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ENGAGING OUR WORKFORCE:
HOW JOB DEMANDS AND RESOURCES CONTRIBUTE TO SOCIAL
WORKER BURNOUT, ENGAGEMENT AND INTENT TO LEAVE

by
SARA LAURA SCHWARTZ

A dissertation submitted in partial fulfillment of the
requirements for the degree of
DOCTOR OF PHILOSOPHY
in
SOCIAL WORK AND SOCIAL RESEARCH

Portland State University
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DISSERTATION APPROVAL

The abstract and dissertation of Sara Laura Schwartz for the Doctor of Philosophy in Social Work were presented May 1, 2007, and accepted by the dissertation committee and the doctoral program.

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ABSTRACT

An abstract of the dissertation of Sara Laura Schwartz for the Doctor of Philosophy in Social Work and Social Research presented May 1, 2007.

Title: Engaging our Workforce: How Job Demands and Resources Contribute to Social Worker Burnout, Engagement and Intent to Leave

Social worker stress and burnout are pervasive problems that harm workers, organizations, and clients. Past research has identified burnout, a psychological response to work stress, as an important predictor of intent to leave and ultimate turnover. An emerging body of research has examined work engagement, considered to be the opposite of burnout, as a predictor of retention. The problem of burnout and turnover within organizations employing social workers has been addressed in the literature for many years. This dissertation responded to a call in the literature for a greater emphasis on burnout prevention and enhancement of workforce engagement and retention. The three goals of the study were: 1) to measure levels of work engagement; 2) to examine the psychometric properties of two new instruments that measure burnout and engagement; and 3) to use the Job Demands-Resources model to test a hypothesized model of the unique relationships between job demands, resources, burnout, engagement and intent to leave.

Survey data were collected from 243 public child welfare workers employed with Oregon's Department of Human Services, Children, Adult and Families Division, Service Delivery Area 2 serving Multnomah County. Findings revealed that half of the workers were highly engaged and that engagement explained 18% of the variance of intent to remain employed. An alternative measure of burnout, the Oldenburg Burnout Inventory, demonstrated good internal consistency, convergent validity with the MBI, and explained 26% of the variance of intent to leave. A series of path analyses indicated support for a partially-mediated model. The findings demonstrate that burnout and engagement mediate the effects that demands and resources have on intent to leave. Supervisor support exerted both direct and indirect effects on intent to leave.

The results support the inclusion of work engagement in burnout research, demonstrate the psychometric soundness of two new instruments to measure engagement and burnout, and support the applicability of the Job Demands-Resources Model to a sample of social service workers employed in public child welfare. The findings indicate that job demands and resources play an important role in worker intent to leave. Research, education, policy, and practice implications are addressed.

DEDICATION

In loving memory of Donald James Schwartz

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CHAPTER I

INTRODUCTION

Social worker stress and burnout are pervasive problems that can negatively affect individual employees, organizations and populations served. Burnout is described as a psychological response to chronic work stress (Halbesleben & Demerouti, 2005). It has been associated with workplace factors such as increased regulation, role conflict, work overload and role ambiguity, as well as individual characteristics such as one's ability to cope with these workplace influences (Lewandowski, 2003). Burnout is a concern for both individual employees and organizations because worker exhaustion, disengagement, dissatisfaction and decreased commitment can affect worker morale and ultimately can harm the functioning of the organization (McLean & Andrew, 2000). Moreover, burnout is an important predictor of both intent to leave and turnover within social service organizations (Mor Barak, Nissly, & Levin, 2001). Although some organizational turnover can be good, high rates of turnover can have grave consequences for organizations, including the depletion of productive capacity and reduced organizational effectiveness (Balfour & Neff, 1993). An extensive literature explores the burnout phenomenon across diverse disciplines. This dissertation utilizes innovations from contemporary literature to explore the issues of social service worker burnout, engagement, and intent to leave a public child welfare setting.

Significance for Social Work

Maslach (2003) identifies that the primary burnout researchers have come from the field of psychology; thus, the theoretical perspectives of this discipline have shaped the overall framework of burnout research. Although social work has consistently acknowledged and pursued research on burnout and turnover over the past thirty years, the profession has not played a prominent role in theory development or intervention testing (Cherin, 2000). Social work's inquiry into burnout has largely been descriptive, but offers evidence that social workers are experiencing burnout at high rates. Social workers in child welfare report experiences of stress, burnout, and post-traumatic stress (Jayaratne & Chess, 1984; Regehr, Hemsworth, Leslie, Howe, & Chau, 2004); approximately a quarter of health care social workers surveyed in 1979 and 1989 reported burnout (Siefert, Jayaratne, & Chess, 1991); over half of a sample of mental health social workers reported stress and burnout (Coyle, Edwards, Hannigan, Fothergill, & Burnard, 2005); a quarter of a sample of gerontological social workers reported high levels and 34% reported moderate levels of emotional exhaustion (Poulin & Walter, 1993); academic health center and community hospital social workers report high stress levels (Gellis, 2001); approximately a quarter of social work discharge planners reported job dissatisfaction (Kadushin & Kulys, 1995); and half of a sample of social service workers reported burnout (Takeda, Yokoyama, Miyake, & Ohida, 2002).

Despite accumulating evidence that social workers experience high levels of burnout, the field has not assertively developed and/or tested theoretical frameworks and interventions to address the problem. A literature review conducted a decade ago found eighteen studies that explored burnout in social workers (defined as people with MSWs or working in social service agencies), but only ten of these studies reported empirical results (Soderfeldt, Soderfeldt, & Warg, 1995). The authors concluded with a call for empirically sound research to determine to what extent social workers experience burnout and to identify factors associated with this phenomenon. This call is in line with a growing literature calling for greater emphasis on the problem and prevention of social worker stress and burnout (Cherin, 2000; Coyle et al., 2005; Gellis, 2001; Lloyd, King, Chenoweth, 2001; Nissly, Mor Barak, & Levin, 2005)

There are two main reasons why it is important for social workers to actively engage in theory generation and development of interventions aimed at understanding and reducing burnout. The first is that social workers are considered to be an at-risk population for stress and burnout because their work is largely client-based and involves complex social situations (Lloyd et al., 2002; Soderfeldt et al., 1995). The factors associated with burnout are presented in Chapter 2 and many of them are applicable to social workers. For example, research examining stress and satisfaction among mental health professionals found social workers to be particularly frustrated and stressed because their role was misunderstood by other disciplines in a team setting (Reid et al., 1999). Other research suggests that role

ambiguity and conflicts are associated with employee stress, frustration and burnout (Lewandowski, 2003).

A second reason why social workers should be more involved in the study of burnout (both as subjects and researchers) is because the profession adheres to a person-in-environment perspective. This approach to working with people is built on an ecological perspective that allows for people and groups to be understood as whole systems; thus, tasks are embedded within the social contexts in which they occur (Cherin, 2000). This perspective is not only valuable in understanding and helping clients, but it can also illuminate aspects of the lives of social workers (Hartman, 1991). The systems perspective examines the social worker experience within the larger context of a workgroup, an organization, a community, and/or a profession. It is clear from the literature that many individual and system level variables contribute to worker burnout and intent to leave. A consistent theme in the burnout literature is the relationship between the person and the work environment, which is often described in terms of imbalance (Maslach, 2003). With retention being a central concern for social service organizations, it makes sense that a profession committed to viewing issues from a person-in-environment perspective would attend to the situation of its work force.

This dissertation study was developed in response to two recommendations prevalent in literature: 1) a call for the development and testing of theories and models that explain worker stress, burnout and turnover (Bakker, Demerouti, & Euwema, 2005; Nissly et al., 2005; Cherin, 2000; Wright & Cropanzano, 1998) and

2) a call for the profession of social work to respond and attend to issues of stress, burnout and retention within the workforce (Cherin, 2000; Coyle, Edwards, Hannigan, Fothergill, & Burnard, 2005; Gellis, 2001; Siebert, 2004; Soderfeldt et al., 1995).

The study tested the applicability of the Job Demands-Resources model of burnout in a sample of social service workers employed in public child welfare in Portland, Oregon. The study also tested the reliability and validity of a new instrument to measures burnout and explored a new instrument for measuring engagement. Child welfare workers were selected to participate in this research because of the national attention being paid to turnover and retention issues within public and private child welfare organizations (Curry, McCarragher, & Dellmann-Jenkins, 2005). This research contributes to both the existing burnout and child welfare literatures by using an explanatory model to guide an innovative exploration of the unique relationships among job demands, job resources and social service worker burnout, engagement and intent to leave.

CHAPTER II

A REVIEW OF THE LITERATURE

The relationships that people have with work, and the difficulties that may arise when conflicts emerge in these relationships, are well documented in the literature. The burnout construct was developed to capture and collectively identify common reactions to stressors within person-work relationships. The classification of a syndrome labeled burnout and early work on the subject emerged in the mid 1970s in the United States. The term 'burnout' was coined by Freudenberger, a psychiatrist working in an alternative health care agency who recounted a process he witnessed in workers characterized by emotional depletion, loss of motivation, and decreased commitment (Maslach, Schaufeli, & Leiter, 2001).

Early burnout inquiry was conducted primarily within health and human service professions, including social work, because these workers are most likely to experience burnout, as the essence of their work involves intense relationships between people. Much of the early burnout research utilized bottom-up or 'grass roots' approaches to examine work experiences (Cordes & Dougherty, 1993; Maslach, 2003). Increased awareness that the emotional stress associated with burnout debilitated both the individual and the organization led to further investigation of the phenomenon. What emerged from this early inquiry was the conceptualization of burnout as a psychological syndrome in direct consequence to prolonged stress and emotionally-laden interactions with service recipients over a period of time (Kalimo, Pahkin, Mutanen, & Toppinen-Tanner, 2003).

Background

Systematic empirical studies on burnout began to be published in the late 1970s and early 1980s, and it was during these years that the concept was more clearly developed and refined (Cordes & Dougherty, 1993). During this period instruments aimed at quantitatively capturing and measuring burnout were developed. The most prominent instrument established during this time was the Maslach Burnout Inventory (MBI), developed by Maslach and Jackson in 1981. Maslach and Jackson established a burnout construct and created the MBI to measure their conceptualization of burnout in human service workers. Their work made an extremely important contribution to burnout research, and their construct is still largely adhered to today. According to Maslach and Jackson, burnout is defined as a syndrome consisting of three dimensions: emotional exhaustion, depersonalization, and reduced personal accomplishment (Maslach et al., 2001). Emotional exhaustion is characterized as having a lack of energy and feeling as if one's resources have been tapped; depersonalization manifests itself through detachment, cynicism and treating clients as objects rather than people; reduced personal accomplishment is characterized as a tendency to perceive and evaluate oneself negatively in terms of work (Cordes & Dougherty, 1993).

During the 1990s, empirical research on burnout continued, and new directions emerged, particularly outside of human service professions. Researchers explored the burnout phenomenon in other occupations and began to report similar patterns of burnout in an assortment of professions. Inquiry into this area was

largely in response to suggestions that the three factors of burnout (emotional exhaustion, depersonalization and personal accomplishment) could be reformulated into terms that are applicable to other occupations. For example, it was noted that emotional exhaustion resembles the stress reactions of fatigue, anxiety, psychosomatic complaints, and job related depression that had been studied by occupational health researchers (Demerouti, Bakker, Nachreiner, & Ebbinghaus, 2002). In 1996, Schaufeli, Leiter, Maslach and Jackson revised the MBI and established the MBI General Survey (MBI-GS) to measure burnout in occupations other than human services (Maslach et al., 2001). Another development in the 1990s was the proliferation of other instruments, to be addressed later, that measure burnout both within and outside of human services.

The relationship between burnout and depression has been debated since its inception (Schaufeli & Enzmann, 1998). A long-standing controversy in the literature is whether burnout is synonymous with depression, strain or disillusionment (Lee & Ashforth, 1996). This is an ongoing dialogue; however, there is considerable evidence indicating that burnout and depression are related but distinct concepts, as burnout is a work-related phenomenon while depression is more pervasive and context free in nature (Bakker, Schaufeli, Demerouti, Janssen, van der Hulst, & Brouwer, 2000).

The developmental process of how burnout occurs over time is another issue that has been debated over time. The most widely accepted phase models of burnout build upon Maslach and Jackson's conceptualization, with three stages involving

emotional exhaustion, depersonalization, and feelings of reduced personal accomplishment (Goodman & Boss, 2002). Maslach and Jackson (1982) and Leiter (1990) proposed that emotional exhaustion is the first symptom of burnout and occurs as a result of excessive chronic work demands; depersonalization follows as a defensive coping strategy; finally, once the worker recognizes the discrepancy between his/her current and original attitudes and expectations, s/he experiences feelings of reduced personal accomplishment (Bussing & Glasser, 2000; Cordes & Dougherty). An alternate developmental model, proposed by Golembiewski and Munzenrider (1988), asserts that burnout actually begins with a depersonalizing form of coping where the worker distances him/herself from the work and experiences diminished personal accomplishment, which ultimately triggers emotional exhaustion (Goodman & Boss, 2002).

Why Does Burnout Occur?

There is a large body of literature detailing the many factors that have been linked with employee burnout. One body of research postulates that burnout results from occupational stressors including job demands, lack of resources, role conflict, role overload, organizational factors, and occupational characteristics. Another literature explores connections between individual characteristics such as personality, age, gender, and marital status with burnout. Some researchers examine burnout as a dual-level problem involving both the organization and the individual. The following discussion provides a brief synopsis of the literature on factors that have been linked with employee burnout within human service professions. These

factors are presented in four distinct clusters: organizational, psychosocial work, individual and occupational characteristics.

Organizational Characteristics

One stream of burnout literature links employee burnout to the characteristics of a particular organizational structure. Organizational structure refers to the centralization of power and formalization of roles, how decisions are made, how authority is structured, and how labor is divided (Glisson, 2002). Many large social service organizations in contemporary society adhere to a bureaucratic model (Martin & O'Connor, 1989). Most large bureaucracies are highly centralized, hierarchical, routine-oriented, and communication is tightly prescribed (Cohen, 1999). Although this particular model has many strengths, studies have found that employees in large social service bureaucracies experience significant problems resulting from this organizational structure. Features inherent in bureaucracies have been found to foster employee alienation from work and the organizational environment (Sarros et al., 2002; Zurcher, Meadows, & Zurcher, 1965); contribute to feelings of powerlessness and stress (Adler & Boyrs, 1996); and can lead to frequent health complaints (Mikkelsen, Saksvik, & Landsbergis, 2000). Work related stress is associated with anxiety, psychosomatic illness, emotional problems (Lloyd, King, & Chenoweth, 2002); and has been found to play a role in employee absenteeism, intent to leave and turnover (Parry-Jones et al., 1998).

In addition to structure, other organizational characteristics are associated with worker stress and burnout. Changes that have occurred in the healthcare system

over the past decade have created challenges including high caseloads, decreased funding, reduced salaries, and limited opportunities for continuing education (Acker, 2004). Role conflict, role ambiguity, role overload, and time pressures are associated with worker dissatisfaction, frustration, and burnout (Iglehart, 1990; Lewandowski, 2003; Rizzo, Rizzo, & Lirtzman, 1970; Soderfeldt, Soderfeldt, & Warg, 1995). Some research findings indicate that social workers experience higher levels of role conflict than other occupations. Role conflict has been exemplified by contradictions between legal requirements and agency policies and procedures; for example, working in the best interests of the child may be at odds with court-ordered directives (Jayaratne & Chess, 1984). Role conflict is experienced as an incongruity of expectations that are communicated to the worker by his/her role senders (Cordes & Dougherty, 1993). Role ambiguity is another situation experienced by social workers that can occur when the worker does not receive enough information to do his/her job well (Maslach et al., 2001) or when roles are misunderstood by other disciplines in a team setting (Reid et al., 1999).

Role overload has also been associated with burnout. High workloads and time pressure have been consistently found to have a positive relationship with burnout (Maslach et al., 2001). Work-related stress has received the most attention in empirical literature on burnout and has consistently been shown to be one of the strongest predictors of intention to leave and turnover (Nissly, Mor Barak, & Levin, 2005). Lewandowski (2003) found that time constraints, causing workers to feel

that they did not spend enough time with their clients, in conjunction with paperwork burdens were positively associated with social worker frustration and burnout.

Psychosocial Work Characteristics

This category is distinguished from organizational characteristics because it focuses on social relations within the organization. According to Glisson (2002):

The social context created by an organization includes interpersonal relationships, social norms, behavioral expectations, individual perceptions, attitudes and other psychosocial factors that govern how organizational members approach their work, interact with others in their organization, interpret their work environment, collaborate with members of 'referent' organizations and feel about their jobs (p. 234).

Psychosocial work characteristics refer more to the context of the work environment than the actual product. An organizational context is composed of multiple social networks that can encourage or constrain certain behaviors, affect perceptions, and establish expectations for the individuals working within them (Glisson, 2002). In his theory of street-level bureaucracy, Michael Lipsky (1980) makes the claim that, in order to understand child welfare policy and practice, one must attend to the everyday work life experienced by the worker. The psychosocial context of work helps shape the way that workers cope with the pressures that they receive from their work environment and the work itself (Smith & Donovan, 2003).

Another stream of literature that addresses psychosocial work characteristics involves organizational cultures and climates. Organizational culture refers to the

shared norms, values, and meanings that guide work in a particular organization while organizational climate refers to employee perceptions of the impact of the work environment on their own well-being and functioning (Hemmelgarn, Glisson, & Dukes, 2001). Both organizational culture and climate affect workers in many ways. A positive organizational climate is associated with organizational citizenship behavior, engagement, and positive service quality and outcomes (Hopkins, 2002). A constructive organizational culture that emphasizes performance and support can be transmitted to employees through observable behavior expectations (Glisson, Dukes, & Green, 2006). Organizational cultures and climates have a strong association with worker outcomes, such as employee satisfaction and retention (Bednar, 2003, Glisson et al., 2006).

While climate and culture have the potential to act as a buffer against burnout, if unhealthy, they can negatively influence the functioning of workers and the organization (Glisson et al., 2006). This is particularly the case when the climate includes employee burnout and cynicism. Organizational cynicism is defined as a negative attitude and affect towards one's organization and often facilitates disparaging and critical behaviors and expressions towards the organization (Abraham, 2000; Dean, Brandes, & Dharwadkar, 1998). Research conducted by Abraham (2000) found that cynicism is positively associated with burnout and alienation, and negatively correlated with organizational commitment. Current research indicates that organizational cynicism, burnout, and engagement can be transmitted to coworkers, service recipients and spouses (Bakker, 2005; Bakker,

Demerouti, & Schaufeli, 2005; Bakker, Schaufeli, Sixma, & Bosveld, 2001; Lewandowski, 2003).

A consequence of an unhealthy work climate is worker alienation. Aiken and Hage (1996) identified a form of alienation from expressive relationships that reflects worker dissatisfaction with the social context of work and relations with other employees. Alienated workers experience a separation of the self from the work environment. A state of involvement implies a positive state of engagement of the self with the job and the work environment (Brown, 1996). With engagement identified as the opposite of burnout (Maslach, 2003; Maslach & Leiter, 1997; Schaufeli & Bakker, 2004), it is plausible that this type of alienation from the expressive relations at work is associated with burnout.

Research on social support addresses another important component of the social context of work. Support from co-workers and supervisors has a negative relationship with employee burnout, absenteeism, and intent to leave (Baruch-Feldman, C., Brondaolo, E., Ben-Dayana, D., & Schwartz, J., 2002; Medland, Howard-Rubin, & Whitaker, 2004; Mor Barak, Nissly, & Levin, 2001; Siebert, 2004; van Dierendonck, Schaufeli, & Buunk, 1998). A supportive work environment provides an atmosphere conducive to providing high quality services and enables workers to derive gratification from their jobs and professional identities (Acker, 2004; Koeske, & Koeske, 1989). Kalimo, Pahkin, Mutanen, and Toppinen-Tanner (2003) conducted a longitudinal study to determine which work characteristics are associated with burnout symptoms over time. Findings indicated that, over ten years,

factors related to social processes such as social support from colleagues and supervisors, feedback, and appreciation acted as resources that buffered against burning out at work (Kalimo et al., 2003). Supervisors can provide a form of support that is frequently found to have a buffering effect on burnout, particularly within the field of child welfare (Azar, 2000; Lloyd, King, & Chenoweth, 2002; Smith, 2005). In addition, opportunities for career advancement within the organization operate as a buffer against burnout and turnover (Freund, 2005; Iglehart, 1990).

Individual characteristics

Another line of inquiry has explored individual worker characteristics that may cause the worker to be more susceptible to burnout. Although numerous studies have examined the role gender plays in burnout, findings have been inconclusive and have not resulted in a consensus on the impact of gender (Maslach et al., 2001). Some studies have found higher levels of burnout in women than men (Bakker, Demerouti, & Schaufeli, 2002), while others have found no gender differences at all (Erickson, & Ritter, 2001). There is an abundant literature identifying age and career stage as factors linked with burnout. Research has found that rates of burnout are elevated in younger employees (Acker, 1999; Bakker et al., 2002; Maslach et al., 2001; Mor Barak et al., 2001; Nissly et al., 2005). There is also evidence that married workers are less likely than their single colleagues to experience burnout (Cordes & Dougherty, 1993; Evans, Bryant, Owens, & Koukos, 2004).

There is a growing literature exploring the association of individual personality factors and burnout. Zellars, Perrewe, and Hochwarter's (2000) research

on five factors of personality indicates that the personality dimensions of neuroticism, agreeableness, extraversion, and openness may play different roles in the three factors of burnout. Other research has found that burnout is linked to the neuroticism dimension of personality (Goddard, Patton, & Creed, 2004; Deary, Watson, & Hogston, 2003) and Type-A behavior (Maslach et al., 2001). One study suggests that anxiety traits are associated with burnout (Brown, Prashantham, & Abbott, 2003), and some research suggests that depression in social workers is associated with burnout (Siebert, 2004).

Empirical inquiry on the influences that ethnic differences can have on employee work experiences and burnout is limited. While studies examining ethnicity and burnout are sparse, a few have examined ethnic differences and stress levels. African Americans have been found to experience higher levels of overall work stress; however, socioeconomic factors may play a role and include lower levels of education, higher rates of poverty, and unemployment in African American populations (Evans et al., 2004). Research considering racial differences in burnout among case managers found that compared to Caucasians, African Americans reported less emotional exhaustion and depersonalization, though they did not differ on feelings of reduced personal accomplishment (Salyers & Bond, 2001). Other similar findings have led to studies on coping mechanisms and ethnicity (Evans et al., 2004). African Americans have been found to have more distinct and diverse coping skills, particularly regarding their reliance on community, prayer and religious activities used for coping (Evans et al., 2004).

