THE ROLE OF TEAMWORK IN PUBLIC CHILD WELFARE CASEWORKERS' INTENTIONS TO LEAVE

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by

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The undersigned, appointed by the dean of the Graduate School, have examined the dissertation entitled

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and hereby certify that, in their opinion, it is worthy of acceptance.

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I dedicate this work to the memory of my loving grandparents

Taeyoung Kyonne and Youngbun Kang

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ABSTRACT

The high turnover rates among caseworkers have emerged in the past decade as one of the most serious issues within the public child welfare agencies. High turnover rates lead to reductions in case work quality with resulting higher risks to children in care. Turnover also creates additional public costs to replace and retrain lost workers. Research has focused on the reasons behind the caseworkers' stated intentions to leave (a surrogate for turnover) leading to many suggested remedies. Studies have found high burnout rates, low job satisfaction, and difficult organizational climates as the major reasons for turnover with the remedies of lower case loads, better pay, and greater public recognition. Recently, hiring staff with social work degrees has been offered as remedy to turnover but the studies are inconclusive. One area that has not been well explored is teamwork. In fact, no published studies have been found linking "teamwork" and workers' intentions to leave.

This study, using an analysis of secondary data, develops a construct of "teamwork" to study its relationship to turnover. The study specifically explores "teamwork" compared with individual work-related factors - burnout and job satisfaction; one work environment factor – organizational climate and one personal factor – educational background. Logistical regression analysis was conducted on an anonymous random sample of 319 public child welfare caseworker's responses to an organization-wide survey conducted in one U.S. Midwestern state in 2005.

Findings indicate that the workers' positive perception of teamwork decreases their stated intentions to leave whereas the workers' burnout increases their stated intentions to leave. Based on the findings, implications for social work practice, social agency policy and directions for future research are discussed. The limitations of the study, instruments, and analysis of secondary data are included.

Chapter One

Introduction and Rationale for Study

A high turnover rate among child welfare caseworkers has emerged in the past decade as possibly one of the most serious issues within the public social service sector. The vast majority of child welfare work in the United States, particularly the protection of children from abuse and neglect, is performed by child welfare workers employed by state agencies legally responsible for investigation of allegations of abuse and neglect and, often, for the on-going services provided to families when allegations are sustained.

Public child welfare workers have always been called upon to fulfill complex and demanding roles; They are asked to assess a child's safety, plan with the family and others actions, teach the family to find alternative parenting methods, support the family through the change process, document facts to a family, and report professional judgments based on facts about the family to the worker's supervisor and the court (Child Welfare Practice Framework, 2007). When accomplishing these roles, they are legally mandated to protect children within families affected by "substance abuse, mental illness, mental retardation, violence, adolescent parenthood, incarceration, homelessness, and poverty" (Ellett, Ellett, & Rugutt, 2003, p. 1). The demands of this work require employees who are well prepared educationally and well trained for the day-to-day demands of child protection.

Retention of well-prepared employees has become a major problem for each of the individual states. For example, in Georgia, child welfare workers turnover rates were 39% in 1999, which grew to 44% in 2000 (Ellett et al., 2003). In national status, the workers turnover rates increased from 19.9% in 2000 to 22.1% in 2004 (Child Welfare

League of America, 2007). This serious turnover issue has demonstrated the need to develop child protective services that more effectively and fairly fashion environmental factors to enhance the workers' jobs.

As a result, many means for protecting caseworkers from deleterious effects of their work have been studied in order to ameliorate this trend. Researchers have tried to find the critical reasons for the high rate of caseworker turnover and have suggested diverse programs and projects to decrease their intentions to leave. Research on job satisfaction, burnout, organizational climate, and educational background has predominated (Jayaratne & Chess, 1985; Drake & Yadama, 1996; Collings & Murray, 1996; and Perry, 2006). However, there has been little research that would accurately categorize the crucial factors impacting caseworkers' turnover rooted in dimensions of teamwork.

Difficulty with research on actual turnover due to confidentiality (the agency managers usually do not want to share negative information such as employees' high turnover rate), lack of exit data, and/or reluctance by exiting workers to provide reasons has required researchers to find a surrogate measure. Fishbein and Ajzen (1975) found that intention to leave is the primary antecedent to actual turnover, and Hellman (1997) verified that intention to leave an organization has gained much empirical and theoretical support as an important predictor of actual turnover. This study proposes to use public child welfare caseworkers' intentions to leave their agencies as a surrogate measure for actual turnover.

Statement of Problem

In recent years dramatic increases in public and professional awareness of child neglect and abuse have produced new patterns of service delivery and rapidly expanding expectations for protective service workers. The U.S. Department of Health and Human Services (2001) reported that there were 2.7 million referrals of child abuse or neglect of which around one million children were judged to be actual victims. The Child Welfare League of America (2004) reported that out of every 1,000 children in the U.S., 3.3 were neglected, 1.8 were physically abused, and 1.6 were sexually abused. In Missouri, 9,237 children were found to be abused or neglected in 2001, a rate of 6.5 per 1,000 children, representing a 21% increase from 2000. At the same time, the problem of turnover among caseworkers has received increased attention. In 2003, their annual turnover rate was 23% (University of Missouri-Columbia Center for Family Policy and Research, 2004).

This rapidly growing percentage of children in danger and the severe turnover rate is exacerbated by child welfare caseworkers "regularly entering dangerous neighborhoods to make home visits and entering homes where violence has become a factor in living" (Ellett et al., 2003, p. 2). Therefore, the dangerous work environment has received increased attention. In this study, the work environment will be considered a constant factor, affecting all workers equally. In order to uncover the reason why public child welfare caseworkers, specifically, develop intentions to leave their jobs, it is necessary to conceptualize their perceptions of the work environment and form a construct of the relationship between their perceptions of the work environment and the main culprits that result in intention to leave or turnover.

Significance of This Study

National figures in the U.S. show that turnover rates rose during the period from 19.9% in 2000 to 22.1% in 2004 for Child Protective Services (CPS) workers (Administration for Child and Families, 2005). High turnover rates among child welfare workers are a problem both for children who are deprived of continuous care and for child welfare agencies that must regularly hire new caseworkers, thus incurring financial losses related to replacing lost workers as well as a degradation in service.

Increased turnover damages any children receiving welfare services. A change in caseworkers makes clients experience a lack of trust and delays progress with required service plans. Further, the caseworkers' high turnover rates result in delays in court hearings as cases are rescheduled. Flower, McDonald, & Sumski (2005) reported that these negative effects of caseworkers' turnover impacted permanency for children. Using data collected by the Bureau of Milwaukee Child Welfare in calendar year 2003 through September 2004, they found that "children entering care during the time period who had only one worker achieved permanency in 74.5% of the cases. As the number of case managers increased the percentage of children achieving substantially dropped, ranging from 17.5%, having two case managers to a low of 0.1% having six and seven case managers" (Flower, McDonald, & Sumski, 2005, p. 4). This means that caseworker turnover makes children stay in foster care longer (Ryan, Garnier, Zyphur, & Zhai, 2006) and it is associated with a decrease in the likelihood of achieving reunification with parents (Hess, Folaron, & Jefferson, 1992).

In addition, Howes (1990) found that contact with high numbers of changing caseworkers jeopardizes the quality of care provided for children. The Cost, Quality and

Child Outcomes Study Team (1995) indicated that children in programs with higher staff turnover rates were more aggressive with peers. Based on these outcomes, Blank (1997) showed that, in child care services, there were many children who were vulnerable to the effects of poor quality care resulting from caseworkers' turnover.

Turnover also makes the welfare agencies lose the capability of implementing their work in an efficient way. Excessive turnover rates in child welfare services lead to higher costs in "hiring and training, reduced service capacity, and an increased possibility for harmful decisions" (Balfour & Neff, 1993, p. 474). For many years, researchers and practitioners alike have attempted to isolate the costs of child welfare caseworkers' turnover in terms of separation, replacement, new-hire training, and general administrative costs. In an unpublished study resulting from agency analysis, Kelly (1998) estimated the direct and indirect costs of losing 20 workers in one urban child welfare office during a single year to be over one million dollars. Gummer (2002) found that higher incidents of turnover in organizations increase costs, and financial performance is thereby lowered. Specifically, for continuous retraining, Ellett and Miller (2001) reported that it takes approximately two years for new hires in child welfare to learn what needs to be done in their jobs. Ellett, Ellet, and Rugutt (2003) reported that "high turnover rates among child welfare workers are quite costly in terms of lost resources invested in months of on-the-job training required for new employees and ongoing training for more experienced employees" (p. 3).

Thus, we need to protect child welfare caseworkers from the factors that cause their high turnover rates, both for the sake of the children served, and for the increased efficiency and productivity of the child welfare agencies. These efforts can contribute to

enriching the caseworkers' job environments and allowing agencies to retain caseworkers. Ultimately, retaining child welfare caseworkers can improve consistent services of the agencies and prevent the undermining of service quality provided to children.

Purpose

This study's purpose is to extend previous research into the causes of public child welfare caseworkers' turnover. It introduces a new construct into the research dialogue. Teamwork and the related concepts of relationship with supervisors and co-workers were examined to determine their relationship to stated intentions to leave the agency. This study extends child welfare research in a meaningful direction and helps to isolate a variable which can be used by administrators and program designers to ameliorate the loss of valuable and experienced child welfare workers and, in turn, further the protection of vulnerable children.

Chapter Two

Review and Discussion of Relevant Literature

As noted earlier, previous research into factors impacting child welfare workers' turnover have used measures of workers' intentions to leave child welfare employment as a surrogate for actual turnover (Fishbein & Ajzen, 1975; Jayaratne & Chess, 1984; Hellman, 1997; Manlove & Guzell, 1997; Wright & Cropanzano, 1998; Mor Barak, Nissly, & Levin, 2001; and Cote & Morgan, 2002). The extensive difficulties in following-up with workers who were actually leave employment include agency confidentiality, a lack of willingness for workers to be candid about former employment, and the inability of agencies to conduct good exit interviewing. Consequently, researchers have depended upon measures of current employees' stated intentions to remain or leave the agency. Therefore, this study also uses a statement of intent to leave their organization as a surrogate for turnover. It is clear that workers may not follow through on their state intent but the literature review has treated caseworkers' intentions to leave at the same conceptual level as worker turnover.

The Literature of Caseworker's Intention to Leave

If a given child welfare caseworker were to express an intention to leave his or her job, we could consider the following as possible major reasons. First, he or she might claim personal stress because of the following related factors: 1) burnout (Drake & Yadama, 1996; Manlove & Guzell, 1997; Wright & Cropanzano, 1998; and Mor Barak, Nissly, & Levin, 2001); 2) job dissatisfaction (Jayaratne & Chess, 1985; Hom, Caranikas-Walker, Griffeth, & Prussia, 1992; Ostroff, 1992; Tett & Meyer, 1993; Wright & Cropanzano, 1998; Mannheim & Papo, 2000; and Gellis, 2002); 3) the organizational

climate (Jayaratne & Chess, 1984; Sundet & Cowger, 1990; and Collings & Murray, 1996); and/or 4) issues of the worker's own educational background (Lieberman, Hornby, & Russell, 1988; Balfour & Neff, 1993; Ellett, Ellett, & Rugutt, 2003; and Perry, 2006).

Alternatively, workers might intend to leave jobs because they have unproductive relationships with their colleagues and supervisors, which can lead to lowered team effectiveness (Harrison, 1980; Jayaratne & Chess, 1984; and Lewandowski & GlenMaye, 2002) and supervisor effectiveness (Guzzo & Salas, 1995; Dickinson & Mclntyre, 1997; and Holpp, 1999). This area has not received the research attention that it deserves and this study purposes to examine teamwork and related perceptions' effects on a stated intention to leave an agency.

Workers might be tempted away from their current job by a better salary or a work environment believed to be better than public child welfare. This may especially be true as opportunities in the private sector increase with privatization of child welfare services in states such as Kansas, Florida, and Missouri. However, this study assumes that the attractions of other agencies are often closely connected to the reasons stated above.

This dissertation will now turn to an in-depth review of the literature.

Burnout

Burnout has long been considered a major factor in employees' intentions to leave the child welfare field. Maslach (1976) described burnout as the deleterious effects the environmental demands of the workplace have on the work and he conceptualized that burnout can be understood in relation to job stress and that emotional exhaustion, depersonalization, and personal accomplishment are considered as subscales. Emotional

exhaustion was described as “feelings of being emotionally overextended and exhausted by one’s work,” depersonalization as “an unfeeling and impersonal response toward recipients of one’s care or service,” and personal accomplishment as “feelings of competence and successful achievement in one’s work with people” (Maslach & Jackson, 1986, p. 7). The Maslach Burnout Inventory (MBI), based on these three subcategories, has proven robust in reliability and construct validity and is by far the most widely used burnout measurement (Drake & Yadama, 1996, p. 182).

As a similar concept, Figley (1995) introduced compassion fatigue: that is, the combined effects of the caseworkers’ continuous visualizing of clients’ traumatic images added to the effects of burnout. He explained that fatigue diminishes caseworkers’ resiliency; they become extremely debilitated within a short time. In this study, the literature resources focusing on burnout are reviewed because they show the overall workers’ perceptions to their work environment, more than those dealing solely with compassion fatigue.

Drake and Yadama (1996) used structural equation modeling to study the relationship between burnout and job exit among child protective services workers. In order to test the relationship, they used the Maslach Burnout Inventory (MBI), but altered the measure through the removal of four items to improve the factor structure of the MBI on the basis of a prior confirmatory factor analysis (Yadama & Drake, 1995). They reported that “all of the burnout constructs had good reliabilities; Emotional Exhaustion had the highest (.89), followed by Depersonalization (.79), and then Personal Accomplishment (.74)” (Drake & Yadama, 1996, p. 183). In March 1993, the authors surveyed 177 child protective services workers selected at random among the 1,147

workers employed by the Missouri Division of Family Services. Using a structural equation model, they found a clear and direct connection between emotional exhaustion and job exit; however, the hypotheses of a positive direct effect from depersonalization to job exit and a negative direct effect from personal achievement to job exit were not verified at a significant level. In the series of indirect effects, personal achievement had a significant effect on job exit, and this trend was related to emotional exhaustion and depersonalization. Specifically, personal achievement affected emotional exhaustion and depersonalization, and not vice versa.

Wright and Cropanzano (1998) also investigated the relationship between emotional exhaustion and subsequent voluntary turnover. They used a convenience sample of 64 social welfare workers in a large city on the West Coast. Their study employed the MBI's nine-item emotional exhaustion scale which measures how often one feels emotionally drained, fatigued, and hard on one's work. The construct validity of emotional exhaustion has been provided by correlations between emotional exhaustion and selected job characteristics (Lee & Ashforth, 1993). The reliability score was high (Cronbach's alpha = .89). They defined turnover "only as voluntary withdrawal from the organization" (p. 488). Using multiple regressions, they found a positive relationship between emotional exhaustion and subsequent employee voluntary turnover. In addition, emotional exhaustion predicted both turnover and job performance. Based on these outcomes, the authors concluded that "emotionally exhausted employees exhibit diminished job performance and eventually quit their job" (Wright & Cropanzano, 1998, p. 492).

