

Stress and work-life conflict in parents with special needs children: The impact of work
and non-work demands and resources

by

Breanne M. Ricketts

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Approved:

Arla L. Day, PhD
Supervisor

Approved:

Isabel Fearon, PhD
Committee Member

Approved:

Lori Francis, PhD
Committee Member

Approved:

Christine Chambers, PhD
External Examiner

Date:

August 26, 2008



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Abstract

Stress and work-life conflict in parents with special needs children: The impact of work and non-work demands and resources

By Breanne M. Ricketts

Abstract: Work-life conflict and job stress are challenges faced by many Canadian employees. These challenges can be particularly stressful for parents with special needs children because these parents may face increased time demands, financial hardship, and a lack of support from friends, family, or their workplace. Although little empirical evidence exists on the health outcomes of these parents, preliminary research suggests that parents with special needs children do experience increased strain (Brennan et al., 2005), stress (Freeman et al. 1995), and work-life conflict (Rosenzweig et al., 2002). I developed a survey that was sent to a sample of parents caring for a special needs child in Nova Scotia and Ontario. I conducted moderated regressions to examine the direct impact of specific demographic, work, and family factors on the self-reported health and work-life conflict of parents with special-needs children, as well as the buffering effects of individual, organizational, and community support. Organizational support and job control moderated the relationship between work demands and role-specific work-related strain. Parental self care, family/friends support, and access to community programs were important moderators in the relationship between family demands and role-specific family-related strain. Implications for the employment patterns and overall health and well being of parents caring for a child with special needs are discussed.

August 26, 2008.

Stress and work-life conflict in parents with special needs children: The impact of work and non-work demands and resources

In Canada, 7.2% of families are caring for a child who has special needs such as mental, behavioural, or emotional issues (Statistics Canada, 2001). In the United States, the reported prevalence rate is even higher, with 20% of families dealing with a special needs child (Child and Adolescent Health Initiative, 2004). Both of these figures may under-represent the magnitude of this issue, because the definition of special needs children may be too specific and, therefore, may exclude a large number of children with chronic illnesses, such as cancer as well as certain acute injuries and conditions (e.g., heart disease and kidney conditions). For the purposes of this research, special needs is broadly defined based upon the presence of chronic conditions; use of technical aids (e.g., hearing aids); long-term health problems that prevent or limit many activities considered typical for a child that age; enrolment in special education schools; difficulty seeing, speaking, or hearing; or long-term emotional, psychological, nervous, or mental-health problems; which is similar to the definition of special needs in other research studies (Rosenzweig & Huffstutter, 2004; Brennan & Brannan, 2005).

Families caring for a child with a special-need face increased time demands (Donovan, VanLeit, Crowe, & Keefe, 2005) and may deal with more financial pressure (Gutner, 2004) than families caring for a typically developing child. Without adequate support, meeting the challenges of both work and home can be especially difficult for parents caring for a child with special needs (Roberts & Magrab, 1991). These increased demands have been shown to lead to decreased well-being in families caring for a child with special needs (Rosenzweig et al., 2002).

Furthermore, parents with excessive care responsibilities are more likely to be periodically absent from work and may be forced to neglect work duties (Brennan & Brannan, 2005). Despite the sheer number of families caring for a child with special needs and the growing awareness of the issues and difficulties faced by this population, the health of these parents has been all but ignored in Industrial/Organizational Psychology research. Moreover, because little research has examined this population, we do not fully understand the additional stressors experienced by these parents because we have assumed that the pattern of relationships between stressors and strain outcomes for this population is the same as the relationships for the general population of parents. Furthermore, the small amount of research that has been conducted on this population has primarily utilized an American sample. Because health care systems and societal supports differ substantially across countries, it is important to examine parents with special needs children in a country with a public health care system, such as Canada. Therefore, the purpose of the present study is to examine the employment patterns and health and work-family conflict outcomes of parents with special needs children in Canada. More specifically, I will examine the work- and family-related demands that may contribute to increased strain and conflict as well as the work- and individual-based factors that may mitigate or buffer the negative impact of these stressors/demands on parental health.

Employment Patterns of Parents with Special-Needs Children

Many parents of a special needs child report the increased demands associated with caring for their child have inhibited their ability to work (Rosenzweig et al., 2002). These parents are often conflicted between the need to remain at home with their child (i.e., coordinating and providing care) and the need to work in order to earn the money required to cover the expensive requirements of a special needs child (Valentine, 2001).

A study conducted in the United States by the Child and Adolescent Health Care Initiative in 2004 found that 13.5% of families caring for a child with special needs spent 11 or more hours per week managing the health care of their child. This large time commitment led almost 33% of parents to report that they were working below their optimal level due to their child's needs. Even more dramatic findings were reported by Rosenzweig and Huffstutter (2004), who found that 48% of parents caring for a child with a behavioural or emotional disorder had to quit work at some time to provide additional care. Moreover, because of disruptions to their work schedule, 27% of parents in this study had their employment terminated, and 17% were unemployed. These rates of unemployment are substantially higher than the general US population unemployment rate of approximately 4-10% in both single and married parents (United States Bureau of Labour Statistics, 2004). Furthermore, children with special needs who are living in two-parent families, are less likely to have both parents working full time (Children & Youth with Special Needs, nd). Of all children with special needs in the United States, 35.3% had both parents working full-time, compared to 45.8% of children with no special needs (Children & Youth with Special Needs, nd). No comparative data for this population in Canada has been examined. Because of the similarities in the Canadian and American working populations, I would expect the employment patterns of parents with special needs child in Canada may mimic the pattern found in the U.S. However, it may be argued that because Canadians have more access to government and health programs, the differences in employment patterns between parents with special needs children and the general working population may be less pronounced. Therefore, I hypothesize that:

Hypothesis 1: The distribution of employment of parents with special needs will differ from the employment distribution of parents in the general population in

Canada. More specifically, compared to the general population, these parents will be more likely to be unemployed or employed in part-time positions.

Work-Life Conflict & Health Outcomes of Parents Caring for a Special Needs Child

Work-life conflict can occur when families have difficulty balancing their work and family lives (Greenhaus & Beutell, 1985; Greenhaus & Powell, 2003), and participating in one role is made more difficult by participating in another role (Duxbury & Higgins, 2003). Families caring for a child with a special need may experience increased work-life conflict because they may experience additional demands (e.g., increased time demands, greater financial pressures) and conflict. Employed parents of special needs children have found it especially difficult to maintain a reasonable balance between their work and family lives (Brennan et al., 1993). For example, compared to parents of typical children, parents of children with special needs are more likely to experience increased strain attributed to missing work and neglecting duties (Rosenzweig et al., 2002). Moreover, the potential for increased unemployment or underemployment can create increased financial strain on the family (Valentine, 2001). However, there may be negative organizational outcomes for many of these parents who do participate in paid employment. For example, parents who have difficulty balancing their work and family lives may be more likely to be absent from work more often (Goff, Mount, & Jamieson, 1990), experience decreased job satisfaction, and have lower organizational commitment (Gray, 1989).

Although relatively little empirical evidence exists on the health outcomes of parents with special needs children, preliminary research suggests that, compared to parents of healthy children, parents of a special needs child experience increased strain (Brennan & Brannan, 2005), higher stress (Freeman et al. 1995), and increased work-life

conflicts (Rosenzweig et al., 2002). Stress researchers have found that, in general, increased stress leads to symptoms of strain, which can include psychosomatic complaints, subjective stress, general dissatisfaction (Korunka & Vitouch, 1999), and depression (Wannamaker & Glenwick, 1998). Compared to parents with typical children, parents of a special needs child have been more likely to feel depressed, helpless, and/or worthless when they experience increased demands (Crnic, Friedrich, & Greenburg, 1983). In order to understand better the health issues of these parents, it is beneficial to develop a model to examine the antecedents of conflict, stress, and poor health in these parents.

Job Demands/Resource Model

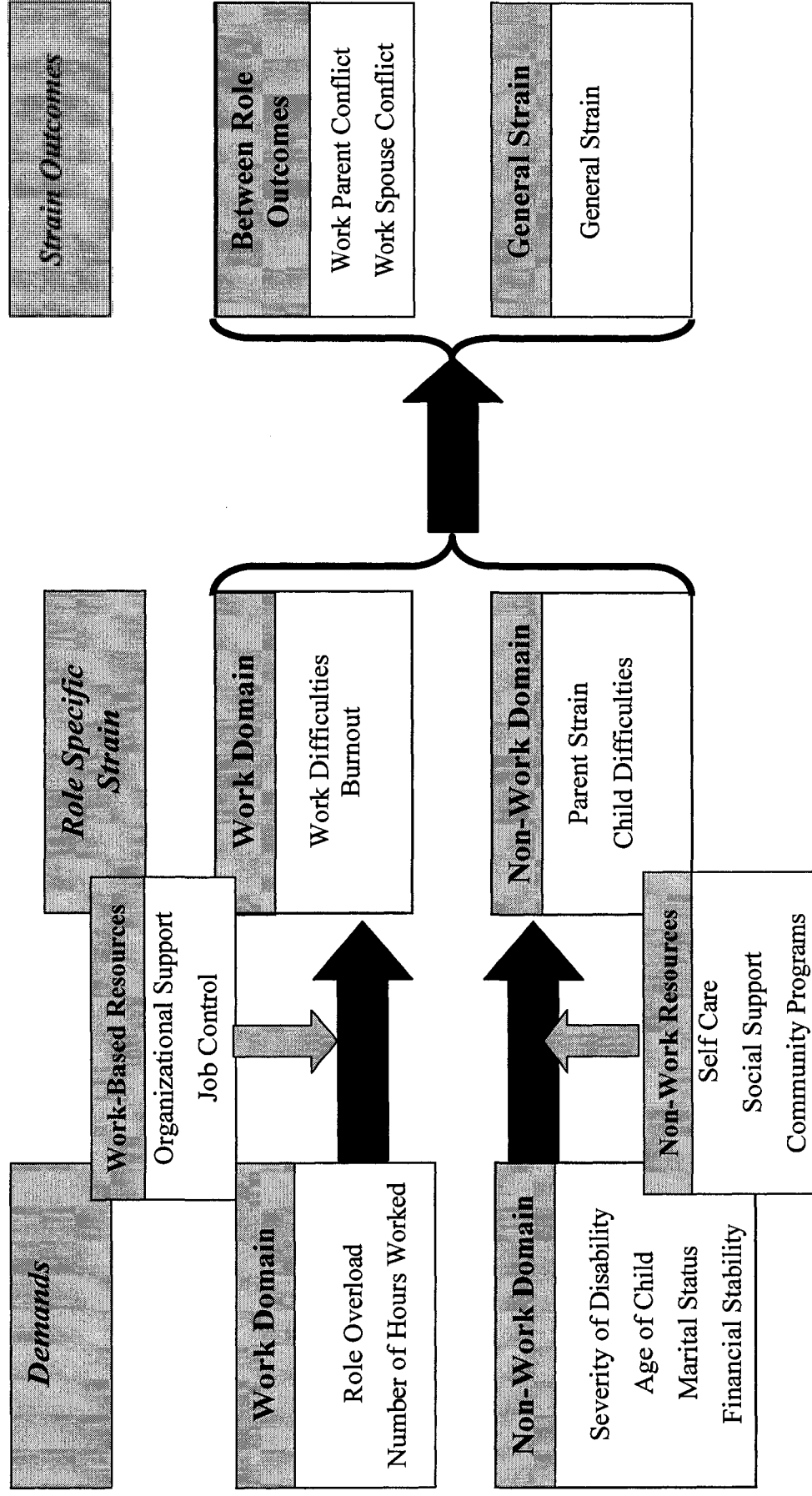
Previous research on the Job Demands – Resources Model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) was used to help develop a framework outlining how both work and family demands may lead to poor health and work outcomes for parents with special needs children (see Figure 1). This model helps explain how both positive and negative health and work outcomes can be produced by job demands and job resources. Job demands are aspects of organizational life that are associated with increased psychological or physiological costs (Demerouti et al., 2001). Conversely, job resources are aspects of organizational life that help an employee achieve their work goals, improve their health outcomes, or motivate personal growth and development (Demerouti et al., 2001). Job demands are stressors that can impair a person's health, whereas job resources may help buffer or mitigate the negative health outcomes generated by increased job demands (Demerouti et al., 2001).