Some research has considered burnout from a cross-national perspective. Brown, Prashantham, and Abbott (2003) examined the relationship between received and perceived support with burnout in a sample of human service professionals in India. One of the discussion points identified cultural difference between Western and Non-Western support systems, particularly involving collectivist values. The authors suggest that the definitional boundaries between work, social and family relationships are not as clear-cut in collectivist cultures as they are in more individualistic milieu (Brown et al., 2003). Mann-Feder and Savicki (2003) followed this lead and found that although differences in rates of burnout did not exist between Anglophone and Francophone child and youth care workers in Canada, there were significant differences in the manner of practice and the contributing factors to burnout in each culture. Schaufeli and Enzmann (1998) assert that while cross-national differences are found in the individual burnout constructs, similarities in burnout profiles are larger than differences.

Inquiry into individual characteristics has also considered personal resources and coping skills that may be used to manage work stress and strain. People who cope with stress in a passive or defensive way are more likely to experience burnout than those whose coping style is active and confronting (Maslach et al., 2001). Research conducted by Dorz, Novara, Sica, and Sanavio (2003) found that the use of adequate coping strategies acts as a protective factor for burnout in employees working with people diagnosed as having HIV and/or AIDS. Other literature indicates that oncology nurses benefit from the development of healthy coping skills

to manage work-related stressors and prevent burnout (Medlands et al., 2004).

Kalimo et al. (2003) found that employees with a strong sense of coherence (an internal stress resistance resource) experience less burnout than those without this resource.

Occupational Characteristics

Although there is a general consensus that burnout occurs outside of human service organizations as well as inside, there is a line of inquiry exploring the effects working with client populations can have on service providers. Human service jobs are generally characterized as emotionally demanding because of the intense contact with consumers in a care-giving or teaching capacity (Maslach et al., 2001). Specific characteristics of this type of work have been associated with burnout. Some authors refer to work in health and human service professions as “emotional labor,” referring to interactions that occur between client and worker and the social/psychological processes that are necessary for the worker to regulate his/her own emotional reactions as part of the job (Zapf, Seifert, Schmutte, Mertini, & Holz, 2001). The emotional reaction and response that an organization may require of a worker can conflict with the personal emotional reaction of the worker – thus causing dissonance and stress. The high levels of emotional demand placed on workers in the health professions may drain workers of their emotional resources and lead to burnout (Azar, 2000).

Some studies have found that both occupational type and role within an organization can contribute to burnout. Dorz and colleagues (2003) discovered that

working in an oncology unit with HIV positive patients and being a physician were strong predictors of emotional exhaustion and depersonalization. Other research indicates that the type of client one works with is related to burnout. Acker (1999) found that direct care work with consumers diagnosed with severe and persistent mental illness negatively affects workers. Others report that working with abused and neglected children and their families (Azar, 2000; Bednar, 2003), HIV/AIDS patients (Dorz, Novara, Sica, & Sanavio, 2003), mental health consumers (Acker, 1999; Tilley & Chambers, 2003), and oncology patients (Dorz et al., 2003; Medland et al., 2004) is associated with high levels of worker stress and burnout.

Why Burnout is a Problem

Maslach (2003) notes that it is important to recognize that burnout was identified as a social problem by both workers and social commentators long before it became a focus of systematic research. There is a literature documenting links between burned out employees and negative consequences on the worker, the organization, and the services provided. Burnout has been associated with physical and emotional consequences such as depression, irritability, insomnia, and gastrointestinal disturbances; interpersonal consequences such as social withdrawal at work and home; attitudinal consequences such as cynicism and developing negative attitudes towards clients and job; and behavioral consequences such as absenteeism, performance, intention to leave, turnover, and substance abuse (Abraham, 2003; Cordes & Dougherty, 1993; Maslach, 2001; Maslach et al., 2001).

Employee burnout affects many different systems, including the self, the client, the family, the organization, and the community.

While burnout can negatively influence the individual worker and his/her social and familial units, much of the outcome research on burnout has involved the organizational consequences of burnout. This is particularly true in the areas of intent to leave and turnover. High turnover is recognized as a major problem in social service organizations. There is no clear consensus on turnover rates among social service employees and these likely vary by organization; however, it is estimated that turnover rates range from 30 to 60 percent in a typical year (Mor Barak et al., 2001). A sample of data on social service worker turnover rates reported in the literature include:

Table 1: Social Service Worker Turnover Rates Reported in the Literature

Literature	Turnover Rate
Child protective service workers in state agencies (Ezell et al., 2002)	19.9%
Child protective service workers in private organizations (Ezell et al., 2002)	40%
Family service workers (Mor Barak et al., 2001)	39%
Community health workers (Mor Barak et al., 2001)	43%
Child welfare workers (Curry, McCarragher, & Dellmann-Jenkins, 2005)	20-40%
Healthcare workers (Bittman et al., 2003)	40-100%
Child welfare workers (Nissly et al., 2005)	30%
Child welfare workers (Bednar, 2003)	46-90%

Turnover impedes effective and efficient delivery of services in a variety of ways including direct costs such as separation, replacement, and training and indirect costs such as the loss of productivity of the old employee while s/he contemplates

leaving and while the new employee is being trained, deterioration of rapport and trust with client, and the loss of skills, knowledge and abilities of employees (Mor Barak et al., 2001). Staff turnover/low retention as well as low worker morale and burnout were some of the most important challenges identified by a survey of challenges experienced by human service managers (Hopkins & Hyde, 2002).

Although turnover rates in social services are high, many stressed and burned out employees opt to stay at their jobs. This can pose other problems, as these workers may exhibit their exhaustion and frustration in ways that are harmful to the worker, his/her clients, and the organization. High rates of absenteeism (Acker, 2004; Bakker, Demerouti, de Boer, & Schaufeli, 2003) and negative attitudes at work (Cordes & Dougherty, 1993) are some consequences of worker frustration, unhappiness, and burnout. Job attitudes and intent to leave are significant predictors of turnover (Barrick, & Zimmerman, 2005), with intention to leave one's job considered the strongest single predictor of turnover (Nissly et al., 2005). Smith (2005) found that 75% of the child welfare workers surveyed reported that they had considered seeking a new job in the year prior to completing the survey.

An area that has been somewhat neglected in burnout outcome research is job performance and consumer satisfaction. Some researchers acknowledge this as an issue but have not systematically evaluated the consequences of employee burnout on job performance. A meta-analysis of turnover in social services found that burned-out workers who opt to stay might not be able to effectively do their jobs and meet the needs of their clients (Mor Barak et al., 2001). Acker (2004) asserted that

when workers do not derive satisfaction from their job they are more likely to provide inadequate services. Some studies report that burned-out teachers frequently cope through psychological withdrawal from their students (Taris et al., 2004), which other research has linked with low worker satisfaction, poor performance, low consumer satisfaction and less satisfactory client outcomes (Bednar, 2003).

There is a small body of work connecting burnout to job performance. Wright and Bonett (1997) looked at the contribution of burnout to work performance in human service personnel and found that, although emotional exhaustion was negatively related to performance, depersonalization and personal accomplishment were not. Other research has found that depersonalization does play an important role in performance. Longitudinal research examining the process of burnout in general practitioners produced interesting results regarding the relationship between doctor and patient. These findings suggested that general practitioners who attempt to gain emotional distance from their patients as a way of coping (i.e. depersonalization) actually evoke demanding and threatening responses and behaviors in the patients themselves, thus perpetuating burnout symptoms in themselves and further harming the relationship with the patient (Bakker, Schaufeli, Sixma, Bosveld, & van Dierendonck, 2000). Research exploring self-reports of patient care by internal medical residency students found that 53% of burned-out residents reported responsibility for at least one sub-optimal care practice at least monthly (Shanafelt, Bradley, Wipf, & Back, 2002). These findings suggest that the

impact of burnout on performance and client satisfaction warrants further investigation.

Explanatory Theories

There are a several conceptual models and theories that explain the burnout process. Three popular explanatory models are discussed in this paper and include 1) the Job Demand-Control Model, 2) Conservation of Resources Theory and 3) the Job Demand-Resources Model.

Job Demand-Control Model

One theory that has been widely cited in occupational stress research is the Job Demand-Control Model (JDC). Karasek originally developed this model in 1979. The JDC model predicts that the combined impact of high demands (workload) and low control (skill discretion, decision authority) predict adverse psychological and physiological reactions from workers (Rafferty, Friend, & Landsbergis, 2001). Control in this model is considered to be decision latitude and skill discretion, and means that the worker has the authority to make decisions concerning the job. The JDC model has been one of the most influential models in occupational health research (van Der Doef & Maes, 1999).

The model hypothesizes that the potential health effects [e.g., burnout] of work environments that have many job demands can be counteracted with high levels of autonomy and job control (Smulders & Nijhuis, 1999). While the Demand-Control model has frequently been applied in occupational research, there has been little empirical support for the relationship between decision latitude and job

demands (Daniels & Harris, 2005). This has elicited criticism resulting in modifications of the model over the past several decades (van Der Doef & Maes, 1999). In recent years the model has been expanded to include social support, and the control component of the model has been refined.

Conservation of Resources Theory

The Conservation of Resources Theory of Stress (COR) is a second model that has often been used as a framework to explain the burnout process. The COR theory was developed by Hobfoll in the late 1980s and postulates that individuals strive to obtain things they value, called resources. The basic tenant of the theory is that job resources motivate workers, thus workers strive to retain, protect, and build resources. Stress and burnout occur when resources are threatened by demands, when resources are lost, and when resource levels are not replenished to levels prior to resource investment (Janssen, Schaufeli, & Houkes, 1999). Job demands include role ambiguity, role conflict, stressful events, heavy workload and pressure; job resources include social support and job enhancement opportunities such as control, participation in decision making, autonomy and reinforcement contingencies (Lee & Ashforth, 1996). A core component of this model is the notion that job demands and job resources have different effects and can differentially predict the dimensions of burnout (Halbesleben & Buckley, 2004).

The Job Demands-Resources Model

Researchers in the Netherlands have been highly involved in the development and testing of models to explain the process of burnout and interventions aimed at

enhancing job satisfaction and retention. Compared to other countries, work stress, illness, absenteeism, and work incapacitation rates due to work-related mental health problems are high in Holland (Schaufeli & Kompier, 2001; Taris et al., 2003).

Social security regulations in the Netherlands allow for psychological and motivational processes to affect work absenteeism because Dutch workers do not need a medical certificate to receive sickness benefits and most employees receive full income replacement during sickness periods (Geurts, Buunk, & Schaufeli, 1994). Almost one third of disability benefit recipients in the Netherlands have been assessed disabled on mental health grounds; approximately 80% of these cases do not suffer major psychopathology; rather, they suffer from adjustment disorder, which includes chronic job stress and burnout (Schaufeli & Kompier, 2001). The high sickness and absenteeism rates in the Netherlands led to the creation of the Working Conditions Act in 1990, under which Occupational Health and Safety Service professionals are responsible for the assessment and prevention of job stress (Schaufeli & Kompier, 2001). As a result, many researchers in Holland have turned their attention towards advancing theoretical and empirical knowledge about how to reduce burnout and absenteeism rates and enhance worker engagement and productivity.

The Job Demands - Resources (JD-R) model of burnout was developed by Demerouti, Bakker, Nachreiner and Schaufeli in 2001 and is largely based upon the COR model (Halbesleben & Buckley, 2004). A central assumption of this model is that although every occupation has its own specific work characteristics associated

with burnout, these characteristics fall into two broad categories: 1) Job demands and 2) Job resources. The JD-R model specifies how health impairment (e.g., burnout) and motivation (e.g. engagement) are produced by job demands and resources (Llorens, Bakker, Schaufeli, & Salanova, 2006). These two types of working conditions are described as (Llorens et al., 2006):

Job demands refers to the physical, social, or organizational aspects of the job that require sustained physical and/or mental effort and that are thus associated with certain physiological and psychological costs. On the other hand, *job resources* refers to physical, psychological, social, or organization aspects of the job that are functional in achieving work goals, reduce job demands, or stimulate personal growth, learning, and development (p.379).

The JD-R model proposes that job demands and job resources evoke two psychological processes. Job demands drain the employees' energy resources, thus leading to burnout and/or other health problems, whereas the availability of job resources stimulates employee motivation in the form of work engagement and positive work outcomes (Llorens, Schaufeli, Bakker, & Salanova, 2007; Schaufeli & Bakker, 2004). Worker stress and burnout occur when job demands are high and resources are low, thus upsetting the equilibrium. An interesting aspect of this model is that job demands and job resources are differentially related to the different dimensions of burnout. The developers assert that job demands predict the emotional exhaustion component of burnout while job resources predict the depersonalization component (Halbesleben & Buckley, 2004).

The JD-R model proposes that the development of burnout follows two processes. First, demanding aspects of work lead to constant overtaxing and ultimate exhaustion; second, a lack of resources complicates the meeting of job demands, which leads to withdrawal behavior and ultimate disengagement from work (Demerouti et al., 2001). Current research has expanded upon the JD-R model to include engagement measured independently of burnout (Schaufeli & Bakker, 2004). Work engagement is defined as a persistent, pervasive, and positive affective-motivational state of employee fulfillment (Llorens et al., 2007). Engagement is considered the opposite of burnout and provides a more complex and thorough perspective of an individual worker's relationship with work (Maslach et al., 2001).

Measuring Burnout

As stated earlier, the Maslach Burnout Inventory (MBI) is the most popular burnout instrument in the United States and is used in 90% of burnout research (Schaufeli et al., 2001). The Burnout Measure (BM) is an alternative measure of burnout. It was developed in 1981 by Pines and Aronson and is used in 5% of studies researching burnout (Schaufeli et al., 2001). An instrument called the Oldenburg Burnout Inventory (OLBI) has recently been developed in the Netherlands. The OLBI stems from the Job Demands-Resources Theory of burnout and was created in 1999 to measure burnout both within and outside of human service occupations (Demerouti et al., 2001). Each of these three instruments and their psychometric properties are addressed in this section.

Maslach Burnout Inventory

The Maslach Burnout Inventory (MBI) measures the three components of burnout, as conceptualized by Maslach and Leiter (1981): Emotional exhaustion, depersonalization and personal accomplishment. Nine of the 22 items measures emotional exhaustion, five items measure depersonalization, and eight items measure personal accomplishment. Each item is rated on a 7-point response scale ranging from 0 (“never experienced such a feeling”) to 6 (“experienced such feelings every day”) (Kalliath, O’Driscoll, Gillespie, & Bluedorn, 2000). High scores on emotional exhaustion and depersonalization reflect high burnout; however, the personal accomplishment subscale is reversed so low scores reflect high burnout. The MBI does not directly measure the presence or absence of burnout; rather, experienced levels of burnout are perceived to fall on a continuum. One issue regarding the MBI’s burnout continuum is that cut-off levels or critical thresholds are not established in the literature (Cordes & Dougherty 1993).

In response to increased awareness that burnout is not restricted to human service professionals, a revised version of the MBI called the MBI General Survey (MBI-GS) was developed in 1996 (Schaufeli, Leiter, Maslach, & Jackson, 1996). The three subscales of the MBI-GS parallel those of the MBI but are more general and not connected to a professional helping relationship. The three subscales of the MBI-GS are: exhaustion, cynicism (defined as a distant attitude towards one’s job) and reduced professional efficacy. The MBI Educators Survey (MBI-ES) was also established in 1996 to measure burnout in educational settings (Halbesleben &

Buckley, 2004). All three versions of the MBI assess burnout using revisions of the three subscales reflective of Maslach and Leiter's original conceptualization of burnout.

Arguments about the psychometric soundness of the MBI are abundant in the literature. Internal consistencies for the three MBI factors are usually reported to be well over .70 and the validity of three-factor structure has been generally confirmed (Schaufeli, Bakker, Hoogduin, Schaap, & Kladler, 2001; Schaufeli & Enzmann, 1998). The factorial validity of the instrument has been widely explored and challenged in the literature; however, there is general support for the three-factor structure across occupations, nationalities and versions of the MBI (Halbesleben & Buckley, 2004). Lee and Ashforth (1990) examined the meaning of the three dimensions of burnout among a sample of supervisors and managers in human services and found support for the three-factor model, as compared to a two and one factor structure. Bakker, Demerouti, and Schaufeli (2002) examined the factorial validity of the MBI-GS using an internet survey and their data also favored a three factor model over alternative one and two factor models.

Richardson and Martinussen (2004) explored the factorial validity of the MBI in samples of seven different occupational groups in human services. Using a 20-item version that they developed, their results also supported a three-factor structure of burnout (Richardson & Martinussen, 2004). Schaufeli et al.'s (2001) examination of the MBI in a sample of employees receiving psychological treatment due to job-related mental health problems confirmed the three factor structure of the MBI and

suggested that the instrument can be used to diagnose burnout. Although there is currently no formal diagnostic classification system that includes burnout, some researchers assert that those who score highly on the MBI may need professional help; therefore, these researchers argue that 'burnout' should be recognized and officially sanctioned as a formal medical diagnosis (Schaufeli & Enzmann, 1998).

One other aspect of the MBI that has been criticized is that items in each subscale are framed in the same direction. In other words, all exhaustion and depersonalization/cynicism questions are phrased negatively while personal accomplishment/professional efficacy questions are phrased positively (Halbesleben & Buckley, 2004). One-sided scales are sometimes considered inferior to scales that include both positively and negatively worded items and it has been suggested that these scales can lead to artificial factor solutions in which positively and negatively worded items tend to cluster (Demerouti, Bakker, Vardakou, & Kantas, 2003). The MBI is also criticized because it lacks clinically validated cut-off points (Schaufeli et al., 2001).

Burnout Measure

Pines and Aronson (1988) established the Burnout Measure (BM) to measure a single dimension of burnout: exhaustion (Halbesleben & Buckley, 2004). The BM is employed in about 5% of burnout research (Schaufeli et al., 2001). What is different and innovative about this instrument when it emerged was that the BM did not restrict itself to measuring burnout in the helping professions.

The BM assesses the degree of burnout with a single score and is not restricted to an occupational field. The researchers who developed the BM defined burnout as, “a state of physical, emotional, and mental exhaustion caused by long-term involvement in emotionally demanding situations” (Shirom & Ezrachi, 2003, p. 84). Physical exhaustion is characterized by low energy, chronic fatigue, and weakness; emotional exhaustion involves feelings of helplessness, hopelessness, and entrapment; and mental exhaustion is characterized by the development of negative attitudes towards oneself, work, and life itself (Enzmann, Schaufeli, Janssen, & Rozeman, 2001). The BM consists of 21 items scored on a 7-point rating scale ranging from 1 “never” to 7 “always” (Schaufeli et al., 2001). The scores are summed to create a single burnout score. Like the MBI, the BM lacks clinically validated cut-off points to assess burnout. Pines and Aronson claim that a total BM score of 2-3 is normal and that a score over 5 indicates high burnout; however, no empirical evidence for such cut-off points has been established (Schaufeli et al., 2001).

The BM has received limited attention and some criticism in the literature. One criticism is that although the authors developed a multi-dimensional definition of burnout, the three types of exhaustion are not rooted in a theoretical framework (Enzmann et al., 2001). In other words, there is no explanation of how or why the burnout symptoms occurred and the symptoms are not particularly anchored in the context of work. Another criticism of the BM is that it is a one-dimensional measure yielding a single composite burnout score (Shirom & Ezrachi, 2003). Research

findings cast some doubt on the validity of using a single measure of burnout. Studies conducted on the dimensionality and validity of the BM found its discriminant validity unsatisfactory and concluded that it is impossible to achieve a one-dimensional burnout measure on the basis of a multi-dimensional burnout construct (Enzmann, Schaufeli, Janssen, & Rozeman, 1998). Research by Shirom and Ezrasi (2003) drew similar conclusions and found that the BM is inadequate for differentiating burnout from depression and anxiety.

Oldenburg Burnout Inventory

The Oldenburg Burnout Inventory (OLBI) is a relatively new instrument established for measuring burnout. The OLBI was developed by Demerouti, Bakker, Vardakou, and Kantas (2003) to mitigate the scoring bias identified in the MBI. The OLBI is based on a similar conceptual model as the MBI but is distinct in that it includes both positively and negatively worded items and it features only two scales: exhaustion and disengagement (Halbesleben & Buckley, 2004). The OLBI does not include items measuring the personal accomplishment factor included in the MBI. Although the factorial validity of the MBI has been established, the personal accomplishment component has been challenged by researchers suggesting that a two-factor model is a better fit (Demerouti et al., 2003; Kalliath et al., 2000). It is argued by some (including the developers of the OLBI) that personal accomplishment plays a less important role in the burnout syndrome as compared to exhaustion and depersonalization and that personal accomplishment may be related

to other organizational factors, and thus should be excluded from burnout measurement instruments (Halbesleben & Demerouti, 2005; Schaufeli et al., 2001).

Exhaustion is conceptualized as a consequence of intensive physical, affective and cognitive strain (Demerouti et al., 2001). The OLBI differs from the MBI and MBI-GS's operationalization of exhaustion in that it includes the affective, cognitive, and physical aspects of the symptom, enabling the instrument to be applied to workers who perform physical work and those who have information processing jobs (Demerouti et al., 2003). The disengagement scale refers to emotions regarding the work task as well as the devaluation and mechanical execution of one's work. In contrast to the MBI-GS's cynicism scale that restricts itself to measuring subjective job meaningless and lack of worker interest, the disengagement subscale represents an intense emotional, cognitive and behavioral rejection of the job resulting in occupational disillusionment (Demerouti et al., 2002). The disengagement scale concerns the relationship between employees and their job. The creators of the instrument assert that depersonalization (as measured in the MBI) is only one form of disengagement. Their conceptualization of disengagement includes identification with and intent to remain employed (Demerouti et al., 2003).

The OBLI is comprised of 16 items rated on a 4-point rating system from 1 ("totally disagree") to 4 ("totally agree"). The emotional exhaustion and depersonalization subscales each consists of eight items, four of which are positively worded and four of which are negatively worded (Bakker et al., 2004). The OLBI

was constructed and validated in an independent study using a sample of 293 German employees from a variety of occupations, including human service professionals and blue collar workers (Demerouti et al., 2003).