Mor Barak, Nissly, and Levin (2001) found that burnout, job dissatisfaction, and lack of social support are the strongest predictors of turnover or intention to leave. In a meta-analysis, they studied 25 articles concerning the relationship among demographic variables, personal perceptions, organizational conditions, and either turnover or intention to leave. In order to gain a broader perspective, they attempted to identify all studies published in academic journals between 1980 and 2000 that relate to turnover and retention among child welfare, social work, and other human service employees. In total, 55 articles were reviewed and 25 were studied in the meta-analysis, including empirical articles that examine antecedents to turnover or intention to leave. Given the style of meta-analysis, they did not comment on the definitions of variables and the validity or reliability of measurements. Using correlation analyses, they found that the strongest single predictor of actual turnover is intention to leave, followed by job satisfaction and burnout, and they concluded that "burnout and stress are serious concerns whether workers leave their jobs or not since those who feel burned out but choose to stay may not be able to do their jobs well in providing the services that their clients need" (Mor Barak, Nissly, & Levin, 2001, p. 653).

In comparison with these outcomes, verifying the relationship between burnout (or emotional exhaustion) and turnover (or intention to leave), Manlove and Guzell (1997) found that burnout has apparently not been examined sufficiently in relation to intention to leave and actual turnover. They agreed with Maslach and Jackson's definition of burnout, including the concepts of emotional exhaustion, depersonalization, and personal accomplishment, and they adopted the Maslach Burnout Inventory. In this sample, internal consistency on the inventory ranged from .66 to .68. In order to test for workers'

intentions to leave, they asked whether one would be leaving one's job within the near future. Surveys were sent to directors of 106 licensed child-care centers in 13 counties in central Pennsylvania and 169 staff members who spent regularly scheduled times working directly with children participated in this study. Using logistic regression analyses, they found that there was no statistically significant difference between burnout and intention to leave and actual simultaneous turnover. They concluded that "while staff turnover clearly compromises the quality of care being provided, burned out workers who stay on the job may compromise it as well" (Manlove & Guzell, 1997, p. 162).

Overall, though some researchers did not agree with the relationship between child welfare workers' burnout and intention to leave (Manlove & Guzell, 1997), many studies verified that burnout is a main predictor of workers' intentions to leave (Drake & Yadama, 1996; Wright & Cropanzano, 1998; and Mor Barak, Nissly, & Levin, 2001). Burnout is, quite obviously, a negative personal reaction which may affect worker's perception of the work environment; it can be recognized as an individual work-related factor in public child welfare workers' intentions to leave.

Job Satisfaction

Numerous researchers have studied the relationship between caseworkers' turnover and their reported job satisfaction levels. Ostroff (1992) defined job satisfaction as satisfaction with co-workers, supervision, pay, administration, career advancement opportunities, student discipline, school curriculum, community and parental support, physical facilities, and communication. In a similar manner, Wright and Cropanzano (1998) defined job satisfaction as the degree of satisfaction with the work itself, with coworkers, with supervision, with promotional opportunities, and with pay. Mannheim

and Papo (2000) also defined job satisfaction as an individual's satisfaction with working conditions, job responsibility, and relationships with colleagues and supervisors. In a different viewpoint, Tett and Meyer (1993) more broadly defined job satisfaction as one's affective attachment to the job, viewed either in its entirety or with regard to one particular aspect. Based on the cognitive appraisal model of stress and coping (Lazarus and Folkman, 1984), Gellis (2002) defined job satisfaction as the result of the worker's appraisal of the extent to which the work environment fulfills the individual's needs.

Jayaratne and Chess (1985) randomly selected the sample of 1,173 social workers from the NASW membership, and 853 questionnaires were returned (around 73 % return rate). Among the respondents were 99 full time child welfare workers. This study was conceptualized within the framework of job satisfaction, but the authors did not define job satisfaction. Job satisfaction was measured by a single item: "All in all, how satisfied would you say you are with your job?" Turnover intention was also measured by a single question: "Taking everything into consideration, how likely is it that you will make a genuine effort to find a new job with another employer within the next year?" (p. 761). In terms of these measurements, they did not report the validity and reliability. Using correlations analyses, they found that there was a moderate and negative correlation between job satisfaction and intention to leave.

A significant study of public school teachers and human services workers may be relevant to child welfare caseworkers. For example, public school teachers also work with children but in a different context. In a large study, Ostroff (1992) examined the relationship between job satisfaction and teacher turnover rates in junior and senior high school. He collected organizational performance data for 298 schools in 38 states and

Canada on the basis of randomized sampling and analyzed the data from 13,808 teachers within these schools. Schmitt & Ostroff's (1987) inventory of job satisfaction with a Chronbach's alpha of .80 was used. In organizational performance, he assessed five areas of students' academic achievement: student behavior, students' satisfaction, teacher turnover, and an evaluation of various aspects of the school's administrative team. More specifically, teachers' turnover intentions were measured with three items from the Michigan Organizational Assessment Questionnaire (Cammann, Fichman, Jenkins, & Klesh, 1979) in which the internal consistency reliability score was .85. Using hierarchical regression analyses, he found that job satisfaction bore a moderate relationship with teacher turnover at a significant level ($p<.01$).

Hom, Caranikas-Walker, Griffeth, and Prussia (1992) reviewed the research literature beginning with studies of human service workers published after 1978. They aggregated correlations from 17 studies and analyzed the data from 5,013 human services employees. Through correcting correlations and their variances for sampling and measurement errors, they analyzed the data from 25 prior research articles. They introduced the concept of "withdrawal cognition" (Mobley, 1977) that "translate[s] dissatisfaction into resignation according to a particular causal flow; thoughts of quitting lead to search decisions which lead to quit intentions" (Hom, Caranikas-Walker, Griffeth, & Prussia, 1992). Using structural equations modeling (SEM), the authors verified a causal flow link (dissatisfaction, which led to withdrawal cognitions, which then led to turnover) that many contemporary theories endorse.

In another meta-analysis of human service workers, Tett and Meyer (1993) found that job satisfaction contributes uniquely to turnover intentions and withdrawal

cognitions. They defined job satisfaction as one's affective attachment to the job either in its entirety or with regard to one particular aspect. With regard to turnover intention, they conceived it as to be a conscious and deliberate willfulness to leave the organization. However, they did not define the concept of withdrawal cognitions. Based on these conceptualizations, they searched psychological abstracts from 1968 to the middle of 1992 and aggregated a total of 178 independent samples from 155 studies. They conducted meta-analyses described by Hunter and Schmidt (1990, pp. 93-157) and extended those of Hunter et al. (1982). They stated that "unlike previous meta-analyses in this area which used artifact distributions to correct the mean and variance of observed correlations, the present study corrected study correlations individually prior to aggregation" (Tett & Meyer, 1993, p. 267). Using path analyses, they found that job satisfaction contributes independently to the prediction of withdrawal cognitions; withdrawal cognitions are predicted more strongly by job satisfaction than by organizational commitment; and withdrawal cognitions mediate nearly all of the attitudinal linkage with turnover.

Wright and Cropanzano (1998) surveyed the 64 child welfare workers in a large city on the West Coast in a convenience sampling. To test the concept of job satisfaction, they asked the following questions: "All in all, how satisfied are you with the work itself or your job?"; "All in all, how satisfied are you with your co-workers?"; "All in all how satisfied are you with the supervision?"; "All in all, how satisfied are you with the promotional opportunities?"; and "All in all, how satisfied are you with the pay?" (Wright & Cropanzano, 1998, p. 488). The reliability score of this measurement (Cronbach's alpha) was .75. They defined turnover solely as "voluntary withdrawal from

the organization" (p. 488). Using multiple regressions, they found that the workers' job satisfaction was not related to turnover at a significant level. Instead, emotional exhaustion and job performance were found as the dominant factors predicting voluntary turnover.

Although Wright and Cropanzano (1998) did not find job satisfaction as a critical factor in relation to child welfare workers' turnover intentions, the workers' intentions to leave were related to their job satisfaction (Jayaratne & Chess, 1985; Ostroff, 1992); their job-related attitudes such as withdrawal cognition were involved in the linkage (Tett & Meyer, 1993). The child welfare workers seemed to leave their job due to withdrawal cognitions that resulted from job dissatisfaction, burnout, and the suppression of unpleasant emotions (Hom, Caranikas-Walker, Griffeth, & Prussia, 1992). Overall, job satisfaction can be considered a crucial factor related to an individual's work, resulting in public child welfare workers' intentions to leave.

Organizational Climate

Organizational climate has been tested as a critical factor in child welfare caseworkers' intentions to leave. Harrison (1980) introduced role conflict and ambiguity as organizational climate items, and he explained that that "role conflict results when incompatible or tenuously compatible demands or expectations are placed upon the social workers" and "role ambiguity is a lack of clarity as to what is expected, appropriate, or effective behavior" (p. 32). Jayaratne and Chess (1984) defined organizational climate as physical comfort, challenge, financial rewards, and promotional opportunities. Sundet and Cowger (1990) also defined organizational climate as workload factors, including availability of supervision, caseload size, caseload complexity, case improvement, case

decision autonomy, and geographic dispersion of cases. Based on these concepts, Collings and Murray (1996) examined organizational climate with the adequacy of various aspects of their work environment, the particulars of the workload, the degree of overload, choice over work content, duties, demanding cases involving children, paper work, various types of colleague relationships, and various supervision or management styles.

Jayaratne and Chess (1984) studied the relationship between organizational climate and the intention to change jobs amongst employees of family service, community mental health, and child welfare workers. They measured physical comfort, challenge, financial rewards, and promotional opportunities as indicators of organizational climate, and they used Quinn and Shepard's (1974) survey, verifying the measurement reliability and validity through their own research. Analyses were based on data collected from a national survey of the National Association of Social Workers (NASW) membership in 1981. In this article, they restricted their analyses to 288 respondents who worked in community mental health, child welfare, or family services.

Using regression analyses, they found that role ambiguity had a moderate yet significant relationship with intention to change jobs for family service workers, and that financial reward had a weak relationship with intention to change jobs for community mental health workers. In child welfare workers, financial reward was moderately related with intention to change jobs. In comparison with the three target groups, child welfare workers reported significantly poorer scores than their colleagues in role conflict, value conflict, and challenge. The three facets of the job were not defined in this study. In addition, "although child welfare workers had the smallest average number of cases,

these workers considered their caseloads to be too high" (p. 452). Based on this outcome, they suggested that "child welfare agencies ought to pay particular attention to caseload size if they are interested in high-quality service and less turnover" (Jayaratne & Chess, 1984, p. 452).

Organizational climate also has been studied as an important component for explaining job stress that results in turnover. Sundet and Cowger (1990) studied the relationship between job stress and workload factors. They defined workload factors as the availability of supervision, caseload size, caseload complexity, case improvement, case decision autonomy, and geographic dispersion of cases. In order to test these factors, they used the Work Environment Problem Rating Scale, which was statistically validated for internal consistency and reliability (Kuder & Richardson, 1973). They surveyed 141 rural child welfare workers in two states using a convenience sampling and found a strong correlation between reported stress and workload factors (caseload size, case complexity, geographic dispersion of cases, and decision making autonomy). Based on these outcomes, they concluded that "job stress is most directly associated with immediate working conditions" (Sundet & Cowger, 1990, p. 108).

Collings and Murray (1996) also examined high levels of measured stress in connection to organizational climate. In order to test factors associated with high and low measured stress, an overall stress scale was constructed from total scores on two of the MBI subscales (emotional exhaustion and depersonalization). To examine organizational climate, they adopted ten questions which asked respondents to rate the adequacy of various aspects of their work environment; ten workload ratings included the degree of overload, choice over work content, duty work, demanding cases involving children, and

paper work; seven ratings covered the degree of satisfaction with various types of colleague relationships; fifteen ratings assessed the experience of being supervised; twenty one items investigated the experience of various management styles. They did not explain, however, what conceptual definitions were made, how the measurements were constructed, and what validity and reliability levels were tested.

In a convenience sampling, Collings and Murray (1996) investigated 243 social workers drawn from four social services departments in northern England. Using regression analyses, they found that job stress was significantly associated with the following factors: 1) "pressure involved in planning and reaching work targets," 2) "having no answers to specific client problems," 3) "having a high workload," 4) "dissatisfaction with supervision arrangements," and 5) "perceiving society to have unrealistic expectations of social workers" (p.383). As a result, they concluded that "if social workers could be assisted in developing more control over key aspects of their work such as workload and administrative responsibilities, their experience of stress would be reduced" (Collings & Murray, 1996, p. 386). In summary, while workers' organizational factors such as role conflict, value conflict, and caseload size were related with intention to change jobs, they were also studied as the factors impacting workers' job stress or dissatisfaction. Assuming that the workers' perceptions of work environments, such as organizational commitment, impact their intentions to turnover through job dissatisfaction, the study investigating the relationships between organizational climate and job satisfaction might contribute to pinpointing the reasons why employees leave their jobs.

Mannheim and Papo (2000) studied the relationship between organizational commitment and job satisfaction by analyzing the data collected from 165 public social workers in Israel in a convenient sampling. They defined organizational commitment as an affective reaction, or attachment of the individual to the employing organization. In order to test organizational commitment, they used nine items taken from Mowday, Porter, and Steers' (1982) OCQ (Organizational Commitment Questionnaire). Its reliability was not very high (Cronbach's alpha = .62). They adopted ten items from the Warr, Cook, and Wall's (1979) job satisfaction scales, correlating individual satisfaction with working conditions, job, responsibility, and relationships with colleagues and supervisors (Cronbach's alpha = .85). Regarding the correlation matrix, there was a weak relationship between job satisfaction and organizational commitment.

In another study of workers' perceptions of organizational climate in relation to job satisfaction, Gellis (2002) examined the relative influence of job stress/ coping on job satisfaction. She adopted the transactional stress process model (Lazarus & Folkman, 1984), within which they explained job stress as a process involving a transaction between the individual and her/his work environment. Based on this theory, she hypothesized that the well-established relationships of high stress and avoidance coping would predict low job satisfaction. In this study, job satisfaction was defined as the result of the worker's appraisal of the extent to which the work environment fulfills the individual's needs (Rounds, Dawis, & Lofquist, 1987). She mailed questionnaires to 300 randomly selected social workers and 300 randomly selected registered nurses in a large urban setting; 173 social workers and 161 nurses responded. Turnage and Spielberger's (1991) job stress index was used to measure occupational stress; its Cronbach's alpha

reliability was .84. Furthermore, Quinn and Staines' (1979) scale was used to measure overall job satisfaction, and its Cronbach coefficient alpha was .88. She did not report the specific contents of the measurement's validity. As a result, using correlations analyses, she found that, for the social work group, job stress was inversely and significantly related to job satisfaction, and concluded that some methods of coping with job stress could contribute to increasing worker's job satisfaction.

Overall, social workers' organizational climate has been studied as a component closely related to job satisfaction as well as workers' turnover. Thus, organizational climate perceptions might be considered a predictor of caseworkers' intentions to leave. More specifically, the perception of organizational climate is viewed as a main control variable in the work environment because it impacts the other individual work-related factors such as burnout and job satisfaction in relation to public child welfare caseworkers' intentions to leave.

Educational Background

Concerning the relationship between workers' educational background and turnover in human services agencies, Balfour and Neff (1993) introduced "human capital" as skills and abilities of employees (McGregor, 1988) and explained that "a sustained high turnover rate represents a depreciation of human capital and a threat to the organization's technical core so that the result of high turnover in such organizations is likely to be a significant depletion of productive capacity and reduced organizational effectiveness" (Balfour & Neff, 1993, p. 474). Based on this conceptual framework, 171 child service caseworkers in a children services agency located in a large, urban country in northern Ohio were surveyed in convenience sampling. Seven independent variables

(employee age, tenure, education, experience, internship, overtime hours, and participation in the training program) were regressed against the dichotomous dependent variable, actual turnover (employee left = 1, employee remained = 0). While addressing the workers' educational level, they hypothesized that the child welfare workers with a master's or bachelor's degree have more probability of turnover because they have higher expectations of their jobs. The logistic regression analysis indicated the significance of experience (especially from an internship) and education as being the most important characteristic for determining one's propensity to turnover. The profiles of those most likely to leave versus stay suggested that "agency efforts to reduce turnover should be directed toward those with more education, less experience in the field and/or profession, and less stake in the organization" (p. 483).