In families caring for typical children, the Job Demands – Resources Model posits two psychological processes, the *health impairment process* and the *motivation process*

(Demerouti et al., 2001). According to the health impairment process, job demands may lead to emotional exhaustion and could further lead to overall negative health outcomes (Schaufeli & Bakker, 2004). Conversely, according to the motivation process, the availability of job resources leads to increased employee engagement and could further lead to overall positive work outcomes (Hackman & Oldham, 1980).

Although the model was originally designed specifically for job demands and resources, including non-work demands and resources helps us better examine the health outcomes of parents caring for a child with special needs. For example, many parents caring for a child with special needs are unable to maintain employment outside of the home so they may not experience job demands or job resources. However, it is likely that the fundamental structure of this model may transfer to families with special needs children. Because many of these parents are unable to maintain full-time employment, demands related to their daily family life may be as (or more) relevant to their overall health and level of strain as are job-specific demands. Furthermore, the specific health and strain outcomes experienced by these parents may be exacerbated by the specific demands experienced from caring for their special needs child. Therefore, inclusion of these specific demands and resources are integral in examining parental health and work outcomes. Finally, because of the potential for outcome differences between work and non-work domains, the model must address both specific domain-level outcomes as well as more general outcomes.

Figure 1. Demands-Resources Framework



Note: This model is for illustrative purposes only. Based on the Job Demands – Resources Model (Demerouti et al., 2001)

Work and Family Demands

General demands or stressors have been defined as ‘stress stimuli’ by Lazarus and Cohen (1977). These stressors may lead to psychological, behavioural, and physiological strain (Lazarus & Cohen, 1984). Several factors may contribute to increased stress and strain and decreased well-being of parents caring for a special needs child. Increased time demands at work and home may lead to increased pressures within both the work and home domain and also across domains. Increased financial demands may also place additional strain on families caring for a child with special needs. However, different social (Webster-Stratton, 1990), community (Keller & Honig, 2004), and organizational supports (Higgins & Duxbury, 2003; Thompson, Beauvais, & Lyness, 1999) may help buffer the negative strain outcomes associated with increased time and financial pressures (see Figure 1).

Work Demands. Work role overload, which measures the extent to which an individual has an overabundance of roles or tasks associated with a specific work role (Bachrach, Bamberger, & Conley, 1990), may be exacerbated in families caring for special needs children. A key factor in work role overload is time-based incompatibilities or stressors (Newton & Keenan, 1987). Role overload occurs when an employee has more work to do than can be done in the time allotted (Newton & Keenan, 1987). Parents caring for a child with special needs experience increased time demands, both at work and at home than parents caring for a typical child (Rosenzweig & Huffstutter, 2004). Therefore, these parents may be more likely to experience increased role overload in their work roles because of their increased time commitments associated with caring for a child with special needs.

Similarly, the number of hours worked outside the home may act as a stressor to families caring for children with special needs. More hours worked outside the home is associated with increased work-family conflict (Judge, Boudreau, & Bretz, 1994) in parents caring for a typical child. In order to optimize the balance between work and family, parents with special needs children may choose to work only part-time hours, which for many is below their optimal level of employment (Brennan & Brannan, 2005). Therefore, it is likely that there is a different relationship between the number of hours worked outside the home and overall strain in families caring for a child with special needs. That is, even though some parents may be working fewer hours outside the home, they may experience high levels of strain because they still feel overloaded with work and family demands. Thus, because parents with special needs children have increased family time demands and may feel overloaded with work demands, they may experience increased strain and conflict with the more hours they work. Therefore, I hypothesize that:

Hypothesis 2: Increased work role overload and the number of hours worked will predict increased role-specific work domain strain (i.e., work difficulties and burnout).

Family Demands. Parents who are caring for a child with a special need face unique financial challenges that are often incurred in two ways: (1) reduced income created by a parent's increased inability to both work full time and care for their child, and (2) from the additional costs associated with caring for a special needs child (Valentine, 2001). The National Population Health Survey found that nearly 17% of children with a special need live in families who depend on government income, compared to 8% of children without a special need (Valentine, 2001). The costs

associated with caring for a child with any special need may be substantially higher than with caring for a typical child. For example, the indirect costs (employee productivity and decreased hours spent at work) and direct costs (therapies and medications) to a family with a child with attention-deficit hyperactivity disorder are 90% more than for those families with typical children in the United States (Gutner, 2001). Birenbaum, Guyot, and Cohen (1990) stated that compared to children in the U.S. with no special need, children in the U.S. with severe mental retardation had average medical costs 10 times greater. Therefore, parents may feel pressure to work outside of the home to provide financially for their child. This increased financial pressure may increase the stress and strain these parents experience (Lloyd & Rosman, 2005), can increase their chance of depression (Singer & Powers, 1993), and may affect their overall well-being. Because all of the above research was conducted on a population from the United States, it is unknown if these issues are faced by parents with special needs children in Canada to the same extent.

The divorce rate among couples who have children with a special need is 80%, relative to approximately 44% in other families (Ambert, 1998; Vogel, 2006). Therefore, many parents must raise their special needs child alone or in a less than optimal parenting situation. Single parents generally have a lower household income than two-parent families (Vogel, 2006). As well, single parents often do not have periods of respite and relief that are important to maintaining mental and physical health (Lloyd & Rosman, 2005). Compared with partnered parents, single parents tend to use significantly fewer strategies to manage their work and family lives (Brennan et al., 2004), possibly because of the increased time demands they face. Therefore, single parents caring for a child with special needs may experience greater strain and have a lower overall well-being than

partnered parents, who have sufficient access to support programs in the community and to support from family and friends.

Increased demands due to the age of a child may also act as a stressor in eliciting parental strain in parents of special needs children. Parents with young typical children are likely to experience increased financial, childcare, and job strain (Brennan, Koren, Rosenzweig, & Emlen, 1990) than do parents with older typical children. Strain symptoms, including depression, are more pronounced in parents caring for a younger child compared to an older child (Horwitz, Briggs-Gowan, Storfer-Isser, & Carter, 2007), possibly because young children generally require more attention, child care and hands on care. Walker (2000) found that maternal stress is higher for mothers of younger children with developmental disabilities than those with older children. However, because this type of research may assume that age is an appropriate proxy for stage of child development, it may not be an appropriate predictor of strain for parents with a special needs child. Therefore, some researchers studying the relationship between child age and parent strain in parents with special needs children have suggested that the relationship may be reversed. That is, parental strain may *increase* as the special needs child's age increases (Bristol & Schopler, 1984), possibly because care demands may increase for older children with special needs. For example, parents caring for an older child with autism may need to cope with constantly changing behaviour and amplified physical care, which is associated with increased parental strain and problems (Bristol & Schopler, 1984). Therefore, because of the increased demands that parents caring for an older child with a special need face daily, it is likely that these parents will experience more negative strain outcomes than parents caring for a younger child with special needs.

More severe child symptomatology is associated with reduced school attendance; reduced school attendance can, in turn create difficulties for parents attempting to balance their work and home lives (Crnic et al., 1983). As well, parental work outcomes can be influenced by the type and severity of the child's condition (Warfield, 2005). More specifically, parents caring for a child with more severe symptomatology are less likely to work outside of the home, and, if working, are more likely to miss days from work and quit work to care for their child (Booth & Kelly, 1999), which may increase the financial strain placed on the family. These increased time and financial demands can place substantial strain on caregiving parents. In addition to work difficulties, the severity of a child's symptomatology can also affect the general well-being of parents. Greater child behaviour problems predict higher strain scores among parents of children with developmental delays (Bakker et al., 2002). Furthermore, the type of disability may influence the strain outcomes that parents experience. For example, caregivers caring for an elderly dependent with a mental disability generally experience greater demands than caregivers caring for a dependent with a physical disability (Levin et al., 1989). It is likely that this effect will transfer to parents caring for a child with special needs.

Therefore, I hypothesize that:

Hypothesis 3: Parents (a) have lower financial stability, (b) who are in one-parent households, (c) whose child with special need is older, and (d) who have a child with severe symptomatology, will experience more role-specific non-work domain strain (i.e., parent strain and child difficulties).

Role Specific Stress

The strain from specific roles may be predictive of conflict and strain between roles. For example, if an individual is overloaded in one particular role (i.e., work or

family), they may experience decreased physical and psychological health across both roles (Duxbury & Higgins, 2003). For the purposes of this study, within-role strain is defined as perceived strain that occurs because of increased demands within a specific role and may have differential effects on conflict and strain, or between-role conflict. Between-role conflict is conflict that is experienced as a result of conflicting demands or strain in multiple roles (i.e., work and family) (Greenhaus & Beutell, 1985). Previously, it has been shown that strain experienced within either the work or family domain is likely to predict strain that occurs between the work and family relationship. For example, Aneshensei (1986) found that marital and employment strain had different but cumulative effects on overall strain. Similarly, Stewart and Salt (1981) found that strain generated from work demands, but not family demands, was associated with increased reports of depression. Overall, the conflict that exists in many families between work and family responsibilities could be generated from either the work or family domain (Gutek et al., 1991). Therefore, it is likely that parents caring for a child with special needs who experience strain within either their work or family roles will experience increased strain resulting from conflict between both their work and family roles.

Increased demands may create psychological strain in individuals, which can then lead to accentuated symptoms of physical or emotional strain (Lazarus & Folkman, 1984). Lazarus and Folkman proposed a stressor-stress-strain model; in which they hypothesized that daily stressors would lead to perceived stress, which could then lead to reports of strain. Burnout, defined as a state of emotional, physical, and mental exhaustion (Duxbury & Higgins, 2003), may decrease a parent's physical and psychological well being (Westman, Etzion, & Gortier, 2004), or increase overall general strain. Role specific strain, or work related burnout, is also associated with work-family

conflict (Kinnunen & Mauno, 1998). Duxbury and Higgins (2003), state that employees with no dependent care responsibilities are less likely to experience negative psychological health outcomes than employees in Canada with dependents. Therefore, it is likely that parents caring for a child with special needs will experience a similar pattern of relationships between role-specific and between-role strain, although it may be accentuated. Therefore, I hypothesize that:

Hypothesis 4: Role-specific work domain strain (i.e., work difficulties and burnout) outcomes will significantly predict increased conflict between roles and general strain outcomes.

Hypothesis 5: Role-specific non-work domain strain (i.e., parent strain and child difficulties) outcomes will significantly predict increased conflict between roles and general strain outcomes.

Often, parents of special needs children exhibit many of the same patterns of overall strain and strain seen in families caring for typical children (Keller & Honig, 2004). Traditional parent role strain has been established in the literature to lead to work family conflict and general strain (Greenhaus & Beutell, 1985). However, parents caring for a special needs child experience additional unique stressors that are not relevant for parents caring for typical children. Therefore, it is likely that a measure of strain outcomes, specific to these families, will account for additional variance in both general strain and work family conflict, over and above the variance accounted for by parent strain. Therefore, I hypothesize that:

Hypothesis 6: After controlling for the effects of parent strain, the degree of child difficulties associated with caring for a special needs child will account for

additional variance in general strain, work parent conflict, and work spouse conflict.

Work, Family, and Community Resources

The presence of these demands/stressors does not inevitably result in increased strain in parents caring for a child with special needs (Kazak, 1987). The negative health implications generated from work and family demands may be buffered by different work (Bakker et al., 2005) and non-work resources.

In order to assess the potential resources in Canada, I conducted an Environmental Scan of the governmental, organizational, and community supports available to parents with special needs children across Canada (see Appendix B). It is important to examine the supports available to these parents in Canada because the governmental supports are different than those offered in the United States and because the health care systems differ substantially across the countries.

It is clear from the Environmental Scan that many parents caring for a child with special needs in Canada do utilize the publicly funded supports available to them, but these supports are not sufficient (Valentine, 2001). Therefore, it is important to examine which supports are most valued by parents caring for a child with special needs in Canada in order to further develop programs and supports available to them.

Based on the Environmental Scan, supports available to these parents differ substantially across the regions of Canada. For example, only six Canadian provinces have formally acknowledged the lack of support available to these families by creating a disability-specific policy advisory body. In addition to these differences across regions, no provincial government takes responsibility to specifically support the development of recreational programs for children with special needs. Therefore, it is evident that access

to supports is not only lacking across Canada but differs depending on the region in which a family with a special needs child lives.