Since the OLBI is a relatively new instrument, there have been limited reports on its psychometric properties, but there has been some evidence of the validity of the tool. Demerouti et al (2001) conducted a study using workers from three occupational groups that confirmed the factorial validity of the OBLI and indicated that the two-factor conceptualization of burnout can be used across occupations. Research examining the relationship between burnout and mental health consequences within and outside of human service professions supported the construct validity of burnout as measured by the OLBI across occupational groups (Demerouti et al., 2002). Research using a sample of 232 Greek employees from different occupational groups also confirmed the factor structure of the OLBI and the convergent and discriminant validity of the OBLI vis-à-vis the MBI-GS (Demerouti et al., 2003; Bakker et al., 2004). Evidence for the validity and reliability of the English version of the OLBI was demonstrated in a sample of 2599 US employees (Halbesleben & Demerouti, 2005). According to Halbesleben and Buckley (2004), “Pending further investigation of its psychometric properties, the OLBI may provide an alternative to the MBI that not only addresses the wording issues of the MBI but also expands the domain of burnout beyond the affective component of exhaustion” (p. 869).

Interventions

Most burnout researchers call for the development and evaluation of interventions aimed at preventing and reducing burnout in the workforce. This can be considered a problematic call to action since there is little consensus on the causes of burnout. Some researchers adhere to the idea that individual characteristics predispose employees to burning out at work (Barrick & Zimmerman, 2005), others propose that issues inherent in organizational structures create an environment where workers are more prone to burning out (Lewandowski, 2003), while still others believe that burnout is related to a combination of individual and organizational traits (Kalimo et al., 2003). Since there is little agreement on how and why burnout occurs, there is an obvious confusion on how to best prevent burnout or repair a burned-out staff.

Most discussions of burnout interventions in the literature offer primarily individual-focused solutions aimed at helping individuals alleviate their exhaustion or reduce their stress levels through enhancing individual resources to help workers better cope within the work environment. Maslach et al. (2001) note that this is paradoxical, since much of the research examining burnout suggests that organizational and situational variables play a bigger role in burnout than individual factors. In one study, forensic nurses participated in a psychosocial intervention consisting of a training to help workers better conceptualize and empathize with their client's mental health issues and then teaching them skills to more effectively intervene (Ewers, Bradshaw, McGovern, & Ewers, 2002). The evaluation of this

program suggested that psychosocial interventions can help forensic nurses have better attitudes towards their clients, resulting in less work stress and reduced burnout levels.

Another burnout intervention involved a five-week, group-based program that focused on cognitive restoration of equity perceptions on both interpersonal and organizational levels (van Dierendonck, Schaufeli, & Buunk, 1998). This intervention assumed that burnout results from the perceptions of inequality at work. The sample consisted of individuals working with mentally disabled adults, and the design was longitudinal. Although the job itself was not altered, results of the evaluation suggested that, compared to the control group, burnout, absenteeism, and feelings of deprivation and inequity diminished in workers who participated in the intervention program (van Dierendonck et al., 1998). A final example is of two cognitive-behavioral rehabilitation interventions aimed at modifying employee appraisals of stressful situations and helping workers deal with their stress. Results of this study indicated that there are four distinct patterns of burnout (not burned out, exhausted and cynical, burned out, and low professional efficacy) that respond differently to interventions (Hatinen, Kinnunen, Pekkonen, & Aro, 2004). Specifically, four months after the intervention, exhaustion and cynicism levels showed a decreasing trend in the burned out group; levels of exhaustion and professional efficacy showed a decreasing trend in the exhausted and cynical group; and professional efficacy showed an increasing trend in the low-professional efficacy group (Hatinen, Kinnunen, Pekkonen, & Aro, 2004).

Interventions aimed at changing the organization are rare and results are varied (Glisson et al., 2006; Maslach et al., 2001). A challenge in developing burnout interventions at this level involves providing adequate specificity to be effective in a particular organization while also providing adequate generalizability to be applied to a variety of organizations and organizational issues (Halbesleben & Buckley, 2004). A recent evaluation study conducted by Glisson et al. (2006) suggests that organizational intervention strategies can successfully be used to reduce staff turnover and improve organizational climates.

Despite growing awareness that addressing the fit between the work environment and the employee is necessary to reduce burnout, dual-level interventions are not well represented in the literature (Maslach et al., 2001). A majority of the dual-level interventions reported in the literature involve a combination of improving employee coping skills while also fostering connections between workers throughout the agency. For example, one study found that oncology nurses benefit from burnout reduction interventions designed to both help them develop stress reducing coping skills while also fostering supportive relationships in the workplace, and facilitating a work-related grief and bereavement program (Medland et al., 2004). Another example involves a management redesign of a private child welfare agency which resulted in workers' perceiving a reduction in organizational problems; however, staff turnover increased more than 50% (Ezell et al., 2002). Although the change effort was successful, the authors conclude that future researchers know how much it costs to plan and implement major

organizational change efforts and determine whether efficiencies gained offset those costs (Ezell et al., 2002).

Child Welfare

Child welfare agencies across the country are reporting challenges recruiting and retaining a competent workforce to carry out their adoption, family support, foster care, protective service, and family preservation programs (Rycraft, 1994; Zlotnick, 2003). Annual turnover rates for child welfare social workers are estimated to range between 23% and 85%, widely varying among local agencies (Smith, 2005). According to Balfour and Neff (1993), turnover rates above 20% should be considered a direct threat to an organization's overall effectiveness. Increasing concern about these challenges has led the Child Welfare League of America, the American Public Human Services Association and the Alliance for Children and Families to describe personnel resources in child welfare as a national workforce crisis (Curry, McCarragher, & Dellmann-Jenkins, 2005).

Stressors experienced by social service workers employed in child welfare positions are numerous and well documented. Factors that have been found to contribute to burnout and ultimate job exit in child welfare include role conflict, role ambiguity, irregular and insufficient supervision, lack of control over the work environment, and excessive workloads (Jayaratne, & Chess, 1984; Nissly et al., 2005; Regehr, Hemsworth, Leslie, Howe, & Chau, 2004; Smith, 2005). One component that is consistently found in studies addressing child welfare turnover is the role of supervisors. Some workers identify that lack of a strong supervisory

relationship is a factor contributing to their intent to leave (Azar, 2000; Bednar, 2003; Curry, McCarragher, & Dellmann-Jenkins, 2005; Smith, 2005). Concern for personal safety is another issue related to turnover intentions. Child welfare workers often provide services to involuntary clients, frequently within client homes (Ellett & Ellett, 2005). Variables found to affect social service worker intent to stay in a child welfare position include long-term career planning; lower ratings of emotional exhaustion; lower case load levels; self-efficacy; having a social work degree; and good person-environment fit (Ellett, & Ellett, 2005; Rycraft, 1994; Smith, 2005).

High rates of employee attrition can have detrimental effects on an organization. Although some worker turnover is expected and normal, the excessive rates of turnover currently seen in child and family services can be harmful to system functioning. It typically takes new child welfare employees two years to develop the knowledge, skills, abilities and dispositions to work independently (Ellett & Ellett, 2005). Thus, rapid staff turnover may result in a continual influx of inexperienced and inadequately trained workers who are ill-prepared to provide effective service delivery, thus negatively affecting an organization's ability to meet its goals (Bednar, 2003). Turnover has additional detrimental effects on remaining staff whose workloads increase to cover abandoned caseloads (Curry et al., 2005).

Not only does turnover have service delivery consequences, but it can also financially affect an organization. Costs related to turnover include: separation costs (the administration functions necessary to process employees out of an organization once they resign); replacement costs (resulting from the advertising, screening,

interviewing and processing necessary to fill a position); training costs (incurred through the provision of job training); and performance differential costs (costs due to a reduction in performance levels that occur when an experienced, productive employee is replaced by a new, inexperienced hire) (Graef & Hill, 2000).

The effect that turnover can have on client care is harmful, particularly in child welfare agencies, where children and families come to depend on the workers with whom they regularly interact (Mor Barak et al., 2001). According to Curry et al. (2005), the labor intensive nature of child welfare work makes it particularly vulnerable to high turnover, and frequently results in minimal coverage for vacated cases, and increased workload for supervisors and other workers who remain at the agency. Turnover has been found to impede the process towards permanency planning, it can have detrimental effects on worker ability to make well-supported and timely decisions on child safety, and it can delay permanency planning (Spencer, 2005). A recent study conducted in a private child welfare organization in Wisconsin found that one of the most important factors in achieving positive outcomes for children and families is consistency and continuity of workers (Flower, McDonald, & Sumski, 2005).

Turnover and retention of child welfare staff is a challenge faced by both public and private child welfare organizations. Not all workers who contemplate leaving can and should be stopped; however, the high rates of child welfare worker turnover can be harmful to both organizations and the families served. In an effort to understand turnover, researchers have devoted attention to the construct of worker

burnout and research suggests that child welfare worker burnout contributes to high levels of turnover (Graef, & Hill, 2000).

Child welfare workers were selected as the focus of this study for three reasons: 1) the high rates of turnover reported within child welfare systems 2) national recognition of the recruitment and retention 'crisis' in child welfare and 3) the negative effect high turnover can have on the children and families served by child welfare agencies. This dissertation study responded to concerns about child welfare turnover and contributes to the growing knowledge base on securing and retaining a competent, satisfied and engaged child welfare workforce.

CHAPTER III

THE PRESENT STUDY

The present study explored several dimensions of employee burnout, engagement, and intent to leave. There were three main goals of this dissertation. The first goal was to use the Job Demands-Resources model to examine the unique relationships between job demands, job resources, burnout, engagement, and intent to leave. A second goal was to explore the concept of work engagement as applied to a sample of social service workers employed in public child welfare. The third goal was to examine the psychometric properties of two new instruments that measure burnout and work engagement. Each of these goals is detailed below.

The Job Demands-Resources Model

This study intended to test the application of a conceptual framework that explains social worker burnout and intent to leave their jobs. Organizations are complex systems that involve interactions among numerous variables, such as workplace characteristics, personalities of the individuals filling the jobs, and interface among organizational, occupational, and individual characteristics. With so many dynamics present in a single organizational system, workplace problems such as burnout and intent to leave are difficult to explain and prevent. Organizational researchers have developed theories and conceptual models to clarify and meaningfully synthesize information about what variables influence staff burnout and turnover in organizations (Smith, 2005).

Despite evidence that social workers are at risk for developing burnout, and that organizations employing social workers frequently experience high levels of burnout and turnover, there has been little empirical research utilizing theory or conceptual frameworks to better understand and respond to this problem. Social work researchers often utilize theory to guide therapeutic practices; however, historically, theories have not often been used to explain the situation of the worker in his/her work environment (Cherin, 2000).

There are several popular theories and conceptual models that explain employee burnout and intent to leave. The Job Demands-Resources model was selected for use in this study for six primary reasons:

1. The JD-R offers a fresh perspective. There is a large body of research explaining burnout and intent to leave from many different perspectives. The burnout literature can be confusing to navigate because of the diverse thinking on the issue. Using a relatively new conceptual framework to consider a well-established problem is refreshing.
2. Despite its relatively recent development, empirical support for the JD-R model has been demonstrated in the literature (Halbesleben & Buckley, 2004).
3. The JD-R builds upon other well-established models, such as the Conservation of Resources Model (COR) and Demand-Control Model (DCM). The JD-R model was developed to overcome some limitations of other models. For example, researchers using the DCM have identified

difficulty in linking demands and control as predictors of burnout (Halbesleben & Buckley, 2004). The JD-R includes resources and considers the additive and interactive effects of demands and resources.

4. The developers of the JD-R model consider the individuality of an organization. Problems within organizations manifest themselves as a result of a unique collection of interacting characteristics. To effectively use the JD-R model, researchers must first identify the system-specific demands and resources. Respecting the individuality of an organization, as opposed to considering all organizations to be alike, is in line with the social work perspective of meeting a client (or organization) where s/he is at.
5. The inclusion of work engagement as a predictor of intent to remain employed was an appealing characteristic of the JD-R model. Social work adheres to a strengths perspective that encompasses an approach to practice that emphasizes strengths and resources, rather than problems and pathologies (Roff, 2004). The JD-R model adheres to the strengths perspective through the inclusion of resources and engagement.
6. The JD-R model is applicable to my experiences as a practicing social worker. My practice involved working with challenging clients, learning of horrific events experienced by these clients, struggling with difficult co-workers, completing enormous piles of paperwork in limited time frames, and other less-than desirable work conditions. Although there

were many challenges, there were also positive experiences in the work, such as the satisfaction of helping people grow and develop, being recognized and rewarded for a job well done, and the sense of camaraderie with my co-workers.

As detailed in the methodology chapter of this dissertation, an organization specific JD-R model was developed and tested in this study.

Figure A: Conceptual Framework

Engagement

A second goal of this study was to explore the concept of work engagement as applied to a sample of social service workers employed in public child welfare. As explained above, the profession of social work adheres to a strengths perspective. This approach emphasizes the strengths and resources of people and the environments in which they operate. The strengths perspective provides social workers with a framework that moves away from pathology and towards development and growth (Roff, 2004).

During the proposal development phase of this study, I noticed a movement towards positive psychology in the workforce literature. Positive psychology seeks to understand and foster the factors that allow individuals, communities, and societies to flourish (Fredrickson, 2001). Seligman and Csikszentmihalyi (2000) explain that, “the aim of positive psychology is to begin to catalyze a change in the focus of psychology from preoccupation only with repairing the worst things in life to also building positive qualities” (p. 5). This is reminiscent of the strengths perspective that guides social work practice.

A common theme of both the strengths perspective and positive psychology is to identify and look for opportunities to enhance the resiliency and strengths of the individual or system of interest. This theme also manifests itself in current literature on child welfare workforce turnover. There has been a recent push to reframe the turnover issue by researching intent to remain employed as opposed to intent to leave and examining resilience and engagement rather than burnout (Curry et al., 2005;

Dickinson & Perry, 2005; Ellett & Ellett, 20005). The movement towards positive psychology, the push in the child welfare literature to reframe the debate, having received a strengths based social work education, and opting to test a conceptual model that incorporates the concept of work engagement all contributed to the decision to explore the application of the work engagement concept to a sample of social service workers employed in public child welfare.

Psychometrics

The final component of this study explored the psychometric properties of two instruments developed in the Netherlands, the OLBI and UWES. As detailed in the literature review, the Maslach Burnout Inventory (MBI) is the most widely used instrument to measure worker burnout (Schaufeli et al., 2001). Although the psychometric soundness of the MBI has been demonstrated in the literature, it also has been consistently challenged. In this study, a new instrument to measure burnout, the Oldenburg Burnout Inventory (OLBI), is tested.

A rationale for testing the OLBI involves a response to concerns about the psychometric soundness of the MBI. Specifically, some researchers question the factorial validity and the unidirectional framing of the MBI items (Halbesleben & Buckley, 2004). The OLBI conceptualizes burnout as having only two factors, disengagement and exhaustion, and the items are both positively and negatively worded. The two factor model is appealing to me because it removes the personal accomplishment component of the MBI, a factor that is sometimes considered more of an outcome of burnout than a part of the process (Schaufeli et al., 2001). The

disengagement factor is interesting because it is concerned with the relationship between employees and their colleagues, their work tasks, and the workplace itself (Demerouti et al., 2003). The focus on the relationship was reminiscent of work alienation, which also involves the estrangement of the worker from his work and the workplace (Sarros et al., 2002), and was an interest of mine when I began my tenure as a doctoral student.

In sum, the purpose of testing the psychometric properties of the OLBI was to examine the potential that an alternative burnout instrument could have equal or better psychometric properties than the MBI. Specifically, the reliability, factorial structure and predictive validity of the OLBI were examined and compared with the MBI.

The Utrecht Work Engagement Scale (UWES) was tested for its applicability to a sample of social service workers. The reasons for measuring engagement are identified above. The reasons for testing the psychometric properties of the UWES were to determine usability of the instrument in this sample and to test its ability to predict intent to leave. To my knowledge, the UWES has not previously been tested in a sample of United States social service workers employed in child welfare. In fact, the concept of measuring work engagement in the field of social work is relatively new. Results of the study lend support for the inclusion of engagement and indicate that the UWES can be applied to this population.

CHAPTER IV

METHODOLOGY

This cross-sectional study explored the relationships between job demands, job resources, social service worker burnout, engagement, and intent to leave a public child welfare agency. A primary goal of the study was to test the applicability of a conceptual model that explains burnout and turnover through a framework of job demands and resources. The study also explored the concept of work engagement in the sample and tested the psychometric features of two new instruments to measure burnout and engagement, the Oldenburg Burnout Inventory and the Utrecht Work Engagement Scale. Survey data were collected from a sample of social service workers employed by the Oregon Department of Human Services (DHS), Children, Adult, and Families Division, Service Delivery Area 2 (SDA 2) serving Multnomah County.

Preliminary Work

The starting point for this study was a qualitative inquiry conducted by DHS. In the Spring of 2005 employees of SDA 2 expressed concern about staff retention. The SDA 2 District Manager (Gerald Burns), the Assistant Manager (Carolyn Graf), and the Manager of Partnerships, Planning, and Development (Chuck Dimond) responded to this concern by hosting a series of five luncheons to explore issues surrounding staff retention. These luncheons offered an open forum, were facilitated by a representative from central office, and were voluntarily attended by approximately 100 workers (Jerry Burns, SDA 2 District Manager, personal

communication, October 19, 2005). Information gathered at these luncheons led to the identification of several challenges and demands affecting the Oregon child welfare workforce. Resources and recommended points of intervention were also identified.

The developers of the Job Demands-Resources Model argue that when examining worker burnout, it is important to first identify the demands and resources that are specific to the organizational context (Arnold Bakker, University of Utrecht, personal communication, April 24, 2005). This provides a more comprehensive understanding of the situation in which the employees work, thus offering an opportunity to develop interventions aimed at reducing specific demands and enhancing resources that are valued by the employees. The five retention lunches revealed the particular demands and resources important to the workers in the participating organization, thus enabling the researcher to develop a Demands-Resources instrument specific to the organization.

It was clear that Oregon DHS SDA 2 workers were experiencing a number of job related challenges that they felt impeded their ability to work as effectively as possible. Some of the challenges and job demands identified by the workers included substantial workloads, frequent policy and practice changes, untrained supervisors, poor relationship with the community and media, emotional demands from the nature of the work, and lack of recognition for a job well done. The workers identified several resources or areas of change that they felt could help buffer the demands and build a more resilient workforce. These resources included enhanced

orientation for new employees and supervisors, improved communication and respect between co-workers, agency support for wellness and self-care, the institution of rewards and appreciation for a job well done, supervisor support and mentorship, and opportunities for professional development.

The information gathered from the retention lunches provided important insight into the actual experiences of those working within this particular system. The Job Demands-Resources model postulates that job demands contribute to worker burnout, while job resources buffer the impact of the demands and lead to engagement. The qualitative data collected by DHS SDA 2 workers guided the development of the organization-specific framework of demands and resources to be tested in this study. Table 2 identifies and defines the demands and resources selected for this study:

Table 2: Job Demands and Resources Selected for the JD-R Model

Demand/Resource	Conceptualization
<i>Demands</i>	
Psychological demands	Psychological stressors involved in accomplishing the work load, stressors related to unexpected tasks, and stressors of job-related personal conflict (Karasek, 1979).
Role conflict and ambiguity	When the behaviors expected of an individual are inconsistent and/or the worker does not receive the necessary information to effectively complete work tasks (Rizzo et al., 1970).
Emotional job demands	The mental work load costs of engaging in complex and emotionally engaging social behaviors in organizational situations (JCQ Center, 2006).
Operating conditions	Organizational policies and procedures (Spector, 2006).
<i>Resources</i>	
Supervisor support	Instrumental and socioemotional support received from supervisor (Karasek et al., 1998).
Coworker support	Instrumental and socioemotional support received from coworkers (Karasek et al., 1998).
Self efficacy	Beliefs in one's capabilities to mobilize the motivation, cognitive resources and a course of action needed to meet situational demands (Chen, Gully, & Eden, 2001).
Contingent rewards	Appreciation, recognition and rewards for good work (Spector, 2006).

Measures

The instruments used in this study solicit self-report data. All instruments have been applied to healthcare workers prior in previous research; however, not all have been administered specifically to social service workers. Table 3 identifies the instruments that were used to address the research questions proposed in this study. Detailed information about each instrument follows.

Table 3: Instruments

Name of Instrument	Rationale	Items
Demographic Questionnaire	Snapshot of participant demographics that have been linked with burnout	10 items
Maslach Burnout Inventory	The most popular conceptualization and instrument used to measure burnout	22 items
Oldenburg Burnout Inventory	Innovative and new way to conceptualize and measure burnout. Comparison of usability of new instrument with 'the standard'	16 items
Utrecht Work Engagement Scale	Engagement as the opposite of burnout; thus should predict intent to remain employed	17 items
Staying or Leaving Index	To measure one's intent to leave the job	8 items
Demands and Resources	<i>Psychological Job Demands – Job Content Questionnaire (Karasek, 1985)</i>	9 items
	<i>Role Ambiguity (Rizzo, House & Lirtzman, 1970)</i>	6 items
	<i>Role Conflict (Rizzo, House & Lirtzman, 1970)</i>	8 items
	<i>Emotional Job Demands Scale (Van Veldhoven & Meijman, 1994)</i>	6 items
	<i>Operating Conditions – Job Satisfaction Survey (Spector, 1994)</i>	4 items
	<i>Supervisor Support – Job Content Questionnaire (Karasek, 1985)</i>	5 items
	<i>Coworker Support – Job Content Questionnaire (Karasek, 1985)</i>	6 items
	<i>Job Self-Efficacy – NGSE (Chen, Gully & Eden, 2001)</i>	8 items
	<i>Contingent Rewards – Job Satisfaction Survey (Spector, 1994)</i>	4 items

Demographic Variables

Age, gender, race/ethnicity, marital status, educational level, educational discipline, and number of years employed in the field were collected using the demographic questionnaire. Gender, race/ethnicity, marital status, and educational discipline were measured as nominal variables. Age and number of years working in the field were measured as interval variables, while educational level was measured as an ordinal variable. All demographic variables were selected for measurement because they are established in the literature as being associated with worker burnout (Maslach, Schaufeli, & Leiter, 2001). Three departmental variables were collected on the demographic questionnaire. The first, department, was measured as a nominal variable. Workers included in this study checked Child Welfare. The second variable inquired about job title and was measured nominally, as providing direct services, administrative or supervisory functions. The third variable inquired about how many hours an employee works per week and was measured as an ordinal variable.