More currently, Ellett, Ellett, and Rugutt (2003) studied the relationship between child welfare workers' educational background and turnover in Georgia. They surveyed 1,423 employees in a convenient sample and tested their educational levels (BSW/MSW vs. other degrees) with turnover and organizational factors. Using t-test, they found that BSW/MSW staff showed more positive response on work morale, work efficacy, and professional commitment. Although there was no significant difference between the educational level and turnover, BSW/MSW staff showed lower turnover levels than did other degree groups.

The educational background of child welfare workers has been studied in relation to work experience in addition to the intention to leave. Given the issue of work performance,

Lieberman, Hornby, and Russell (1988) studied child welfare workers' educational backgrounds and work experiences. They hypothesized that the relationship between educational levels and perceived preparedness might be confounded by experience. In order to test this hypothesis, they constructed the perceived preparedness questionnaires for 32 skill areas and knowledge bases along with the respondent's educational background, requesting that each person indicate her or his highest educational level and type of degree earned; however, they did not report the reliability and validity score of the perceived preparedness measurement. As a control variable, years of experience was measured by requesting that "the respondents indicate the number of years they have been providing social services to children and their families" (Lieberman, Hornby, & Russell, 1988, p. 486).

They used a national study conducted by the National Child Welfare Resource Center on Management and Administration at the University of Southern Maine; more than 5,000 child welfare personnel in a stratified sample of 16 states were analyzed. Using the One-Way ANOVA test, they found that the relationship between education and perceived preparedness remains significant in most areas. Furthermore, when considering years of experience as a control variable, in all but three areas, those with no degree and those with MSW or social work doctorates, work experience had a noticeable impact, which means that the more years of experience they have, the more prepared they feel. Based on these outcomes, they concluded that "persons with a social work degree such as MSW regard themselves as better prepared more consistently than persons with any other degree" (Lieberman, Hornby, & Russell, 1988, p. 489).

Contrary to the preceding studies, some researchers suggest that there is no relationship between the workers' educational background and the other factors. For instance, Perry (2006) examined the impact of child welfare workers' educational background on performance evaluations in Florida. Using a stratified random sample, he selected 274 Child Protection Service (CPS) and 183 Child Protection Investigators (CPI) workers. He used the Career Service Performance Evaluation Forms and the Peer Input Form, both developed for this study. As a result, he found that the ratings of social workers' competency with BSW or MSW degree did not differ from those workers with other educational backgrounds (psychology, sociology, criminology, education, business, and all other majors). Based on this outcome, he suggested that the workers' educational background is a poor predictive variable of their work performance.

Overall, reviewing previous literature, public child welfare caseworkers' educational background has been a recent topic of study. It has been approached in different ways and, yet, education's relationship to turnover is not clear. Given that the child welfare workers' job satisfaction and burnout are based on the individual responses, the workers' educational background could be considered a main control variable along with organizational climate, impacting individual work-related variables towards the workers' intention to leave. Therefore, in this dissertation, educational background and organizational climate are tested as moderating variables of the other individual work-related factors such as burnout and job satisfaction, impacting public child welfare caseworkers' intentions to leave.

Limitations of Previous Research

Child welfare workers' intentions to leave might result from individual work-related factors - burnout and job satisfaction; from a work environment factor – organizational climate; from a personal factor - educational background and/or combinations of these factors. These four major components appear to be interwoven by related characteristics and are often difficult to distinguish clearly one from another. However, researchers studying public child welfare caseworkers' intentions to leave have not focused on worker's relationships with other workers, such as team effectiveness, nor on worker's relationships with their supervisors, such as in supervisory effectiveness. The relationship areas could be conceptualized as teamwork. Thus, studying the teamwork factors related to the workers' intentions to leave could contribute to building new knowledge on the research agenda concerning public child welfare caseworkers' intentions to leave.

Teamwork

The concept of team has been used to improve many kinds of organizations, and teamwork has been studied to make improvements in work processes and systems through effective management. Concerning the concept of teamwork, Hunter, Bailey, and Taylor (1998) defined a team as a "group of people who need one another in order to achieve a purpose" (p. 73). They explained that a team consists of its own purpose, vision, membership, ownership, integrity, communication, responsibility, culture, leadership, and management. Guzzo, Salas, and associates (1995) described teamwork as involving those activities that serve to strengthen the quality of functional interactions, relationships, cooperation, communication, and coordination of team members, while taskwork includes the operations-related activities to be performed by the team members. More

specifically, they explained cooperation as a behavioral type of teamwork with which workers share information, take one another's perspectives, exchange resources, support one another, and communicate and influence effectively.

While explaining the function of teamwork, the International City/County Management Association (1994) reinforced that, from management's perspective, teamwork means empowering employees, or giving them more ownership in the operation of their jobs while, from the employee's perspective, teamwork implies accepting more responsibility and involvement in improvement efforts. Furthermore, Dickinson and Mclntyre (1997) explained how "teamwork requires team members who have positive attitudes toward the team and its task, have been provided adequate direction and support for accomplishing team goals, and know their own tasks and those of other members with whom they interact" (p. 22).

Overall, the concept of teamwork has been studied not relation to the individual but rather in a collective unit as a group which pursuits a goal, and is named as a team. Thus, the function of teamwork has been focused on the relationships between team members, in which they interact, communicate, and cooperate. The role of teamwork is shown so differently in the workers' perspective that supervisors encourage teamwork by empowering employees, while staff involve themselves in teamwork by coordinating their efforts with team members. Therefore, the attributes of teamwork are explained in the relationships between a supervisor and employees or between employees themselves. Based on these explanations, the concept of teamwork among public child welfare caseworkers can be demonstrated as "cooperation through sharing information,

taking one another's perspectives, exchanging resources, supporting shared talks, and communicating effectively between employees or between a supervisor and employees."

The characteristics of vertical and horizontal relationships in a team were introduced by Dickinson and Mclntyre (1997). They designed a teamwork model in a systemic approach and identified seven core components: team orientation, team leadership, monitoring, feedback and/or backup, coordination and communication. In order to improve teamwork, they indicated the importance of team members and supervisors' cooperation through which the teamwork components are effectively conducted. Dickinson and Mclntyre (1997) introduced team effectiveness as the effective and coordinated actions of individual members merged to produce synchronous team performance. If workers are creative and responsive, more productive and efficient in coordination, they contribute to an effective support team: well organized in team orientation, monitoring, and feedback or backup. From a different viewpoint, when focusing on team leadership, workers' perceptions of a supervisor's role and behavior are considered crucial leadership concepts that impact teamwork, enable or inhibit workers to set or achieve goals, and is named as supervisor effectiveness (Dickinson & Mclntyre, 1997). Creating teamwork has been linked to a supervisor's ability to enable workers to participate in decision making processes also by Guzzo and Salas (1995), and to coordinate team activities, advise on problem or opportunity selection, provide resources, coach on problem solving, assist in implementation, and provide recognition in raises or promotions by Holpp (1999).

The impact of teamwork on worker turnover has been studied in diverse sectors. In the hospitality industry, Ingram and Jones (1998) investigated the management

style in a franchise restaurant, particularly focused on the factors affecting staff turnover- a major concern of food service managers. As a case study, they found that the restaurant's approach to recruiting and developing staff involved an early exposure to teamwork. A prospective employee is invited to spend around three hours on a shift with existing employees in the store. The team members then give their opinions to management. Qualified key staff are empowered to train new employees and work to enhance team cohesion. These efforts have resulted in sustained growth and low employee turnover.

In the health care industry, DeFontes and Surbida (2004) studied a way of improving patient safety through addressing human factors that lead to medical errors. They introduced the Preoperative Safety Briefing project, developed in the Kaiser Permanente Orange County Service Area in order to embrace a fundamental cultural change that emphasized safety as part of clinical quality standards. Important elements of the project design included creation of a climate of improved communication, collaboration, and teamwork. As a pre and post test, they conducted the project in a county medical center and found that wrong-site surgeries decreased; employee satisfaction increased; and nursing personnel turnover decreased. Based on these outcomes, they concluded that team members who work together and communicate well can quickly detect and more easily avoid medical errors.

In another health care study, Forbes-Thompson, Gajewski, Scott-Cawiezell, and Dunton (2006) explored the relationship between nursing home staffs' perceptions of organizational processes (communication, teamwork, and leadership) and turnover. They defined communication as "the creation or exchange of understanding between a sender

and a receiver" (p. 936), teamwork as "collaborative interaction and participation in assessing, planning, and delivering care" (p. 937), and leadership as "the ability of individuals to influence others to achieve organizational objectives" (p. 937). They adopted Shortell's Organization and Management Survey (1994), containing the constructs of communication, teamwork, and leadership while surveying 332 nursing home administrative staff and 1,872 care staff. Using multiple regression, they found that a higher turnover of both staffs was associated with lower perceptions of communication and teamwork and suggested that the managers needed to increase staff communication and teamwork.

However, no published studies, connecting teamwork with public child welfare caseworkers' intentions to leave, were found in the available literature. Therefore, it is meaningful to ask whether teamwork impacts the workers' intentions to leave. This study builds a bridge between public child welfare caseworkers' intentions to leave and teamwork, and, hopefully illustrates how perceived teamwork is related in the employees' perception of their work environment.

Theoretical Framework

This study assumes that the data available from the 2005 Survey of Organizational Excellence (SOE) of one public child welfare agency provides the necessary data to test the relationship between teamwork and turnover. The SOE was designed as a population instrument and not often used a generalize from a random sample of employees. Since the SOE is inexpensive to administer and has a rapid turn-around time, it has been widely used in state agencies. But, it has not been subjected to rigorous validity and reliability testing. The instrument is said to measure 20 constructs of

an organization including all of the constructs of interest to this study. As such the SOE data even with its limitations provides a rare opportunity to test the relationships of variables of interest. The instrument includes items on teamwork such as team effectiveness and supervisor effectiveness and public child welfare caseworkers' intentions to leave. Furthermore, the survey includes individual work-related items such as burnout and job satisfaction, as well as main control items such as organizational climate and educational background (see Appendix A). The individual work-related items might well be associated with public child welfare caseworkers' intentions to leave.

More importantly, it might be found that teamwork factors (team effectiveness and supervisor effectiveness) explained in the teamwork model have a relationship with the public child welfare caseworkers' intentions to leave (see Figure 1). Teamwork might also be found to moderate the relationship between individual work-related items (burnout and job satisfaction) and the workers' intentions to leave (see Figure 2). When the effect of an independent variable on a dependent variable differs depending on the value of a third variable, they commonly call the third variable a moderating variable (Jaccard, 2001, p. 12). For example, the effect of burnout on whether public child welfare caseworkers intend to leave their jobs may differ based on their teamwork perceptions. In this case, the workers' intentions to leave is the dependent variable, burnout is the independent variable, and teamwork is the moderating variable. In addition, the workers' perceptions of the organizational climate and educational backgrounds might well moderate the relationship between the other individual work-related items (burnout and job satisfaction) and the workers' intentions to leave (see Figure 3 and 4).