In addition to the actual presence of support, the perception of availability of resources may also act as an important buffer against common strain outcomes faced by parents caring for a child with special needs (Herman & Marcenko, 1997). Several work and non-work resources may be associated with increased health and may buffer the negative effects of the demands.

Work Resources

For parents caring for a child with special needs, meeting the challenges of work and home can be stressful, especially when many of these parents must deal with these challenges without enough support (Roberts & Magrab, 1991). Both having a supportive work environment and benefiting from specific resources aimed at the family can enable employed parents of special needs children to effectively balance their work and family lives (Rosenzweig et al., 2004). Therefore, different forms of organizational support may help buffer the negative outcomes parents may experience when caring for a child with special needs, but only if these supports are properly utilized by employees.

Organizational Support. Organizational supports may help improve the overall well-being of employed parents caring for a child with special needs. Corporate-sponsored support services for employees, termed *Employee Assistance Programs* (EAPs), were originally aimed at assisting employees who had drug and alcohol issues (Dellmann-Jenkins, Bennett, & Brahce, 1994). These programs have expanded to address certain family issues, such as childcare and psychological support (e.g., counseling). When companies offer certain programs to help employees caring for a special needs child, work performance, as well as the quality of life for employees and their families,

may improve (Gorey, Brice, & Rice, 1990). Therefore, organizational programs are essential for most employed caregivers of special needs children. Without access to these supports, these parents are more likely to experience increased stress, burnout, and frustration (Silverstein & Parrott, 2001).

Despite the existence of organizational programs, it is likely that they are underused by caregivers. In a study conducted using a sample of caregivers for elderly parents, between 23-32% of employed respondents indicated that they were involved in caregiving activities on behalf of an older adult (Wagner, Creedon, Sasala, & Neal, 1989). However, only 1-4% of a given workforce report that they use workplace eldercare programs, which is in contrast to the prevalence rates indicated in the responses given (Wagner et al., 1989). Similarly, estimates suggest that up to 60% of employed adults in the U.S. workforce were eligible for Family and Medical Leave, but only 2/3 of that had any knowledge a program of this nature exists (Cantor et al., 2004). This lack of knowledge of support programs may be associated with strain experienced by parents trying to manage family and work responsibilities (Rosenzweig et al., 2002). Therefore, organizations must make employees aware of the offered programs in order to increase the utilization rates and improve organizational outcomes.

Organizational support tends to be associated with decreased levels of work-family conflict (Thompson, Beauvais, & Lyness, 1999). Higgins and Duxbury (2003) suggested organizations focus on creating a more supportive work environment to reduce burnout and work-life conflict. However, the moderating impact of organizational support on the relationship between work

demands and role-specific strain has not been studied in families caring for a child with special needs.

Control/Flexibility. The most common workplace caregiver assistance policies include having a flexible work schedule and the freedom to take family leave (Scharlach, 1994). Stone and Short (1990) found that many caregivers of elderly parents consistently had to rearrange their work schedule and even leave work periodically to fulfill their caregiving responsibilities. Parents caring for a special needs child are likely to face the same or greater caregiving challenges as do employees caring for an aging parent. Job control may reduce the negative effects related to work-family conflict (Mauno, Kinnunen, & Ruoklainen, 2006) in parents caring for typical children. In addition to this direct relationship, researchers have found job control to act as a moderator between the work-family conflict (stressor) and overall general strain (criterion) relationship (Bakker et al., 2005). However, other researchers found contrary results, in that job control does not buffer (moderate) any negative physical symptoms of strain (Mauno, Kinnunen, & Ruokolainen, 2006).

None of the abovementioned studies focused on families caring for a child with special needs. These families are generally less likely to maintain full time employment outside of the home (Rosenzweig & Huffstutter, 2004; Rosenzweig et al., 2002), so the moderating effects of job control may be quite different. The need for job control or flexibility is accentuated in families caring for a child with special needs. I have hypothesized that job control will moderate the relationship between work demands and role-specific work-based strain (work difficulties and burnout). More specifically, employees with high levels of job control will experience less work-related role-specific strain and will therefore be less likely to

experience negative physical or psychological health implications. I hypothesize that:

Hypothesis 7: Organizational support and job control will act as work-based resources and buffer the negative relationship between work demands and role-specific work-related strain. More specifically, at high levels of support or control, role-specific work strain will be low, regardless of the level of work demands. However, at low levels of support or control, role-specific work strain will be high, especially when work demands are high.

Family Resources

Social Support. Social support may help maintain the health and well-being of parents caring for a child with special needs (Krueger, 1998). Social support is defined as the “perceived availability of meaningful and enduring relationships that provide nurturance, security, and a sense of interpersonal commitment” (Krueger, 1998; pp. 1901). Krueger found that social support networks helped alleviate the strain experienced from the daily stressors that parents caring for both typical and special-needs child experience. Webster-Stratton (1990) found that social support acts as a “buffer” against many of the common stressors (e.g., increased time demands, financial strain) that parents caring for a special needs child experience on a daily basis. Greater spousal support (Warfield, 2005), co-worker support (Beehr & McGrath, 1992), and family support (Warfield et al., 1999) are related to lower maternal and paternal stress when caring for a child with special needs. Satisfying support networks can relate positively to parental well-being (Dunst et al., 1997) and are related negatively to maternal parenting stress (Hauser-Cram et al., 2001). However, the benefits gained from social support may not be

as prevalent for families caring for special needs children because their social support networks are often smaller (Singer & Powers, 1993).

Social support networks can help “buffer” the negative effects that daily stressors can have on the physical and psychological well-being of parents caring for a child with special needs (Webster-Stratton, 1990). These social networks may consist of any combination of family, co-worker, and friend support.

Community Based Support. The availability and quality of community programs to help parents with special needs children may affect their overall health and well-being. Respite care is a commonly used resource by families caring for special needs children, and is often provided by community agencies (Agosta, 1989). Finding appropriate respite care is also important for minimizing the time demands placed on parents of special needs children. Furthermore, by promoting overall family functioning, respite care programs can be an important aspect of social support. Normally, these programs encompass child care, support, and referral support (Cowen & Reed, 2002). Caregiver stress and burnout can be prevented or lessened with access to adequate respite care (Botuck & Winsberg, 1991; Sherman, 1995). In a study of families caring for a developmentally delayed child, respite care had a positive impact on improving emotional well-being and decreasing physical strain (Joyce, Singer, & Isralowitz, 1983). Furthermore, respite care can buffer the relationship between the severity of child symptomology and overall family well-being (Keller & Honig, 2004). Therefore, it is important that families caring for a child with any special need have adequate knowledge of, and access to, respite care.

Another form of community support is the availability of appropriate child care. The lack of suitable child care may increase the time demands on parents with special needs children. Lack of appropriate child care can affect the health and well-being of employed parents caring for a child with special needs (Rosenzweig, Brennan, & Ogilvie, 2002). Difficulties with child care are associated with increased employee absenteeism and stress-related health problems (Galinsky, 1992). Parents with a special-needs child may commonly encounter challenges in finding appropriate day care. Deiner (1992) found that only 4 out of 10 daycare providers were willing to accept children with special needs. This finding suggests that parents with a special needs child have a drastically reduced opportunity to obtain child care. In fact, parents who are caring for a child with special needs may be forced to choose more flexible work options (i.e., taking a job that requires fewer hours of work or less concentration, or working in a position outside their area of expertise) because they are less likely than parents caring for a typical child to find appropriate child care (Rosenzweig et al., 2002). These parents are better able to manage their work and home lives if their children are cared for in appropriate child care facilities (Brennan, Bradley, Ama, & Cawood, 2003).

Access to community support services (including adequate respite and child care) may help parents with special needs children balance their work and life responsibilities (Brennan & Freeman, 1999; Brennan et al., 1999) and a lack of a support may be associated with increased strain (Abidin, 1990; Rosenweig et al., 2002). Furthermore, respite care may buffer the relationship between family demands and overall family functioning (Keller & Honig, 2004).

Self Care. Health-promoting self-care is defined as any behaviour a person may engage in to improve their general well-being and health and decrease their overall strain

(Acton, 2002). Examples of health promoting self-care actions include getting enough rest, eating nutritiously, and getting enough exercise. Parents caring for a child with special needs have little time to focus on their own health needs, which may negatively affect their overall physical and psychological health (Burton, Newsom, Schulz, Hirsch, & German, 1997). For example, parents caring for a special needs child experience less self-acceptance and have a lessened sense of purpose in life (Marks, 1998). However, using health promoting self care behaviour can mediate the relationship between overall caregiver strain and general well-being (Acton, 2002). Furthermore, training parents to use these health promoting behaviours may help them improve their overall functioning and well-being (Pender, 1996). Research shows that the more demanding the care is, the less likely it is that caregivers will have time to take care of their own health (Burton et al. 1997). Sisk (2000) noted that those participants (i.e., spouse caregivers) who were less burdened with caregiving responsibilities practiced more health-promoting behaviors. However, the moderating impact of health promoting self care on the relationship between family demands and role-specific strain has not been studied in families caring for a child with special needs. Therefore, I hypothesize that:

Hypothesis 8: Social support, access to community programs, and parental self care will act as non-work-based resources and buffer the negative relationship between family demands and non-work strain. More specifically, at high levels of each of these resources, parent strain and child difficulties will be low, regardless of the level of family demands. However, at low levels of each of these resources, parent strain and child difficulties will be high, especially when family demands are high.

Summary

Dissatisfaction with social support, along with the strain of caring for a child who has a physical disability, may result in frustration, feelings of incompetence in the parental role, and dysfunctional parent-child interactions (Dumas, 1986). In a qualitative study, Rosenzweig et al., 2002 found that the social, community, and organizational support parents caring for a child with special needs receives can help determine their overall well-being. However, this population is understudied and vulnerable, and more in-depth analyses are required to examine the influences on employment for caregivers of children with special needs (Brennan & Brannan, 2005). Please refer to Figure 1 for a complete framework of my hypotheses.

Method

Participants. Respondents consisted of 168 parents (141 females and 17 males; 10 did not indicate gender) caring for a child with any special need. The mean age of parents was 39.44 years ($SD = 7.93$), ranging from 21 to 63, and the mean age of the special needs child was 9.87 years ($SD = 6.14$), ranging from 1 to 37. Of the 168 children with special needs reported by parents, 111 of them were male and 53 of them were female. On a 5-point Likert-type scale (1=Mild to 5=Severe), parents rated their special needs child with an average severity of 3.12 ($SD = 1.21$). The majority of respondents were either married or common law (79.1%), while 20.9% were single, divorced, or widowed. Furthermore, 52.5% of respondents held a university degree or college diploma, 4.4% held a master's degree or PhD, and 21% had a high school diploma or less.

Parents were recruited from various organizations throughout Nova Scotia and Ontario that provide services to children with special physical, emotional, or developmental needs. These programs included a tertiary level mental health facility, a

children's rehabilitation program, parental and children support groups, schools designed for children with mental, physical, and behavioural problems, and early intervention centres. Furthermore, a snowballing technique was used through various online resources to recruit participants throughout Canada.

Procedure. The first phase of my study involved an environmental scan of the programs available across Canada. Using the internet and the contacts developed through recruitment of participants, I compiled a list of the organizational, community, and government programs most utilized by parents across Canada. Along with a thorough review of the relevant literature, this scan informed the development of a survey for the second phase of my study.

The second phase of my study involved the development of a survey designed for parents caring for a child with special needs, informed by the Environmental Scan. Parents of special needs children were surveyed about their (i) demographic information, (ii) role overload, (iii) financial stability, (iv) work difficulties, (v) burnout, (vi) child difficulties, (vii) parent strain, (viii) general strain, (ix) work-parent conflict, (x) work-spouse conflict, (xi) perceptions of organizational support, (xii) perceptions of job control, (xiv) level of self care, (xv) and social support.