Burnout

The Maslach Burnout Inventory:

Nine of the 22 items that comprise the three subscales of the Maslach Burnout Inventory (MBI) measure emotional exhaustion, five items measure depersonalization, and eight items measure personal accomplishment. Each item is rated using a 7-point response scale ranging from 0 (“never experienced such a feeling”) to 6 (“experience such feelings every day”) (Kalliath, O’Driscoll, Gillespie,

& Bluedorn, 2000). High scores on emotional exhaustion and depersonalization reflect high burnout. The personal accomplishment subscale is reversed so that low scores reflect high burnout. The MBI does not directly measure the presence or absence of burnout. Rather, experienced levels of burnout are perceived to fall along a continuum. In some studies, a composite burnout score is employed by adding the individual's scores on the three factors; however, Maslach strongly advised against the use of a unitary measure since empirical evidence suggests that burnout is a multidimensional construct (Roelofs, Verbraak, Keijsers, de Bruin, & Schmidt, 2005).

Internal consistencies for the MBI are usually reported to be well above .70 (Barnett, Brennan, & Gareis, 1999; Demerouti et al., 2003; Schaufeli et al., 2001; Schaufeli, & Enzmann, 1998) and the validity of the three factor structure has been generally confirmed (Lee & Ashforth, 1990; Richardsen, & Martinussen, 2004; Schaufeli et al., 2001; Schaufeli, & Enzmann, 1998; Schaufeli, Martinez, Pinto, Salanova, & Bakker, 2002). Support has been shown for test-retest reliability ranging from .60 to .82 (Barnett, Brennan, & Gareis, 1999; Byrne, 1994; Cordes, Dougherty, & Blum, 1997; Richardsen, & Martinussen, 2004; Schaufeli, & Enzmann, 1998) and there is evidence of convergent and discriminant validity (Cordes, Dougherty, & Blum, 1997; Demerouti, Bakker, Vardakou, & Kantas, 2003). Research also has found evidence for predictive validity of the MBI (Schaufeli, & Enzmann, 1998).

The Oldenburg Burnout Inventory:

The Oldenburg Burnout Inventory (OLBI) is comprised of 16 items rated on a 4-point rating system from 1 (“totally disagree”) to 4 (“totally agree”). Both the exhaustion and disengagement subscales consist of eight items, with four being positively worded and four being negatively worded in each subscale (Bakker, Demerouti, & Verbeke, 2004). The OLBI is a new instrument; thus, there have been few reports detailing psychometric properties. Recent research supports the construct and factorial validity of the OLBI (Demerouti et al., 2002; Demerouti et al., 2001; Halbesleben & Demerouti, 2005), and internal consistencies are reported to range from .74 - .87 (Halbesleben & Demerouti, 2005).

Previous research has examined the convergent and discriminant validity of the OLBI vis-à-vis the MBI-GS. Because the OLBI measures burnout both within and outside of human services, research comparing the instrument with the MBI has utilized the MBI-General Survey. Simultaneously administering two corresponding burnout instruments provides information about whether both instruments are measuring the same construct and if one instrument or a combination of both instruments best captures the experience of burnout. Demerouti et al. (2003) found correlations between the MBI-GS and the OLBI to be .74, supporting the convergent validity of both instruments. This dissertation also examined the convergent and discriminant validity of the OLBI vis-à-vis the MBI-HS; thus, this study differed from the previous study in that it is comparing the two instruments within a social service occupation.

Engagement

The UWES is a new self-report instrument that operationalizes engagement as having three aspects: vigor, dedication, and absorption (Schaufeli & Bakker, 2004). Vigor is characterized by high levels of energy and mental resilience while working and the willingness to invest effort in one's work; dedication is characterized by a sense of significance, enthusiasm, inspiration, pride and challenge; and absorption is characterized by being happily engrossed in one's work so that the time passes quickly and the worker feels carried away by his/her job (Schaufeli et al., 2002).

The original UWES included 24 items but 7 items were eliminated following psychometric tests, resulting in the current instrument having three scales with a total of 17 items: 6 items measuring vigor, 5 items measuring dedication, and 6 items measuring absorption (Schaufeli & Salanova, 2005). Items of the UWES are scored similarly to the MBI on a 7-point scale ranging from 0 ("never") to 6 ("always") (Schaufeli et al., 2002). Since it is a new instrument, there is little published on the psychometric properties of the UWES. Recent research supports the three factor structure of the UWES (Schaufeli et al., 2002; Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002) and shows correlations among the three scales generally exceeding .65 and internal consistencies exceeding .70 (Schaufeli & Salanova, 2005). Research exploring burnout measurement and the UWES has supported the concept that engagement is the antipode of burnout. Schaufeli and Bakker (2004) found burnout,

as measured by the MBI-GS, and engagement, as measured by the UWES, are negatively correlated and share 10-25% of their variance.

Intent to Leave

Intent to leave was measured using Bluedorn's (1982) Staying or Leaving Index (SLI). The SLI asks respondents to rate their chances of still working for the organization three, six, twelve, and twenty-four months from now, and in a later part of the survey asks respondents to rate their chances of quitting the organization in the same time frame (Bluedorn, 1982). All items are rated on a 7-point response scale (from terrible to excellent). Strong internal consistencies (e.g., 0.85 and 0.95) have been found for the SLI (Blau, 1998). The SLI has previously been used in burnout research (Kalliath, O'Driscoll, Gillespie, & Bluedorn, 2000).

Job Demands and Resources

Questions drawn from five instruments measured organizational demands and resources. The Job Content Questionnaire (JCQ) was used to measure psychological job demands, supervisor support, and co-worker support. The JCQ was developed by Karasek (1985) as a standardized measure to assess job stress based on the job demands-control model of job stress (Kawakami, Kobayashi, Araki, Haratani, & Furui, 1995). The JCQ is a self-administered instrument designed to measure social and psychological characteristics of jobs. The JCQ consists of several scales that assess psychological demands, decision latitude, social support, physical demands and job insecurity. Respondents answer the questions using a 4-point response scale (strongly disagree to strongly agree). The JCQ is widely used in

organizational research, has been translated into over a dozen languages, and is nationally standardized by detailed occupations in several countries (Karasek et al., 1998). Reliability is good for most scales. Average Cronbach's alphas for the scales used in this study are: psychological job demands .59 - .63, supervisor support .84-.86, and coworker support .75-.80 (JCQ Center, 2006).

Role conflict and role ambiguity were measured using an instrument developed by Rizzo, House, and Lirtzman (1970), known as the RHL Scale. The RHL Scale is the most used instrument by researchers studying role stress (Bauer, 2002). The measure is a 14-item instrument, with six items capturing role ambiguity and eight items measuring role conflict on a 7-point response scale. The reported internal reliabilities estimated for the two scales are .88 for role ambiguity and .89 for role conflict (Jaskyte, 2005). This instrument has been widely used in burnout research (Glisson & Durick, 1982; Jaskyte, 2005; McLean & Andrew, 2000; Onyett, Pillinger, & Muijen, 1997; Shirom & Ezrachi, 2003; Um & Harrison, 1998; Zellars, Perrewe, & Hochwarter, 2000).

Operating conditions and contingent rewards were measured by two subscales (operating conditions and contingent rewards) drawn from the Job Satisfaction Survey (JSS) (Spector, 1994). The JSS was developed specifically for human service employees in public and nonprofit organizations (Spector, 1985). The instrument has nine subscales that measure employee job satisfaction on a 7-point response scale. Internal reliability alphas are .76 for the Contingent Reward Scale and .62 for the Operating Conditions Scale (Spector, 2006).

The measurement of emotional demands is based on a scale developed by Van Veldhoven and Meijman (1994). The scale assesses whether employees have to deal with emotionally-charged situations at work. The instrument includes six questions measured on a 5-point response scale. The reliability coefficient for this scale has been reported as .86 (Peeters, Montgomery, Bakker, & Schaufeli, 2005). The Van Veldhoven and Meijman emotional demands instrument has been incorporated into research examining the Job Demands-Resources model of burnout (Bakker & Geurts, 2004; Demerouti, Bakker, & Schaufeli, 2005; Peeters et al., 2005).

Self-efficacy was measured with the New General Self-Efficacy Scale (NGSE). The NGSE consists of eight questions measured on 5-point response scale (strongly disagree to strongly agree). Self-efficacy is defined as, “beliefs in one’s capabilities to mobilize the motivation, cognitive resources, and courses of action needed to meet given situational demands” (Chen, Gully, & Eden, 2001, p. 62). Internal consistency is reported to be at .85 and .86 with test-retest reliability at .86 (Chen et al., 2001).

Human Subjects

Protection of the human subjects who participated in this study included procedures to ensure informed and voluntary consent, the protection of the privacy of the participants, and careful measures to ensure the confidentiality of the data. Study participants were covered under a Portland State University Institutional Review Board approval for the study. The purpose of the dissertation and potential risks and

benefits of participating in the study were explained verbally and in writing to all participants at the time of data collection. Since anonymity was an important aspect of this study, participants were not asked to sign the informed consent document. No personal identifying information was collected on any of the participants. Participants received a copy of the Informed Consent document (Appendix B) to maintain for their records.

Complete information about the procedures to ensure protection of human subjects in this project are included in the application submitted to the Human Subjects Research Review Committee at Portland State University. This application, along with the original letter of approval from the committee, dated April 28, 2006 is included in Appendix C.

Sampling and Inclusion Criteria

Data for this study were collected from employees of Oregon's Department of Human Services, Children, Adult and Families Division, Service Delivery Area 2 serving Multnomah County. SDA 2 is responsible for administering self-sufficiency and child protective programs. Child protective service workers respond to child abuse reports and provide protective custody services while self-sufficiency workers administer programs such as childcare subsidy programs, food stamps, and the JOBS employment and training program.

Criteria for inclusion involved being an adult employee of the Oregon Department of Human Services Area II CAF unit, being employed at least part-time (20 hours a week or more) in a child welfare social service position, and providing

consent to participate in the study. The study participants were recruited from a pool of 529 available positions in child welfare workers (Rosalie Pedroza, SDA 2 Administrator, personal communication, April 10, 2007). A total of 243 workers submitted completed surveys to the researcher, for a response rate of 46%.

Data Collection

The SDA 2 Manager, the Assistant Manager, and the Manager of Partnerships, Planning, and Development expressed a commitment to respond to the concerns raised in the retention lunches (personal communication, Jerry Burns, Chuck Dimond, Carolyn Graf, September 23, 2005). One way that they decided to take action was through sponsoring this study, which they hoped would provide greater insight into some of the identified organizational concerns. A series of meetings were scheduled at each of the child protective service sites. The purpose of these meetings was to initiate a dialogue with individual units and review the findings from the retention lunches. Meeting agenda items involved a discussion of staff retention, identification of resources that each particular site thought could support the work that they do, agency updates, and an introduction to this research project. I attended six of these preliminary meetings (September 23, 2005; October 11, 2005; October 19, 2005; October 20, 2005; November 14, 2005; and November 28, 2005) with the goals of building a presence in the agency, establishing rapport with the workforce, gaining a sense of the culture and climate, and receiving a formal introduction to workers invited to participate in the study.

In the Summer of 2006 I returned to the onsite unit and all-staff meetings for data collection purposes. Data collection took place between May 30, 2006 and August 3, 2006. The first step involved attending series of supervisor meetings. At these meetings, I introduced myself and described the dissertation study. I typically scheduled data collection dates and times with the supervisors during these meetings. If a supervisor was not present at the meeting, dates were arranged by email or telephone.

I attended 38 pre-scheduled unit and all-staff meetings. In most cases, the supervisor had prepared his/her workers for the survey in advance, thus, my attendance at the meeting and the project was anticipated by the workers. Approximately ten to twenty minutes were dedicated to introducing the study. This involved me introducing myself, explaining how the study came about, describing the Job Demands-Resources model of burnout and turnover, and addressing informed consent. Questions were welcomed and, in some cases, the workers had so many questions and comments that the process took up to 30 minutes. The environment was not hostile. If anything, the workers were intrigued by the study and excited to share and discuss their thoughts about their jobs. I notified the workers that their participation was completely voluntary and that if they chose not to participate, they could leave the room or simply submit a blank survey. I also explained that the surveys were completely anonymous and that it would not be possible to link their responses with themselves or their unit.

Once the introduction was complete, I distributed the instrument packet to those in the room. Participants had the option of completing the survey in the meeting, putting it in an envelope in the facilities reception area, or mailing the survey to the primary researcher at Portland State University. An informed consent document with my contact information was provided to participants for their records. The time it took workers to complete the survey varied. Some units quietly worked on the survey and finished in 15 minutes. Other units took time, asked questions, initiated dialogue about workforce issues, and joked with one another. These meetings lasted much longer, sometimes up to an hour.

Research Questions

The data were used to answer the following research questions:

Research Question 1: What is the level of engagement, using the UWES, in a sample of public child welfare social workers in the US?

Analysis Plan: Descriptive analysis

Research Question 2: Is the UWES a suitable instrument for predicting intent to leave in a sample of US public child welfare social workers?

Analysis Plan: Correlation analysis and multiple regression analysis. It was hypothesized that the UWES would have a strong negative correlation with the SLI and that the UWES would explain a significant portion of the variance of intent to leave?

Research Question 3: Is the OLBI a valid and reliable measure of burnout in a sample of social service workers employed in public child welfare?

3a: What is the convergent validity of the OLBI, with the MBI as the criterion measure?

- a. What is the correlation between the EE (MBI) and E (OLBI) subscales?

Analysis Plan: Correlation analysis. It was hypothesized that the correlation between the subscales would be strong and in a positive direction.

- b. What is the correlation between the DP (MBI) and D (OLBI) subscales?

Analysis Plan: Correlation analysis to assess concurrent validity. It was hypothesized that the correlation between the subscales would be strong and in a positive direction.

- c. Are the internal consistencies of the OLBI comparable to the internal consistencies of the MBI?

Analysis Plan: Cronbach's alpha will assess internal consistency of the measures. It was hypothesized that there would be a strong degree of internal consistency for both instruments.

- d. What is the construct validity of the OLBI? Is the factor structure of the OLBI comparable to factor structures found in existing research?

Analysis Plan: Confirmatory Factor Analysis. It was hypothesized that the data would fit the established dimensions.

3b: What is the predictive validity of the OLBI to predict intent to leave, as compared to the MBI?

- e. What is the relationship between OLBI scores and intent to leave?

Analysis Plan: Correlation analysis and regression. It was hypothesized that the OLBI would have a strong association with intent to leave and would explain a significant portion of the variance of intent to leave.

- f. What is the relationship between burnout scores on the MBI and scores on intent to leave?

Analysis Plan: Correlation analysis and regression. It was hypothesized that the MBI would have a strong association with intent to leave and would explain a significant portion of the variance of intent to leave.

- g. What is the relative strength of the relationship between the OLBI and intent to leave, as compared to the relationship between the MBI and intent to leave?

Analysis Plan: Multiple regression analysis to compare variance accounted for by the OLBI and the MBI. It was hypothesized that the OLBI would explain more variance than the MBI.

Research Question 4: Is the Job Demands-Resources Model of burnout applicable to a sample of social service workers employed in public child welfare?

Analysis Plan: Structural equation modeling was the intended analysis plan.

Path analysis was used in the study, as the steps leading up to SEM indicated that modeling manifest variables was preferable to modeling latent variables.

Data Analysis

The primary analysis strategy intended for use in this study was structural equation modeling. Structural equation modeling (SEM) is a comprehensive and flexible approach for modeling relations among numerous variables. SEM is becoming more popular in social science research because the technique can be used to determine how well the measures selected reflect their intended constructs and it allows for testing of specific path models that predict certain outcomes. SEM is unique because it simultaneously considers questions of measurement and prediction (Kelloway, 1998). Increased attention is being paid to using SEM in burnout research because it allows for investigation of relationships among specific burnout factors and environmental and/or personal variables (Kalliath et al., 2000; Um & Harrison, 1998).

The data were entered into an SPSS database developed and maintained by the primary investigator. Once the data were entered, descriptive statistics were calculated and the data were cleaned in order to reduce potential error from data entry. The reason for using SEM instead of analysis of variance or multiple regression was that the primary aim of SEM is to model covariances, or propose a model (the JD-R in this case) and then evaluate how the relations manifest themselves in actual observation (Hoyle & Smith, 1994; Kline, 1998). Benefits of

using SEM in this dissertation were that it is *a priori* (meaning that relationships between variables are hypothesized prior to analysis), it includes measurement concerns in the estimation procedure, it allows for the simultaneous evaluation of entire models that include multiple indicators and dependent variables, and it allows latent variables to behave as both independent and dependent variables in the same model, which make it possible to test a variety of hypotheses.

Data Analysis Steps

Step 1: Data Entry

I assigned each of the 243 surveys anonymous numbers that were randomly associated with the order in which the survey was entered into the SPSS database.

Step 2: Data cleaning and exploration:

Once all of the data were entered, the data were cleaned to reduce potential error from data entry. Frequency distributions, histograms, and boxplots were used to assist with the detection of any errors in the dataset, such as typing errors, missing data, measurement errors, and/or coding errors. All detected errors were reconciled with data from hard copies of the questionnaire. Once individual items were considered and the data were cleaned, syntax was written for the purpose of reverse coding when necessary. Syntax-based subscales were created from items within each instrument per instrument psychometrics to ease future analyses. Correlations among the items were inspected to ensure that items were reverse-scored properly. If an item was not scored properly, the correlation would not be in the right direction.

After individual subscales were developed, descriptive statistics and histograms were used to examine distributions. SEM and path analysis assume that the scale scores are normally distributed. Violating this assumption can result in an inflated or deflated chi square statistic (West, Finch, & Curran, 1995). The analysis indicated overall normality, although some items displayed slight positive and negative skews. Analysis strategies using statistical estimation procedures, such as SEM and path analysis, are considered robust to minor violations of normality (Huba & Harlow, 1987).

Step 3: Missing Data Issues:

Descriptive analyses facilitated the identification of missing data. There was a low occurrence of missing data in the scale responses. Each of the study variables has an N of 230 or above, meaning that missing data was between 0 and 5%. The only exception was the MBI. This instrument had the greatest number of non responses, with percentages of missing data ranging from 1% to 7% for each item. Despite missing data, 201 respondents fully completed the MBI. This was a promising finding as it provided the option to use either listwise deletion or AMOS's maximum likelihood imputation option to respond to missing data.

Step 4: Variable Identification:

The indicator variables (also referred to as observed or manifest variables) are the instrument items that measure the concepts. In this study, the indicator

variables are the individual scale scores that represent Psychological Job Demands, Role Conflict, Role Ambiguity, Operation Conditions, Emotional Demands, Supervisor Support, Coworker Support, Contingent Rewards, Self Efficacy, Burnout, Engagement and Intent to Leave.

The latent variables (also referred to as unobserved variables or factors) are measured by their respective indicators. In other words, there are six indicator variables that comprise the latent variable of Emotional Demands. The latent variables in this model are Psychological Job Demands, Role Conflict, Role Ambiguity, Operation Conditions, Emotional Demands, Supervisor Support, Coworker Support, Contingent Rewards, Self Efficacy, Burnout, Engagement and Intent to Leave. Figure 1 below represents how five indicator variables make up the latent variable of supervisor support:

Figure B: Latent Variable Example

Although latent variables were not tested in the model, initial steps of analysis involved drawing and analyzing latent variables using CFA.

Step 5: Model Specification:

SEM and path analysis require an *a priori* specification of one or more models that explain why variables are correlated in a particular fashion. Figure C below represents the original model to be tested in the study, using the MBI to measure burnout as opposed to the OLBI. Table 3 represents the shorthand used to represent the latent variables:

Table 4: Shorthand of the model variables

<i>Shorthand</i>	<i>Variable</i>	<i>Domain</i>
ED	Emotional Demands	Demand
RC	Role Conflict	Demand
RA	Role Ambiguity	Demand
Op	Operating Procedures	Demand
Dem	Psychological Job Demands	Demand
REW	Contingent Rewards	Resource
NGSE	Self Efficacy	Resource
Sup	Supervisor Support	Resource
CoW	Coworker Support	Resource
UWES	Work Engagement	Engagement
MBI	Burnout	Burnout
SLI	Intent to Leave	Intent to Leave

Figure C: Original Model

Step 6: Identification

Identification is a process that involves the known and unknown parameters. Known parameters are population characteristics of the distribution of observed variables, such as their variances and covariances, for which consistent sample estimators are known and available (Chou & Bentler, 1995). Unknown parameters are those whose identification status is unknown – they are from the structural equation model. Identification is demonstrated by showing that the unknown parameters are functions only of the identified parameters and that these functions lead to unique solutions. The goal is to solve for the unknown parameters in terms of known parameters.

Identification addresses whether or not a unique solution for the model can be obtained. An under-identified model is when the number of unknowns exceeds the number of questions (Chou & Bentler, 1995). This type of model is problematic because it is not possible to determine a unique solution. In a just-identified model the number of unknowns equals the number of structural equations composing the model (Chou & Bentler, 1995). This means that there is only one unique solution. In an over-identified model, the number of equations exceeds the number of unknowns. This means that there could be multiple unique solutions so the interpretation process involves determining the best fit (Chou & Bentler, 1995). It is preferable to work with over-identified models. AMOS software conducts identification checks as part of the model fitting process (Information Technology

Services, 2007). The software provides warnings if the model is under-identified.

All of the models tested in this study were over-identified.

Step 7: Estimation

The purpose of estimation is to obtain values for the unknown parameters.

AMOS software will estimate the parameters of each model. The program calculates the implied covariance matrix and then compares it to the observed covariance matrix (i.e., the actual data) to see how it fits. If the fit is bad, the program will adjust the starting values and repeat the calculation. This is essentially the chi square test. In this study, estimation was obtained via maximum likelihood estimation (MLE) in AMOS 6 to compute the overall model fit chi square test, parameter estimates, and standard errors. MLE selects estimates that have the greatest chance of reproducing the observed data.

Step 8: Testing Fit

Evaluating model fit involves comparing the estimated matrices representing the relationships between the variables in the model to the actual matrices.