Figure 1. Conceptual Model I

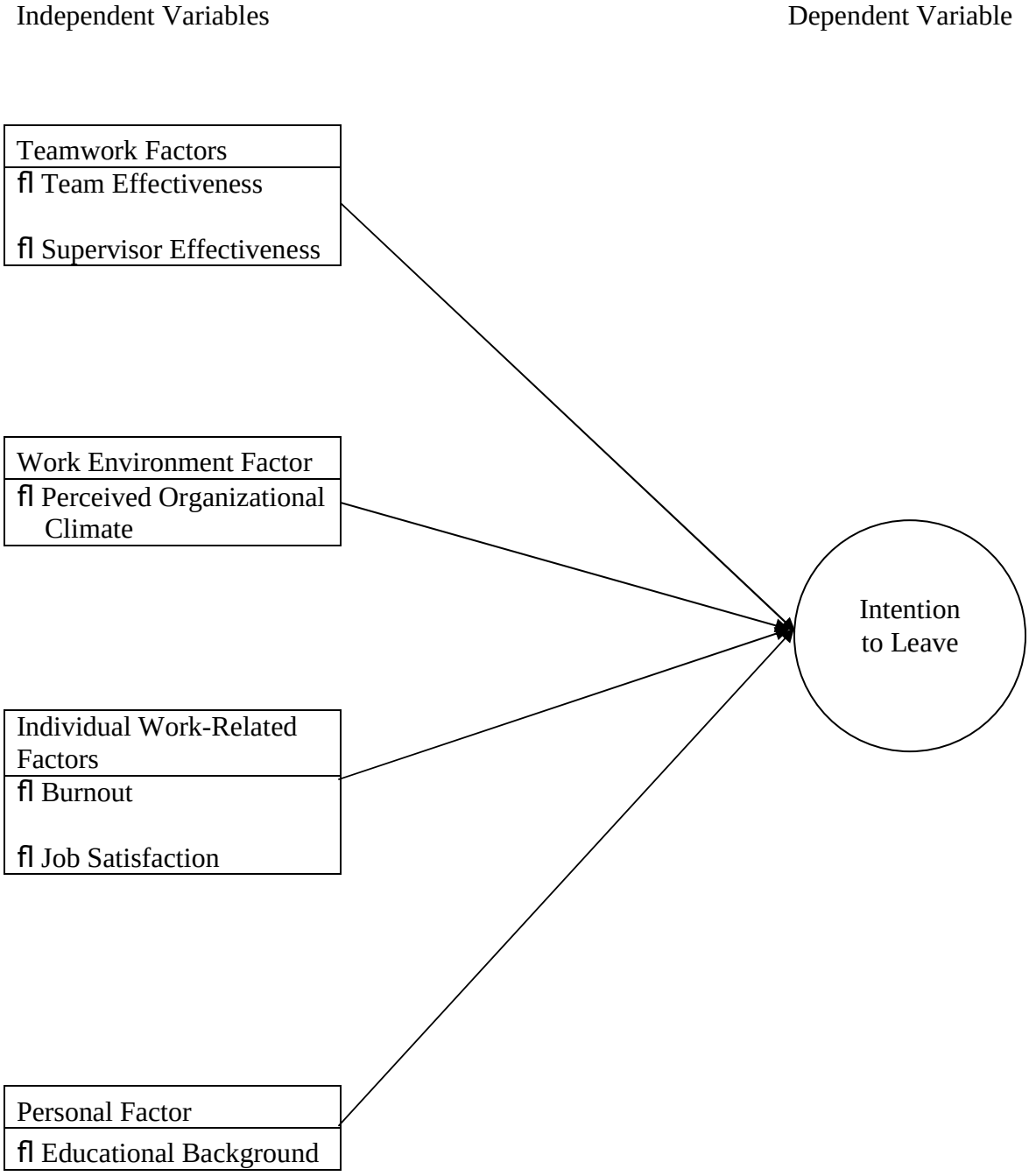


Figure 2. Conceptual Model II

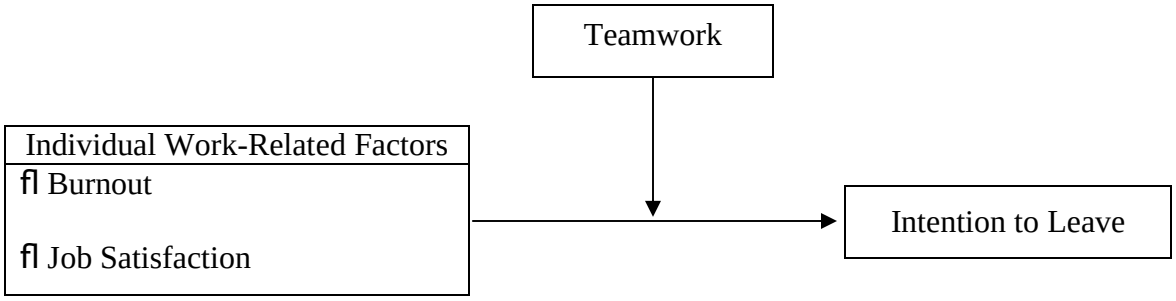


Figure 3. Conceptual Model III

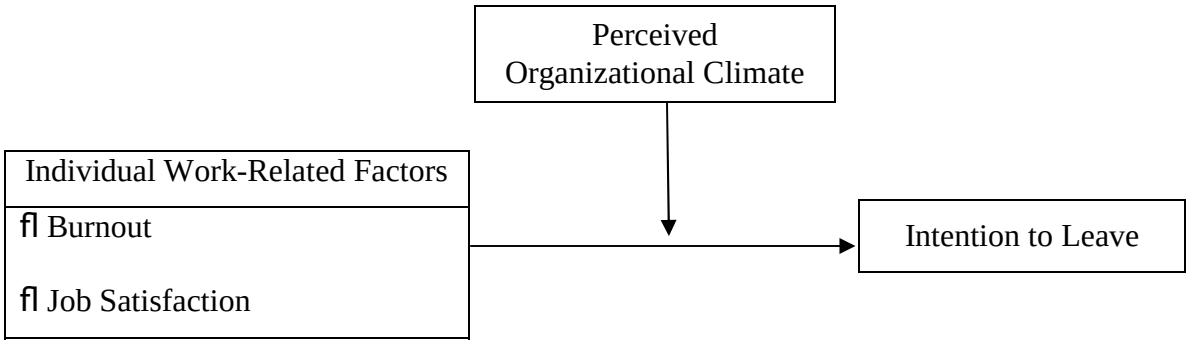
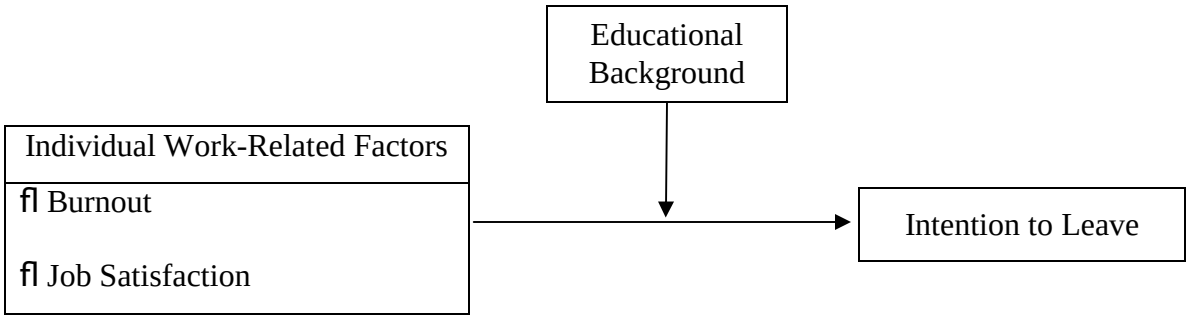


Figure 4. Conceptual Model IV



Research Questions and Hypotheses

This study is guided by several research questions and related hypotheses. Based on the conceptual model and on statistical findings, team effectiveness and supervisor effectiveness are included in the concept of teamwork. In the statistical tests, due to multicollinearity the "team effectiveness" and "supervisor effectiveness" as measured by the SOE questionnaire were combined into a single index, teamwork (see Table 1 in chapter four). Burnout and job satisfaction are considered as individual work-related factors in public child welfare caseworkers' stated intentions to leave. Organizational climate is a work environment factor and educational background is a personal factor. Both are possibly related to workers' stated intentions to leave.

The study tests the relative effect of teamwork on workers' stated intentions to leave in relation to individual work-related factors. Teamwork is also tested as the moderating variable in the same method. Additionally, employees' perceptions of organizational climate and their educational backgrounds are tested as the moderating variables to modify the effect of individual work-related factors on the measurement of intentions to leave.

The questions that are addressed in this study are:

Research question 1: Is a high level of teamwork related to a low level of public child welfare caseworkers' stated intentions to leave?

Hypothesis 1: The workers' positive perceptions of teamwork decrease their stated intentions to leave.

Research question 2: Are individual work-related factors related to public child welfare caseworkers' stated intentions to leave?

Hypothesis 2: The workers' burnout increases their stated intentions to leave.

Hypothesis 3: The workers' job satisfaction decreases their stated intentions to leave.

Research question 3: Is work environment related to public child welfare caseworkers' stated intentions to leave?

Hypothesis 4: The workers' positive perceptions of organizational climate decrease their stated intentions to leave.

Research question 4: Is educational background related to public child welfare caseworkers' stated intentions to leave?

Hypothesis 5: The workers having a BSW or MSW are less likely to leave their jobs.

Research question 5: Do teamwork, perception of organizational climate, and educational background modify the effect of individual work-related factors on public child welfare caseworkers' stated intentions to leave?

Hypothesis 6: The workers' high level of teamwork is related to a decrease in their stated intentions to leave, even though they are burnout out.

Hypothesis 7: The workers' high level of teamwork is related to a decrease in their stated intentions to leave, even though they are not satisfied with their jobs.

Hypothesis 8: The workers' positive perceptions of organizational climate are related to a decrease in their stated intentions to leave, even though they are burned out.

Hypothesis 9: The workers' positive perceptions of organizational climate are related to a decrease in their stated intentions to leave, even though they are not satisfied with their jobs.

Hypothesis 10: The workers' educational backgrounds with either a BSW or MSW are related to a decrease in their stated intentions to leave, even though they are burned out.

Hypothesis 11: The workers' educational backgrounds with either a BSW or MSW are related to a decrease in their stated intentions to leave, even though they are not satisfied with their jobs.

Operational Definitions

In this study, public child welfare caseworkers' turnover is not measured directly but rather by their intentions to leave. The SOE asks "I plan to be working for this organization for this organization in two years." Respondents could answer "yes" or "no" (Lauderdale, 2001, p. 3). Respondents answering "no" to this question are considered to have a stated intention to leave. Therefore, the workers' *intentions to leave* are the key dependent variable, which is used as a surrogate measure for "turnover."

Based on the theoretical background, *teamwork* consists of team effectiveness and supervisor effectiveness. *Team effectiveness* was defined as the team's impact on performance effectiveness through workers' attitudes and their behavioral outcomes (Conhen & Bailey, 1997). In this study, team effectiveness captures "employees' perceptions of the effectiveness of their work group and the extent to which the organizational environment supports appropriate teamwork among employees" (Lauderdale, 2001, p. 6). *Supervisor effectiveness* was explained as the supervisor's ability to enable workers to participate in decision-making processes (Guzzo & Salas,

1995) and to coordinate team activities, assist in implementation, and provide recognition through raises or promotions (Holpp, 1999). In this study, supervisor effectiveness provides "insight into the nature of supervisory relationships in the organization, including quality of communication, leadership, and fairness that employees perceive exist between supervisors and themselves" (Lauderdale, 2001, p. 6).

Burnout has been suggested to be among the main factor causing public child welfare caseworkers' intentions to leave (Koeske & Koeske, 1989; Drake & Yadama, 1996; and Manlove & Guzell, 1997). Whereas Koeske and Koeske (1989) considered that burnout is synonymous with emotional exhaustion, Maslach and Jackson (1986) conceptualized that burnout can be understood in relation to job stress in which emotional exhaustion, depersonalization, and personal accomplishment are considered as subscales. Emotional exhaustion was described as "feelings of being emotionally overextended and exhausted by one's work," depersonalization as "an unfeeling and impersonal response toward recipients of one's care or service," and personal accomplishment as "feelings of competence and successful achievement in one's work with people" (Maslach & Jackson, 1986, p. 7). Drake and Yadama (1996) and Manlove and Guzell (1997) agreed with the Maslach and Jackson's definition of burnout, including the concepts of emotional exhaustion, depersonalization, and personal accomplishment; Both sets of researches adopted the Maslach Burnout Inventory. Based on these concepts, this study defines burnout as "a feeling of extreme mental exhaustion that can negatively impact employees' physical health and job performance, leading to lost resources and opportunities in the organization" (Lauderdale, 2001, p. 20).

Job satisfaction has received major research interest in its relationship with public child welfare caseworkers' intentions to leave (Ostroff, 1992; Tett & Meyer, 1993; Wright & Cropanzano, 1998; Mannheim & Papo, 2000; and Gellis, 2002). According to the definitions in previous research, this study defines job satisfaction as "employees' satisfaction with their overall work situation, weighed heavily in concerning employees' evaluation of the availability of time and resources needed to perform jobs" (Lauderdale, 2001, p. 20).

Organizational climate has also been treated as a critical factor in public child welfare caseworkers' intentions to leave (Harrison, 1980; Jayaratne & Chess, 1984; Sundet & Cowger, 1990; and Collings & Murray, 1996). Reflecting the definitions in previous studies, this study defines organizational climate as "employees' thinking about how the organization responds to external influence, including those which play a role in defining the mission, services and products by the organization" (Lauderdale, 2001, p. 20). *Educational background* has been studied as a possible critical component of the cause of workers' intentions to leave (Lieberman, Hornby, & Russell, 1988; Balfour & Neff, 1993; Ellett, Ellett, & Rugutt, 2003; and Perry, 2006).

Based on the definitions of previous studies, this study reflects public child welfare caseworkers' degrees (BSW/MSW vs. others) as the educational background items.

Chapter Three

Research Design and Methodology

Sample

Respondents to the on-line Survey of Organizational Excellence (SOE) from a mid-western state child welfare agency in 2005 provide the data for this secondary analysis. The SOE is a population survey and was offered to all employees of the agency (2,423 surveys invitations sent) with a return rate of 70% providing 1,691 responses. Of the total 1,045 responses were responses of child welfare caseworkers and were used in this study. In order to prevent the misinterpretation of outcomes overemphasized by a large sample size, this study randomly selected 319 caseworkers among 1,045 based on the observed power around .80 and the effect size at .01-scores which indicate a proper sample size (Keppel & Wickens, 2004, p. 173).

Instrument

The Survey of Organizational Excellence (SOE) instrument was designed to seek the opinions of all employees about their organization and it examines five key workplace dimensions: work group, accommodations, general organizational features, information, and personal demands. These dimensions capture various aspects of the work environment. The SOE assessment links their responses to 20 constructs within the organization that are considered critical to overall effectiveness and efficiency (Lauderdale, 2001).

The instrument is currently used in over 100 state agencies with more than 150,000 public employees (as of 2004). The SOE instrument has been tested for internal consistency and found to be reliable: Cronbach's alpha of .85 or greater (Collins-Camargo,

2005). The instrument has been tested for face validity by asking a panel of expert users for "their common agreements with a particular concept" (Rubin & Babbie, 2001, pp. 193-196). The instrument developers have tested some subscales for convergent validity with other instruments such as Maslach's Burnout Inventory (MBI) and the Dean's Alienation Scale (Dean, 1961). In addition, content validity has been established by trained observers (Lauderdale, 1999). The SOE has been used in three dissertation studies (Landuyt, 1999; Huang, 1999; and Collins-Camargo, 2005).

Methodology

This study uses logistic regression to determine the effect of different factors on the binary dependent variable (Cox & Snell, 1989). In this way, public child welfare caseworkers' intentions to leave based on their answers to a yes or no question can be tested. "Teamwork" is created from two SOE constructs "team effectiveness" and "supervisor effectiveness." Teamwork is then tested for relationships with the individual work-related factors (burnout and job satisfaction) by calculating the likelihood ratio of each factor in order to determine which has the greatest impact public child welfare caseworkers' intentions to leave.

Also, teamwork, perceived organizational climate, and educational background are tested to determine if teamwork moderates the relationship between an individual work-related factor (burnout or job satisfaction) and the workers' intentions to leave. This test is conducted by analyzing the interaction effects between each factor (teamwork factors, perceived organizational climate, and educational background) and individual work-related factors and by checking the *R* square change after adding the interaction into main effects (Tabachnick & Fidell, 2001). The interaction effects are conducted to

test for moderating variables which specify when certain effects will hold whereas path analyses are used to test for mediator variables that explain how or why such effects occur (Baron & Kenny, 1986). For example, considering teamwork as a moderating variable, the relationship between burnout and public child welfare caseworkers' intentions to leave could be stronger for low-teamwork employees and weaker or nonexistent for high-teamwork employees. Teamwork might be a mediator variable in that it explains why there is a relationship between burnout and public child welfare caseworkers' intentions to leave. When removing the effect of teamwork, the relationship between burnout and the workers' intentions to leave disappears.

Variables

Dependent Variable

In order to measure the public child welfare caseworkers' *intentions to leave*, the caseworkers were asked to agree or disagree with by the following sentence: "I plan to be working for this organization in two years" (Lauderdale, 2001, p. 13). The percent of caseworkers that see themselves working for the organization in two years is a good indicator of how well the organization is doing at retaining its employees. The item was answered with a 2-categorical response format (*yes or no*). Respondents answering "no" to this question were considered to have a stated intention to leave and were assigned a value of 1 for the analysis whereas answering "yes" was considered not to have a stated intention to leave and assigned a value of 0 for the analysis.

Independent Variables

In the instrument, *team effectiveness* is defined as employees' perceptions of the effectiveness of their work group and the extent to which the organizational

environment supports appropriate teamwork among employees. It was surveyed by four questions: 1) “Work groups receive adequate feedback that helps improve their performance”; 2) “Decision making and control are given to employees doing the actual work”; 3) “There is a basic trust among employees and supervisors”; and 4) “Work groups are actively involved in making work processes more effective” (Lauderdale, 2001, p. 23). The Cronbach’s alpha score has been reported at .82 for these scales in this study. This means that the scale’s items have high reliability. Each sub scale consisted of a 5-point response format, which ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). Higher scores reflect greater team effectiveness. An averaged score for the four items were used in the analysis.

Supervisor effectiveness is defined as employees’ perceptions to the nature of supervisory relationships in the organization. It was constructed by seven questions: 1) “We have an opportunity to participate in the goal-setting process”; 2) “We seem to be working toward the same goals”; 3) “We are given the opportunity to do our best work”; 4) “We are given accurate feedback about our performance”; 5) “Supervisors know whether an individual’s career goals are compatible with organizational goals”; 6) “People who challenge the status quo are valued”; and 7) “Favoritism (special treatment) is not an issue in raises or promotions” (Lauderdale, 2001, p. 23). The Cronbach’s alpha score has been reported at .70 which means that the scale’s items have achieved a satisfactory level of reliability. Each sub scale consisted of a 5-point response format, which ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). Higher scores reflect greater supervisor effectiveness. An averaged score for the seven items were used in the analysis.

The concept of *burnout* is defined as feeling of extreme mental exhaustion that can negatively impact employees' physical health and job performance. It was constructed by five questions: 1) "We feel a sense of pride when we tell people that we work for this organization"; 2) "We feel our efforts count"; 3) "We are encouraged to learn from our mistakes"; 4) "My job meets my expectations"; and 5) "My ideas and opinions count at work" (Lauderdale, 2001, p. 23). The reliability score on these scales has been reported at .80 in this study**.** Each sub-scale consisted of a 5-point response format, which ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). In analysis, the scores were conversely changed from 1 (*strongly agree*) to 5 (*strongly disagree*) because the burnout questions were answered in the opposite direction to ask the concept of burnout. An averaged score for the five items were used in the analysis.