The research study was advertised in various units at a health care facility in Nova Scotia and a health care centre in Ontario, online special needs forums and email distribution lists, and various community organizations mentioned above. Posters or online advertisements were placed in strategic positions in each participating program or organization. A handout was also made available, outlining the instructions to complete the survey online. Also, for participants who would rather complete a paper-and-pencil version of the survey, questionnaire packages were either mailed to the participant or

were made available for the participant to take home and complete at his/her leisure. Each package included a copy of the consent form, the survey, and a self-addressed stamped envelope for the participant to return the survey to the researcher. For organizations that communicate with parents via an email distribution list, emails were sent to all parents belonging to the organization. This email included a link to the online survey and a brief introduction to the research study. Participants were able to complete the online survey at their convenience (anonymously and confidentially) or request a hard copy of the survey.

Each department, organization, or online forum received information about the research study and had the contact information of the investigator in case they had any questions or problems (this information was also provided on the posters and information/consent sheets). Each program was provided with enough survey packages and handouts for each participant who wished to participate. Potential participants were informed that their participation was voluntary and that they may withdraw from the study at any time prior to submitting their completed survey. To ensure anonymity, no identifying information was attached to the surveys, either at the point of distribution or return. Overall, surveys were distributed to parents in a manner decided on by the program and the researcher. Every effort was made to ensure that the needs of the programs and participants were met throughout this research process.

Measures

Demographics. Participants were asked to provide details of their child's age, gender, and condition. Parents were also asked personal information (i.e., age, gender, marital status, and education level). Marital status was coded into 2 categories, single/divorced/widowed (rated 0) and married/common law (rated 1). Occupational information regarding their work status, possible reasons for not working outside the

home, family income, hours worked per week, and whether they work a stable or rotating shift was also gathered.

Role Overload. Parent's role overload was assessed using 2-items from Beehr, Walsh, and Taber's (1976) overload scale. Respondents used a 5-point Likert-type scale (1=Strongly Disagree to 5=Strongly Agree) to indicate the amount of overload they experience in their job (i.e., "I am given enough time to do what is expected of me in my job"; "It often seems like I have too much work for one person to do"). The correlation between the two items (after reverse coding the first item) was $r=.31$, $p<.001$.

Financial Stability. Overall financial stability was assessed using a 2-item measure informed by focus groups, interviews, and surveys conducted with parents of special needs in Nova Scotia (Day & Francis, 2006) and in Ontario. Respondents used a 5-point Likert-type scale (1=Strongly Disagree to 5=Strongly Agree) to indicate their level of financial stability (e.g., "I have financial stability"; "My job provides me with a good income"). The correlation between the two items was $r=.52$, $p<.001$.

Work Difficulties. Overall work difficulties was assessed using a 5-item measure informed by focus groups, interviews, and surveys conducted with parents of special needs in Nova Scotia (Day, Francis, Fearon, & Bourrassa, 2006) and in Ontario. This scale was also informed based on information gathered through the Environmental Scan, see Appendix B. This scale was developed to assess the extent to which parents caring for a special needs child experience difficulties at work; a measure of role-specific strain. Respondents used a 5-point Likert-type scale (1=Strongly Disagree to 5=Strongly Agree) to indicate the difficulties they experience at work (e.g., "I find it difficult to work and care for my child"; "I am forced to take work outside my area of expertise because of the strain of caring for my child"). A Principal Components Analysis indicated the presence

of 1 factor, accounting for 56% of the variance in the data. One item (i.e., “My job provides me with adequate medical benefits”) did not load highly on this factor and was reviewed further: because it had relatively low theoretical importance, it was deleted. All of the remaining items loaded relatively highly ($>.43$). Cronbach’s alpha for the 5-item scale was .80, and all item-total correlations were greater than $r=.49$.

Burnout. The Maslach Burnout Inventory-General Survey (Maslach, Jackson, & Leiter, 1996) was used to measure participants’ level of burnout; or work related role-specific strain. This scale consists of a total of 16-items categorized into three subscales: Emotional Exhaustion (5-items); Cynicism (5-items); and Professional Efficacy (6-items). Emotional exhaustion consists of feelings of being overextended and depletion of resources (e.g., “I feel emotionally drained from my work”); cynicism refers to having negative and callous feelings (e.g., “I have become more cynical about whether my work contributes anything”); professional efficacy refers to a sense of accomplishment and being confident in one’s abilities (e.g., “I am making an effective contribution to what this department does”) (Maslach, Schaufeli, & Leiter, 2001). The first two subscales consist of negative feelings, whereas the final subscale measures the frequency of positive feelings an individual has about himself or herself. Respondents were asked to respond using a 7-point Likert-type scale (1 = Never to 7 = Everyday). Cronbach’s alpha was .87 for emotional exhaustion, .85 for cynicism, and .69 for the professional efficacy. All item-total correlations were greater than $r=.57$ for emotional exhaustion, greater than $r=.49$ for cynicism, and greater than $r=.38$ for professional efficacy.

Child Difficulties. Overall child difficulties was assessed using a 10-item measure informed by focus groups, interviews, and surveys conducted with parents of special needs in Nova Scotia (Day et al., 2006) and in Ontario. This scale was also informed

based on information gathered through the Environmental Scan, see Appendix B. This scale was developed to assess the extent to which parents caring for a special needs child experience difficulties in caring for their child; or family related role-specific strain. Respondents used a 5-point Likert-type scale (1=Strongly Disagree to 5=Strongly Agree) to indicate the extent to which they found certain child difficulties (e.g., “the challenging behaviour of their special needs child”; “their lack of sleep as a result of their special needs child”) stressful. A Principal Components Analysis indicated the presence of 1 factor, accounting for 40% of the variance in the data. All of the items loaded highly ($>.50$). Cronbach’s alpha was .83, and all item-total correlations were greater than $r=.39$.

Parent Strain. Overall parental strain was assessed using a 14-item measure, modified from the Parental Strain Scale, developed by Schumm et al. (1986). Respondents used a 5-point Likert-type scale (1=Strongly Disagree to 5=Strongly Agree) to indicate the extent to which several factors were a concern to them (e.g., “the financial strain”; “problems with schooling or education”, etc.). Parent strain was used as a measure of family related role-specific strain. Cronbach’s alpha was .88, and all item-total correlations were greater than .38.

Work-Family Conflict. Work-spouse (6-items) and work-family (6-items) conflict were assessed using a modified version of the scales created by Day (1996) and reported in Day and Chamberlain (2006). These scales measure the extent to which individuals experience conflict between their work and spouse roles (e.g., “It is hard to balance my responsibilities as an employee and as a spouse”) and between their work and parent roles (e.g., “My work and parent responsibilities often conflict”). Items were measured on a 5-point Likert-type scale (1=Strongly Disagree to 5=Strongly Agree). Internal reliabilities of the overall measures were high, with a Cronbach’s alpha of $\alpha = .92$ for work-parent

conflict and $\alpha = .94$ for work-spouse conflict. All item-total correlations were greater than $r = .64$ for work-parent conflict and greater than $r = .55$ for work-spouse conflict.

Strain. Strain was assessed using the 20-item Symptoms Checklist (Bartone, Ursano, Wright, & Ingraham, 1989). This scale measures both the physical strain (e.g., feelings of 'general aches or pains', 'headaches', an 'upset stomach' and psychological symptoms (e.g., 'difficulty concentrating' and 'feeling down or blue or depressed'). Respondents used a 5-point Likert-type scale (1=Never to 7=Very often) to indicate how often they experienced each item (e.g., "General aches and pains"). Cronbach's alpha was $= .90$, and all item-total correlations were greater than $r = .29$.

Survey of Perceived Organizational Support. Perceived organizational support (11-items) was assessed using a modified version of the Survey of Perceived Organizational Support, developed by Eisenberger et al., (1986). Respondents used a 5-point Likert-type scale (1=Strongly Disagree to 5=Strongly Agree) to indicate the extent to which their organization values their contributions and cares about their well-being (e.g., "My organization fails to appreciate any extra effort from me"). Internal reliability of the overall measure was high, with a Cronbach's alpha of $\alpha = .94$, and all item-total correlations greater than $r = .71$.

Job Control. The degree of control that employees experience over their work environment was assessed using a 7-item modified version of the Job Control Scale created by Dwyer and Ganster (1991). Respondents used a 5-point Likert-type scale (1=Not at all to 5=A great deal) to indicate the extent to which they have control over various aspects of their work and job (e.g., "How much control do you have over how your work is evaluated?"). Cronbach's alpha was $.94$, and all item-total correlations were greater than $r = .42$.

Self Care. Self care was assessed using a 4-item measure informed by focus groups, interviews, and surveys conducted with parents of special needs in Nova Scotia (Day & Francis, 2006) and in Ontario. This scale was developed to assess the extent to which parents caring for a special needs child take time to care for themselves. Respondents used a 5-point Likert-type scale (1=Strongly Disagree to 5=Strongly Agree) to indicate how they use self care in their daily lives (e.g., “I have the opportunity to get out of the house”; “I make time for myself”). A Principal Components Analysis indicated the presence of 1 factor, accounting for 59% of the variance in the data. All of the items loaded highly ($>.71$). Cronbach’s alpha was .76, and all item-total correlations were greater than $r=.51$.

Internal Consistency

All of the reliabilities for the seventeen scales were high (see Table 1).

Table 1.

Scale descriptives and internal reliabilities

Variable	N	Number of items	Cronbach’s Alpha	Lowest Item-Total Correlation
Financial Stability	138	2	.52 ^a	--
Role Overload	100	2	.31 ^a	--
Child Difficulties	139	10	.83	.39
Parent Strain	139	14	.88	.38
Work Difficulties	103	5	.80	.49
Emotional Exhaustion	101	5	.87	.60
Cynicism	101	5	.87	.53
Professional Efficacy	101	6	.80	.38

Work Parent Conflict	105	6	.92	.65
Work Spouse Conflict	87	6	.94	.53
General Strain	139	20	.90	.28
Organizational Support	100	9	.94	.71
Job Control	104	7	.80	.39
Coworker Support	121	11	.94	.53
Spouse Support	131	11	.95	.56
Family/Friends Support	137	11	.93	.64
Self Care	139	4	.76	.51

^a Because there were only 2 items on this scale, this figure represents the correlation between the two items.

Note: The large discrepancy in the usable sample size for each scale is due to the differing employment and marital status of participants.

Results

Prior to testing the hypotheses, the data was screened for outliers, data entry errors, non-random missing data, and violations of assumptions including non-linearity, non-normality, multicollinearity, and heteroskedasticity. Frequencies and descriptive statistics were run using SPSS 14.0 for Windows. One univariate outlier, at a distance of greater than 4.0 standard deviations from the mean, was detected in the distribution of professional efficacy. However, it was not deleted because this variable was used in only a few analyses and the outlier would have minimum impact given the relatively large sample size. No other outliers or any violations of assumptions were identified. The zero-order correlations are presented in Table 2.