Individual factors within the model are also examined within the estimated model in order to see how well the proposed model fits the driving theory. In this study, fit will be tested using the chi square test statistic as well as four fit indices. Good fit is indicated by a non-significant chi square test. A limitation of the chi square test is that as sample size increases (and therefore model estimates become more accurate),

the probability of the difference between the hypothesized data and the observed data also increases (Ridenour, Greenberg, & Cook, 2006). In fact, it has been proposed that chi square be used as badness of fit rather than goodness of fit measure because a small chi square value is indicative of a good fit, whereas a large chi square value reflects bad fit in SEM (Kim & Rojewski, 2002). In lieu of issues with the chi square test statistic, four fit indices will be used to test model fit. Fit indices assess the degree of congruence between the model and the data. These indices quantify variance accounted for instead of testing the model. Monte Carlo studies of the major fit indices identify four fit indices that perform well across a variety of conditions: The Relative Fit Index (RFI), the Tucker Lewis Index (TLI), the Incremental Fit Index (IFI), and the Root Mean Square Error of Approximation (RMSEA) (Coleman, 2006). These fit indices were used to test model fit in this study. Traditional goodness-of-fit cut off scores are greater than .90 for the RFI, TLI, and IFI, and a score of less than .10 for the RMSEA (Coleman, 2006).

Step 9: Respecification

Respecification is the process of determining if anything can be done to improve the fit of the model. This is a fairly controversial process, as SEM is considered a confirmatory approach. There are two processes for respecification: theory trimming and theory building. Theory trimming involves deleting non-significant paths from the model to improve its fit. Theory building involves adding parameters to the model. AMOS software provides information and guidelines for

finding sources of model misspecification. Specifically, AMOS software computes a modification index that measures how much the chi-square statistic is expected to decrease if a particular constrained parameter is set free and the model is re-estimated (Joreskog, 1993).

CHAPTER V

RESULTS

Study Sample

Two hundred and forty three completed and usable surveys were collected. Each participant was an adult employee of Oregon's Department of Human Services, Children, Adult and Families Division, Service Delivery Area 2 serving Multnomah County. Participants were employed at least part time (20 hours a week or more) in a child welfare social service position within the SDA2.

Study participants were primarily women (n = 200, 82%). Seventy-five percent were Caucasian (n=181), 8% were African American (n = 20), 7% were Hispanic/Latino (n=18), 3% were Asian (n=8), 3% reported mixed ethnicity (n=7), 2% were Pacific Islander (n=4), and 1% were either American Indian or declined to identify their ethnicity.

Slightly over half of the participants were aged 18-39 (54%, n=131), 20% were 40-49 (n=48), 21% were 50-59 (n=50), and 5% reported being 60 or over (n=12). Sixty-one percent of the participants were either married (n=116) or living with a partner (n=28). Twenty-seven percent were single (n=66), 10% were divorced or had their relationship annulled (n=24), one person was widowed, and 3% reported other (n=3) or did not identify a marital status (n=5).

Seventy-six percent of the sample pursued higher education, 51% earning a bachelor's degree (n=123), 24% a Master's Degree (n=58), and 1% a Doctorate (n=3). Four percent earned an Associates Degree (n=9), 15% attended some college

(n=36), and a high school diploma or equivalent degree was the highest level of education for 5% of the sample (n=11). Disciplines selected by the participants varied widely. Thirty-six percent (n=87) of the participants had been educated in Social Work, 17% Psychology (n=40), 6% Sociology (n=15), 3% Counseling (n=8), and 1% Addictions (n=3) or Nursing (n=2). Thirty-four percent of the respondents (n=82) received schooling in other disciplines, such as Criminal Justice (n=6, 3%) or Education (n=6, 3%).

Over one half of the participants (62%) had been employed in child welfare for ten years or less (n=148). Thirty-eight percent had been employed in the field for over ten years (n=92), with 23% employed for fifteen years or more (n=56). Over half of the respondents (61%, n=148) were employed in case-load carrying positions, meaning that they worked directly with clients. Employees in an administrative or support role comprised 24% (n=57) of the sample and 10% (n=23) held supervisory roles in the organization. Five percent (n=13) reported involvement in other roles in the organization, with 5 of those identifying that they worked in Social Service Aide (SSA) positions, a paraprofessional position that works closely with parents and provides supervision for parental visitation. Demographics of the total study sample are summarized in Table 5.

Table5: Sample Demographics

Total Sample (N = 243)		
Gender	Female	83% (n=200)
	Male	17% (n=40)
Race/Ethnicity	White	76% (n=181)
	Black	8% (n=20)
	Hispanic/Latino	8% (n=18)
	Asian	3% (n=8)
	Mixed Ethnicity	3% (n=7)
	Pacific Islander	2% (n=4)
	American Indian	1% (n=2)
Educational Level	Diploma/GED	5% (n=11)
	Some College	15% (n=36)
	Associates Degree	4% (n=9)
	Bachelor Degree	51% (n=123)
	Masters Degree	24% (n=58)
	Doctorate	1% (n=3)
Educational Discipline	Social Work	37% (n=87)
	Other	35% (n=82)
	Psychology	17% (n=40)
	Sociology	6% (n=15)
	Counseling	3% (n=8)
	Addictions	1% (n=3)
	Nursing	1% (n=2)
Age	18-29	19% (n=47)
	30-39	35% (n=84)
	40-49	20% (n=48)
	50-59	21% (n=50)
	60+	5% (n=12)
Years Employed In the Field	0-1	10% (n=24)
	2-3	17% (n=40)
	4-6	16% (n=39)
	7-10	19% (n=45)
	10-15	15% (n=36)
	Over 15	23% (n=56)
Job Role	Case Load	61% (n=148)
	Administrative	24% (n=57)
	Supervisor	10% (n=23)
	Other	5% (n=13)

Levels of burnout and engagement in the sample

Descriptive statistics revealed that the sample was experiencing high levels of emotional exhaustion, which is considered the first stage of the burnout process, at the time of data collection. Descriptives for the three MBI subscales are described in table 6. The mean scores are categorized per instructions in the MBI Manual (3rd edition) (Maslach, Jackson, & Leiter, 1996). It is important to recall that the personal accomplishment subscale is reverse scored, so that high scores reflect reduced personal accomplishment.

Table 6: Burnout Descriptives

<i>MBI</i>	<i>M</i>	<i>SD</i>	<i>Category</i>	
Emotional Exhaustion	3.83	1.28	High	70%
			Med	16%
			Low	7%
Depersonalization	5.36	.95	High	51%
			Med	32%
			Low	8%
Personal Accomplishment	2.78	1.24	High	8%
			Med	15%
			Low	63%

Research Questions

Question 1: What is the level of engagement, using the UWES, in a sample of public child welfare social service workers in the US?

The developers of the UWES established scoring categories for each of the three engagement factors and the total engagement score. The five categories associated with scoring are: very low, low, average, high, and very high (Schaufeli & Bakker, 2003). The scoring categories were based on item distributions; however, the authors do not provide operational definitions of the five categories.

The majority of the participants fell into the average or high category of engagement.

Table 7: Sample Engagement Categories

<i>Category</i>	<i>Score Range</i>	<i>Frequency</i>
Very Low	≤ 1.77	0
Low	1.78 – 2.88	.8 (n=2)
Average	2.89 – 4.66	51% (n=120)
High	4.67 – 5.50	36% (n=85)
Very High	≥ 5.51	13% (n=30)

The analysis suggests that over three quarters of the public child welfare social service workers employed by Multnomah County Department of Family Services are experiencing average or high levels of engagement at work. According to Schaufeli and Bakker's (2003) Utrecht Work Engagement Scale Manual, an average level of work engagement translates into feeling vigorous, dedicated and absorbed at work at least a couple of times a month to at least once a week. A score

of high engagement indicates feeling engaged at work a couple of times per week to daily.

Since the UWES is a new instrument, there is limited published research establishing norms for levels of engagement. The developers of the instrument report findings that in a sample of Dutch workers (N=12,631), using the UWES-9, 58% of the workers reported high or very high levels of work engagement, 37% reported average engagement, and 5% reported low or very low engagement at work. In the current sample, workers reported a higher rate of average work engagement; however, half of the sample fell into the average engagement category.

Question 2: Is the UWES a suitable instrument for predicting intent to leave in a sample of US public child welfare social service workers?

The correlation matrix (Appendix E) reveals a negative relationship between each of the three subscales of the UWES and intent to leave. This was expected since the model predicts that employees who feel engaged in their work will not leave their jobs. All three of the UWES subscales were negatively correlated with intent to leave; however, the correlations indicate moderate relationships with coefficients $<.4$. Prior research detailing the relationship the UWES has with intent to leave was not located in a literature search, therefore the results could not be compared to other findings.

A regression analysis was conducted to explore the potential that the UWES has to predict intent to remain employed. The UWES was significantly related to

intent to leave, $F(3,237) = 16.87, p < .01$. The multiple correlation coefficient was .42, explaining 18% of the variance of intent to leave. As demonstrated in Table 9, only the vigor and dedication factors of the UWES were significant predictors of intent to leave. This finding lends support for the argument that the absorption component plays a lesser role in development of work engagement (Gonzales-Roma et al., 2006).

Table 8: Regression Analysis for UWES Predicting Intent to Leave

<i>Variable</i>	<i>B</i>	<i>SE</i>	<i>β</i>	<i>t</i>	<i>p</i>
UWES V	-.29	.12	-.21	-2.4	.02*
UWES D	-.31	.13	-.23	-2.39	.02*
UWES A	.03	.12	-.02	-.21	.84

* $p < .05$

Question 3: Is the OLBI a valid and reliable measure of burnout in a sample of social service workers employed in public child welfare?

The three MBI subscales and the two OLBI subscales demonstrated internal consistency at .71 or above. This suggests a strong degree of internal consistency for both instruments. Mean scale scores for the exhaustion and disengagement subscales were similar and centered on the midpoint; however, standard deviations for the two scales were quite different. Since the MBI uses a 7-point likert scale and the OLBI has a 5-point scale, it is not possible to make an accurate comparison.

To test convergent validity, the strength of the associations of the correlations of the scales were examined. Strengths of association can be defined as the degree to

which the values of two variables vary or change together (Rosenthal, 1996).

Cohen's descriptors for Pearson's r were used to qualitatively interpret the correlations. Cohen's descriptors are .10 = small, .30 = medium, and .50 = large (Cohen, 1988). Rosenthal (1996) proposed that Cohen's descriptors be modified to include a very large effect size category that has an r of .70.

The parallel exhaustion scales were correlated at .78 with a $p < .01$. From Rosenthal's (1996) perspective, this indicates that there is a very large association between the two subscales. This suggests that the two exhaustion scales are measuring similar constructs. The strength of the correlation between the depersonalization and disengagement subscales was .45 with $p < .01$ indicating moderate-strong association (Coleman, 2004; Dijkstra et al., 1999). This suggests that the depersonalization and disengagement subscales may be measuring slightly different constructs.

Of the five scales, the disengagement subscale of the OLBI has the strongest association with intent to leave. A correlation coefficient of .49 with $p < .01$ indicates a large association between the scales (Coleman, 2004; Rosenthal, 1996). The other four scales demonstrated medium association with intent to leave.

Table 9: Descriptives, Cronbach's alphas and Pearson's *r* correlations

	<i>Mean</i>	<i>SD</i>	<i>Alpha</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>Intent to Leave</i>
MBI								
1. EE	3.89	1.25	.90					.39**
2. DP	2.83	1.21	.74	.54**				.26**
3. PA	5.36	.94	.71	-.19**	-.21**			-.21**
OLBI								
4. E	3.13	.65	.80	.78**	.42**	-.22**		.36**
5. D	2.70	.61	.75	.55**	.45**	-.42**	.51**	.49**

** $p < .01$

Multiple regression analysis evaluated how well the five burnout indices predicted intent to leave. A combination of all five burnout factors was significantly related to intent to leave, $F(5,230) = 16.64, p < .01$. The correlation coefficient was .52, explaining 27% of the variance of intent to leave. As demonstrated in Table 11, only the disengagement scale of the OLBI was predictive of changes in intent to leave scores. Specifically, for every unit increase in OLBI disengagement, intent to leave increases by .37.

Table 10: Regression Analysis for Burnout (MBI & OLBI) Predicting Intent to Leave

<i>Variable</i>	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>
OLBI E	.11	.19	.06	.61	.55
OLBI D	.84	.17	.37	4.91	.000**
MBI EE	.17	.11	.16	1.58	.12
MBI PA	-.04	.09	-.03	-.48	.63
MBI D	-.02	.08	-.01	-.21	.83

** $p < .01, R^2 = .27$

Multiple regression analysis evaluated how well the two burnout instruments independently predicted intent to leave. The MBI burnout index was significantly related to intent to leave, $F(3,234) = 17.32, p < .01$. The multiple correlation coefficient was .43, indicating that the MBI dimensions explained 18% of the variance of intent to leave. As demonstrated in Table 12, both emotional exhaustion and reduced personal accomplishment, but not depersonalization, are predictive of changes in intent to leave.

Table 11: Regression Analysis for MBI Predicting Intent to Leave

<i>Variable</i>	<i>B</i>	<i>SE</i>	<i>β</i>	<i>t</i>	<i>p</i>
MBI EE	.38	.08	.35	4.9	.00**
MBI PA	-.22	.09	-.15	-2.46	.02*
MBI D	.05	.08	.04	.59	.56

* $p < .05$, ** $p < .01$, $R^2 = .18$

The OLBI was also significantly related to intent to leave, $F(2,238) = 40.68, p < .01$. The multiple correlation coefficient was .51, indicating that the OLBI dimensions explained 26% of the variance of intent to leave. As demonstrated in Table 13, both exhaustion and disengagement are predictive of changes in intent to leave. Individually examined, the disengagement factor of the OLBI continues to be the strongest predictor of intent to leave. For each unit increase in OLBI disengagement, intent to leave increases .94.

Table 12: Regression Analysis for OLBI Predicting Intent to Leave

<i>Variable</i>	<i>B</i>	<i>SE</i>	<i>β</i>	<i>t</i>	<i>p</i>
OLBI E	.31	.14	.15	2.29	.02*
OLBI D	.94	.15	.41	6.38	.00**

* $p < .05$, ** $p < .01$, $R^2 = .26$

In sum, both the MBI and the OLBI have good internal consistency reliability. The OLBI exhaustion subscale demonstrates convergent validity with the MBI, however the disengagement and depersonalization scales appear to be measuring different concepts. The factor structure of the OLBI could not be confirmed using CFA, suggesting that further exploration of construct validity is necessary. Both instruments are good predictors of intent to leave. Taken together, all five burnout factors explain 27% of the variance of intent to leave. Individually, the OLBI is a stronger predictor, accounting for 26% of the variance of intent to leave, as compared to the MBI's 18%. The disengagement factor of the OLBI is the strongest predictor. A *B* of .94 indicates that for each unit increase in the OLBI, intent to leave increases almost by a whole unit on the seven point likert scale.

Question 4: Is the Job Demands – Resources model of burnout applicable to a sample of social service workers employed in public child welfare?

Recall that this question refers to the conceptual framework in Figure A.

Figure A: Conceptual Framework

Initial Analysis Strategy

Structural equation modeling (SEM) is a collection of statistical techniques used to examine a set of relationships between one or more independent variables and one or more dependent variables (Ullman, 1996). SEM integrates components of several analyses, including multiple regression, path analysis, and factor analysis. Bollen (1989) identifies three components of structural equation models: (1) path analysis (2) a conceptual synthesis of latent variable and measurement models and (3) general estimation procedures. A path analysis is like a flowchart. Steps of path

analysis involve creating the path diagram, writing equations that relate the covariances among the variables to the model parameters, and finally distinguishing the direct, indirect, and total effects that the variables have on one another. The second step combines two basic components: the measurement model (which defines hypothetical latent variables in terms of observed measured variables) and the structural model (which defines relations among the latent variables) (Kim & Rojewski, 2002). The measurement model is validated through confirmatory factor analysis. The fit of the structural model is tested using the chi square statistic and fit indices. The final step of SEM involves estimating the likelihood that the observed covariances are drawn from a population assumed to be the same as reflected in the coefficient estimates (Garson, 2007).

This study involved a large set of data. There were approximately 100 variables associated with 243 cases. There were 13 instruments measuring 13 latent variables in this model. A latent variable is a hypothetical construct of interest that is theoretically embedded in items of the subscales that make up an instrument. All of the instruments used in this study are well grounded in the literature and are demonstrated to have good psychometric features.

Actual Analysis Strategy

Structural equation modeling is a confirmatory approach to testing *a priori* hypotheses based on the literature. I originally intended to adhere to a strictly confirmatory approach. This meant that a single model would be formulated and

empirical data would test the fit of the model. If the initial model does not fit the data in this situation, the model would be modified and tested again (and again) using the same data. This is called model generating and is the most common practice in SEM because most researchers are not content with simply rejecting a given model without testing alternative models (Joreskog, 1993). Using a model generating approach in SEM involves adding and/or subtracting paths in a theoretically sound manner to improve the fit of the overall model, as evidenced by the chi square statistic, the degrees of freedom, and the fit indices.

An issue that emerged during the analysis process led to a change in analysis strategy. Confirmatory factor analysis did not achieve acceptable fit for several of the latent variables. Specifically, a good fit was not obtained for the Oldenburg Burnout Inventory, the Psychological Demands Scale, and the Staying or Leaving Index. The CFA process followed for establishing fit is detailed in the following section. In this situation one could opt to test a model that includes both latent and manifest variables – meaning that mean or sum scores would be entered into the model for the variables that did not have a good fit and latent variables for the remainder. I decided to test a model in which all of the variables were manifest and represented by mean scale scores for each variable, otherwise called path analysis. This decision was made in consultation with two committee members well versed in Structural Equation Modeling and Path Analysis and one outside statistician.

Path analysis is a methodology for analyzing systems of structural equations (Bollen, 1989). Path analysis is essentially a subset of structural equation modeling.

Like SEM, it considers more than one dependent variable at a time and it allows for variables to operate as both independent and dependent variables. The difference between path analysis and SEM is that SEM tests latent variables, while path analysis considers manifest variables.

The following section describes the steps that were taken for each instrument in preparation for analysis. First, descriptive statistics were calculated and examined for abnormalities in the data. Next, I calculated reliability checks to confirm that each instrument demonstrated acceptable reliability in the sample. Reliability concerns the homogeneity of the items that comprise a scale – this is important because scales are developed to measure a single phenomenon. If the scale items have a strong relationship to their latent variable, then they will have a strong relationship with each other (DeVellis, 1991). Internal consistency reliability tests the extent of the correlations among the items. If they are highly correlated, then they are measuring the same construct. Cronbach's coefficient alpha was used as the measure of reliability. A Cronbach's alpha of .70 or above indicates sufficient internal consistency.

Confirmatory factor analyses (CFA) were conducted for each instrument as the final preparatory step. CFA seeks to determine if the number of factors and the loadings of measured (indicator) variables on them conform to what is expected on the basis of pre-established theory (Garson, 2007). Indicator variables are selected on the basis of prior theory and factor analysis is used to see if they load as predicted on the expected number of factors. The *à priori* assumption is that each factor is

associated with a specified subset of indicator variables. CFAs were used to determine if the indicators fell together appropriately to represent the underlying constructs. This ensured that the instruments were representing what they were intended to represent.

Confirmatory Factor Analyses

CFAs were conducted using Maximum Likelihood Estimation (MLE) in AMOS 6. Although AMOS is typically used for model testing using SEM, it can also be used for factor analysis (Garson, 2007). As indicated earlier in this chapter, the chi square test is sensitive to sample size and thus is not recommended to use as the sole test of fit. A common practice in CFA is to use fit indices to assess the degree of congruence between the model and the data. The four fit indices that were used in this study were: the Tucker-Lewis Fit Index (TLI), Incremental Fit Index (IFI), Relative Fit Index (RFI), and the Root Mean Square Error of Approximation (RMSEA). Cut off scores are greater than .90 for the RFI, TLI, and IFI and less than .10 for the RMSEA (Coleman, 2006). The following section reports CFA results on each instrument. The section ends with Table 24, presenting mean scale scores entered into the final model and reliability.

Instruments Measuring Burnout and Engagement

The Maslach Burnout Inventory

Maslach, Jackson, and Leiter (1996) identify in the Maslach Burnout Inventory Manual that the reliability coefficients for the subscales are .90 for Emotional Exhaustion, .79 for Depersonalization, and .71 for Personal

Accomplishment. A review of the literature suggests that the ranges listed in the manual are consistent with findings from other research (Halbesleben & Demerouti, 2005). In the present study, the Cronbach's alphas were .90 for EE, .79 for DP, and .71 for PA. This indicated that the MBI demonstrated satisfactory reliability in this sample.

Results of the initial CFA demonstrated poor relative fit ($\chi^2(206) = 490.39, p < .001$; RFI = .75; IFI = .86; TLI = .83; RMSEA = .08). According to Bollen (1989), an initial model often does not fit the data well for many reasons, with a common one being misspecification. Listwise deletion removed all participants who did not complete the MBI, leaving a sample size of 201. The removal of missing variables allowed for further exploration to better understand the results of the CFA and see which parameters contributed to model fit and which ones did not. This data provides information on model respecification opportunities (i.e., theory trimming and/or theory building).

The estimates were recalculated with the smaller sample ($n=201$) and modification indices were calculated to explore intercorrelations between individual items and loadings. Results suggested that fit could be improved by allowing several error terms to correlate. Since correlating error terms is a controversial approach, a review of the literature on the MBI was conducted. Several studies report that MBI fit improves with the correlation of measurement errors between items 1 and 2, items 10 and 11, and items 6 and 16 and cross loading item 12 with the Emotional Exhaustion Scale, (Byrne, 1994; Drake & Yadama, 1995; Kalliath et al., 2000;

Richardsen & Martinussen, 2004). Correlated error terms in measurement models can emerge out of item-specification problems such as overlap in content, which Kalliath et al. (2000) observes is an issue in the MBI because several of the questions ask the same things in different ways. The above correlations were added and estimates were calculated. The results of this CFA demonstrated improved fit ($\chi^2(202) = 364.06, p < .001$; RFI = .79; IFI = .91; TLI = .89; RMSEA = .06). Fit indices for the CFA's are presented in Table 14. The improvement in fit and the substantial support in the literature for respecification suggested that this was an acceptable solution for model testing.