Job satisfaction is defined as an individual satisfaction in the context of one's job-related attitudes in his or her organization. It was surveyed by four questions: 1) "We are given the opportunity to do our best work"; 2) "We have adequate resources to do our jobs"; 3) "The environment supports a balance between work and personal life"; and 4) "The pace of the work in this organization enables me to do a good job" (Lauderdale, 2001, p. 23). Each sub scale consisted of a 5-point response format, which ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). The internal consistent reliability score has been reported at .74 in this study. Higher scores reflect higher levels of workers' job satisfaction. An averaged score for the four items were used in the analysis.

The *organizational climate* is defined as identifying role ambiguity, role conflict, workload, and sharing and support among colleagues. It was constructed by nine questions: 1) "We are known for the quality of service we provide"; 2) "We know who

our customers (those we serve) are"; 3) "We use feedback from those we serve to improve our performance"; 4) "We work well with other organizations"; 5) "We work well with our governing bodies (the legislature, the board, etc.)"; 6) "We work well with the public"; 7) "We understand the state, local, national, and global issues that impact the organization"; 8) "I have a good understanding of our mission, vision, and strategic plan"; and 9) "I believe we communicate our mission effectively to the public" (Lauderdale, 2001, p. 23). Each sub scale consisted of a 5-point response format, which ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). The reliability score on these scales has been reported at .77 in this study. This means that the reliability of the scale's items are acceptable. Higher scores reflect greater perceptions of organizational climate. An averaged score for the nine items were used in the analysis. In order to measure the *educational background*, we considered whether the workers had received a social work degree: *no social work degree or social work degree (bachelor/master degree of social work*).

Procedures and Analysis

First, biserial correlation was computed among the transformed binary variables to show the relationships between those factors and to check for multicollinearity problems among the variables. Second, a series of logistic regression analyses were conducted to determine the relationship of teamwork with workers' intentions to leave; Teamwork was also compared with individual work-related factors (burnout and job satisfaction). In order to effectively explain the independent variable's odds ratio on the dependent variable in logistic regression (see the procedures and analysis part), the scores of team effectiveness, supervisor effectiveness, burnout, job

satisfaction, and organizational climate were transformed into binary variables. To transform the interval level variables to binary, scores were combined into a “high level” by combing all “strongly agree” and “agree” responses and assigning them the value of 1 in the analysis. The low level combined “strongly disagree” and “disagree” scores and was assigned a value of 0 for the analysis. For example, the respondents who answered “agree” or “strongly disagree” in job satisfaction were considered that they highly satisfied in their jobs. Third, in order to test if any of the other factors had a moderating effect on their relationships to intention to leave, a series of logistic regression analyses were conducted incorporating first order interactions between the factors of interest. Interactions were tested between each the factors (teamwork, perceived organizational climate, and educational background) and individual work-related factors (burnout and job satisfaction) on intention to leave.

Chapter Four

Findings

Demographic Characteristics of the Participants

Demographic characteristics of the sample used in this study are detailed in Table 1. Most were female (90%), Anglo-Americans (82%) and below 59 years of age (97%). Most respondents (87%) had a bachelor's degree or higher. Ninety workers (28%) achieved a bachelor's or master's degree in social work.

About same percentage of male (23%) and female (21%) caseworkers responded they would leave their organizations within two years. More Anglo-American (23%) caseworkers indicated they would leave the organization than African-American (17%). In age, the caseworkers (56%), having 60 years and older, were the most workers at the percentage of saying "yes" to intention to leave. In annual salary, the caseworkers who made less than $15,000 (38%) were the most workers at the percentage of saying "yes" to intention to leave. About same percentage of the caseworkers who achieved a bachelor's or master's degree in social work (19%) and the caseworkers in the other degrees (22%) responded they would leave their organizations within two years. In the number of persons per household, the caseworkers who answered five persons or more (13%) were the least workers at the percentage of saying "yes" to intention to leave. In the length of service, the caseworkers who answered one to two years (36%) were the most workers at the percentage of saying "yes" to intention to leave.

The demographic characteristics were tested in logistic regression because they might contribute to the interpretation of the main independent variables' impact when

considering the combined results. However, there were no significant findings (see Appendix B).

Table 1. Demographic Characteristics of the Random Sample (319 Caseworkers) Drawn from the 1,045 Respondents to the Survey of Organizational Excellence (SOE) in 2005

Demographic Characteristics (N = 319)	Number of Survey Respondents (%)	Intention to Leave	
		Yes (%)	No (%)
Gender			
Female	286 (90)	59 (21)	223 (79)
Male	31 (10)	7 (23)	23 (77)
Race			
African-American	43 (14)	7 (17)	35 (83)
Hispanic-American	5 (2)	0 (0)	5 (100)
Anglo-American	256 (82)	57 (23)	195 (77)
Asian, Pacific, or Native American	2 (1)	1 (50)	1 (50)
Multiracial/Other	6 (2)	1 (17)	5 (83)
Age			
16 to 29 years old	89 (28)	30 (34)	59 (66)
30 to 39 years old	87 (27)	19 (22)	66 (78)
40 to 49 years old	63 (20)	6 (10)	56 (90)
50 to 59 years old	69 (22)	6 (9)	60 (91)
60 years and older	9 (3)	5 (56)	4 (44)
My annual gross (before taxes) salary is:			
Less than $15,000	8 (3)	3 (38)	5 (63)
$15,001 to 25,000	54 (17)	8 (15)	45 (85)
$25,001 to 35,000	213 (67)	51 (25)	157 (76)
$35,001 to 45,000	36 (11)	2 (6)	33 (94)
$45,001 to 50,000	1 (1)	0 (0)	1 (100)
$50,001 to 60,000	4 (2)	1 (25)	3 (75)
$60,001 to 75,000	1 (1)	0 (0)	1 (100)
Over $75,000	0 (0)	0 (0)	0 (0)
Education			
Did not finish high school	1 (1)	0 (0)	1 (100)
High school diploma	15 (5)	0 (0)	15 (100)
Some college	21 (7)	3 (15)	17 (85)
Associate degree	4 (1)	1 (25)	3 (75)
Bachelor's degree	205 (67)	42 (21)	160 (80)
Master's degree	62 (20)	17 (28)	43 (72)
Doctoral degree	0 (0)	0 (0)	0 (0)
BSW/MSW and Others			
Bachelor Degree of Social Work	64 (20)	11 (18)	52 (82)

Master Degree of Social Work	34 (11)	7 (21)	26 (79)
BSW & MSW	8 (3)	1 (13)	7 (87)
BSW or MSW	90 (28)	17 (19)	71 (81)
Others	229 (72)	49 (22)	175 (78)
The number of persons in my household is:			
1 person	42 (13)	8 (20)	33 (81)
2 person	118 (37)	29 (25)	86 (75)
3 person	67 (21)	13 (20)	52 (80)
4 person	57 (18)	12 (21)	45 (79)
5 persons or more	32 (10)	4 (13)	28 (88)
My length of service with this organization is:			
Under 1 year	50 (16)	7 (14)	43 (86)
1 to 2 years	46 (15)	16 (36)	29 (64)
3 to 5 years	61 (19)	15 (25)	46 (75)
6 to 10 years	60 (19)	12 (20)	48 (80)
11 to 15 years	32 (10)	4 (13)	26 (87)
Over 15 years	67 (21)	11 (17)	53 (83)

Demographic Characteristics of Independent Variables on Intention to Leave

Following dichotomizing the independent variables' the numbers and percentages of the respondents on the workers' intentions to leave (yes or no) are shown in Table 2 and as follows; in teamwork, combining team effectiveness and supervisor effectiveness, 1 worker who have a high level of teamwork answered yes (1%) and 98 workers, having the same level of teamwork, answered no (99%) on their intentions to leave; 34 workers who have a low level of teamwork answered yes (50%) and 34 workers, having the same level of teamwork, answered no (50%) on their intentions to leave. In burnout, 33 workers who have a high level of burnout answered yes (65%) and 18 workers, having the same level of burnout, answered no (35%) on their intentions to leave; 6 workers who have a low level of burnout answered yes (5%) and 124 workers, having the same level of burnout, answered no (95%) on their intentions to leave. In job satisfaction, 3 workers who have a high level of job satisfaction answered yes (3%) and 107 workers, having the same level of job satisfaction, answered no (97%) on their

intentions to leave; 30 workers who have a low level of job satisfaction answered yes (50%) and 30 workers, having the same level of job satisfaction, answered no (50%) on their intentions to leave.

In organizational climate, eight workers who have a positive perception of organizational climate answered yes (7%) and 111 workers, having the same perception of organizational climate, answered no (93%) on their intentions to leave; 12 workers who have a negative perception of organizational climate answered yes (36%) and 21 workers, having the same perception of organizational climate, answered no (64%) on their intentions to leave. In educational background, 19 workers who have a BSW or MSW answered yes (24%) and 59 workers, having a BSW or MSW, answered no (76%) on their intentions to leave; 33 workers who have no BSW nor MSW answered yes (16%) and 173 workers, having no BSW nor MSW, answered no (84%) on their intentions to leave. These demographic characteristics of independent variables support the outcomes, how they impact the dependent variable, intention to leave, by using logistic regression.

Table 2. Demographics of Independent Variables on Intention to Leave

Variables		Intention to Leave	
		Yes	No
Teamwork	High	1 (1%)	98 (99%)
	Low	34 (50%)	34 (50%)
Burnout	High	33 (65%)	18 (35%)
	Low	6 (5%)	124 (95%)
Job Satisfaction	High	3 (3%)	107 (97%)
	Low	30 (50%)	30 (50%)
Organizational Climate	High	8 (7%)	111 (93%)
	Low	12 (36%)	21 (64%)
Educational Background (with either a BSW or MSW)	Yes	19 (24%)	59 (76%)
	No	33 (16%)	173 (84%)

Correlations among Variables

In order to test the correlations between the variables, biserial correlation was computed because it is used to test when the variables are dichotomous (Cohen, Cohen, West, & Aiken, 2003). As a result, intention to leave was moderately and negatively correlated with team effectiveness, $r_b(317) = -.44$, $p < .01$, and with supervisor effectiveness, $r_b(317) = -.47$, $p < .01$. Intention to leave and burnout were moderately and positively correlated, $r_b(317) = .49$, $p < .01$. Intention to leave was moderately and negatively correlated with job satisfaction, $r_b(317) = -.46$, $p < .01$, and lowly and negatively correlated with organizational climate, $r_b(317) = -.26$, $p < .01$.

Team effectiveness and supervisor effectiveness were highly and positively correlated, $r_b(317) = .81$, $p < .01$. The score of team effectiveness was highly and negatively correlated with burnout, $r_b(317) = -.71$, $p < .01$. Team effectiveness and job satisfaction were moderately and positively correlated, $r_b(317) = .65$, $p < .01$. The score of team effectiveness was moderately and positively correlated with organizational climate, $r_b(317) = .50$, $p < .01$.

Supervisor effectiveness and burnout were highly and negatively correlated, $r_b(317) = -.73$, $p < .01$. The score of supervisor effectiveness was moderately and positively correlated with job satisfaction, $r_b(317) = .67$, $p < .01$. Supervisor effectiveness and organizational climate were moderately and positively correlated, $r_b(317) = .49$, $p < .01$. Burnout and job satisfaction were highly and negatively correlated, $r_b(317) = -.70$, $p < .01$. The score of burnout was moderately and negatively correlated with organizational climate, $r_b(317) = -.52$, $p < .01$. Job satisfaction and organizational climate were moderately and positively correlated, $r_b(317) = .45$, $p < .01$. Educational background was not significantly correlated with intention to leave, $r_b(317) = .10$, $p > .05$, with team effectiveness, $r_b(317) = .04$, $p > .05$, with supervisor effectiveness, $r_b(317) = .01$, $p > .05$, with burnout, $r_b(317) = -.04$, $p > .05$, with job satisfaction, $r_b(317) = .06$, $p > .05$, and with organizational climate, $r_b(317) = .07$, $p > .05$ (see Table 3).

In order to test the multicollinearity, which inflates the variances of the parameter estimates with incorrect conclusions about relationships among variables, the Variance Inflation Factor (VIF) was conducted. This is because the VIF shows the number of times the variance of the corresponding parameter estimate is increased due to multicollinearity as compared to as it would be if there was no multicollinearity. In

logistic regression, the VIF values above 2.5 may be a cause for concern and the equation model is 1/tolerance (Tabachnick & Fidell, 2001). Tolerance is calculated by "regressing each variable on all the other explanatory variables, calculating the *R* squared and then subtracting that from 1" (Allison, 1999, p. 50).

The VIF scores ranged from 1.00 to 3.04. There was one multicollinearity problem between team effectiveness and supervisor effectiveness (the *VIF* score = 3.04). In other variables, there was no multicollinearity problem because all VIF were smaller than 2.5 (Intention to Leave-Team Effectiveness: 1.22, Intention to Leave-Supervisor Effectiveness: 1.27, Intention to Leave-Burnout: 1.31, Intention to Leave-Job Satisfaction: 1.26, Intention to Leave-Organizational Climate: 1.07, Intention to Leave-Educational Background: 1.01, Team Effectiveness-Burnout: 2.07, Team Effectiveness-Job Satisfaction: 1.76, Team Effectiveness-Organizational Climate: 1.34, Team Effectiveness-Educational Background: 1.00, Supervisor Effectiveness-Burnout: 2.20, Supervisor Effectiveness-Job Satisfaction: 1.85, Supervisor Effectiveness-Organizational Climate: 1.32, Supervisor Effectiveness-Educational Background: 1.00, Burnout-Job Satisfaction: 1.95, Burnout-Organizational Climate: 1.38, Burnout-Educational Background: 1.00, Job Satisfaction-Organizational Climate: 1.24, Job Satisfaction-Educational Background: 1.00, and Organizational Climate-Educational Background: 1.00).

Table 3. Biserial Correlations among Variables I

	1	2	3	4	5	6	7
1. Intention to Leave							
2. Team Effectiveness	-.44**						
3. Supervisor Effectiveness	-.47**	.81**					
4. Burnout	.49**	-.71**	-.73**				
5. Job Satisfaction	-.46**	.65**	.67**	-.70**			
6. Organizational Climate	-.26**	.50**	.49**	-.52**	.45**		
7. Educational Background	.10	.04	.01	-.04	.06	.07	

Note. * $p < .05$; ** $p < .01$

As a remedy for multicollinearity, it is useful to combine the variables measuring the underlying construct into a single index (Cohen, Cohen, West, & Aiken, 2003). Thus, in this study, team effectiveness and supervisor effectiveness was combined into a single index, teamwork, which is theoretically supported by the teamwork model of Dickinson and Mclntyre (1997). In order to combine them, the questionnaires of team effectiveness and supervisor effectiveness were added in a single latent variable, named "teamwork." The Cronbach's alpha score has been reported at .91. This means that the combined items have high reliability. Based on these procedures, the teamwork factor was tested to find the correlations with other factors (see Table 4).

Using Biserial correlation, intention to leave was moderately and negatively correlated with teamwork, $r_b(317) = -.47$, $p < .01$. Intention to leave and burnout were moderately and positively correlated, $r_b(317) = .49$, $p < .01$. Intention to leave was

moderately and negatively correlated with job satisfaction, $r_b(317) = -.46$, $p < .01$, and lowly and negatively correlated with organizational climate, $r_b(317) = -.26$, $p < .01$.