Table 2.
Means, Standard Deviations and Correlations among the Study Variables

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Child Age	9.87	6.14	--												
2. Child Gender	1.32	.47	-.04	--											
3. Symptom Severity	3.12	1.21	.35 ^b	-.12	--										
4. Marital Status	2.11	.49	.10	-.09	.06	--									
5. Employment Status	1.86	.83	-.01	.18 ^a	.13	-.08	--								
6. # of Work Hours	33.70	15.24	-.13	-.13	-.12	.03	.57 ^b	--							
7. Org. Programs	2.3	.95	.17	.04	-.02	-.13	.06	.04	--						
8. Community Programs	2.47	1.08	-.19 ^a	-.05	-.15	-.00	-.28 ^b	.11	.13	--					
9. Financial Stability	3.14	1.16	.09	-.00	-.13	.01	-.24 ^b	.16	.32 ^b	.32 ^b	--				
10. Role Overload	2.71	.92	-.07	-.04	.04	.14	-.04	.22 ^a	-.04	-.11	-.19	--			
11. Child Difficulties	3.05	.90	.01	-.01	.31 ^b	.10	.15	-.02	.16	-.04	-.14	.18	(.83)		
12. Parent Strain	2.66	.82	.21 ^a	-.06	.37 ^b	.09	.11	-.12	-.02	.33 ^b	-.31 ^b	.04	.47 ^b	(.88)	
13. Work Difficulties	2.79	1.00	-.04	-.03	.27 ^b	.16	.23 ^a	-.18	-.30 ^b	-.27 ^b	-.61 ^b	.24 ^a	.50 ^b	.45 ^b	(.80)
14. Emotional Exhaustion	3.55	1.50	-.05	-.02	.10	.21 ^a	-.24 ^a	.10	-.25 ^a	-.15	-.37 ^b	.39 ^b	.34 ^b	.30 ^b	.51 ^b
15. Cynicism	2.62	1.48	-.16	-.01	.01	-.05	-.16	.11	-.26 ^b	-.10	-.33 ^b	.19	.18	.16	.40 ^b
16. Professional Efficacy	6.02	.98	.11	-.03	.07	.10	.03	-.05	-.01	-.22 ^a	.05	-.02	-.06	.05	-.16
17. Work Parent Conflict	3.31	.99	.08	.03	.11	.14	-.13	.08	-.18	-.15	-.35 ^b	.40 ^b	.46 ^b	.41 ^b	.57 ^b
18. Work Spouse Conflict	2.66	.98	.08	.04	.11	-.05	-.02	.11	-.13	.00	-.17	.40 ^b	.37 ^b	.23 ^a	.49 ^b
19. General Strain	2.49	.70	.09	-.07	.25 ^b	.10	.15	-.18	-.08	-.28 ^b	-.38 ^b	.22 ^a	.46 ^b	.58 ^b	.51 ^b
20. Org. Support	3.71	.87	.16	-.03	-.03	-.06	-.05	-.08	.26 ^b	.20	-.41 ^b	-.51 ^b	-.15	-.04	-.49 ^b
21. Job Control	3.02	.84	.09	-.03	-.01	-.11	.05	-.04	.18	.11	.33 ^b	-.32 ^b	-.17	-.22 ^a	-.37 ^b
22. Coworker Support	3.01	1.10	.12	-.03	.05	-.02	-.02	.15	.29 ^b	.32 ^b	.36 ^b	-.29 ^b	.03	-.09	-.39 ^b
23. Spouse Support	3.10	1.10	-.19 ^a	-.13	-.20 ^a	-.01	-.06	-.13	.08	.30 ^b	.38 ^b	-.20	-.17 ^a	-.21 ^a	-.41 ^b
24. Fam/Friend Support	3.00	1.05	-.09	-.06	-.09	-.05	-.16	-.03	.22	.31 ^b	.38 ^b	-.17	-.18 ^a	-.27 ^b	-.41 ^b
25. Self Care	3.03	1.00	.16	-.04	-.26 ^b	-.02	-.30 ^b	.10	.14	.45 ^b	.47 ^b	-.15	-.39 ^b	-.44 ^b	-.61 ^b

	14	15	16	17	18	19	20	21	22	23	24	25
14. Emotional Exhaustion	(.87)											
15. Cynicism	.57 ^b	(.87)										
16. Professional Efficacy	-.15	-.24 ^a	(.80)									
17. Work Parent Conflict	.42 ^b	.20 ^a	-.07	(.92)								
18. Work Spouse Conflict	.28 ^b	.13	-.06	.72 ^b	(.94)							
19. General Strain	.54 ^b	.36 ^b	-.07	.46 ^b	.28 ^a	(.90)						
20. Org. Support	-.50 ^b	-.64 ^b	.19	-.22 ^b	-.25 ^a	-.28 ^b	(.94)					
21. Job Control	-.41 ^b	-.33 ^b	.15	.23 ^b	-.16	-.28 ^b	.55 ^b	(.80)				
22. Coworker Support	-.45 ^b	-.39 ^b	.04	-.21 ^a	-.24 ^a	-.27 ^b	.55 ^b	.33 ^b	(.94)			
23. Spouse Support	-.39 ^b	-.39 ^b	.05	-.32 ^b	-.29 ^b	-.35 ^b	.45 ^b	.20	.44 ^b	(.95)		
24. Fam/Friend Support	-.33 ^b	-.34 ^b	-.01	-.28 ^b	-.23 ^a	-.34 ^b	.45 ^b	.24 ^a	.59 ^b	.74 ^b	(.93)	
25. Self Care	-.44 ^b	-.31 ^b	.18	-.40 ^b	-.33 ^b	-.49 ^b	.34 ^b	.26 ^a	.29 ^b	.29 ^b	.37 ^b	(.76)

Employment Patterns.

In order to examine the employment patterns of parents caring for special needs children, a chi-square goodness of fit analysis was conducted to assess whether the employment patterns of parents with special needs children differed substantially from employment patterns in the general population in Canada (i.e., Hypothesis 1). I hypothesized that parents caring for a child with special needs would be less likely to be employed full-time than part-time or not at all. Because there were only 17 men in our sample, to conduct the analysis without violating the assumptions of the chi-square goodness of fit test, we compared mothers of special needs children to women of working age in general. Based on information gathered through Statistics Canada, I determined that of the women eligible to be in the Canadian workforce, 5,982,200 are working full-time, 2,084,300 are working part-time, and 475,500 are unemployed (Statistics Canada, 2007). In contrast, in our sample, 55 mothers were employed full-time, 42 were employed part time, and 43 were unemployed. The employment patterns (full-time employment, part-time, and not working) of mothers of a special needs child differed significantly from that of Canadian working women, $\chi^2 (2, N = 140) = 239.77, p < .001$. In general, women in Canada are more likely to work full-time and less likely to work part-time or not at all than are mothers caring for a special needs child (see Table 3). As a more conservative test, we also compared our entire sample with the general Canadian population (including men and women). In the general labour force in Canada, 13,803,000 people were employed full-time, 3,063,000 were employed part-time, and 1,079,000 were not employed (Statistics Canada, 2007). In contrast, in our sample, 67 participants were employed full time, 46 were employed part time, and 45 were unemployed. The

difference between employment patterns in our sample and that of the general population was significant $\chi^2 (2, N = 158) = 74.69, p < .001$ (see Table 4).

Table 3.

Observed and expected frequencies for employment patterns of mothers of special needs children and other women in Canada.

Employment Status	Chi-Square	Observed N	Expected N
Full-time		55	97.6
Part-time		42	34.5
Not working		43	7.9
Total	176.87**	140	
** $p < .001$			

Table 4.

Observed and expected frequencies for employment patterns of mothers and fathers of special needs children and other women and men in Canada.

Employment Status	Chi-Square	Observed N	Expected N
Full-time		67	131.3
Part-time		46	19.4
Not working		45	37.8
Total	74.69**	158	
** $p < .001$			

Finally, because employment rates of all women tend to be higher than the employment rate for mothers only in the general Canadian population (Statistics Canada), we compared our employment patterns with the reported employment rates of mothers with one or more children living at home in Canada. However, we combined the full-time and part-time employment categories from our sample into an employed category to

match the data that was available through Statistics Canada (see Table 5). Of the Canadian mothers in the labour force, 3,555,765 were employed while 229,405 were not employed. The employment patterns of mothers of a special needs child differed significantly from that of Canadian mothers in general, $\chi^2 (2, N = 140) = 148.62, p < .001$.

Table 5.

Observed and expected frequencies for employment patterns of mothers of special needs children and mothers with one or more children in Canada.

Employment Status	Chi-Square	Observed N	Expected N
Employed		97	131.5
Not Employed		43	8.5
Total	148.62**	140	
** $p < .001$			

Of those parents who were not working, 55.6% reported they are unable to work because of their child's condition, while 17.8% reported they are currently looking for work. Furthermore, 15.6% of parents reported that they are unable to work because of their own health conditions, whereas 6.7% reported they are unable to work for 'other' reasons. Therefore, substantially more parents are unable to work because of their child's condition compared to any other reason.

Of the mothers of children with a special needs child who have a spouse, 79% reported their spouse was employed outside of the home. Of the fathers who have a spouse, only 50% reported their spouse was employed outside of the home. Therefore, it is more likely for a mother to report her spouse working outside of the home than a father.

Demands – Domain specific strain

To test Hypotheses 2 to 5, the beta weights generated through regression analyses were used. In Hypothesis 2, I hypothesized that work demands (i.e., role overload and number of hours worked) will be significantly associated with work-related role-specific strain (i.e., work difficulties and burnout). To test Hypothesis 2, burnout and work difficulties were regressed on role overload and work hours. As expected, role overload was significantly related to work difficulties ($\beta = .23, p < .05$) and emotional exhaustion ($\beta = .35, p < .001$). Furthermore, more hours worked outside the home was related to fewer work difficulties ($\beta = -.24, p < .05$); see Table 7.

In Hypothesis 3, I hypothesized that family demands (i.e., child age, severity of symptomology, marital status, and financial stability) would be significantly related to family-related role-specific strain (i.e., parent strain and child difficulties). To test Hypothesis 3, a regression was conducted between family demands and family-related role-specific strain. Child age ($\beta = .14, p < .10$), severity of symptomology ($\beta = .29, p < .01$), and marital status ($\beta = -.25, p < .01$) were related to parent strain. The negative relationship between marital status and parent strain indicates that single parents are more likely to report higher levels of parent strain (as single parents are coded as “0” and married/common law parents are coded as “1”). Severity of symptomology was the only family demand to be uniquely related to child difficulties ($\beta = .34, p < .01$), see Table 8.

In Hypothesis 4, I hypothesized that work-related role-specific strain (i.e., work difficulties and burnout) would be significantly related to between role strain (i.e., work-parent conflict, work-spouse conflict, and general strain). To test Hypothesis 4, a regression was conducted between work-related role-specific strain and between role strain. Work difficulties and emotional exhaustion were positively related to work-parent

conflict ($\beta = .47, p < .001$ and $\beta = .30, p < .01$, respectively), work-spouse conflict ($\beta = .30, p < .01$ and $\beta = .26, p < .05$, respectively), and general strain ($\beta = .30, p < .01$ and $\beta = .37, p < .001$ respectively), see Table 6.

In Hypothesis 5, I hypothesized that family-related role-specific strain (i.e., parent strain and child difficulties) would be significantly related to between role strain (i.e., work-parent conflict, work-spouse conflict, and general strain). To test Hypothesis 5, a regression was conducted between family-related role-specific strain and between role strain. Child difficulties and parent strain were positively related to work-parent conflict ($\beta = .33, p < .01$ and $\beta = .23, p < .05$ respectively) and general strain ($\beta = .25, p < .01$ and $\beta = .46, p < .001$ respectively). Child difficulties was also positively related to work-spouse conflict ($\beta = .38, p < .01$), see Table 7.

Table 6.

Summary of simple regression analysis for work-related strain and between-role conflict/strain.

Variable	Work-Parent Conflict		Work-Spouse Conflict		General Strain	
Step	β	ΔR^2	β	ΔR^2	β	ΔR^2
1. Predictors		.63 ^c		.45 ^c		.60 ^c
Work Difficulties	.47 ^c		.30 ^b		.30 ^b	
Emotional Exhaustion	.30 ^b		.26 ^a		.37 ^c	
Cynicism	-.09		-.06		.04	
Professional Efficacy	.02		.02		.04	
Total R ²		.63 ^c		.45 ^c		.60 ^c

^a $p < .05$, ^b $p < .01$, ^c $p < .001$

Table 7.

Summary of simple regression analysis for family-related strain and between-role conflict/strain.

Variable	Work-Parent Conflict		Work-Spouse Conflict		General Strain	
Step	β	ΔR^2	β	ΔR^2	β	ΔR^2
1. Predictors		.50 ^c		.37 ^b		.62 ^b
Child Difficulties	.33 ^b		.38 ^b		.25 ^b	
Parent Strain	.23 ^a		-.02		.46 ^c	
Total R^2		.50 ^c		.37 ^b		.62 ^b

^a $p < .05$, ^b $p < .01$, ^c $p < .001$

In Hypothesis 6, I hypothesized that child difficulties would account for variance in between-role strain, over and above the variance accounted for by parent strain. In order to test Hypothesis 6, a hierarchical regression was conducted for each of the three outcome variables (i.e., work-parent conflict, work-spouse conflict, and general strain; see Table 8). In each regression, the parent strain predictor was entered on the first step and child difficulties were entered on the second step. Parent strain accounted for a significant amount of variance in work-parent conflict ($R^2 = .16$, $\beta = .40$, $p < .001$). When entered on the second step, child difficulties accounted for a significant increase in work-parent conflict ($R^2_{\text{change}} = .08$, $\beta = .33$, $p < .001$). Parent strain did account for a significant amount of variance in work-spouse conflict ($R^2 = .05$, $\beta = .23$, $p < .041$). When entered on the second step, child difficulties accounted for a significant increase in work-spouse conflict ($R^2 = .09$, $\beta = .38$, $p < .005$). Parent strain accounts for a significant amount of variance in general strain ($R^2 = .33$, $\beta = .58$, $p < .001$). When entered on the second step, child difficulties accounted for a significant increase in general strain ($R^2_{\text{change}} = .05$, $\beta = .25$, $p < .005$).