Table 13: Maslach Burnout Inventory Confirmatory Factor Analysis

<i>CFA</i>	χ^2	<i>df</i>	<i>RFI</i>	<i>IFI</i>	<i>TLI</i>	<i>RMSEA</i>
Initial	490.39**	206	.75	.86	.83	.08
Final	364.06**	202	.79	.91	.89	.06

** $p < .001$

The Oldenburg Burnout Inventory

The OLBI is a fairly new instrument so published reports on the psychometric properties of the instrument are limited. Halbesleben and Demerouti (2005) report internal consistencies of both scales ranging from .74 to .87. Cronbach's alphas for the present sample are .80 for Exhaustion and .75 for Disengagement, confirming acceptable reliability in this sample.

Research available on the OLBI supports the two-factor conceptualization of the instrument (Demerouti et al., 2002; Demerouti et al., 2001). A CFA was calculated on the OLBI using to confirm its structure in this sample. All participants with missing OLBI data were removed from the sample to allow for further exploratory analysis if desired. The final sample size for this CFA was 227. Results of this initial CFA indicated a poor fit ($\chi^2 (103) = 378.25, p < .001$; RFI = .64; IFI = .76; TLI = .71; RMSEA = .11). A good confirmatory fit was not obtained from testing a series of alternative models of the OLBI.

Utrecht Work Engagement Scale

The UWES is also a relatively new instrument, therefore published reports on its psychometric properties are limited. Schaufeli and Salanova (2005) identify that the internal consistencies for all three scales are above .70. Cronbach's alphas in this sample were .78 for vigor, .86 for dedication, and .72 for absorption, indicating that reliability was acceptable and consistent with what has been reported in the literature.

An initial CFA indicated poor fit ($\chi^2 (116) = 492.50, p < .001$; RFI = .67; IFI = .80; TLI = .73; RMSEA = .12). Listwise deletion, used to remove participants with missing UWES data, left a sample size of 230. Estimates were calculated and modification indices revealed high covariance among error terms that were not theoretically sensible.

I returned to the literature and discovered updated research on a shortened version of the UWES. In 2006 the developers of the UWES shortened it to make the

instrument more usable and improve psychometric properties (Schaufeli, Bakker, & Salanova, 2006). The shortened UWES has 9 items, with 3 items making up each of the 3 subscales. Internal consistencies reported on the shortened scales vary from .75 to .91 for vigor, from .92 to .96 for dedication and from .75 to .94 for absorption (Schaufeli & Bakker, 2003). Cronbach's alphas for this sample were slightly lower for dedication at .81 and absorption at .66. The alpha for absorption is low; however, Aiken proposed that a scale reliability of .65 is adequate to discriminate group differences (Coleman, 2004). The alpha for vigor was .80.

A CFA was conducted on the UWES-9 to assess if the data supported the shortened three-factor model. Results indicated a decent fit ($\chi^2 (24) = 91.67, p < .001$; RFI = .87; IFI = .93; TLI = .90; RMSEA = .11). The descriptive statistics, internal consistency, and CFA results led to a decision to utilize the UWES-9 in the final model, as opposed to the original version. A comparison of the fit indexes of the two CFAs is presented in Table 15

Table 14: Utrecht Work Engagement Scale Confirmatory Factor Analysis

<i>CFA</i>	<i>χ^2</i>	<i>df</i>	<i>RFI</i>	<i>IFI</i>	<i>TLI</i>	<i>RMSEA</i>
UWES-17	492.50**	116	.67	.80	.73	.12
UWES-9	91.67**	24	.87	.93	.90	.11

** $p < .01$

Instruments Measuring Demands

Emotional Demands Scale

Internal consistency of the EDS is reported at .86 (Peeters, Montgomery, Bakker, & Schaufeli, 2005). The reliability estimate for the current sample was .89, indicating that reliability was acceptable and consistent with what has previously been reported.

Results of the initial CFA indicated poor relative fit ($\chi^2(9) = 206.9, p < .001$; RFI = .51; IFI = .80; TLI = .52; RMSEA = .30). Listwise deletion removed cases with missing variables on the EDS and left a sample size of 240. A second CFA improved fit slightly ($\chi^2(9) = 200.14, p < .001$; RFI = .66; IFI = .80; TLI = .67; RMSEA = .30). Item number 2 (“in your work, are you confronted with things that personally touch you”) was dropped because of poor loading (.76) compared to the other five items (all above 1.0). A third CFA demonstrated improved fit, but still not good overall relative fit ($\chi^2(5) = 128.12, p < .001$; RFI = .70; IFI = .85; TLI = .71; RMSEA = .32).

Modification indices suggested that fit would improve by .6 if error terms between items 1 and 3 were allowed to correlate. This relationship was theoretically sound since the two items are asking very similar questions. Item 1 asks “Is your work emotionally demanding?” and Item 3 asks “Do you face emotionally charged situations at work?” A correlation was added between error terms 1 and 3 and estimates were calculated. Results of this CFA indicated much improved fit, ($\chi^2(4)$

= 5.94, $p = .20$; RFI = .98; IFI = 1.0; TLI = .99; and RMSEA = .05). Table 16 presents findings from the four CFAs calculated on the Emotional Demands Scale.

Table 15: Emotional Demands Scale Confirmatory Factor Analysis

<i>CFA</i>	χ^2	<i>df</i>	<i>RFI</i>	<i>IFI</i>	<i>TLI</i>	<i>RMSEA</i>
Initial	206.9**	9	.51	.80	.52	.30
Second	200.14**	9	.66	.80	.67	.30
Third	128.12**	5	.70	.85	.71	.32
Final	5.94, $p=.20$	4	.98	1.0	.99	.05

** $p < .01$

Psychological Demands Scale

Reliability for the Psychological Demands Scale is reported to be at .59-.63 (JCQ Center, 2006). Internal consistency was much stronger in this sample, with a Cronbach's alpha of .76.

Results of the initial CFA indicated poor fit ($\chi^2 (27) = 178.79, p < .001$; RFI = .47; IFI = .71; TLI = .51; RMSEA = .15). Listwise deletion of cases with missing variables left a final sample size of 236. A second CFA was run without any missing data and, although fit had slightly improved, it still indicated a poor fit ($\chi^2 (27) = 179.36, p < .001$; RFI = .57; IFI = .71; TLI = .61; RMSEA = .16).

Modification indices revealed high correlations among several error terms that did not theoretically make sense. For example, fit would improve by .23 if error term of item 7 ("My tasks are often interrupted before they can be completed, requiring attention at a later time.") were to covary with the error term of item 8

(“My job is very hectic.”). While both of these items ask about the pace of the job, the information retrieved from these items is not the same. These covariances were not added because they could not be theoretically supported.

Table 16: Psychological Job Demands Scale Confirmatory Factor Analysis

<i>CFA</i>	χ^2	<i>df</i>	<i>RFI</i>	<i>IFI</i>	<i>TLI</i>	<i>RMSEA</i>
Initial	178.79**	27	.47	.71	.51	.15
Second	179.36**	27	.57	.71	.61	.16

** $p < .01$

Operating Procedures

The reported reliability of the JSS’s Operating Procedure Scale is reported to be .62 (Spector, 2006). This sample demonstrated internal consistency exceeding what has been reported in the literature with a Cronbach’s alpha of .71. Results of the CFA indicated very good fit ($\chi^2 (2) = 4.87, p = .09$; RFI = .94; IFI = .99; TLI = .97; RMSEA = .08).

Role Conflict

Internal consistency for RHL’s role conflict scale is reported to be .89 (Jaskyte, 2005). Cronbach’s alpha for this sample was .86, indicating acceptable reliability. The initial CFA indicated poor fit ($\chi^2 (20) = 102.2, p < .000$; RFI = .76; IFI = .89; TLI = .80; RMSEA = .13). Listwise deletion was used to remove all cases with missing variables, resulting in $N = 234$. A second CFA was calculated and, although slightly improved, it still did not indicate good fit ($\chi^2 (20) = 99.9, p < .001$; RFI = .82; IFI = .89; TLI = .85; RMSEA = .13). Two CFAs were conducted after

dropping low loading items 1 and 2 (.51 and .34 respectively); however, these modifications did not improve fit substantially.

Modification indices revealed that fit would improve through the addition of several paths, two of which were understandable. Fit could improve by .56 if the error terms for items 2 (“I work with two or more groups who operate quite differently”) and items 4 (“I do things that are apt to be accepted by one person and not accepted by others”) were allowed to covary and if the error terms for items 3 (“I receive an assignment without the manpower to complete it”) and 5 (“I receive an assignment without adequate resources and materials to execute it”) were allowed to covary. These covariances improved fit substantially, ($\chi^2(18) = 47.45, p < .001$; RFI = .90; IFI = .92, TLI = .87; RMSEA = .15).

Table 17: Role Conflict Scale Confirmatory Factor Analysis

<i>CFA</i>	χ^2	<i>df</i>	<i>RFI</i>	<i>IFI</i>	<i>TLI</i>	<i>RMSEA</i>
Initial	102.2**	20	.76	.89	.80	.13
Second	99.9**	20	.82	.89	.85	.13
Third	47.45**	18	.90	.92	.87	.15

** $p < .01$

Role Ambiguity

Internal consistency of the RHL role ambiguity scale is reported at .88 (Jaskyte, 2005). Cronbach’s alpha for this sample was .84, confirming that reliability was acceptable and consistent with what is reported in the literature.

The initial CFA demonstrated poor fit ($\chi^2(9) = 80.64, p < .001$; RFI = .72; IFI = .89; TLI = .75; RMSEA = .18). Listwise deletion was used to remove all cases with missing RA variables, resulting in an N of 242. A second CFA offered a slightly improved fit ($\chi^2(9) = 80.64, p < .001$; RFI = .80; IFI = .89; TLI = .82; RMSEA = .18).

Item number 1 was removed for low loading (.44) but its removal did not improve the overall fit. Modification indices indicated that fit would improve by .91 if the errors of item 1 (“I feel certain about how much authority I have”) and item 2 (“There are clear, planned goals and objectives for my job”) were allowed to correlate. A CFA including the error correlation demonstrated improved fit ($\chi^2(8) = 32.5, p < .001$; RFI = .91; IFI = .96; TLI = .93; RMSEA = .11). Theoretically, however, these correlations are not sound because they are not asking the same question in a different way. The first question is inquiring on feelings about authority while the second question is asking about the job itself. The correlations were removed from the path model.

Table 18: Role Ambiguity Scale Confirmatory Factor Analysis

<i>CFA</i>	χ^2	<i>df</i>	<i>RFI</i>	<i>IFI</i>	<i>TLI</i>	<i>RMSEA</i>
Initial	80.64**	9	.72	.89	.75	.18
Second	80.64**	9	.80	.89	.82	.18
Third	32.5**	8	.91	.96	.93	.11

** $p < .01$

Instruments Measuring Resources

New General Self-Efficacy Scale

Reliability of the NGSE is reported to be between .85 and .86 (Chen, Gully, & Eden, 2001). Cronbach's alpha for this sample was .86, indicating that reliability was acceptable and consistent with what has been reported in the literature.

The initial CFA demonstrated poor relative fit ($\chi^2(20) = 113.29, p < .001$; RFI = .77; IFI = .89; TLI = .80; RMSEA = .14). Listwise deletion removed cases with missing NGSE data, leaving a sample size of 240. A second CFA resulted in improved fit ($\chi^2(20) = 113.29, p < .001$; RFI = .82; IFI = .89; TLI = .85; RMSEA = .14). Item number 1 was removed due to low loading (.47) and a third CFA demonstrated improved fit ($\chi^2(14) = 80.17, p < .001$; RFI = .85; IFI = .92; TLI = .87; RMSEA = .14).

Modification indices indicated that fit would be improved by .12 if the error terms between item 7 ("Compared to other people, I can do most tasks very well") and item 8 ("Even when things are tough, I can perform quite well") were allowed to correlate. Theoretically this makes sense. These are the only two items in the scale that inquire about performance. A CFA on the respecified model indicated much improved relative fit ($\chi^2(19) = 66.9, p < .001$; RFI = .89; IFI = .94; TLI = .92; RMSEA = .10).

Table 19: New General Self Efficacy Scale Confirmatory Factor Analysis

<i>CFA</i>	χ^2	<i>df</i>	<i>RFI</i>	<i>IFI</i>	<i>TLI</i>	<i>RMSEA</i>
Initial	113.29**	20	.77	.89	.80	.14
Second	113.29**	20	.82	.89	.85	.14
Third	80.17**	14	.85	.92	.87	.14
Fourth	66.9**	19	.89	.94	.92	.10

** $p < .01$

Contingent Rewards

Reliability for the contingent rewards scale has been reported at .72 (Spector, 2006). Cronbach's alpha for this sample was .80, indicating that reliability was acceptable and consistent with what is reported in the literature.

The initial CFA demonstrated poor relative fit ($\chi^2(2) = 15.61, p < .001$; RFI = .77; IFI = .96; TLI = .79; RMSEA = .17). Listwise deletion was utilized to remove cases with missing variables, resulting in a sample size of 239. A second CFA demonstrated slight improvement in fit ($\chi^2(2) = 15.4, p < .001$; RFI = .86; IFI = .96; TLI = .88; RMSEA = .17). Modification indices revealed that fit would improve with the correlation of error terms for item 1 ("When I do a good job, I receive the recognition for it that I should receive") and item 2 ("I do not feel that the work I do is appreciated"). Both of these items are inquiring about recognition for a job well done. A CFA run on this respecified model indicated much improved fit ($\chi^2(1) = 2.4, p = .12$; RFI = .96; IFI = .97; TLI = .97; RMSEA = .08).

Table 20: Contingent Rewards Scale Confirmatory Factor Analysis

<i>CFA</i>	χ^2	<i>df</i>	<i>RFI</i>	<i>IFI</i>	<i>TLI</i>	<i>RMSEA</i>
Initial	15.61**	2	.77	.96	.79	.17
Second	15.4**	2	.86	.96	.88	.17
Third	2.4, $p=.12$	1	.96	.97	.97	.08

** $p < .01$

Coworker Support

Reliabilities reported for the coworker support instrument range from .75 to .80 (JCQ Center, 2006). Cronbach's alpha for this sample was .82, indicating that reliability was acceptable and consistent with what has been reported in the literature. The initial CFA demonstrated good fit ($\chi^2 (9) = 26.2, p = .002$; RFI = .90; IFI = .97; TLI = .93; RMSEA = .09).

Supervisor Support

Reliabilities reported for the supervisor support instrument range from .84 to .86 (JCQ Center, 2006). Cronbach's alpha for this sample was .90, indicating that reliability was acceptable and consistent with what has been reported in the literature. Results of the initial CFA indicated good relative fit ($\chi^2 (5) = 3.4, p = .64$; RFI = .99; IFI = 1.0; TLI = 1.0; RMSEA = .00).

Intent to Leave

Staying or Leaving Index

Reliability of the SLI in this sample was excellent, with an alpha of .96. This was acceptable and consistent with the literature reporting internal consistencies of .85 to .95 (Blau, 1998). The initial CFA indicated poor relative fit ($\chi^2(20) = 764.04$, $p < .001$; RFI = .47; IFI = .71; TLI = .47; RMSEA = .39). Listwise deletion was utilized to remove cases with missing data, resulting in a sample size of 240. This very slightly improved fit ($\chi^2(20) = 740.48$, $p < .001$; RFI = .60; IFI = .72; TLI = .60; RMSEA = .39). Modification indices revealed high levels of covariance among the error terms. This was not surprising as each of the items on the SLI ask the exact same question within different time frames. A correlation analysis confirmed that the items may be too highly correlated to establish good fit with CFA. Although collinearity is generally associated with correlation coefficients above .90, it could have played a role in fitting the data to the model.

Table 21: Staying or Leaving Index Confirmatory Factor Analysis

<i>CFA</i>	<i>χ^2</i>	<i>df</i>	<i>RFI</i>	<i>IFI</i>	<i>TLI</i>	<i>RMSEA</i>
Initial	764.04**	20	.47	.71	.47	.39
Second	740.48**	20	.60	.72	.60	.39

** $p < .01$

Table 22: Correlations of SLI Items

	SLI 1	SLI 2	SLI 3	SLI 4	SLI 5	SLI 6	SLI 7	SLI 8
SLI 1	1							
SLI 2	.86**	1						
SLI 3	.74**	.85**	1					
SLI 4	.70**	.73**	.87**	1				
SLI 5	-.75**	-.70**	-.62**	-.55**	1			
SLI 6	-.75**	-.74**	-.71**	-.65**	.93**	1		
SLI 7	-.67**	-.67**	-.78**	-.78**	.74**	.83**	1	
SLI 8	-.61**	-.65**	-.80**	-.86**	.66**	.74**	.88**	

** $p < .01$

Table 23: Mean scale scores, standard deviations and internal consistency estimates

<i>Instrument</i>	<i>M</i>	<i>SD</i>	<i>α</i>
MBI			
Emotional Exhaustion	3.89	1.25	.90
Depersonalization	2.83	1.21	.74
Personal Accomplishment	5.36	.94	.71
OLBI			
Exhaustion	3.13	.65	.80
Disengagement	2.70	.61	.75
UWES-9			
Vigor	3.96	1.0	.80
Dedication	4.85	.99	.81
Absorption	4.66	.88	.66
Emotional Demands	3.50	.97	.89
Operating Procedures	2.96	1.3	.71
Role Conflict	4.39	1.3	.86
Role Ambiguity	5.02	1.2	.84
Self-Efficacy	3.98	.50	.86
Rewards	3.58	1.4	.80
Coworker Support	3.62	.70	.82
Supervisor Support	3.99	.87	.90
Intent to Leave	2.57	1.37	.96

Path Analysis

A series of path analyses using maximum likelihood estimation in AMOS 6 was conducted. In addition to using the conventional chi square test of significance, the four additional model fit indices used in the confirmatory factor analyses were included to test model fit (i.e., these indices are the TLI, IFI, RFI, and RMSEA). A score of .90 or above indicates good fit for the RFI, TLI, and IFI and a score of less than .10 indicates good fit for the RMSEA (Coleman, 2006).

The path analysis was conducted in three stages. The first stage tested a direct-effects path model where all of the variables, predictor and mediator, directly predicted intent to leave. In other words, psychological job demands, role conflict, role ambiguity, emotional demands, operating procedures, supervisor support, coworker support, self-efficacy, contingent rewards, burnout, and engagement were all direct predictors of intent to leave. In this model, burnout and engagement factors were considered to be predictor variables rather than mediator variables. All predictor variables were allowed to correlate.

The second path model in this analysis was a fully-mediated model. In this model, the job resources had direct relationships with the three factors of engagement and the job demands had direct relationships with the three factors of burnout. The predictor variables were not directly associated with intent to leave. Burnout and engagement were mediating variables that had direct relationships with intent to leave. All of the predictor variables were allowed to correlate.

The third model tested in this analysis was a partially-mediated model that incorporated both direct and mediated paths. The final partially-mediated model is represented in Figure C. All three analyses reflected the relationships between the predictor variables, used the MBI to represent burnout, and the path analyses were conducted as a manifest model analyses, with each total scale mean score used as a single indicator.

Results

The question addressed asks if the JD-R model of burnout presented in Figure 1 is applicable to a sample of social service workers employed in public child welfare. Appendix E provides the correlations for the study variables. Table 25 presents the results of the three path analyses, the direct-effect model, the completely-mediated model, and the partially-mediated model with respect to overall fit. Only the direct effects model exceeded criteria for good fit. This was a good starting point; however, in this study burnout and engagement are considered mediating variables linking specific demands and resources to the outcome variable, intent to leave. As is evidenced in Table 16, the fit indices for the completely-mediated model did not meet the criteria for good fit.

Since the mediated model is the model of interest in this study, improvement in model fit was sought through respecification. The correlation matrix of all of the variables (Appendix E) was used as a guide to develop the partially-mediated model. The correlation matrix was calculated in SPSS 13 using the reliability procedure, which outputs a dataset of correlation estimates. Demands and resources that were

highly correlated with intent to leave were considered and tests were calculated on the addition of direct paths. The parsimony-adjusted comparative fit index (PCFI) was used to evaluate each successive modification. The PCFI adjusts the CFI to account for the number of degrees of freedom in the hypothesized model (Ridenour, Greenberg, & Cook, 2006). As with the other fit indices, better PCFI fit is indicated by values closer to 1. As is evidenced in Table 25, the partially-mediated model has a significantly better overall fit than the completely-mediated model. The final partially-mediated represents the completely-mediated model with the addition of four direct paths, which are as follows:

Supervisor Support	→	Intent to Leave
UWES Dedication	→	MBI Personal Accomplishment
UWES Vigor	→	MBI Emotional Exhaustion
UWES Dedication	→	MBI Depersonalization

The final analysis sought to improve the parsimony of the partially-mediated model by dropping non-significant paths. Ideally, the model would continue to show strong overall model fit with increased parsimony (e.g., increase in PCFI). Fifteen non-significant paths were dropped from the model without showing a significant decline in model fit. In fact, the RFI, TLI and RMSEA demonstrated improved overall fit.

The final partially-mediated model indicated moderate acceptable fit, since the chi square was significant and only two of the fit indices were significant. The IFI demonstrated a good fit at .96, the TLI and RFI were slightly lower at .81 and

.89, respectively. The RMSEA indicated reasonable fit at .07 (Ridenour, Greenberg, & Cook, 2006). This modified model was more parsimonious (PCFI = .40) than either the completely mediated model (PCFI = .29) or the partially mediated model (PCFI = .29). Table 25 provides a comparison of the three path analyses and Figure C represents the final partially-mediated path model.

Table 24: Comparison of Three Path Analyses

<i>Path Models</i>	<i>χ^2</i>	<i>df</i>	<i>RFI</i>	<i>IFI</i>	<i>TLI</i>	<i>RMSEA</i>	<i>PCFI</i>
Direct effects model	.19 <i>p</i> =.66	1	.98	1.0	1.07	.00	.29
Completely mediated model	225.59**	45	.59	.89	.64	.13	.29
Partially mediated model	106.41**	41	.79	.96	.86	.08	.29
<i>Improvements to partially-mediated model</i>							
All non-significant paths dropped from partially mediated model	129.3**	57	.81	.96	.89	.07	.40

N=243, ***p* < .01

Figure D: Final Partially-Mediated Model

The path coefficients for the partially-mediated model are presented in Table 26. Table 27 provides information about the variables that were allowed to co-vary in the model. Table 28 presents the squared multiple correlations of the partially-mediated model.