Teamwork and burnout were highly and negatively correlated, $r_b(317) = -.72$, $p < .01$. The score of teamwork was moderately and positively correlated with job satisfaction, $r_b(317) = .68$, $p < .01$. Teamwork and organizational climate were moderately and positively correlated, $r_b(317) = .56$, $p < .01$. Burnout and job satisfaction were highly and negatively correlated, $r_b(317) = -.70$, $p < .01$. The score of burnout was moderately and negatively correlated with organizational climate, $r_b(317) = -.52$, $p < .01$. Job satisfaction and organizational climate were moderately and positively correlated, $r_b(317) = .44$, $p < .01$. Educational background was not significantly correlated with intention to leave, $r_b(317) = .10$, $p > .05$, with teamwork, $r_b(317) = .04$, $p > .05$, with burnout, $r_b(317) = -.04$, $p > .05$, with job satisfaction, $r_b(317) = .06$, $p > .05$, and with organizational climate, $r_b(317) = .07$, $p > .05$.

Using the VIF score, there was no multicollinearity problem among the variables because all VIF were smaller than 2.5 (Intention to Leave-Teamwork: 1.27, Intention to Leave-Burnout: 1.31, Intention to Leave-Job Satisfaction: 1.26, Intention to Leave-Organizational Climate: 1.07, Intention to Leave-Educational Background: 1.01, Teamwork-Burnout: 2.13, Teamwork-Job Satisfaction: 1.90, Teamwork-Organizational Climate: 1.48, Teamwork-Educational Background: 1.00, Burnout-Job Satisfaction: 1.95, Burnout-Organizational Climate: 1.38, Burnout-Educational Background: 1.00, Job Satisfaction-Organizational Climate: 1.24, Job Satisfaction-Educational Background: 1.00, and Organizational Climate-Educational Background: 1.00).

Table 4. Biserial Correlations among Variables II

	1	2	3	4	5	6
1. Intention to Leave						
2. Teamwork	-.47**					
3. Burnout	.49**	-.72**				
4. Job Satisfaction	-.46**	.68**	-.70**			
5. Organizational Climate	-.26**	.56**	-.52**	.44**		
6. Educational Background	.10	.04	-.04	.06	.07	

Note. * $p < .05$; ** $p < .01$

The Effects of Variables on Intention to Leave

A logistic regression analysis was performed using SPSS 13.0 in order to assess predictions of public child welfare caseworkers' intentions to leave their jobs based on five independent variables: teamwork, job satisfaction, burnout, perceived organizational climate, and educational background (having a BSW/MSW or not). Among 319 cases, 26 cases with missing values were deleted. In order to find outliers, standardized residuals were conducted; the standard deviation for proportions is used when the dependent variable is dichotomous or binary (Tabachnick & Fidell, 2001). If a case has a standardized residual larger than 3.0 or smaller than -3.0, it is considered an outlier. In this study, nine cases were excluded because they were smaller than -3.0 (case number 269: -3.25, 16: -3.47, 241: -3.67, 200: -3.94, 273: -4.28, 101: -4.41, 5: -4.52, 251: -5.52, and 129: -6.36). After the deletion of 35 cases (26 missing values and nine outliers), 284 cases were computed to test the predictions.

There was a good model fit on the basis of the five independent variables, χ^2 = 4.25, $p > .05$, using the Hosmer and Lemeshow Test. The Hosmer and Lemeshow Test provides a formal test to see whether the predicted probabilities match the observed probabilities in logistic regression. A large p-value indicates a good match (Tabachnick & Fidell, 2001). The independent variables of teamwork, job satisfaction, burnout, organizational climate, and educational background explained 47% of the dependent variable: intentions to leave (Nagelkerke's $R^2 = .47$). Nagelkerke's *R* Square is the most-reported of the R-squared estimates in logistic regression because it is an attempt to imitate the interpretation of multiple R-square, based on likelihood (Nagelkerke, 1991).

Table 5 shows the contribution of five individual predictors (teamwork, burnout, job satisfaction, organizational climate, and educational background) of the model. The probability that the workers' teamwork impacted their intentions to leave by chance was smaller than 5%. This means rejecting the null-hypothesis 1, workers' positive perceptions of teamwork decreased their intentions to leave. More specifically, the workers who had high teamwork were 90% less likely to leave their jobs than those who had low teamwork at a significant level (*Odds Ratio* = .10; 1 - .10 = .90, $p < .05$). "Odds ratios greater than one show the increase in odds of an outcome of the response category with a one-unit increase in the predictor; odds ratios less than one show the decrease in odds of that outcome with a one-unit change" (Tabachnick & Fidell, 2001, p. 549). For example, an odds ratio of .10 shows that the outcome is 10% as likely (or 90% less likely; 1 - .10 = .90) with a one unit increase in the predictor.

In burnout, the probability that the workers' burnout impacted their intentions to leave by chance was smaller than 1%. This means rejecting the null-hypothesis 2,

workers' burnout increased their intentions to leave. More specifically, the workers who had high burnout were 8.91 times more likely to leave their jobs than those who had low burnout at a significant level (*Odds Ratio* = 8.91, $p < .01$).

However, the probability that the workers' job satisfaction impacted their intentions to leave by chance was bigger than 5%. This means not rejecting the null-hypothesis 3, workers' job satisfaction did not decrease their intentions to leave. Also, the probability that the workers' perception of organizational climate impacted their intentions to leave by chance was bigger than 5%. This means not rejecting the null-hypothesis 4, workers' positive perceptions of organizational climate did not decrease their intentions to leave. Finally, the probability that the workers' educational backgrounds (having a BSW/MSW or not) impacted their intentions to leave by chance was bigger than 5%. This means not rejecting the null-hypothesis 5, workers having a BSW or MSW were not less likely to leave their jobs. Thus, job satisfaction, organizational climate, and educational background were not significant factors impacting on workers' intentions to leave in this study.

Table 5. Summary of Logistic Regression Analyses Predicting Intention to Leave (Model I)

	B	Wald	Odds Ratio
Teamwork	-2.33*	4.84	.10
Burnout	2.19**	27.62	8.91
Job Satisfaction	-1.24	3.38	.29
Organizational Climate	-.38	.62	.68
Educational Background	.73	3.05	2.08
Constant	2.21	14.94	9.12
Model Chi-Square	4.25		
Nagelkerke's *R* Square	.47		

Note. * $p < .05$; ** $p < .01$

The Interactions of Variables with Intention to Leave

In order to find a moderating variable, an interaction effect is conducted to test whether the effect of an independent variable on a dependent variable differs depending on the value of a third variable (Jaccard, 2001). Table 6 shows the interaction between burnout and teamwork within the model. When using the independent variables and their interaction, there was a good model fit, $\chi^2 = 6.47$, $p > .05$, using the Hosmer and Lemeshow Test. Teamwork, burnout, job satisfaction, organizational climate, educational background, and the interaction between burnout and teamwork explained 47% of the dependent variable: intention to leave (Nagelkerke's $R^2 = .47$).

The probability that the interaction between burnout and teamwork impacted the workers' intentions to leave by chance was bigger than 5%. Using *R* square change, there was no significant difference after adding the interaction effect between burnout

and teamwork into the main effects (before-*R* square: .47, after-*R* square: .47). This means not rejecting the null-hypothesis 6, workers' high level of teamwork was not related to a decrease in their intentions to leave, even though they were burned out. Thus, the effect of public child welfare caseworkers' burnout on their intentions to leave did not differ depending on the value of their teamwork.

Table 6. Interaction between Burnout and Teamwork Predicting Intention to Leave (Model II-A)

	B	Wald	Odds Ratio
Teamwork	-2.18*	4.11	.11
Burnout	2.27**	27.83	9.65
Job Satisfaction	-1.35	3.80	.26
Organizational Climate	-.35	.50	.71
Educational Background	.71	2.88	2.04
Burnout* Teamwork	.11	.82	1.12
Constant	1.29	1.23	3.62
Model Chi-Square	6.71		
Nagelkerke's *R* Square	.47		

Note. * $p < .05$; ** $p < .01$

Table 7 shows the contribution of the interaction between job satisfaction and teamwork within the model. When using the independent variables and their interaction, there was a good model fit, $\chi^2 = 3.77$, $p > .05$, using the Hosmer and Lemeshow Test. Teamwork, burnout, job satisfaction, organizational climate, educational background, and the interaction between job satisfaction and teamwork explained 48% of the dependent variable: intention to leave (Nagelkerke's $R^2 = .48$). The probability that the interaction

between job satisfaction and teamwork impacted the workers' intentions to leave by chance was bigger than 5%. Using *R* square change, there was no significant difference after adding the interaction effect between job satisfaction and teamwork into the main effects (before-*R* square: .47, after-*R* square: .48). This means not rejecting the null-hypothesis 7, workers' high level of teamwork was not related to a decrease in their intentions to leave, even though they were not satisfied with their jobs. Thus, the effect of public child welfare caseworkers' job satisfaction on their intentions to leave did not differ depending on the value of their teamwork.

Table 7. Interaction between Job Satisfaction and Teamwork Predicting Intention to Leave (Model II-B)

	B	Wald	Odds Ratio
Teamwork	-1.69	2.25	.18
Burnout	1.73**	12.69	5.66
Job Satisfaction	-.74	1.04	.48
Organizational Climate	-.27	.29	.77
Educational Background	.78	3.33	2.17
Job Satisfaction* Teamwork	.16	2.79	1.17
Constant	.67	.39	1.96
Model Chi-Square	3.77		
Nagelkerke's *R* Square	.48		

Note. * $p < .05$; ** $p < .01$

Table 8 shows the contribution of two interactions (burnout-teamwork and job satisfaction-teamwork) within the model. When using the independent variables and their interactions, there was a good model fit, $\chi^2 = 2.89$, $p > .05$, using the Hosmer and

Lemeshow Test. Teamwork, burnout, job satisfaction, organizational climate, educational background, and two interactions (burnout-teamwork and job satisfaction-teamwork) explained 48% of the dependent variable: intention to leave (Nagelkerke's R^2 = .48). The probability that the interaction between burnout and teamwork impacted the workers' intentions to leave by chance was bigger than 5%. Also, the probability that the interaction between job satisfaction and teamwork impacted the workers' intentions to leave by chance was bigger than 5%. Using *R* square change, there was no significant difference after adding the interaction effects (burnout-teamwork and job satisfaction-teamwork) into the main effects (before-*R* square: .47, after-*R* square: .48). This means the same things described in Table 4 and 5.

Table 8. Interaction between Individual Work-Related Factors and Teamwork Predicting Intention to Leave (Model II-C)

	B	Wald	Odds Ratio
Teamwork	-1.69	2.25	.18
Burnout	1.74**	9.54	5.70
Job Satisfaction	-.75	.88	.47
Organizational Climate	-.27	.29	.77
Educational Background	.77	3.29	2.17
Burnout* Teamwork	.01	.00	1.00
Job Satisfaction* Teamwork	.16	1.92	1.17
Constant	.65	.28	1.92
Model Chi-Square	2.89		
Nagelkerke's *R* Square	.48		

Note. * $p < .05$; ** $p < .01$

Table 9 shows the contribution of the interaction between burnout and organizational climate within the model. When using the independent variables and their interaction, there was a good model fit, $\chi^2 = 11.84$, $p > .05$, using the Hosmer and Lemeshow Test. Teamwork, burnout, job satisfaction, organizational climate, educational background, and the interaction between burnout and organizational climate explained 48% of the dependent variable: intention to leave (Nagelkerke's $R^2 = .48$).

The probability that the interaction between burnout and organizational climate impacted the workers' intentions to leave by chance was bigger than 5%. Using *R* square change, there was no significant difference after adding the interaction effect between burnout and organizational climate into the main effects (before-*R* square: .47, after-*R* square: .48). This means not rejecting the null-hypothesis 8, workers' positive perceptions of organizational climate were not related to a decrease in their intentions to leave, even though they were burned out. Thus, the effect of public child welfare caseworkers' burnout on their intentions to leave did not differ depending on the value of their perceived organizational climate.

Table 9. Interaction between Burnout and Organizational Climate Predicting Intention to Leave (Model III-A)

	B	Wald	Odds Ratio
Teamwork	-2.13*	3.98	.12
Burnout	1.41**	7.04	4.09
Job Satisfaction	-1.01	2.11	.36
Organizational Climate	-.93	2.84	.39
Educational Background	.73	2.90	2.07
Burnout* Organizational Climate	-.26	3.90	.77
Constant	4.87	13.03	29.95
Model Chi-Square	11.84		
Nagelkerke's *R* Square	.48		

Note. * $p < .05$; ** $p < .01$

Table 10 shows the contribution of the interaction between job satisfaction and organizational climate within the model. When using the independent variables and their interaction, there was a good model fit, $\chi^2 = 3.80$, $p > .05$, using the Hosmer and Lemeshow Test. Teamwork, burnout, job satisfaction, organizational climate, educational background, and the interaction between job satisfaction and organizational climate explained 47% of the dependent variable: intention to leave (Nagelkerke's $R^2 = .47$).

The probability that the interaction between job satisfaction and organizational climate impacted the workers' intentions to leave by chance was bigger than 5%. Using *R* square change, there was no significant difference after adding the interaction effect between job satisfaction and teamwork into the main effects (before-*R* square: .47, after-*R* square: .47). This means not rejecting the null-hypothesis 9, workers' positive

perceptions of organizational climate were not related to a decrease in their intentions to leave, even though they were not satisfied with their jobs. Thus, the effect of public child welfare caseworkers' job satisfaction on their intentions to leave did not differ depending on the value of their perceived organizational climate.

Table 10. Interaction between Job Satisfaction and Organizational Climate Predicting Intention to Leave (Model III-B)

	B	Wald	Odds Ratio
Teamwork	-2.21*	4.28	.11
Burnout	2.03**	19.95	7.59
Job Satisfaction	-.94	1.51	.39
Organizational Climate	-.19	.12	.83
Educational Background	.78	3.35	2.18
Job Satisfaction* Organizational Climate	.08	.70	1.09
Constant	1.35	1.33	3.86
Model Chi-Square	3.80		
Nagelkerke's *R* Square	.47		

Note. * $p < .05$; ** $p < .01$

Table 11 shows the contribution of two interactions (burnout-organizational climate and job satisfaction-organizational climate) within the model. When using the independent variables and their interactions, there was a good model fit, $\chi^2 = 3.74$, $p > .05$, using the Hosmer and Lemeshow Test. Teamwork, burnout, job satisfaction, organizational climate, educational background, and two interactions (burnout-organizational climate and job satisfaction-organizational climate) explained 48% of the dependent variable: intention to leave (Nagelkerke's $R^2 = .48$).

The probability that the interaction between burnout and organizational climate impacted the workers' intentions to leave by chance was bigger than 5%. Also, the probability that the interaction between job satisfaction and organizational climate impacted the workers' intentions to leave by chance was bigger than 5%. Using *R* square change, there was no significant difference after adding the interaction effects (burnout-organizational climate and job satisfaction-organizational climate) into the main effects (before-*R* square: .47, after-*R* square: .48). This means the same things described in Table 7 and 8.

Table 11. Interaction between Individual Work-Related Factors and Organizational Climate Predicting Intention to Leave (Model III-C)

	B	Wald	Odds Ratio
Teamwork	-1.85	2.92	.16
Burnout	.84	1.80	2.32
Job Satisfaction	-.26	.10	.77
Organizational Climate	-.68	1.35	.51
Educational Background	.79	3.29	2.20
Burnout* Organizational Climate	-.33	3.79	.71
Job Satisfaction* Organizational Climate	.18	2.77	1.20
Constant	3.70	6.09	40.63
Model Chi-Square	3.74		
Nagelkerke's *R* Square	.48		

Note. * $p < .05$; ** $p < .01$

Table 12 shows the contribution of the interaction between burnout and educational background within the model. When using the independent variables and

their interaction, there was a good model fit, $\chi^2 = 4.89$, $p > .05$, using the Hosmer and Lemeshow Test. Teamwork, burnout, job satisfaction, organizational climate, educational background, and the interaction between burnout and educational background explained 47% of the dependent variable: intention to leave (Nagelkerke's $R^2 = .47$).