Table 8.

Summary of Hierarchical Regression Analysis for parent strain and child difficulties on work-parent conflict (N=90), work-spouse conflict (N=76), and general strain (N=128).

	Work-Parent Conflict		Work-Spouse Conflict		General Strain	
	β	ΔR^2	β	ΔR^2	β	ΔR^2
<i>Step 1:</i>		.17 ^c		.05 ^a		.33 ^c
Parent Strain	.41 ^c		.23 ^a		.58 ^c	
<i>Step 2:</i>		.08 ^c		.09 ^b		.05 ^b
Parent Strain	.23		-.17		.46 ^c	
Child Difficulties	.33 ^c		.38 ^b		.25 ^b	
Total R ²		.25 ^c		.14 ^b		.38 ^b

^a $p < .05$, ^b $p < .01$, ^c $p < .001$

Resources

Moderated Regression

To address Hypothesis 7 and 8, multiple moderated hierarchical regression analyses were conducted in order to examine the interaction effects of resources and work and non-work demands on role-specific strain outcomes (i.e., work difficulties, emotional exhaustion, cynicism, professional efficacy, parent strain, and child difficulties). The procedures for moderated regression analysis recommended by Aiken and West (1991) were used. Prior to analysis, all of the variables were standardized and interaction terms were created between the predictors (i.e., demands) and the moderators (i.e., resources; see Tables 9 and 10).

The standardized predictor scales were entered in the first step, the standardized resources scales (i.e., moderators) were entered in the second step, and the interaction terms (created from the standardized predictor and moderator) were entered in the third

step. A more liberal ($p < .10$) was used for the moderated regressions because of the low sample size in the study. The significant interactions are discussed below.

In the first moderated regression analysis, work demands were entered in the first step, work resources were entered into the second step, and the interactions between all work demands and resources were entered into the third step. The work demands (i.e., predictors) accounted for a significant amount of variance in the first step for the work difficulties ($R^2 = .09, p < .05$) and emotional exhaustion ($R^2 = .12, p < .01$) criterion. The moderators accounted for a significant amount of the variance in the second step for work difficulties ($R^2_{\text{change}} = .18, p < .001$); emotional exhaustion ($R^2_{\text{change}} = .16, p < .001$); and cynicism ($R^2_{\text{change}} = .43, p < .001$). The interactions between the work demands and work resources did not account for a significant amount of variance in either work difficulties ($R^2_{\text{change}} = .05, p > .10$) or exhaustion ($R^2_{\text{change}} = .02, p > .10$), but they accounted for a significant amount of additional variance in the third step for cynicism ($R^2_{\text{change}} = .08, p < .05$), and professional efficacy ($R^2_{\text{change}} = .12, p < .05$). All plots were generated following the procedures suggested by Aiken and West (1991). The predictor and moderator values for each interaction were plotted against the dependent variable at 1 standard deviation above and below the mean.

More specifically, the relationship between role overload and cynicism was moderated by organizational support ($\beta = .30, p < .01$). An examination of the simple effects by a procedure outlined in Aiken and West (1991) revealed that parents with low organizational support report higher levels of cynicism when they experience low role overload ($\beta = .51, p < .001$). However, parents with high organizational support report similar levels of cynicism, regardless of their reported level of overload ($\beta = .02, p > .05$); see Figure 2.

Table 9.

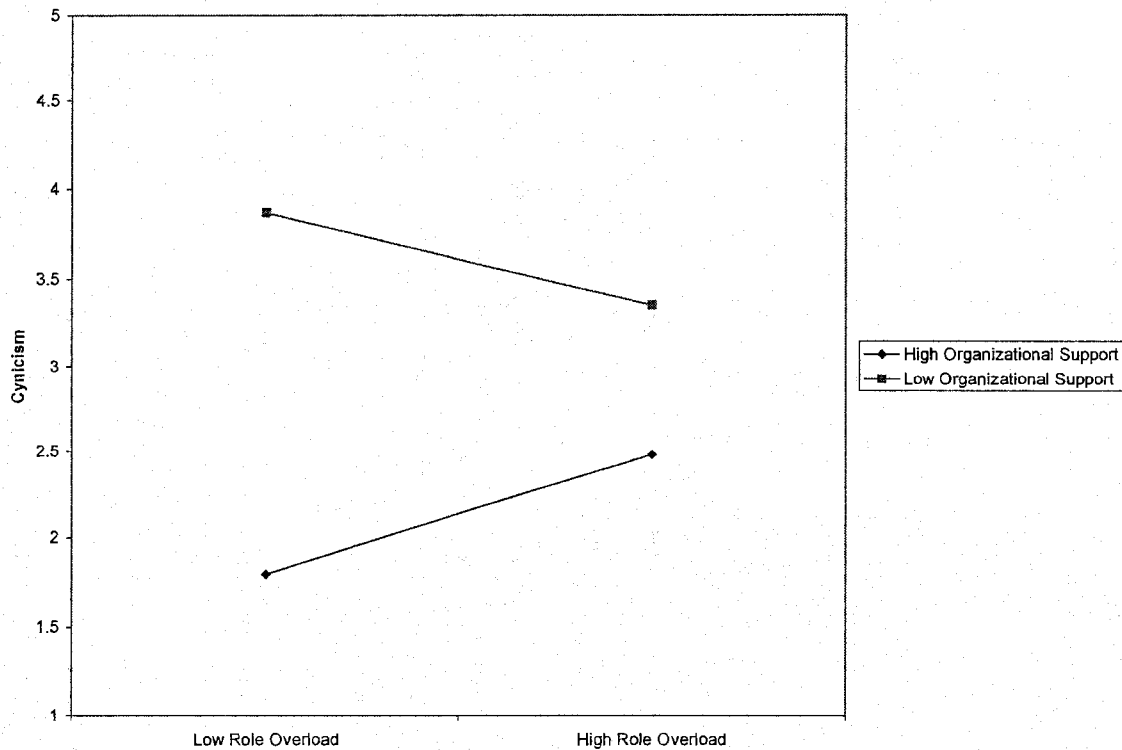
Moderated Regression of Work Demands X Organizational Support and Job Control on Strain Outcomes

Variable	Work Difficulties		Emotional Exhaustion		Cynicism		Professional Efficacy	
Step	β	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2
1. Predictors		.09 ^b		.12 ^c		.03		.04
# of Hours Worked	-.24 ^b		.02		.04		-.03	
Role Overload	.23 ^b		.35 ^d		.15		.06	
2. Moderator		.18 ^d		.16 ^d		.43 ^d		.05
# of Hours Worked	-.23 ^b		.03		.06		-.03	
Role Overload	-.01		-.13		-.22 ^b		.17	
Organizational Support	-.38 ^c		-.33 ^c		-.74 ^d		.14	
Job Control	-.14		-.17		-.03		.14	
3. Interactions		.05		.02		.08 ^c		.12 ^b
# of Hours Worked	-.22 ^b		.02		.06		-.11	
Role Overload	-.07		.10		-.30 ^c		.17	
Organizational Support	-.50 ^d		-.41 ^c		-.91 ^d		.15	
Job Control	-.07		-.15		.04		.11	
Hours Worked X Organizational Support	.13		.05		.03		.22 ^a	
Hours Worked X Job Control	-.07		.02		-.06		.22 ^a	
Role Overload X Organizational Support	.14		.13		.30 ^c		-.10	
Role Overload X Job Control	.09		-.01		.01		-.04	
Total R ²		.32		.30		.54 ^c		.17 ^b

^a $p < .10$; ^b $p < .05$; ^c $p < .01$; ^d $p < .001$

Note: N=91 for all dependent variables

Figure 2. Organizational support moderating Role Overload and Cynicism



Organizational support also moderated the relationship between the number of hours worked and professional efficacy ($\beta = .23, p < .10$). An examination of the simple effects by a procedure outlined in Aiken and West (1991) revealed that parents with high organizational support report similar levels of professional efficacy regardless of the number of hours they work ($\beta = .29, p > .05$). However, parents with low levels of organizational support report higher levels of professional efficacy, especially when they worked fewer hours ($\beta = -.40, p < .05$); see Figure 3.

Similarly, job control moderated the relationship between the number of hours worked and professional efficacy in the same manner ($\beta = .22, p < .10$). An examination of the simple effects by a procedure outlined in Aiken and West (1991) revealed that parents reported similar levels of professional efficacy regardless of the number of hours

they work per week when they experience high job control ($\beta = .19, p > .05$). However, when parents experience low levels of job control, they reported higher levels of professional efficacy, especially when they worked fewer hours per week ($\beta = -.37, p < .05$); see Figure 4.

Figure 3. Organizational Support moderating Number of Hours Worked and Professional Efficacy.

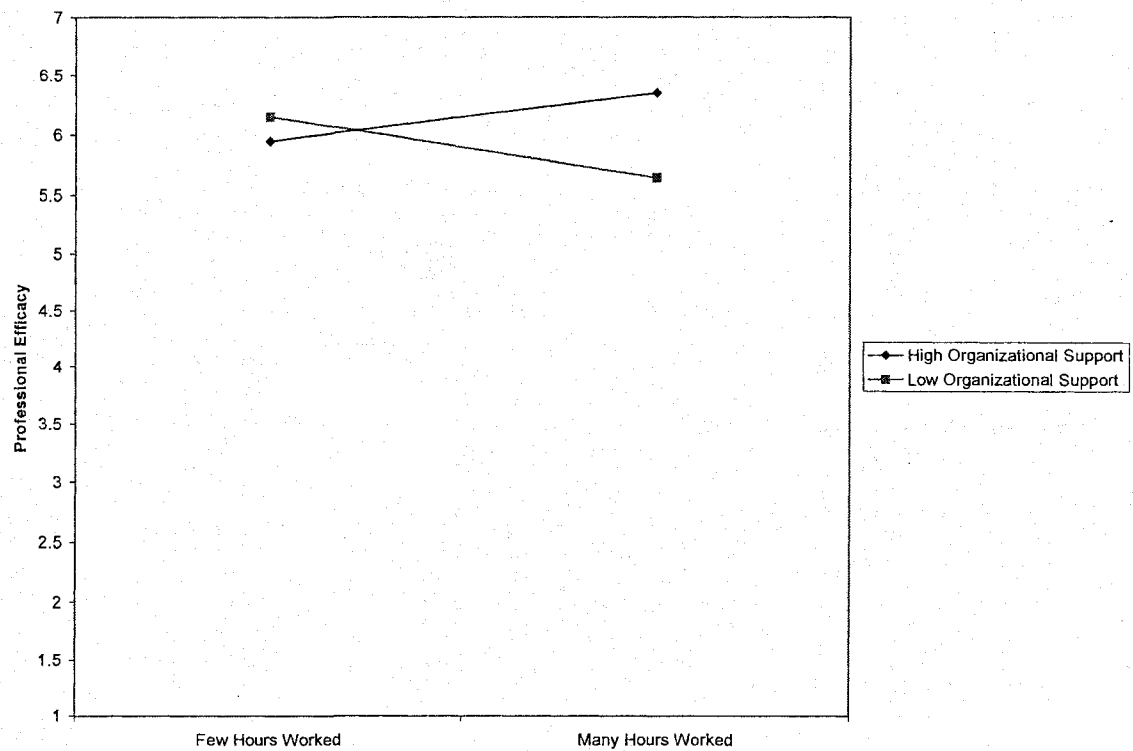
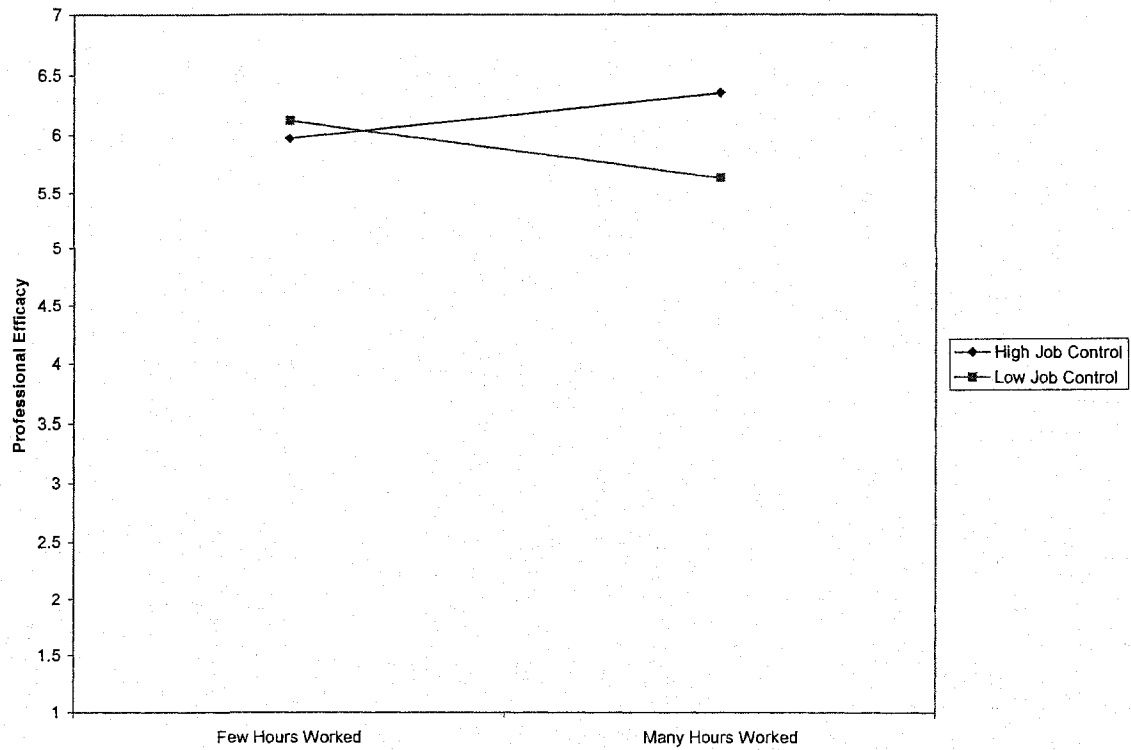