Table 25: Path Coefficients for Partially-Mediated Model

<i>Paths</i>	<i>Estimate</i>	<i>S.E.</i>	<i>C.R.</i>	<i>p</i>
UWESVigorMean <--- JcqCowkMean	.189	.098	1.925	.05
UWESDedMean <--- JcqSupMean	.186	.077	2.419	.02
UWESVigorMean <--- JcqSupMean	.174	.080	2.186	.03
UWESDedMean <--- NGSEMean	.691	.110	6.295	**
UWESVigorMean <--- NGSEMean	.554	.114	4.859	**
UWESVigorMean <--- JSSRewMean	.151	.046	3.309	**
UWESDedMean <--- JSSRewMean	.108	.044	2.446	.01
UWESDedMean <--- JcqCowkMean	.164	.094	1.734	.08
UWESAbsMean <--- JcqCowkMean	.207	.090	2.300	.02
UWESAbsMean <--- JcqSupMean	.217	.073	2.966	.00
UWESAbsMean <--- NGSEMean	.457	.104	4.373	**
MBIDPMean <--- RCMean	.181	.072	2.532	.01
MBIEEMean <--- RCMean	.077	.063	1.232	.22
MBIPAMean <--- RAMean	.103	.048	2.131	.03
MBIDPMean <--- RAMean	-.134	.063	-2.144	.03
MBIEEMean <--- RAMean	-.112	.054	-2.051	.04
MBIEEMean <--- JcqDemMean	.342	.132	2.583	.01
MBIDPMean <--- JSSOpMean	.150	.072	2.074	.04
MBIEEMean <--- JSSOpMean	-.162	.063	-2.575	.01
MBIEEMean <--- EDSMean	.271	.072	3.745	**
MBIDPMean <--- EDSMean	.470	.083	5.648	**
MBIPAMean <--- UWESDedMean	.394	.056	7.019	**
MBIEEMean <--- UWESVigorMean	-.496	.056	-8.935	**
MBIDPMean <--- UWESDedMean	-.357	.066	-5.426	**
MBIDPMean <--- JcqDemMean	.163	.152	1.071	.28
UWESAbsMean <--- JSSRewMean	-.011	.042	-.266	.79
StLveMean <--- MBIEEMean	.233	.079	2.937	.00
StLveMean <--- UWESVigorMean	-.032	.119	-.266	.79
StLveMean <--- MBIDPMean	.033	.074	.445	.66
StLveMean <--- UWESAbsMean	-.045	.116	-.387	.70
StLveMean <--- UWESDedMean	-.259	.130	-1.994	.05
StLveMean <--- MBIPAMean	-.049	.091	-.540	.59
StLveMean <--- JcqSupMean	-.314	.092	-3.401	**

** $p < .01$

Table 26: Covariances for the Partially-Mediated Model

<i>Covariances</i>		<i>Estimate</i>	<i>S.E.</i>	<i>C.R.</i>	<i>p</i>
JcqSupMean	<--> JSSRewMean	.558	.085	6.563	**
JSSRewMean	<--> JcqCowkMean	.367	.065	5.654	**
JcqSupMean	<--> JcqCowkMean	.287	.043	6.727	**
EDSMean	<--> JSSRewMean	-.352	.081	-4.329	**
JSSOpMean	<--> JSSRewMean	.455	.103	4.433	**
JcqDemMean	<--> JSSRewMean	-.177	.047	-3.732	**
RAMean	<--> JSSRewMean	.320	.102	3.150	.002
RCMean	<--> JSSRewMean	-.707	.114	-6.199	**
JSSOpMean	<--> NGSEMean	.139	.032	4.320	**
RAMean	<--> NGSEMean	.153	.036	4.239	**
RCMean	<--> NGSEMean	-.145	.034	-4.312	**
RAMean	<--> JcqSupMean	.310	.065	4.778	**
RCMean	<--> JcqSupMean	-.190	.055	-3.427	**
RAMean	<--> JcqCowkMean	.267	.051	5.181	**
RCMean	<--> JcqCowkMean	-.196	.044	-4.424	**
EDSMean	<--> JSSOpMean	-.596	.084	-7.103	**
EDSMean	<--> JcqDemMean	.279	.039	7.101	**
EDSMean	<--> RAMean	-.081	.055	-1.474	.141
EDSMean	<--> RCMean	.573	.081	7.111	**
JSSOpMean	<--> JcqDemMean	-.423	.052	-8.200	**
JSSOpMean	<--> RAMean	.243	.070	3.482	**
JSSOpMean	<--> RCMean	-.894	.107	-8.332	**
JcqDemMean	<--> RCMean	.320	.046	6.942	**
RAMean	<--> RCMean	-.551	.087	-6.347	**
E6	<--> e5	.492	.059	8.328	**
E1	<--> e2	-.060	.054	-1.116	.264
E7	<--> e5	.420	.053	7.921	**
E7	<--> e6	.377	.053	7.080	**
E1	<--> e4	-.038	.047	-.800	.424
E2	<--> e4	.238	.058	4.122	**

** $p < .01$

Table 27: Squared Multiple Correlations (R^2) for the Partially-Mediated Model

<i>Outcome Variables</i>	<i>Estimate</i>
UWESDedShortMean	.243
UWESVigorShortMean	.227
MBIPAMean	.209
UWESAbsShortMean	.163
MBIDPMean	.352
MBIEEMean	.503
StLveMean	.245

CHAPTER VI

DISCUSSION

The results of this dissertation study produced several interesting and informative findings. One of the primary intentions of this dissertation was to see if the JD-R model of burnout could be applied to a sample of social service workers employed in public child welfare. The data adequately fit the program-specific job demands-resources model. This finding lends support for the application of theory and conceptual frameworks to enhance understanding of organizational issues. This is a gratifying result, as the social work workforce retention literature has recommended theory generation and testing, but few studies have successfully accomplished this task (Cherin, 2000; Jayaratne & Chess, 1984; Salanova, Bakker, & Llorens, Wright & Cropanzano, 1998).

A second goal of the study was to examine the psychometric properties of two new instruments – one that measures burnout and one that measures work engagement. Results of the analysis lend support for an alternative instrument to measure burnout. Study findings offered evidence for the reliability and predictive features of the OLBI, and demonstrated a very strong association between the OLBI and the MBI's emotional exhaustion scale. The depersonalization and disengagement subscales demonstrated a moderate association, suggesting that they measure slightly different constructs. The two-factor model of the OLBI was not confirmed via confirmatory factor analysis.

A third inquiry explored of the concept of work engagement in a sample of social workers and the application the UWES to measure engagement. Results suggested that the Utrecht Work Engagement Scale has good psychometric properties and can be used as a predictor of intent to leave. A detailed discussion of these findings follows.

Conceptual Model

Results of a series of path analyses offered support for the conceptual model tested in this study. This is noteworthy because the study utilized an approach and a conceptual framework that has not been previously tested in a sample of American social service workers. A Job-Demands Resources model was developed using agency specific demands and resources that were identified by program employees. The model proposes that job demands lead to burnout and job resources lead to engagement, both of which mediate the effects of demands and resources on intent to leave the organization. The correlation matrix (Appendix E) generated evidence that the majority of the variables perform as expected in accordance with the conceptual model. All four resources were positively correlated with the three factors of work engagement and the three factors of work engagement were negatively correlated with intent to leave.

The job demand measures did not perform as well as the resource measures. Emotional demands, psychological demands, and role conflict were associated with intent to leave in the expected direction; however, operating procedures and role ambiguity had unexpected negative associations with burnout. The operating

procedures scale inquires about workload, paperwork, rules, and agency procedures. According to the current findings, as satisfaction with operating procedure increased, emotional exhaustion and depersonalization increased as well. The associations between operating procedures and the dedication and vigor engagement subscales were as expected. As satisfaction with operating procedures increased, feelings of dedication and vigor increased as well. There was a negative association between the absorption component of engagement and operating procedures.

There are three possible reasons for the unexpected relationships that operating procedures had with emotional exhaustion, depersonalization and absorption. First, there are mixed findings in the research about the actual relationship between workload characteristics and burnout (Koeske & Koeske, 1995). It has been suggested that factors leading to burnout (and its opposite, decreased engagement) involve the social processes at work, such as support and appreciation, more than the actual work characteristics (Kalimo et al., 2003).

A second possibility involves the psychometric properties of the scale. At .62, the reported reliability of the JSS Operating Procedures scale was below the established cut-off range of .70. This suggests that the instrument may not be accurately measuring what it is intended to measure. Finally, the absorption scale of the UWES had some limitations. Schaufeli, Salanova, Gonzalez-Roma, and Bakker (2000) have noted high correlations between the absorption and vigor subscales, suggesting that they may have similar antecedents and consequences. Absorption is characterized as being fully and happily engrossed in one's work and vigor is

described by high levels of energy and mental resilience at work (Schaufeli & Bakker, 2003). Other studies assert that absorption is somewhat different from vigor and dedication because it is rarely experienced (absorption refers to feeling so absorbed in work that one loses track of time and everything else); thus leading to the suggestion that the absorption subscale be removed from the UWES (Gonzalez-Roma et al., 2006; Llorens et al., 2007; Mauno, Kinnunen, & Ruokolainen, 2007).

The other job demand that did not perform as expected in the model was role ambiguity. It was anticipated that role ambiguity would have a positive relationship with burnout and negative one with engagement. Findings from this study suggest the opposite. Role ambiguity had a moderate negative association with burnout and a moderate positive one with engagement. This suggests that as workers experienced greater role ambiguity, they demonstrated fewer symptoms of burnout and increased engagement. This is an interesting finding and suggests that role ambiguity could actually be a resource for workers. This makes some sense theoretically. There is evidence suggesting that rigid workplace rules and a restrictive environment minimize choices and therefore reduce worker satisfaction, which can lead to burnout (Jayaratne & Chess, 1984). Other findings suggest that role ambiguity may take a curvilinear shape when measured against job satisfaction and turnover intentions (Bauer & Simmon, 2007). This means that decreases in role ambiguity beyond a certain point can increase job tension and turnover intentions, especially in environments with little feedback and task variety (Singh, 1998).

Although operating procedures and role ambiguity did not behave as expected, the rest of the data fit the model as hypothesized. The burnout factors had negative associations with the factors of engagement and both concepts were correlated as expected with intent to leave. The predictor variables explain 27% of the variance of intent to leave. These findings support the hypothesized relationships between burnout, engagement, and intent to leave.

Further analyses add support for the robustness of the Job Demands-Resources Model. Results of a path analysis demonstrated a decent fit of a partially-mediated model in which burnout and engagement mediate the relationship between demands, resources, and intent to leave. Although the completely-mediated model did not generate good fit, this was not unexpected after the correlation matrix and the direct path model revealed strong direct relationships among variables. Four direct paths were included to improve the fit of the model. The single direct path that was added between predictor and outcome variables was supervisory support. This was an interesting but not surprising finding to be addressed later in this chapter.

The three additional direct paths that were added to the partially-mediated model concerned relationships between burnout and engagement factors. The direct paths between emotional exhaustion and vigor, depersonalization and dedication, and personal accomplishment and dedication were all negatively associated (recall that personal accomplishment is reversed). This is consistent with literature suggesting that burnout and engagement are opposites of each other (Bakker, Schaufeli, Demerouti & Euwema, 2006; Gonzalez-Roma, Schaufeli, Bakker, & Lloret, 2006;

Schaufeli, Martinez, Pinto, Salanova, & Bakker, 2002). Current research testing the robustness of the Job Demands-Resources Model has also added paths among burnout and engagement factors (Llorens, Bakker, Schaufeli, & Salanova, 2006; Schaufeli & Salanova, 2004). Llorens et al. (2006) added paths between vigor and exhaustion as well as dedication and depersonalization, which were two of the paths that improved the fit of this model. This finding lends additional support for the argument that engagement is the opposite of burnout.

Relationships Among Demands, Resources and Intent to Leave

Social science researchers realize that outcomes such as retention and intent to leave are best explained through the interaction of organizational and personal factors (Westbrook, Ellis, & Ellett, 2006). Llorens, Schaufeli, Bakker and Salanova (2007) assert that there is evidence for reciprocal causation between variables. For example, job stressors can lead to strain but strains such as emotional exhaustion can also lead to higher perceived stressors such as work overload. Other research has demonstrated that there are relationships between occupational stressors and outcomes. Of particular interest are the protective effects that resources have in alleviating stressors and preventing burnout over time (Kalimo et al., 2003). In line with the Conservation of Resources Theory, a precursor of the Job Demands-Resources model, resources have the potential to accumulate over time and create a positive spiral of resources that help workers better cope with workplace demands (Mauno, Kinnunen, & Ruokolainen, 2007). This is important for workforce research because it provides evidence that interventions targeting the enhancement of

resources can reduce burnout and turnover. Results of this study lend some support for this idea, as job resources appeared to play a more important role than demands in predicting intent to leave.

In the present study, resources appeared to have relationships with other resources in interesting ways and with demands in ways that note the possibility of interaction effects. This study did not seek to explain interaction effects between predictor variables; rather, it was more focused on the effects that mediating variables had on intent to leave. Although not specifically tested, the data hinted that further investigation into the possibility of interaction effects among the predictor variables warrants further investigation. The role that self-efficacy beliefs may play with demands, resources, and intent to leave is an example. Schaufeli and Salanova (2004) suggest that efficacy beliefs play a mediating role between resources and engagement; engagement increases efficacy beliefs, which in turn increase task resources over time, something that they call a positive gain spiral. In this study, self-efficacy was significantly correlated with three demands (role conflict, role ambiguity, and operating procedures); however, none of the relationships between self-efficacy and resources were significant. As expected, self-efficacy had a negative relationship with burnout and a positive relationship with engagement. Although self-efficacy did not have a direct relationship with intent to leave, perhaps the worker experience of self-efficacy interacted with other variables in the model in a meaningful way. Self-efficacy, or lack of self-efficacy, could contribute to worker experience of and reaction to job demands. Prior research has demonstrated that

self-efficacy is a powerful resource that can help child welfare workers cope with the demands of the job (Ellett & Ellett, 2007).

The Role of the Supervisor

There is a rapidly growing literature examining the role that supervisors play in worker satisfaction and retention. Within the child welfare context, supervisor support is considered necessary for workers to effectively do their jobs, to prevent/reduce burnout, and to retain an engaged workforce (Azar, 2000; Barth, Lloyd, Dickinson, & Chapman, 2007; Collins-Camargo, 2007; Curry et al., 2005; Dickinson, Painter, & Lee, 2007; Dickinson & Perry, 2005; Mor Barak, Levin, Nissly, & Lane, 2006; Smith, 2005; Westbrook, Ellis, & Ellett, 2006; Zell, 2006). An emerging literature focuses on the importance of ongoing supervisor training. Recent research demonstrates that, within the child welfare system, workers are often promoted to supervisory positions without adequate training or qualifications (Zell, 2006). This has the potential to result in a situation where the worker does not receive adequate support, not because the supervisor does not want to provide the support, but because s/he has not been properly trained about how to do so.

Research has found that supervision quality and quantity are related to worker satisfaction and intent to remain employed (Barth et al., 2007; Dickinson et al., 2007; Lloyd, King & Chenoweth, 2002). Results of the present study suggest that supervision is an important point of intervention for improving child welfare worker intent to remain employed. Satisfaction with support received from a supervisor was a direct predictor of intent to leave in this study – high satisfaction

with supervisor support had a direct inverse relationship with intent to leave. Results suggest that workers employed for the Oregon's Department of Human Services, Children, Adult and Families Division, Service Delivery Area 2 serving Multnomah County consider supervisor support to be a very important resource. This finding provides site-specific evidence for the importance of the supervisor role.

Burnout Measurement

The MBI is the most popular instrument to measure burnout (Maslach, Schaufeli, & Leiter, 2001). Although the psychometric properties of the instrument are well established in the literature, there have been consistent challenges to the three-factor structure of the MBI and the one-dimensional scoring of the items. Several instruments have been developed to respond to the reported limitations of the MBI, such as the Burnout Measure, the Copenhagen Burnout Inventory, and the Oldenburg Burnout Inventory (Halbesleben & Buckley, 2004; Malach-Pines, 2005; Schaufeli & Taris, 2005). This study explored the OLBI as an alternative to the MBI. I selected to use the OLBI because I found the two-factor conceptualization of burnout interesting, there is literature supporting psychometric soundness of the instrument, and I sought to examine an old problem through a new lens.

Two published studies have explored the validity of the OLBI in relation to the MBI. Demerouti et al. (2003) confirmed the factor structure and supported the convergent and discriminant validity of both instruments. More recently, Halbesleben and Demerouti (2005) demonstrated acceptable reliability as well as factorial, convergent, and discriminate validity of the instrument. My findings

indicate that the OLBI demonstrates strong reliability and that the exhaustion subscale has a strong association with the emotional exhaustion subscale of the MBI. The disengagement and depersonalization subscales have a moderate association, suggesting that they measure slightly different concepts. It is important to note that the OLBI has a different conceptual basis than the MBI – the OLBI attempts to capture more forms of exhaustion and disengagement than the MBI (Halbesleben & Demerouti, 2005). Additionally, it is difficult to compare two instruments that have different factor structures and scoring scales.

The factorial validity of the OLBI could not be confirmed through CFA. There is a small (but growing) literature on the OLBI confirming the two-factor model (Demerouti et al., 2002; Demerouti et al., 2001) so it was surprising that fit was not established. A possible reason for this could be related to translation issues. Only one study was found in the literature exploring the English translation of the OLBI in a US sample. Results supported the two-factor model (Halbesleben & Demerouti, 2005). A second possibility may have involved unexpected relationships between the variables. Perhaps there are high cross loadings between items or the removal of low loading items could have improved fit. Future research could use exploratory factor analysis to detect and examine the relationships between individual items on the OLBI. Additionally, future studies examining the utility of the English translation of the OLBI could make an important contribution to the burnout measurement research.

Regardless of the problems experienced with the application of the OLBI to this sample, namely lack of factorial confirmation, there were some interesting results. The OLBI demonstrated stronger predictive validity than the MBI, explaining 26% of the variance in intent to leave compared to the MBI's 18%. Even more intriguing was that the depersonalization subscale of the OLBI was the strongest predictor of intent to leave. Intent to leave scores increase by almost a whole point (on a 7 point likert scale) as disengagement increases by a point. This suggests that the OLBI's conceptualization of disengagement may uncover an important piece of the situation for the worker, more so than the depersonalization factor established in the MBI. Future research could examine the possibility of generating a new instrument that combines components of both the OLBI and MBI.

Overall, the MBI performed quite well in this study. The data confirmed good internal consistency and, with prior literature used as a guide, a confirmation of the factor structure was achieved. This research lends support to prior findings that fit is greatly improved if certain items are allowed to correlate. Specifically, fit is improved with the correlation of measurement errors between items 1 and 2, 10 and 11, 6 and 16, and a cross loading of item 12 with emotional exhaustion (Byrne, 1994; Drake & Yadama, 1995; Kalliath et al., 2000; Richardson & Martinussen, 2004). Although theory-building and trimming is a controversial issue, these modifications are grounded in the literature and frequently incorporated in studies using the MBI.

The findings support prior research suggesting that the emotional exhaustion scale is the most robust of the three MBI scales (Kalliath et al., 2000). The emotional exhaustion subscale was a stronger predictor of intent to leave than the other two MBI scales. In fact, the multiple regression results indicated that the depersonalization scale did not predict intent to leave once the other scales were entered. This was an unexpected finding, as other research has demonstrated that emotional exhaustion and depersonalization are the core predictors of burnout (Schaufeli et al., 2001).

The relationship between emotional exhaustion and intent to leave also supports the idea of using the MBI as a diagnostic tool. There is a relatively small literature examining the clinical validity of the MBI as a screening instrument. Roelofs et al. (2005) found the emotional exhaustion subscale to be a useful instrument for diagnosing burnout. Schaufeli et al. (2001) suggest that burnout measurement can inform organizational leaders if workers who have already left the agency or who are on leave are experiencing burnout. This has implications for interventions targeting the high levels of work-related illness and incapacitation rates experienced in Holland. A screening instrument, such as the emotional exhaustion scale, could help organizational leaders identify people at risk for taking work-related mental health leave. Perhaps this has implications for the US as well. Results of this study indicate that 70% of the sample experienced high levels of emotional exhaustion at the time of data collection. This implies that almost three

quarters of the workers were emotionally exhausted, which this study demonstrates is a strong predictor of intent to leave.

Engagement Measurement

There is growing attention in the social sciences paid to positive psychology, or focusing on human strengths and optimal functioning (Schaufeli, Bakker, & Salanova, 2006). This is particularly the case in child welfare research. There is an enormous push to reframe the problem by refraining from using terminology like burnout and turnover and replacing them with strength-based terms such as retention and resilience. This reframe is demonstrated in the breadth of recent articles published using terminology such as retention (Curry et al., 2005; Dickinson & Perry, 2005; Ellett & Ellett, 2005; Westbrook, Ellis, & Ellett, 2006), intent to remain employed as opposed to intent to leave (Ellett, Ellett, & Rugutt, 2007), and references to child welfare workers as “committed survivors” (Westbrook et al., 2006).

Work engagement is conceptualized as being the opposite of work burnout (Bakker, Schaufeli, Demerouti, & Euwema, 2006). In line with the positive psychology movement and with child welfare’s push for more strengths-based organizational research, this study included a work engagement measure. The UWES is a relatively new instrument developed to measure work engagement. In fact, this is one of the first studies to test the UWES in an American sample.

The UWES performed well in this study. Although workers were administered the UWES-17, ultimately the UWES-9 was entered into the final

analysis. While unconventional, the shorter instrument demonstrated a better confirmatory fit during the preliminary analysis. This supports research suggesting that the UWES-9 is preferable for organizational research because of its shorter length and superior psychometric features (Schaufeli, Bakker, & Salanova, 2006).