The probability that the interaction between burnout and educational background impacted the workers' intentions to leave by chance was bigger than 5%. Using *R* square change, there was no significant difference after adding the interaction effect between burnout and educational background into the main effects (before-*R* square: .47, after-*R* square: .47). This means not rejecting the null-hypothesis 10, workers' educational backgrounds with either a BSW or MSW were not related to a decrease in their intentions to leave, even though they were burned out. Thus, the effect of public child welfare caseworkers' burnout on their intentions to leave did not differ depending on their educational backgrounds.

Table 12. Interaction between Burnout and Educational Background Predicting Intention to Leave (Model IV-A)

	B	Wald	Odds Ratio
Teamwork	-2.39*	4.99	.09
Burnout	2.28**	25.01	9.77
Job Satisfaction	-1.28	3.53	.28
Organizational Climate	-.40	.68	.67
Educational Background	1.53	.90	4.63
Burnout* Educational Background	.25	.26	1.28
Constant	1.86	4.37	6.39
Model Chi-Square	4.89		
Nagelkerke's *R* Square	.47		

Note. * $p < .05$; ** $p < .01$

Table 13 shows the contribution of the interaction between job satisfaction and educational background within the model. When using the independent variables and their interaction, there was a good model fit, $\chi^2 = 6.02$, $p > .05$, using the Hosmer and Lemeshow Test. Teamwork, burnout, job satisfaction, organizational climate, educational background, and the interaction between job satisfaction and educational background explained 47% of the dependent variable: intention to leave (Nagelkerke's $R^2 = .47$).

The probability that the interaction between job satisfaction and educational background impacted the workers' intentions to leave by chance was bigger than 5%. Using *R* square change, there was no significant difference after adding the interaction effect between job satisfaction and teamwork into the main effects (before-*R* square: .47, after-*R* square: .47). This means not rejecting the null-hypothesis 11, workers'

educational backgrounds with either a BSW or MSW were not related to a decrease in their intentions to leave, even though they were not satisfied with their jobs. Thus, the effect of public child welfare caseworkers' job satisfaction on their intentions to leave did not differ depending on their educational backgrounds.

Table 13. Interaction between Job Satisfaction and Educational Background Predicting Intention to Leave (Model IV-B)

	B	Wald	Odds Ratio
Teamwork	-2.29*	4.64	.10
Burnout	2.13**	25.06	8.41
Job Satisfaction	-1.07	2.32	.35
Organizational Climate	-.37	.57	.69
Educational Background	1.85	1.34	6.39
Job Satisfaction* Educational Background	.43	.53	1.54
Constant	1.55	2.16	4.73
Model Chi-Square	6.02		
Nagelkerke's *R* Square	.47		

Note. * $p < .05$; ** $p < .01$

Table 14 shows the contribution of two interactions (burnout-educational background and job satisfaction-educational background) within the model. When using the independent variables and their interactions, there was a good model fit, $\chi^2 = 4.90$, $p > .05$, using the Hosmer and Lemeshow Test. Teamwork, burnout, job satisfaction, organizational climate, educational background, and two interactions (burnout-educational background and job satisfaction-educational background) explained 48% of the dependent variable: intention to leave (Nagelkerke's $R^2 = .48$).

The probability that the interaction between burnout and educational background impacted the workers' intentions to leave by chance was bigger than 5%. Also, the probability that the interaction between job satisfaction and educational background impacted the workers' intentions to leave by chance was bigger than 5%. Using *R* square change, there was no significant difference after adding the interaction effects (burnout-educational background and job satisfaction-educational background) into the main effects (before-*R* square: .47, after-*R* square: .48). This means the same things described in Table 10 and 11.

Table 14. Interaction between Individual Work-Related Factors and Educational Background Predicting Intention to Leave (Model IV-C)

	B	Wald	Odds Ratio
Teamwork	-2.37*	4.90	.09
Burnout	2.37**	25.67	10.66
Job Satisfaction	-.89	1.59	.41
Organizational Climate	-.42	.73	.66
Educational Background	6.78	2.95	76.36
Burnout* Educational Background	.94	1.93	2.55
Job Satisfaction* Educational Background	1.16	2.06	3.20
Constant	-.94	.20	.39
Model Chi-Square	4.90		
Nagelkerke's *R* Square	.48		

Note. * $p < .05$; ** $p < .01$

In summary, table 15 illustrates all results of the null hypotheses in this study.

Table 15. Results of Analysis of Null Hypotheses

Number	Null Hypotheses	Results
1	The workers' positive perceptions of teamwork do not decrease their intentions to leave.	Rejected
2	The workers' burnout does not increase their intentions to leave.	Rejected
3	The workers' job satisfaction does not decrease their intentions to leave.	Not Rejected
4	The workers' positive perceptions of organizational climate do not decrease their intentions to leave.	Not Rejected
5	The workers having a BSW or MSW are not less likely to leave their jobs.	Not Rejected
6	The workers' high level of teamwork is not related to a decrease in their intentions to leave, even though they are burnout out.	Not Rejected
7	The workers' high level of teamwork is not related to a decrease in their intentions to leave, even though they are not satisfied with their jobs.	Not Rejected
8	The workers' positive perceptions of organizational climate are not related to a decrease in their intentions to leave, even though they are burned out.	Not Rejected
9	The workers' positive perceptions of organizational climate are not related to a decrease in their intentions to leave, even though they are not satisfied with their jobs.	Not Rejected
10	The workers' educational backgrounds with either a BSW or MSW are not related to a decrease in their intentions to leave, even though they are burned out.	Not Rejected
11	The workers' educational backgrounds with either a BSW or MSW are not related to a decrease in their intentions to leave, even though they are not satisfied with their jobs.	Not Rejected

Chapter Five

Discussion

This study's purpose was to extend previous research into the causes of public child welfare caseworkers' intentions to leave. When a worker leaves, the loss of a trained and experienced professional places an additional burden on others in the office to cover that worker's assignments and impacts the supervisor as well. A colleague's leaving may also have a depressing impact on others as concerns about the demands of the job as well as thoughts about moving to other types of work may surface.

The professional literature on the workers' intentions to leave suggest that burnout, job satisfaction, perceived organizational climate, and educational background had been considered the most crucial factors in employees' intentions to leave the child welfare field. However, available literature has not focused on workers' relationships such as team effectiveness and supervisor effectiveness, dimensions which could be conceptualized as teamwork.

Dickinson and Mclntyre (1997) introduced team effectiveness as the effective and coordinated actions of individual members to produce synchronous team performance. They also explained supervisor effectiveness as a supervisor's role and behavior which enable or inhibit workers to set or achieve goals. Based on these explanations, the concept of teamwork among public child welfare caseworkers is conceptualized as cooperation through sharing information, taking one another's perspectives, exchanging resources, supporting shared talks, and communicating effectively between employees or between a supervisor and employees.

Much of child welfare work is not done with other professionals or office staff. Home visits, reviewing case files, preparing assessments are not done in a team context. However being able to discuss cases with others, knowing that others are doing similar work and sharing office resources as well as professional identity create a significant team experience for the child welfare worker.

This chapter presents a discussion of study findings in detail and then turns to implications for public child welfare practice, social work education, and organizational theory. Finally the chapter ends with a discussion of the study's limitations and direction for future studies.

Detailed Discussion of the Hypotheses

Hypothesis 1

The workers' positive perceptions of teamwork decrease their intentions to leave.

This hypothesis was based on the literature supporting the relationship between teamwork and intention to leave (Ingram & Jones, 1998; DeFontes, 2004; and Forbes-Thompson, Gajewski, Scott-Cawiezell, & Dunton; 2006), even though they have been studied in different areas (hospitality and health care industry). As a result of analyzing data, this hypothesis was supported. In the hospitality industry, Ingram and Jones (1998) found that enhancing teamwork resulted in low employee turnover. In the health care industry, DeFontes and Surbida (2004) found that improving teamwork decreased nursing personnel turnover. Forbes-Thompson, Gajewski, Scott-Cawiezell, and Dunton (2006) also found that a higher turnover of both nursing home administrative staff and care staff was associated with lower perceptions of the quality communication and teamwork. However, there has been no study of the relationship between teamwork and

public child welfare caseworkers' turnover or intentions to leave. Thus, this study extends the knowledge on the research agenda concerning the causes of the workers' intentions to leave into the area of teamwork factors.

Hypothesis 2

The workers' burnout increases their intentions to leave.

This hypothesis addresses the relationship between burnout and intention to leave (Drake & Yadama, 1996; Manlove & Guzell, 1997; Wright & Cropanzano, 1998; and Mor Barak, Nissly, and Levin, 2001). In the current study, this hypothesis was supported. Monlove and Guzell (1997) found that burnout has not been examined in relation to intention to leave and actual turnover. However, many studies verified that burnout is a main predictor of workers' intentions to leave (Drake & Yadama, 1996; Wright & Cropanzano, 1998; and Mor Barak, Nissly, and Levin, 2001). Consistent with these prior studies, this study indicates that the burned out workers are likely to leave their jobs.

Hypothesis 3

The workers' level of job satisfaction decreases their intentions to leave.

As for job satisfaction, this study found that public child welfare workers' job satisfaction does not decrease their intentions to leave; it is inconsistent with the findings of previous study by Ostroff (1992) whereas it is consistent with those by Wright and Cropanzano (1998) who found that the workers' job satisfaction was not related to their intentions to leave. However, using correlation analyses, this study supports Jayarante and Chess' (1985) finding that there was a moderate and negative correlation between job satisfaction and intention to leave. Furthermore, when considering the Tett and Meyer's

(1993) causal linkage (job dissatisfaction, which leads to withdrawal cognition, which then leads to turnover), job satisfaction would be found as an important but indirect predictor to public child welfare caseworkers' intentions to leave.

Hypothesis 4

The workers' positive perceptions of organizational climate decrease their intentions to leave.

In public child welfare caseworkers' perception of organizational climate, the study found that the workers' positive perception of organizational climate does not decrease their intentions to leave; it is inconsistent with the findings of Jayaratne and Chess's (1984) and Collings and Murray's (1996) studies. Considering the outcome of correlations among variables, the workers' perception of organizational climate was positively associated with their job satisfaction; it supports that there is a relationship between job satisfaction and organizational climate (Mannheim and Papo, 2000); assuming that the workers' coping with job stress could contribute to an increase in their job satisfaction, it partially supports Sundet and Cowger's (1990) finding: job stress is associated with working conditions.

Hypothesis 5

The workers having a BSW or MSW are less likely to leave their jobs.

This study found that public child welfare caseworkers' with either a BSW or MSW or both intentions to leave are not significantly related to their education. . It does not support the findings of Balfour and Neff's (1993) and Ellett, Ellett, and Rugutt's (2003) studies. When considering the outcome of correlations among variables, this study shows how the workers' educational background was not associated with teamwork and

individual work-related factors (burnout and job satisfaction); assuming that the workers' work performance could be affected by teamwork and individual work-related factors, it partially supports Perry's (2006) finding: workers' educational background is not associated with their work performance.

Hypothesis 6 - 11

Based on the interaction effect tests between teamwork and individual work-related factors (burnout and job satisfaction), this study did not find that a high level of teamwork is related to a decrease in intention to leave, even if they are burned out or not satisfied with their jobs. In the interaction effect tests between perceived organizational climate and individual work-related factors, the study does not find that the workers' positive perception of organizational climate is related to a decrease in their intentions to leave, even if they are burned out or not satisfied with their jobs. Finally, in the interaction effect tests between educational background and individual work-related factors, this study did not find that the workers' educational background, with either a BSW or MSW, is related to a decrease in their intentions to leave, even though they are burned out or not satisfied with their jobs.

Considering how public child welfare workers' positive perception of teamwork decreased their intentions to leave, the interaction effect between teamwork and burnout on intention to leave is expected because, in correlation analyses, teamwork is highly associated with burnout as another important predictor for intention to leave. However, as a result, burnout has no impact on intention to leave within different levels of teamwork; it means that, although teamwork is a good predictor for intention to leave and negatively associated with burnout, it does not modify the relationship between

intention to leave and burnout. This phenomenon can be explained in that each relation (burnout-teamwork, teamwork-intention to leave, and burnout-intention to leave) does not support the combined relationships in the three dimensional graphics, consisting of three axes of teamwork, burnout, and intention to leave.

Implications

What then are the implications of these preliminary findings to the practice of child welfare, preparation for child welfare, and for child welfare organizations? The next few paragraphs explore some of the implications of teamwork and turnover.

Implications for Public Child Welfare Practice

Child Welfare League of American (2004) reported that public child welfare caseworkers' high turnover rates resulted from the complex individual demands for services, safety concerns, workloads, the lack of professional access to resources, the lack of services training and financial compensations, and poor organizational conditions. These caseworkers' job characteristics have pushed researchers to find the causes in individual work-related factors such as burnout and job satisfaction or in work environment factor. Balfour and Neff (1993) explained these individual responses to work environment in the concept of human capital and emphasized the needs of an effective training program to reduce caseworkers' intentions to leave.

The term "human capital" was introduced by Schultz (1981), an economist, who claimed that improving the welfare of poor people did not depend on land, equipment, or energy, but rather on knowledge. Based on this concept, Fitz-enz (2000) described "human capital" as a combination of factors such as the following: the traits one brings to the job (intelligence, energy, a generally positive attitude, reliability,

commitment), one's ability to learn (aptitude, imagination, and creativity), and one's motivation to share information and knowledge (goal orientation). Also, he explained that all the assets of an organization other than people are inert, and that they are passive resources that require human application and interaction in order to generate value. Therefore, he stressed that the key to sustaining a profitable company is the productivity of the workforce through intellectual capacity, consisting of human capital, process and culture, and intellectual property. In this concept of "human capital," the basic component of human capital is based on an inherent value of an individual as a fundamental factor in characterizing an organization.

General discussion points to "human capital's" potential importance for public child welfare caseworkers' relationships, their potential for teamwork, and impact this might have on their intentions to leave. More importantly, many of the remedies suggested for reducing burnout are beyond the ability of a state agency to adopt or implement. Case load reductions means either fixing case loads and/or hiring more workers. Since the agency must respond, usually by legal requirements, to all cases of suspected abuse or neglect, simply closing off entering cases in not possible. Hiring more workers, better qualified workers, and provide higher pay, also require legislative action and/or executive approval. The human capital approach is more likely to be within the ability of an agency.

Caseworkers who do not experience cooperation from other workers through sharing information, getting another's perspectives, exchanging resources, and communicating effectively with colleagues and/or a supervisor probably will be more likely to leave. Based on the result that teamwork affects the caseworkers' intentions to

leave, improving the cooperation between employees or between a supervisor and employee might be a good strategy to reduce the workers' intentions to leave. For instance, the caseworkers who have experience in a particular case can advise the workers who have had to treat the similar case at a first time through sharing information and exchanging useful resources.

Teamwork should be encouraged in child welfare organizations. However, this may be more easily said than done. Teamwork must be part of an overall climate or culture of the organization. It must be supported by all levels of administration from the first line supervisor to the highest administrative post. In addition, many public child welfare units are part of multi-service umbrella agencies that may not understand or support the unique difficulties faced by workers.