Figure 4. Job Control moderating Number of Hours Worked and Professional Efficacy.



In the second moderated regression, each of the family demands were entered into the first step, the non-work resources were entered into the second step and the interactions between these demands and resources were entered into the third step. The family demands (i.e., predictors) accounted for a significant amount of variance in the first step for child difficulties ($R^2 = .11, p < .05$) and parent strain ($R^2 = .22, p < .001$). The non-work resources (i.e., moderators) accounted for a significant amount of the variance in the 2nd step for child difficulties ($R^2_{change} = .11, p < .05$); parent strain ($R^2_{change} = .11, p < .01$). The interactions between the family demands and non-work resources accounted for a significant amount of additional variance in the third step for child difficulties ($R^2_{change} = .19, p < .05$), but not parent strain ($R^2_{change} = .09, p > .10$).

Parent Strain. The relationship between the age of the special needs child and parent strain was moderated by parental self care. The interaction between child age and self care accounted for a significant amount of additional variance in parent strain, ($\beta = -.24, p < .10$). An examination of the simple effects by a procedure outlined in Aiken and West (1991) revealed that parents with high levels of self care experienced similar parent strain, regardless of child age ($\beta = .09, p > .05$). However, parents who exhibited lower levels of self care reported higher levels of parent strain, especially when they were caring for an older child ($\beta = .40, p < .01$); see Figure 5.

Table 10. *Moderated Regression of Family Demands X Family Based Resources of Parent Strain and Child Difficulties*

Variable	Child Difficulties		Parent Strain	
Step	β	ΔR^2	β	ΔR^2
1. Predictor		.11 ^b		.22 ^d
Age of Child	-.10		.14	
Severity of Symptomology	.34 ^c		.29 ^c	
Marital Status	.02		-.09	
Financial Stability	.06		.04	
2. Moderator		.11 ^b		.11 ^c
Age of Child	.00		.21 ^b	
Severity of Symptomology	.23 ^b		.20 ^b	
Marital Status	.01		-.15 ^a	
Financial Stability	.10		-.09	
Self Care	.37 ^c		-.33 ^c	
Spouse Support	-.03		.08	
Family/Friend Support	-.09		-.10	
Community Programs	.15		-.08	
3. Interactions		.19 ^b		.09

Age of Child	.06	.30 ^c
Severity of Symptomology	.23 ^b	.17 ^a
Marital Status	-.07	-.20 ^b
Financial Stability	.07	-.07
Self Care	-.46	.49 ^a
Spouse Support	.58 ^a	.56 ^a
Family/Friend Support	-.61 ^a	-.22
Community Programs	-.02	-.26
Severity X Self Care	-.00	.08
Severity X Spouse Support	.16	-.07
Severity X Family Support	-.14	.17
Severity X Community Programs	.18	-.08
Age X Self Care	-.06	-.24 ^a
Age X Spouse Support	.14	.09
Age X Family Support	-.14	-.14
Age X Community Programs	.09	.16
Marital X Self Care	.08	.10
Marital X Spouse Support	-.74 ^b	-.30
Marital X Family Support	.68 ^a	-.02
Marital X Community Programs	.10	.22
Fin. Stability X Self Care	-.12	-.09
Fin. Stability X Spouse Support	-.11	-.06
Fin. Stability X Family Support	-.19	-.06
Fin. Stability X Community Programs	-.19 ^a	-.02
Total R ²	.26 ^b	.29 ^b

^a $p < .10$; ^b $p < .05$; ^c $p < .01$; ^d $p < .001$

Note: N=125 for both dependent variables

Child Difficulties. The relationship between financial stability and child difficulties was moderated by access to community programs. The interaction between financial stability and community programs accounted for a significant amount of additional variance in child difficulties, ($\beta = -.19, p < .10$). An examination of the simple effects by a procedure outlined in Aiken and West (1991) revealed that parents who felt they had high access to community programs were more likely to report increased child

difficulties, especially when they were experiencing low financial stability ($\beta = -.37, p < .05$). However, parents who reported they had little access to community programs reported similar levels of child difficulties, regardless of their level of financial stability ($\beta = .21, p > .05$); refer to Figure 6.

Similarly, family/friend support moderated the relationship between the marital status and child difficulties in the same manner ($\beta = .68, p < .05$). Marital status was coded into 2 categories: 0=single, separated, divorced, or widowed and 1=married/common law. As illustrated in Figure 7, there was no difference in reported child difficulties for married/common law parents, regardless of the level of family/friend support. However, single/widowed/divorced parents with high levels of family/friend support reported fewer child difficulties ($\beta = -.30, p < .05$) than married parents ($\beta = -.17, p > .05$).

Figure 5. Self Care moderating Child Age and Parent Strain.

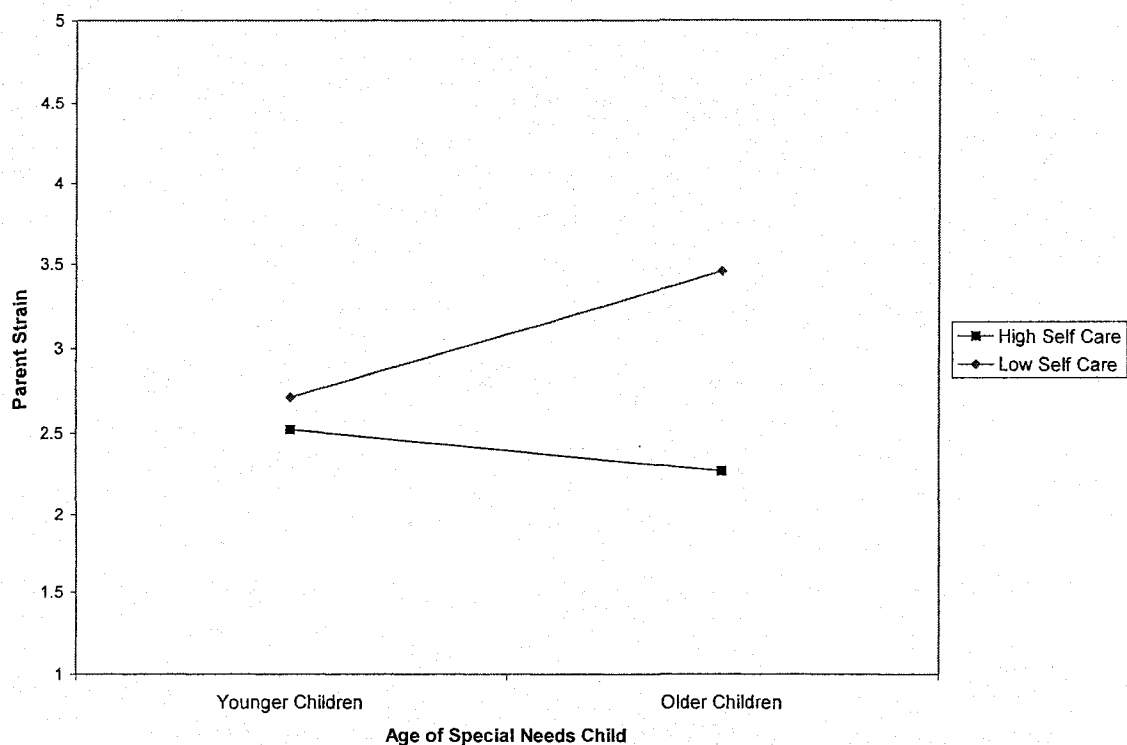


Figure 6. Access to Community Programs moderating Financial Stability and Child Difficulties.

