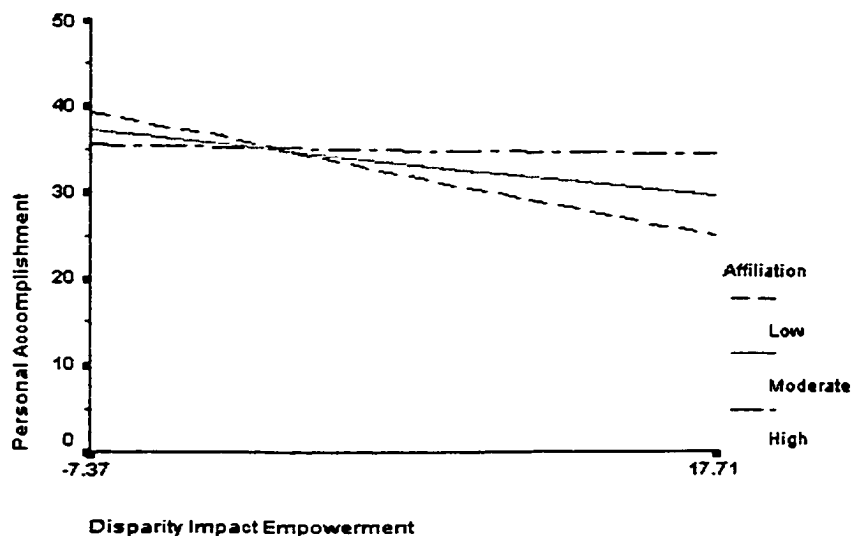Figure 10. The Relationship between current impact empowerment and global burnout by affiliation.

Figure 11. The relationship between disparity impact empowerment and personal accomplish. (burnout) by affiliation.
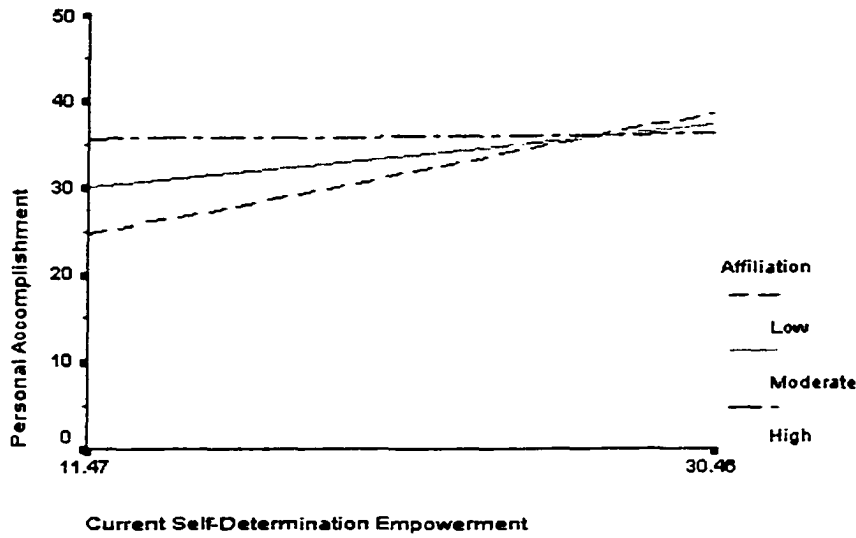
Current Self-Determination Empowerment

Figure 12. The Relationship between current self-determination empowerment and personal accomplish. (burnout) by affiliation.
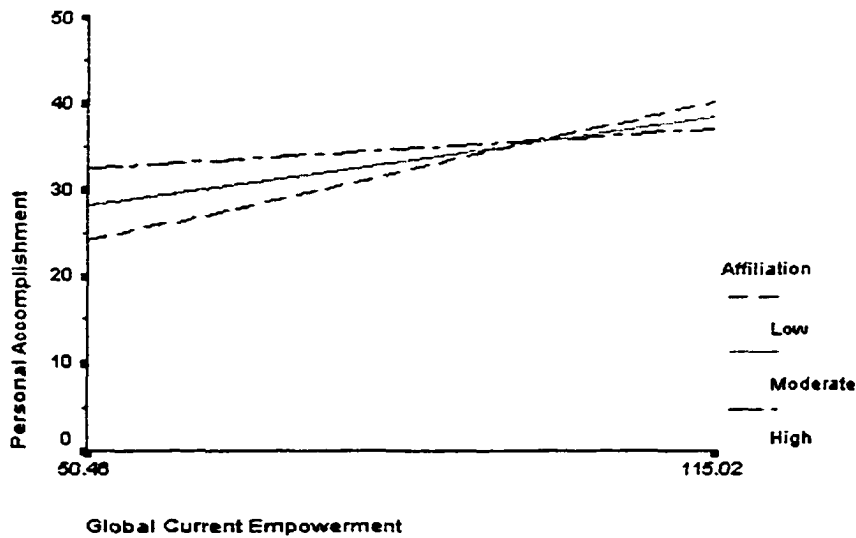

Global Current Empowerment

Figure 13. The relationship between global currrent empowerment and personal accomplish. (burnout) by affiliation.
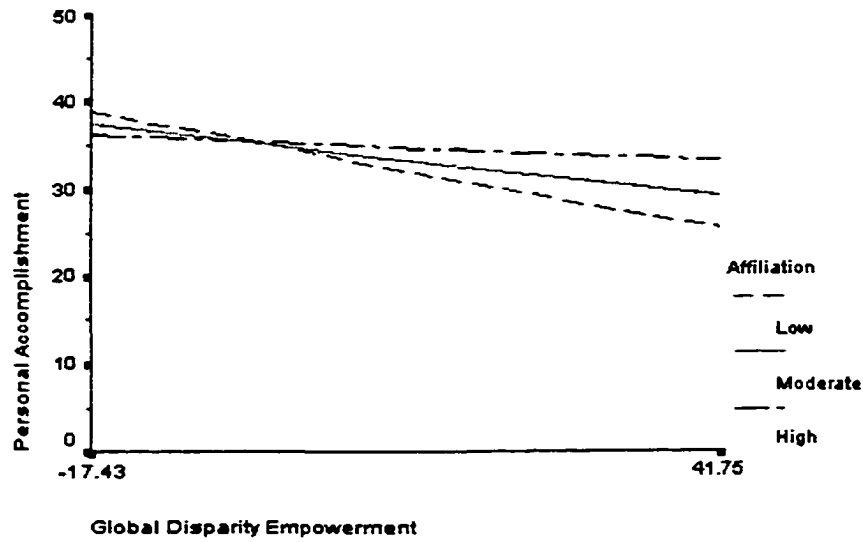
Global Disparity Empowerment

Figure 14. The relationship between global disparity empowerment and personal accomplish. (burnout) by affiliation.