There are practical actions that could encourage teamwork. For example, current caseworkers could be involved in interviewing potential new employees and these new potential employees could be invited to spend a day or more with an existing team. The team would then provide their assessment. The new employee would join a team that would then take some responsibility for orienting and training the new member. They could also be encouraged by the agency to take actions or provide suggestions on how to improve team performance. Through these types of actions, the agency would enhance a team culture. If a caseworker feels frustrated with a case, her/his colleagues or supervisor need to actively contact and provide counsel. The managers in pubic child welfare agencies are recommended to establish the policies and programs for caseworkers and their supervisors to participate in these activities. These efforts can contribute to the

caseworkers' adjustments into their work environments and the reduction of their intentions to leave.

Implications for Social Work Education

In order to enhance teamwork in public child welfare agencies, it needs to promote curriculum changes in social work education. Hypothesis 5 (the workers having a BSW or MSW are less likely to leave their jobs) suggests that increased education does not pay organizational dividends. This means that social work curriculum has not contributed to preventing public child welfare caseworkers' turnover through educating how effectively they cooperate in a team. Thus, the students who take social work classes in preparation to be caseworkers should be encouraged to learn how they can prevent undesirable turnover by working with their future colleagues and supervisors. Specific curriculum additions would include theory of team building and mentoring. Students should be placed in laboratory settings to acquire skills of team building, mentoring, supervising, etc.

Connecting the field with the university has been tried in order to reform the child welfare organizational structure. Anderson-Butcher, Lawson, and Barkdull (2002) introduced empowerment-oriented design teams, which represented a new learning and improvement system for child welfare service. These design teams consisted of current service recipients, university faculty facilitators, and professionals from child welfare and other service systems.

The outcome data based on interviewing the team members indicated that "design teams promoted family-centered practice and inter-professional collaboration; enhanced service delivery and understanding of co-occurring needs; and fostered

personal growth and self-awareness among participants" (p. 131). Lawson, Anderson-Butcher, Petersen, and Barkdull (2003) also reported that linkage agents for university, community, and state agency partnerships promoted curriculum changes in education in order to improve the child welfare workers' job condition through the increased cooperation of team members. This collaborative approach needs to be applied to reducing public child welfare caseworkers' intentions to leave.

Another way to harness the powerful effects of teamwork is to set up informal mentoring relationships. More experienced workers with less experienced. Workers experienced in providing court testimony with those less or inexperienced. Workers experienced with dealing with certain kinds of cases or cultures or courts or geographical areas with those less experienced. Organization leaders can take the responsibility for using a variety of means to increase teamwork and/or social capital.

In addition, it is necessary to include teamwork into the evaluation categories of funding resources for improving the child welfare workforce. There are two major federal funding sources; "title IV-B provides discretionary grants to public and private nonprofit institutions of higher education for full-time or part-time training programs and title IV-E provides an enhanced federal match of 75 percent to fund training programs for both current and prospective child welfare staff" (National Association of Social Workers, 2007). These funding sources can enhance teamwork in public child welfare agencies by reinforcing training programs in relation to teamwork.

Implications for Theory

Using teamwork to reduce public child welfare workers' high intentions to leave reflects the possibility of extending the knowledge into social capital. As a

discipline within the human sciences, social work would be distinguished from the social sciences in regard to the research agenda, focusing more on human beings as a critical subject on the micro level. For example, human scientists have made an effort to find a stress coping model through defining the concept of stress in their particular area, such as biology, psychology, and sociology. However, when we explore a social welfare organization's structure and policy, the agenda of social work includes the issues in connection with social science on the macro level. For instance, a public child welfare agency should be studied in connection with political, economical, and public administrative interests in order to find the organizational characteristics and traits according to social science.

Originally Hanifan (1916), a political scientist, coined the term "social capital" to explain "good will, fellowship, sympathy, and social intercourse among the individuals and families who make up a social unit." (pp. 9-10). Based on this idea, current scholars in many fields have begun to explore the multiple sources of social capital; Putnam (2002) extended it more clearly as:

> "The idea at the core of the theory of social capital is extremely simple: Social networks matter. Networks have value, first of all, for the people who are in them. Social interaction, in other words, helps to resolve dilemmas of collective action, encouraging people to act in a trustworthy way when they might not otherwise do so." (pp. 6-7).

In social work, Livermore and Neustrom (2003) explained that the concept of "social capital" was adopted after 2001 in order to cover diverse issues in terms of social welfare policies and programs. They studied the provision of jobs to welfare clients,

wherein the descriptions contained discretionary use of social capital. They explored one informal job search mechanism, which was worker social capital, and, whether workers used their own social capital to help clients find jobs. The study also ascertained the factors that influenced this use of social capital, and examined the attitudes and opinions of workers regarding its use.

Zippay (2001) studied the role of social capital in reclaiming human capital by conducting a longitudinal study of occupational mobility among displaced steelworkers. That work described social capital as the resources that are accessed through social networks, and explained that job seekers can be expected to benefit from possessing social capital in the form of personal acquaintances. Also, Boisjoly, Duncan, and Hofferth (1995) defined social capital as a person's perceived access to time and monetary help from friends and family members, and examined the stock of social capital to which families have access, the trade-off between access to monetary help and time help, and the association between perceived access to time and monetary help and conventional measures of family economic well-being. In fostering social capital through Non-Governmental Organizations (NGO) design, Larance (2001) defined social capital as a public good comprising trust among a diverse group of citizens within the same community, which facilitates cooperative networks among those citizens.

Putnam (2002) categorized four important distinctions that had emerged from scholarly debates: (a) formal versus informal social capital, (b) thick versus thin social capital, (c) inward-looking versus outward-looking social capital, and (d) bridging versus bonding social capital. This effort to classify the characteristics of social capital will be helpful to understand the institutions in which public child welfare caseworkers are

involved. The realm of formal social capital includes formally organized institutions with recognized officers, such as labor unions, whereas “informal organizations” are highly informal, as exemplified by pickup games of basketball or the non-deliberate gathering of citizens at the same pub (p. 10). In “thick social capital,” some forms of social capital are closely interwoven and multistranded, such as a group of steelworkers who work together every day at the factory. Conversely, the nodding acquaintance one has with a person one sees occasionally waiting in line at the supermarket is a manifestation of “thin social capital.” (p. 11). “Inward-looking social capital” tends reflect the behavior within a group that would promote the material, social, or political interests of the group’s own members measured usually along class, gender, or ethnic lines (e.g., “private clubs” of all sorts). Other groups are “outward-looking,” and concern themselves with the public goods, as exemplified by the Red Cross or various civil rights groups (p. 11). “Bonding social capital” brings people together who are alike in important respects (ethnicity, age, gender, social class, and so on), whereas “bridging social capital” refers to social networks that bring people together who are for most intents and purposes considered to be not alike in the aforementioned areas (p. 12).

As defined by the above classifications of social capital, it appears that public child welfare caseworkers are organized in a manner characteristic of formal, thick, inward-looking, and bridging social capital. These characteristics show that the concept of social capital could be extended in diverse scopes which would help to understand the complex activities of an organization based on the relationship between individuals. This conceptual framework, including teamwork, can more broadly explain certain patterns inherent in public child welfare caseworkers’ stated reasons for leaving their agencies.

Limitations

There are numerous limitations to the present study due to the nature of secondary data analysis of a single cross-sectional data set from one agency. First and foremost is the limitation of the generalizability of the findings. The data are responses from public child welfare caseworkers who chose to answer the survey (SOE) and thus represent in a self-selected sample. Also, the interpretations of results are restricted in the mid-western state child welfare agency. Second, as the present study was limited by its cross-sectional design, it is recommended that a longitudinal design with a larger random sample be conducted to understand the relationships between the workers' perceptions of job environment and intentions to leave.

Third, the teamwork items have not been tested with regard to the validity. Thus, it is necessary to verify the validity of the measurement scales in relation to teamwork. It would be necessary to conduct convergent validity with another teamwork measure. Furthermore, the other measurement scales of burnout, job satisfaction, and organizational climate in SOE also need improvement. For example, in the SOE instrument, the concept of *burnout* was constructed by these five questions: 1) "We feel a sense of pride when we tell people that we work for this organization"; 2) "We feel our efforts count"; 3) "We are encouraged to learn from our mistakes"; 4) "My job meets my expectations"; and 5) "My ideas and opinions count at work" (Lauderdale, 2001, p. 33). In comparison, the widely used Maslach Burnout Inventory's (MBI) subscale includes personal accomplishment, -"feelings of competence and successful achievement in one's work with people" – along with depersonalization and emotional exhaustion (Maslach & Jackson, 1986, p. 7). Although the burnout construct in SOE have been subject to

establishment of convergent validity with MBI (Collins-Camargo, 2005, p. 62), more work needs to be done to promote the validity because the burnout questionnaires in SOE do not seem to cover the MBI's other subscales: emotional exhaustion, "feelings of being emotionally overextended and exhausted by one's work" and depersonalization, "an unfeeling and impersonal response toward recipients of one's care or service" (Maslach & Jackson, 1986, p. 7).

Fourth, while most studies have used "intention to leave," studies need to be concerned with a different concept. It might be more productive to look at why employees choose to stay. Although the answering "no" to the question "I plan to be working for this organization in two years" was considered a stated intention to leave, the answer does not thoroughly cover their true intentions as it might only indicate delaying a plan to stay. Thus, this study could have focused on the role of teamwork in public child welfare caseworkers' intentions to stay. The factors impacting public child welfare caseworkers' intentions to leave could be quite different from those impacting the workers' intentions to stay.

Future Research Needs

Despite these limitations, the findings of this study contribute to the literature on turnover by suggesting that teamwork might contribute to understanding public child welfare caseworkers' intentions to leave. This study makes an important preliminary connection between teamwork and the caseworkers' intentions to leave; however, both team effectiveness and supervisor effectiveness need to be tested separately on the caseworkers' intentions to leave. Therefore, tests which measured team effectiveness or supervisor effectiveness without being so closely related could improve our

understanding of the effects of teamwork components on workers' intentions to leave. Although teamwork effectiveness and supervisor effectiveness are both present in Dickinson and Mclntyre's (1997) teamwork model, using them as sub-category measurements of teamwork is a different issue. Future research would establish the validity of teamwork scales in relation to team effectiveness and supervisor effectiveness and contribute to developing a proper instrument to measure the concept of teamwork.

Also, whenever possible, studies should be designed to use actual turnover data. Using intention to leave as a surrogate measure raises several questions about how accurately workers expressions are carried out. Therefore, actual turnover based on agency records, exit interviews, or confirmed in some way would be necessary to test more precisely the relationships between turnover and the other variables.

Finally, related to the point made in the limitations section above, although public child welfare caseworkers might have a positive perception of teamwork and not be burned out, they could still leave for a more attractive job with a high level of salary and/or a better work environment. Considering that 90 % of the respondents of this study were women, a percentage which is characteristic of the US public child welfare workforce, special attention should be directed to research concerning workplace issues important to women (National Association of Social Workers, 2007). Women continue to carry the heaviest share of care for children and the home often while earning less than their men. Consequently, their jobs may be considered less important and require relocation when a spouse has a better job opportunity. Many women caseworkers may be making decisions to form families requiring relocation to other communities and/or temporary leave from the workforce. Caseworkers may be 'on call' 24 hours per day

every day of the week. Such “on call” duties place a very high demand on those caring for children particularly single parents. Research directed to women’s work issues could help agencies identify and make important organizational accommodations. Assuring equal pay and advancement opportunities would be a basic and important feature but other accommodations such as safe, affordable or subsidized child care available around the clock for worker’s children might be an important feature.

Future research could identify other issues which influence women’s intentions to leave or, if correctly addressed, might assist them in remaining in the workforce. These vital questions could not be addressed in this study due to the nature of secondary data analysis. It is likely that a qualitative study method would be necessary to more deeply understanding why workers choose to leave their jobs and what factors might induce them to stay.

Appendix 1

The Five Constructs Used in This Study from the Survey of Organizational Excellence

Team Effectiveness

19: Work groups receive adequate feedback that helps improve their performance.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

21: Decision making and control are given to employees doing the actual work.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

23: There is a basic trust among employees and supervisors.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

27: We are efficient.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

29: There is a real feeling of teamwork.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

48: Work groups are actively involved in making work processes more effective.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

Supervisor Effectiveness

20: We have an opportunity to participate in the goal setting process.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

22: We seem to be working toward the same goals.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

24: We are given the opportunity to do our best work.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

33: We are given accurate feedback about our performance.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

38: Supervisors know whether an individual's career goals are compatible with organizational goals.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

47: People who challenge the status quo are valued.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

51: Favoritism (special treatment) is not an issue in raises or promotions.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

Burnout

25: We feel a sense of pride when we tell people that we work for this organization.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

30: We feel our efforts count.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

31: We are encouraged to learn from our mistakes.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

44: My job meets my expectations.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

46: My ideas and opinions count at work.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

Job Satisfaction

24: We are given the opportunity to do our best work.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

32: We have adequate resources to do our jobs.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

42: The environment supports a balance between work and personal life.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

43: The pace of the work in this organization enables me to do a good job.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

Organizational Climate

1: We are known for the quality of service we provide.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

5: We know who our customers (those we serve) are.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

57: We use feedback from those we serve to improve our performance.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

78: We work well with other organizations.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

79: We work well with our governing bodies (the legislature, the board, etc.)

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

80: We work well with the public.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

81: We understand the state, local, national, and global issues that impact the organization.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

84: I have a good understanding of our mission, vision, and strategic plan.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

85: I believe we communicate our mission effectively to the public.

1	2	3	4	5	6
Strongly Disagree	Disagree	Feel Neutral	Agree	Strongly Agree	Not Applicable

Personal Background (Demographics)

I am (1) female (2) male.

My annual salary (before taxes) is
(1) less than $15,000 (2) $15,000 - $25,000 (3) $25,001 - $35,000 (4) $35,001 - $45,000
(5) $45,001 - $50,000 (6) $50,001 - $60,000 (7) $60,001 - $75,000 (8) $75,001 or more.

Years I have lived in this state is (1) less than 2 (2) 2 -10 (3) over 10.

My age (in years) is (1)16-29 (2)30-39 (3)40-49 (4)50-59 (5)60+.

Persons in my household, including myself is (1) 1 (2) 2 (3) 3 (4) 4 (5) 5 or more.

Hours per week employed are (1) less than 20 (2) 20 - 39 (3) 40 or more.

Years of service with this organization are (1) 0 (2) 1-2 (3) 3-5 (4) 6-10 (5) 11-15 (6) 15+.

My highest educational level is

(1) did not finish high school (2) high school diploma (3) some college (4) associate's degree
(5) Bachelor's degree (no social work) (6) Bachelor degree of social work
(7) Master's degree (no social work) (8) Master degree of social work
(9) Doctoral degree.

My race/ethnic identification is
(1) African-American/Black (2) Hispanic/Mexican-American (3) Anglo-American/White
(4) Asian-American/Pacific Islander/Native American Indian (5) Multiracial/Other.

I am currently in a supervisory role. (1) Yes (2) No

I received a promotion during the last two years. (1) Yes (2) No

I received a merit increase during the last two years. (1) Yes (2) No

I plan to be working for this organization in two years. (1) Yes (2) No

I am the primary wage earner in the household. (1) Yes (2) No

There is more than one wage earner in my household. (1) Yes (2) No

Appendix 2

Demographic Characteristics' Summary of Logistic Regression Analyses Predicting Intention to Leave

	B	Wald	Odds Ratio
Gender (Female/ Male)	-.60	1.86	.55
Race (Anglo/ Non Anglo-American)	-.03	.01	.97
Age	-.17	1.12	.85
Annual Gross Salary	-.04	.03	.96
The Number of Persons in My Household	-.28	4.12	.76
Length of Service	-.14	1.45	.87
Constant	.57	.37	1.77
Model Chi-Square	5.92		
Nagelkerke's *R* Square	.06		

Note. * $p < .05$; ** $p < .01$

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VITA

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