The work engagement measure performed as expected in the conceptual model. The three factors of engagement had strong negative associations with intent to leave and the three factors of burnout. This study supports evidence that the vigor factor of the UWES serves as the opposite of emotional exhaustion in the MBI and that the dedication factor of the UWES is negatively related to the depersonalization factor in the MBI. An interesting finding was the positive relationship between dedication and reduced personal accomplishment. The relationship strength was moderate but it is interesting nonetheless because the developers of the UWES typically remove the PA variable from research using the MBI (Gonzalez-Roma, Schaufeli, Bakker, Llorens, 2005; Llorens et al., 2006). Of note, these same researchers promote the inclusion of a self-efficacy component to the MBI; asserting that the PA factor of the MBI is actually an outcome of burnout and should be replaced with a measure of self-efficacy (Schaufeli, Martinez, Pinto, Salanova, & Bakker, 2002). Future research could examine the relationships among dedication, personal accomplishment, and self-efficacy.

To my knowledge, this is the first study to measure the engagement levels of a sample of social service workers employed in public child welfare. Descriptive analyses revealed that the sample had average to high levels of engagement. This is

good news, as a recent longitudinal study found that work engagement tends to be a relatively stable phenomenon (Mauno, Kinnunen, & Ruokolianen, 2007). Perhaps their high levels of engagement will motivate them to remain employed long enough to experience improvements at work. Or perhaps they will be more receptive to an intervention aimed at reducing burnout, as compared to a workforce that demonstrates lower levels of work engagement.

Limitations

This study yielded many interesting and positive findings; however, there are some limitations to take under consideration. The use of a cross-sectional survey limits the strength of the casual inferences that can be drawn from the findings. Some of the findings may be site-specific or could be attributable to unmeasured variables that influenced the variables in the model. Another consideration is that the data were collected via self-report questionnaires that were completed at the work site. Anonymity was used to minimize bias; however, it must be recognized that response bias could have played a role. The on-site location of the study and being surrounded by co-workers could have created discomfort for the worker and may have led to a tendency to inaccurately report socially undesirable thoughts and feelings. Although this could have had an effect, the data collection process went smoothly and there was no physical or verbal indication that the workers were uncomfortable.

Self-selection bias could also limit the results. With turnover rates in child welfare estimated to be between 46-90% (Regehr et al., 2004), the group of workers

who participated in the study could have been at the point of leaving or they could have been new employees hired to replace those who recently left. Worker tenure in the organization may have affected survey responses. However, as stated earlier, the data collection process went very smoothly and there was no indication of discomfort or unhappiness. A related issue is that the data were collected over the summer holiday, and many of the workers were on vacation. It is possible that this could have left a sample of workers who had recently returned from vacation, who needed a vacation, or who were working additional hours to help out co-workers on vacation. The situation experienced by the worker in the moment could have affected his/her response to the survey questions. An additional possibility is mono method bias. This results when the same individuals serve as the source of information for both the independent and dependent variables (Nissly, Mor Barak, & Levin, 2005).

A sample of 200 is considered a reasonable sample size for modeling (Chou & Bentler, 1995). The final sample size of 243 exceeds this number, but it is close the cut off of 200. Although a larger sample was anticipated, a response rate of 46% of the entire population is impressive. Additionally, issues with non-response were not experienced. Out of approximately 250 workers approached to participate in the study, only two refused to participate, sharing frustration about prior research surveys that had not yielded organizational change. Thus, the response rate of those present in the meetings and asked to participate was 99%. There were only a few

surveys that were not usable because of low item response (e.g., only the first of ten pages completed).

Another limitation of the study involves exchanging the UWES-17 with the UWES-9 during analysis. This could be a concern because the employees may have responded differently to a 9-item engagement scale than a 17-item scale. It should be noted, however, that the questions retained in the 9-item scale are worded exactly the same way as they were in the 17-item scale and a reduction of 8 items from 100 may not have made much of a difference. An additional concern was the inability to confirm the factor structures of several of the instruments that were used in the model. This suggests that the constructs were not applicable to this sample and therefore were not appropriate for inclusion in this study. This could have had implications for the findings; however, latent variables were not tested in this study. Rather, mean scale scores were incorporated into the model to overcome limitations of using latent variables.

Finally, the movement from SEM to path analysis reflects a limitation in the data. The proposed design was a confirmatory process that sought to fit the data to the Job Demands-Resources model. This analysis strategy was altered because fit could not be established for three of the instruments. While path analysis was a good solution to test the relationships between the variables, future research should explore potentially related limitations (e.g., the construct validity of the scales) that may have contributed to the ill fitting data.

Contributions to Social Work

Despite its limitations, this dissertation has many strengths that allow it to make an important contribution to research in the areas of social service worker burnout, engagement, and intent to leave a public child welfare settings. At its core, this study is grounded in a conceptual model that seeks to explain the relationships among job demands, job resources, worker burnout, engagement, and intent to leave. This is unique because theory is infrequently infused into burnout research in the field of social work. Testing explanatory models is beneficial because it can help researchers, providers, and policy makers better understand the social problem of interest and guide the development of interventions that appropriately respond to the problem.

Descriptive analysis revealed that the workers had average to high levels of work engagement and a low intent to leave their jobs. The workers were also found to have high levels of burnout, suggesting that this is an organizational system ripe for an intervention. The results of a path analysis indicated that job resources play a more important role than demands, as related to intent to leave. This is especially true for supervisor support. The organization could use the findings from this study to develop, implement, and evaluate an intervention targeting the resources that appear to be important to this sample, particularly supervisor support, coworker support, and self-efficacy. All of the resources tested had a positive relationship with work engagement, which has been found to increased satisfaction and improve work outcomes. This is an important finding since administrative attention at the onset of

this collaboration with focused on reducing turnover, an issue revealed to not be the actual issue experienced by this organization.

On a macro level, this study has implications for public child welfare organizations across the country. The demands and resources experienced in this sample are commonly addressed in social work and child welfare literatures. Although the JD-R model emphasizes the importance of organization-specific research and interventions, information obtained from this study lends support to current research on the problems experienced by child welfare workers in different locations. Specifically, these problems relate to role issues, workload issues, policy and procedural issues, and few opportunities for advancement. Resources well grounded in the literature, and found to be important to this sample include support, self-efficacy, and rewards for a job well done.

An asset of this study is that it is timely. National acknowledgement of retention issues within child welfare has resulted in recent calls for action made by the Child Welfare League of America and the Children's Bureau. This year's Society for Social Work and Social Work Research conference in San Francisco saw an abundance of presentations on workforce retention issues in child welfare (Society for Social Work and Social Work Research, 2007). Many of these presentations attended to the role that supervisors play in workforce outcomes (Barth, Lloyd, Dickinson, & Chapman, 2007; Collins-Camargo, 2007; Dickinson, Painter, & Lee, 2007).

Furthermore, this research contributes to the emerging reframe of the burnout/resilience dialogue. The findings add strength to the claim that engagement is the opposite of burnout. This supports the development of strength-based interventions that achieve the same outcomes (reduce burnout and turnover) but use language and strategies that are more focused on staff resilience. Ellett and Ellett (2005) assert that understanding the organizational factors that relate to employee intent to remain employed is a more useful and productive line of inquiry than continuing to focus on factors related to burnout and turnover. Additional consequences of this language change could include improved community, media, and political image of the child welfare system, which is a concern addressed in the literature (Rosenthal & Waters, 2006; Westbrook, Ellis, & Ellett, 2006) and shared by this sample in the preliminary retention lunches.

An additional contribution that this research could make is in schools of social work educating future child welfare workers at the direct care, supervisory and administrative levels. As stated earlier, the Job Demands-Resources model promotes organization-specific research to identify areas of intervention. This study shed light on some of the issues experienced by employees with Oregon's Department of Human Services, Children, Adult and Families Division, Service Delivery Area 2 serving Multnomah County, many of whom are current, past or future students at Portland State University. The Child Welfare Partnership (CWP) at Portland State University is collaboration among the Graduate School of Social work, The School of Extended Studies, and the Oregon Department of Human Services. The CWP is a

university-based program that integrates child welfare research, training and graduate education (Child Welfare Partnership, 2007). The CWP, like many Graduate Schools of Social Work across the country, receives Federal Title IV-E money for stipend and training support for MSW students in exchange for a minimum of one year service in public child welfare (Perry, 2006). This means that the Graduate School of Social Work at PSU is contributing to the education of many workers locally employed in child welfare. The Graduate School could use these findings to enhance education surrounding clinical supervision and help students develop self-efficacy and confidence in themselves. Through the continuing education program, the school could offer trainings to current supervisors and administrators. This could also lead to policy changes at the state level, wherein workers promoted to supervisory positions are required to attend a class on clinical supervision as part of their training program.

The results also have implications for schools of social work across the country, particularly those who receive Title IV-E funding to support students in Child Welfare Partnerships. There is an emerging literature exploring the effectiveness of these partnerships on a variety of outcomes, such as service quality and retention of workers. Child welfare partnerships across the country are reporting different and conflicting outcomes (Zlotnick, 2006). McCarthy (2006) asserts that a limitation to these studies is the lack of attention to the organizational factors that may affect performance and retention of workers employed in public child welfare.

This provides additional support for using the Job Demands-Resources model as a guide to exploring public child welfare systems across the country.

This dissertation makes another contribution to the field of social work that is personally rewarding. It is one of very few studies to apply a conceptual model to better understand a macro practice issue. Schools of social work are responsible for incorporating theory into their coursework in their own way, so long as they comply with educational guidelines established by the Council of Social Work Education (CSWE). The 2006 CSWE program standards do not specifically identify macro practice content, and there is no mention of organizational theory (CSWE, 2007). This could mean that schools of social work are not adequately teaching macro practice students how to utilize organizational theories and concepts in their work, which would explain the dearth of research articles developing organizational theories and interventions.

In conclusion, the findings from this dissertation have the potential to make important contributions to the field of social work at the research, practice, policy, and education levels. Employee intent to leave and turnover, particularly in the child welfare professions, is a major concern for individual employees, organizations, client populations and the community. Although the profession is moving away from using the burnout terminology, burnout remains one of the most important predictors of intent to leave and turnover in social service organizations (Mor Barak et al., 2001). This study successfully examined the burnout construct within a conceptual framework of job demands and resources and explored possible alternative

ways to measure the construct. In line with positive psychology, this study provided support for the concept of measuring engagement as the opposite of burnout and proposes that the Utrecht Work Engagement Scale could be used as an alternative predictor of intent to remain employed. Finally, results of this study lend support for the use of conceptual frameworks as a guide in the identification of organizational problems and ultimate generation of organization-specific interventions to respond to these problems.

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Appendix A
Informed Consent

**Engaging Our Workforce: How Job Demands and Resources Contribute to Social
Service Worker Burnout, Engagement and Intent to Leave**
Informed Consent Document

You are invited to participate in a research study conducted by Sara Schwartz from Portland State University's Graduate School of Social Work. This study will be conducted in partial fulfillment of a Ph.D. in Social Work and Social Work Research and will be under the supervision of Nancy Koroloff, Ph.D. This study explores the applicability of the Job Demands-Resources (JD-R) model of burnout in a group of social service workers employed in child welfare. This research seeks to better understand the relationships among specific job demands, resources, worker burnout, engagement and intent to leave the organization.

If you decide to participate, you will be asked to complete a survey packet that will take approximately 15-30 minutes to complete. You may experience some discomfort and inconvenience participating in this study as the survey asks questions about your work environment and your feelings about your job. You will not receive direct benefit by taking part in this study; however, the findings may increase knowledge about the relationships between job demands, resources, burnout, engagement and intent to leave.

You will be assured anonymity if you choose to participate in this study. Your name will not be collected nor will identifiers that could possibly link you with your participation. You are not required to sign this informed consent document; rather, your consent will be evidenced by your completion of the survey. All surveys will be maintained in a locked filing cabinet at Portland State University's Regional Research Institute.

Your participation in this study is completely voluntary. You do not have to take part in this study. If you opt not to participate, it will not affect your relationship with the Department of Human Services or Portland State University. You may also withdraw from this study at any time without it affecting your relationship with the Department of Human Services or Portland State University.

If you have concerns or problems about your participation in this study or your rights as a research subject, please contact the Human Subjects Research Review Committee, Office of Research and Sponsored Projects, 111 Cramer Hall, Portland State University, (503) 725-4288. If you have questions about the study itself, contact Sara Schwartz, Portland State University, Graduate School of Social Work, 527 SW Hall, Room 400, Portland State University, (503) 725-8196.

Your completion of the survey instrument indicates that you have read and understand the above information and agree to take part in this study. Please understand that you may withdraw your consent at any time without penalty and that your consent does not mean that you are waiving any legal claims, rights or remedies.

THIS DOCUMENT IS YOURS TO KEEP FOR FUTURE REFERENCE

Appendix B

Human Subjects Approval

Portland State University HSRRC Memorandum

To: Sara Schwartz
From: Cathleen Gal, HSRRC 2006
Date: April 28, 2006
Re: HSRRC waived review of your application titled, "Engaging our Workforce: How Job Demands and Resources Contribute to Social Worker Burnout, Engagement and Intent to Leave" (HSRRC Proposal #06129)

Your proposal is exempt from further Human Subjects Research Review Committee review, and you may proceed with the study.

Even with the exemption above, it was necessary by University policy for you to notify this Committee of the proposed research, and we appreciate your timely attention to this matter. If you make changes in the research protocol, the Committee must be notified in writing, and changes must be approved before being implemented.

If you have questions or concerns, please contact the HSRRC in the Office of Research and Sponsored Projects (ORSP), (503) 725-4288, 111 Cramer Hall.

cc: Nancy Koroloff

Appendix C
Demographic Instrument

Provider Demographic Survey

This survey captures demographic features of study participants. Completing this form is voluntary and data collected will remain anonymous. Please leave a question blank if you think that it is not relevant to you. Please mark the appropriate answer. If you choose other, please specify your answer. Thank you.

Gender	☐ Male	☐ Female
	☐ Other (specify)	
Race/Ethnicity	☐ African American or Black	☐ Native Hawaiian or Pacific Islander
	☐ American Indian	☐ Asian
	☐ Alaska Native	☐ White
	☐ Hispanic/Latino	☐ Other (specify)
Educational Level	☐ Some High School	☐ High School Diploma
	☐ GED	☐ Some college
	☐ AA	☐ Bachelor's Degree
	☐ Master's Degree	☐ Doctorate
Area of Study	☐ Addictions	☐ Counseling
	☐ Social Work	☐ Psychology
	☐ Sociology	☐ Nursing
	☐ Other (specify)	
Years Employed in Field	☐ 0-1 years	☐ 2-3 years
	☐ 4-6 years	☐ 7-10 years
	☐ 10-15 years	☐ 15+ years
Age	☐ 18-29	☐ 30-39
	☐ 40-49	☐ 50-59
	☐ 60 +	
Marital Status	☐ Single	☐ Living with Partner
	☐ Married	☐ Divorced/Annulled
	☐ Widowed	☐ Other (specify)
Department	☐ Child Welfare	☐ Self Sufficiency
Job Role	☐ Administrative	☐ Case Load Carrying
	☐ Supervisory	☐ Other (explain)
Hours worked/week	☐ 20 hours a week or less	☐ 20 hours a week or more

Appendix D

Instrument

Burnout, Engagement, and Intent to Leave Survey

The following questions assess the demands and resources that you are experiencing at work, your burnout and engagement levels, and your intention to stay or leave the organization over time. Please answer *all* of the questions by marking the most appropriate answer. Thank you for your time.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
My job requires working very fast					
My job requires working very hard					
I am not asked to do an excessive amount of work					
I have enough time to get the job done					
I am free from conflicting demands that others make					
My job requires long periods of intense concentration on the task					
My tasks are often interrupted before they can be completed, requiring attention at a later time					
My job is very hectic					
Waiting on work from other people or departments often slows me down on the job					
People I work with are competent in doing their jobs					
I am exposed to hostility or conflict from the people I work with					
The people I work with are friendly					
The people I work with encourage each other to work together					
The people I work with are helpful in getting the job done					
The people I work with take a personal interest in me					
There are days that I feel already tired before I go to work					
I always find new and interesting aspects in my work					

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I can stand the pressure of my work very well					
It happens more and more often that I talk about my work in a derogatory way					
Lately, I tend to think less during my work and just execute it mechanically					
During my work, I often feel emotionally drained					
I experience my work as a real challenge					
After my work, I usually feel still totally fit for my leisure activities					
With time passing by, I have lost the internal relationship with my work					
Normally, I can manage the amount of work well					
Sometimes I feel really sick about my work tasks					
After my work, I usually feel worn out and weary					
I cannot imagine another occupation for myself					
When I work, I usually feel vital					
I get more and more engaged in my work					
After my work, I now need more time to relax than in the past to become fit again					

	Terrible	Very Bad	Bad	Neutral	Good	Very Good	Excellent
What are your chances of still working for this agency 12 months from now?							
What are your chances of still working for this agency 6 months from now?							

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I will be able to achieve most of the goals I have set for myself					
When facing difficult tasks, I am certain that I will accomplish them					
In general, I think that I can obtain outcomes that are important to me					
I believe I can succeed at most any endeavor to which I set my mind					
I will be able to successfully overcome many challenges					
I am confident that I can perform effectively on many different tasks					
Compared to other people, I can do most tasks very well					
Even when things are tough, I can perform quite well					

	Terrible	Very Bad	Bad	Neutral	Good	Very Good	Excellent
What are your chances of quitting this agency 3 months from now?							
What are your chances of quitting this agency 6 months from now?							

	Disagree Very Much	Disagree Moderate	Disagree Slightly	Neutral	Agree Slightly	Agree Moderate	Agree Very Much
I feel certain about how much authority I have							
There are clear, planned goals & objectives for my job							
I know that I have divided my time properly							
I know what my responsibilities are							

I know exactly what is expected of me							
Explanation is clear of what has to be done							
I have to buck a rule or policy in order to carry out an assignment							
I work with two or more groups who operate quite differently							
I receive an assignment without the manpower to complete it							
I do things that are apt to be accepted by one person and not accepted by others							
I work on unnecessary things							
I have to do things that should be done differently							
I receive incompatible requests from two or more people							

	Terrible	Very Bad	Bad	Neutral	Good	Very Good	Excellent
What are your chances of still working for this agency 3 months from now?							
What are your chances of still working for this agency 24 months from now?							

	Disagree Very Much	Disagree Moderate	Disagree Slightly	Neutral	Agree Slightly	Agree Moderate	Agree Very Much
My efforts to do a good job are seldom blocked by red tape							
I have too much to do at work							
I have too much paperwork							
Many of our rules and procedures make doing a good job difficult							
When I do a good job, I receive the recognition for it that I should receive							
I do not feel that the work I do is appreciated							
There are few rewards for those who work here							
I don't feel my efforts are rewarded the way that they should be							

	Terrible	Very Bad	Bad	Neutral	Good	Very Good	Excellent
What are your chances of quitting this agency 12 months from now?							

	Never	Sometimes	Regularly	Often	Always
Is your work emotionally demanding?					
In your work, are you confronted with things that personally touch you?					
Do you face emotionally charged situations at your work?					
In your work do you deal with clients who incessantly complain, although you always do everything to help them?					
In your work do you have to deal with demanding clients?					
Do you have to deal with clients who do not treat you with the appropriate respect and politeness?					

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
My supervisor is concerned about the welfare of those under him/her					
My supervisor pays attention to what I am saying					
I am exposed to hostility and conflict from my supervisor					
My supervisor is helpful getting the job done					
My supervisor is successful in getting people to work together					

	Terrible	Very Bad	Bad	Neutral	Good	Very Good	Excellent
What are your chances of quitting this agency 24 months from now?							

	Never	Almost Never	Rarely	Sometimes	Often	Very Often	Always
At my work, I feel bursting with energy							
I find the work that I do full of meaning and purpose							
Time flies when I'm working							
At my job, I feel strong and vigorous							
I am enthusiastic about my job							
When I am working, I forget everything else around me							
My job inspires me							
When I get up in the morning, I feel like going to work							
I feel happy when I am working intensely							
I am proud of the work that I do							
I am immersed in my work							
I can continue working for very long periods of time							
To me, my job is a challenge							
I get carried away when I'm working							
At my job, I am very resilient, mentally							
It is difficult to detach myself from my job							
At work, I always persevere, even when things do not go well							

	Never	A few times a year	Once a month or less	A few times a month	Once a week	A few times a week	Every day
I feel emotionally drained from my work							
I feel used up at the end of the workday							
I feel fatigued when I get up in the morning and have to face another day on the job							
I can easily understand how my recipients feel about things							
I feel I treat some recipients as if they were impersonal objects							
Working with people all day is really a strain for me							
I deal very effectively with the problems of my recipients							
I feel burned out from my work							
I feel I'm positively influencing other people's lives through my work							
I've become more callous towards other people's lives through my work							
I worry that this job is hardening me emotionally							
I feel very energetic							
I feel frustrated by my job							
I feel I'm working too hard on my job							
I don't really care what happens to some recipients							
Working with people directly puts too much stress on me							

	Never	A few times a year	Once a month or less	A few times a month	Once a week	A few times a week	Every day
I can easily create a relaxed atmosphere with my recipients							
I feel exhilarated after working closely with my recipients							
I have accomplished many worthwhile things in this job							
I feel like I'm at the end of my rope							
In my work, I deal with emotional problems very calmly							
I feel recipients blame me for some of their problems							

	Much below average	Below average	Average	Above average	Excellent
How would you rate your overall job performance?					

	Very Unsatisfied	Unsatisfied	Neutral	Satisfied	Very Satisfied
How satisfied are you with your overall job performance?					

	Strongly disagree	Disagree	Agree	Strongly agree
Conditions on your job allow you to be as productive as you could be				

	Not at all satisfied	Not too satisfied	Somewhat satisfied	Very satisfied
All in all, how satisfied are you with your job?				

I often think about quitting this organization	☐ Strongly Disagree
	☐ Disagree
	☐ Neutral
	☐ Agree
	☐ Strongly Agree
I intend to search for a position with another employer within the next twelve months	☐ Strongly Disagree
	☐ Disagree
	☐ Neutral
	☐ Agree
	☐ Strongly Agree

In the past three months I have.....

	Never	Once a week	5-10 times per month	Almost daily
Talked with a friend or family member about looking for a different job				
Talked with a co-worker about looking for a different job				
Looked in the classifieds for a different job				
	Yes	Yes-More than once	No	No – But I have thought about it
Updated my resume				
Posted my resume on an online job recruitment site				
Applied for a different job				
Interviewed for a different job				
Inquired about (or scheduled) retirement				

Appendix E
Correlation Matrix