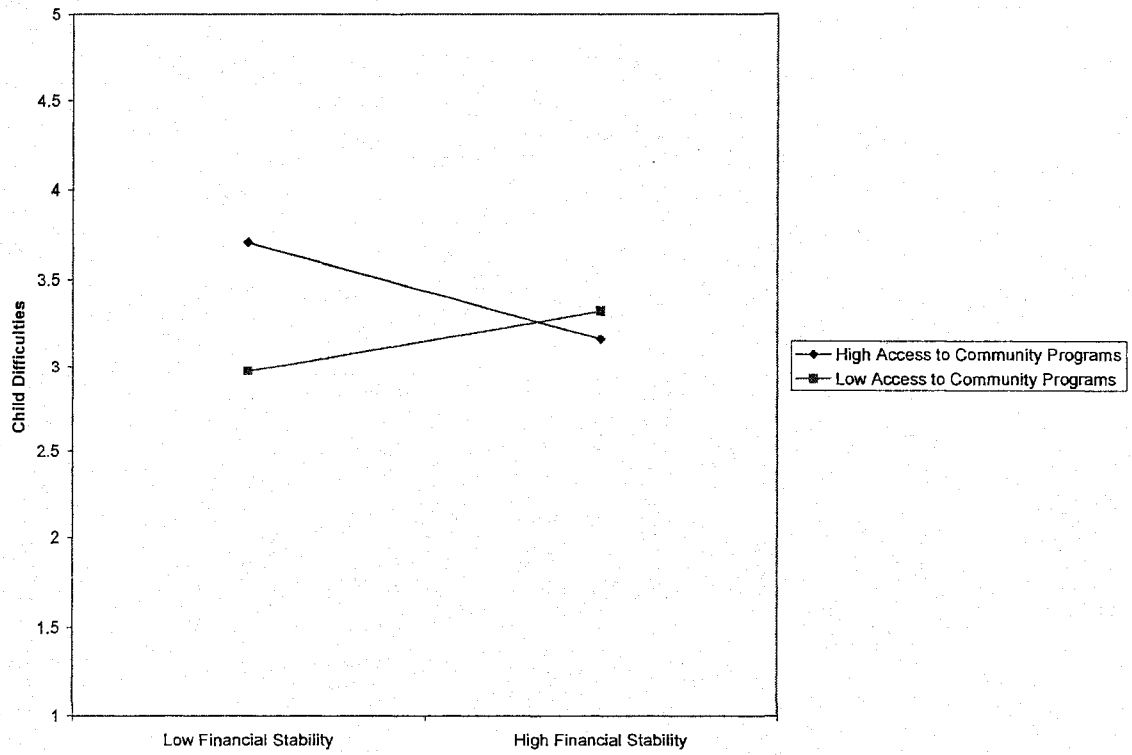
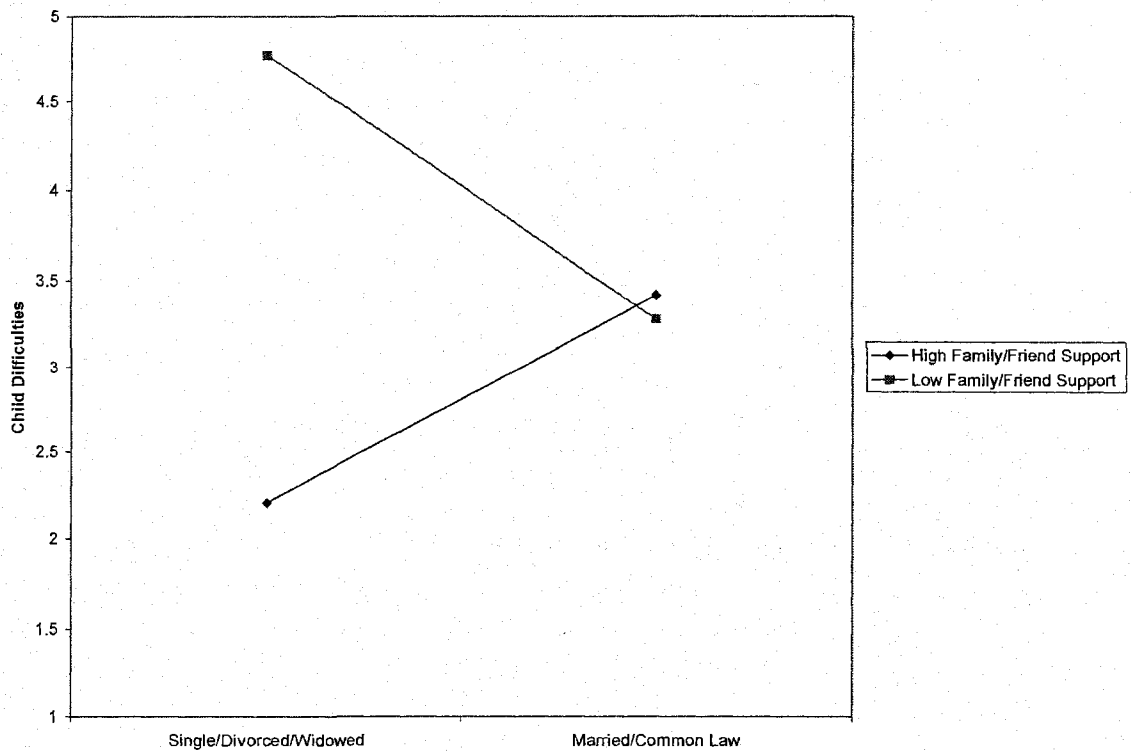


Figure 7. Family/Friend Support moderating Marital Status and Child Difficulties.



Discussion

The primary purpose of the present study was to examine the employment patterns of parents with special needs children in Canada as well as the impact of work and non-work demands and resources on their health and strain outcomes. Parents of children with special needs may require supports to maintain an effective work and family life. The design of a comprehensive survey instrument, as well as several scales (i.e., Child Difficulties, Work Difficulties, Self Care, and Financial Stability), specifically for use with parents caring for a special needs child, provided a valuable insight into the lives of these parents in Canada.

Summary of Results

Parents of special needs children were less likely to maintain full-time employment outside of the home than parents caring for typical children in the general Canadian population. Approximately 60% of the parents surveyed were either employed part-time or were unemployed, which is consistent with past research. For example, Rosenzweig, Brennan, and Ogilvie (2002) found that parents of special needs children were likely to take a job that required fewer hours outside of the home, and that may not be in line with the intended career path. Furthermore, 27% of parents caring for a special needs child have had their employment terminated due to the increased demands of caring for their child and 17% are unemployed (Rosenzweig & Huffstutter, 2004). The majority of parents in our study indicated that they were employed part time or not at all as a result of caring for their special needs child. Furthermore, many of these parents indicated that their current employment status is below their optimal level of employment. Many researchers report that employment can produce positive health outcomes for employees. For example, a cross sectional study conducted by Wanberg et al., 2001, found that people who are unemployed tend to report lower psychological and physical health than employed people. Although this study did not involve parents caring for a child with special needs, it is likely that the benefits of work would be similar.

There is a strong association between work demands and role-specific work-related strain in parents with special needs children. Similarly, there is a strong association between family demands and family-related strain outcomes. These results are consistent with previous research, which indicates that, in general, reports of severity of symptomology are significantly correlated with strain that is specific to children and family (Piechowski, 1992).

It is possible that demands in one role may impact well-being in another role. Therefore, in order to test these cross-domain effects I conducted several post hoc analyses involving simple regressions. Interestingly, in the present study, all of the family demands (i.e., severity of child symptomology, financial stability, marital status, and child age) are predictive of work-related strain (i.e., work difficulties, emotional exhaustion, and cynicism). However, work demands are not predictive of family-related strain, indicating that cross domain effects exist only for family demands. This finding is interesting in that, family demands are significantly associated with both work and family related strain, whereas work demands are strictly associated with work-related strain. Therefore, family interfering with work may be a more pertinent form of conflict for these parents than work interfering with family.

Therefore, in families caring for a child with special needs, work characteristics seem relatively insignificant when examining the domain-specific strain that is associated with a family's overall levels of strain. In families with typical children, past research has found the opposite result. That is, these families tend to report more work interfering with family compared to family interfering with work (Frone et al., 1992 and Gutek et al., 1991). These researchers suggest this result is because, for these families, work demands may be easier to quantify. A possible explanation for this discrepancy in results between parents caring for a child with special needs and parents caring for typical children may be that parents with special needs children encounter unique demands and may be more likely to leave an organization and consequently fail to experience the common work stressors experienced by parents of typical children. Therefore, the relationship between work demands and family-related strain is diminished.

Wanamaker and Glenwick (1998) argued that measures designed to assess strain in families with typical children do not capture the full scope of strain experienced by parents with special needs children. Therefore, they called for the development of measures designed specifically for populations experiencing special needs. The present study provides support for this argument because additional variance in both work-parent and work-spouse conflict and general strain was accounted for by a measure designed specifically for parents caring for a child with special needs, the Child Difficulties Scale. This scale included items that were developed based on the specific demands placed on families caring for a child with special needs. Therefore, it is clear that measures designed specifically for the demands faced by parents caring for a special needs child are needed to adequately account for the between-role strain experienced by these parents. General strain measures are inadequate to explain the full scope of strain experienced by these parents.

The relationships between either work or family demands and role-specific strain experienced by parents caring for a child with special needs was moderated by some of the hypothesized resources; organizational support, job control, community programs, and self care. In terms of the work-related demands, the relationship between role overload and cynicism was moderated by organizational support. That is, parents experiencing high levels of work role overload, report low levels of cynicism if they have high levels of organizational support. However, parents with low work role overload report higher levels of cynicism, even with high organizational support. Parents who report low levels of organizational support experience higher levels of cynicism, regardless of their level of role overload. Therefore, organizational support has a buffering effect against the negative impact of cynicism on parents with special needs

children, only when these parents are experiencing high work role overload. This is somewhat consistent with the findings of Duxbury and Higgins (2003) who found that high levels of organizational support are related to lower levels of burnout; however, they did not test the moderating effects of organizational support. A possible explanation for this counterintuitive result is that parents caring for a child with special needs feel the positive effects of organizational support more when they are overloaded at work, a feeling that may be similar to their home life. These parents are likely accustomed to functioning at a high level under high levels of demands and feeling they are appreciated by their organization may be especially crucial for these parents specifically.

Both organizational support and job control moderated the relationship between the number of hours worked by a parent with a special needs child and professional efficacy. Parents with high levels of organizational support or job control reported similar levels of professional efficacy, regardless of the number of hours they work per week. However, parents with low levels of organizational support or job control report high levels of professional efficacy, especially when they work a fewer hours outside of the home. This is an important finding as parents caring for a child with special needs are generally under-employed and it is imperative that supports be put in place to help this population maintain their optimal level of employment. If these parents feel supported by their organization or have perceived control over their jobs, they are more likely to experience high levels of professional efficacy, especially when they work fewer hours per week.

In addition to these work-based resources, there were also important family based moderators. Parental self care moderated the relationship between age of the special needs child and parent strain. Parents who reported low levels of self care also reported

higher parent strain, especially when their child with special needs was older. Overall parents report higher levels of parenting strain if they do not take the time to care for themselves. Acton (2002) reported that health promoting behaviour can help improve a person's overall health and well-being. The benefits of health promoting behaviours or self care appear to be true for parents caring for special needs children as well.

The interaction between access to community programs and financial stability in predicting child difficulties provided interesting results. More specifically, parents who have high access to community programs are more likely to report elevated child difficulties if they have low levels of financial stability. Furthermore, there was no difference in the reported child difficulties for parents who do have access to community programs, regardless of financial stability. Because these results seem somewhat counterintuitive, it may be useful to conduct future research to examine the moderating effects of access to different community programs on financial stability using a multi-item scale to assess access to programs in the community. Increased financial demands are commonly faced by parents with special needs children, therefore, it is important to assess which resources may help buffer the negative implications of financial strain on role-specific strain and strain.

Another interesting result was found in the interaction between family/friend support and marital status in predicting child difficulties. There was no difference in the reported child difficulties for married/common law parents. Single parents reported higher levels of child difficulties when they do not have high levels of family/friend support. Overall, having family/friend support may be more important for single parents than for married parents, possibly because married parents already have the support of their spouse.

Similar to our findings, other researchers have found that organizational support, job control, and a parent's ability to make time for themselves can all enhance a parent's coping capacity (Children with Asperger's Syndrome, nd). Furthermore, Brennan et al., (2005) found that families are better able to cope with their work and family demands when they have access to support and resources, particularly support from family and friends. Therefore, it is important for future researchers to study what supports are most important for these families and subsequently examine how these supports can be more easily accessed by all types of parents with special needs children (i.e., married or single), in the organization, in the community, and in their home and social lives.

Therefore, based on the abovementioned findings, the framework for our proposed model could be changed for future research. Some hypothesized demands and resources do not uniquely predict role-specific or between-role strain outcomes. For example, the inclusion of both the work and non-work demands should be streamlined to include only those variables most theoretically relevant and that accounted for the most variance in the strain outcomes. Although the model used in the present study was not meant to be exhaustive, it did provide a good theoretical basis to examine these issues with parents caring for a child with special needs. In the future it would be interesting to examine additional demands and resources that may be pertinent to the lives of these parents.

In addition, because there were many cross-domain effects in post-hoc analyses between the work and non-work demands and role-specific stress outcomes, future research should examine if the work and non-work demands and role-specific stress should be combined to further streamline the model. Overall, the results of this study provided an overview of many of the demands and strain outcomes that parents caring for a child with special needs face. In the future, many of the proposed demands and strain

outcomes should be examined to further investigate the negative outcomes experienced by parents caring for a child with special needs.

Furthermore, it is important for organizations to examine how increased work life conflict in these families can impact their outcomes. For example, increased work life conflict is associated with decreased job satisfaction, organizational citizenship behaviours, organizational commitment, and increased intentions to leave an organization in families with typical children (Balmforth & Gardner, 2006). Past research has shown that parents caring for a child with a special need experience more work-life conflict than families caring for typical children (Rosenzweig & Huffstutter, 2004); therefore the organizational implications may be more pronounced for these parents as well (i.e., decreased job performance and increased absenteeism; Brennan & Brannan, 2005). Furthermore, the results of my study indicate that although many parents caring for a child with special needs would like to maintain employment outside of the home, they are unable to because of the care they provide for their child. Therefore, the Canadian workforce is failing to utilize a talented pool of employees that could contribute to positive organizational outcomes.

Limitations and Future Research

There are several limitations of the present study that need to be addressed in future research. The study sample encompassed a diverse group of parents caring for children with special needs. I recruited parents through various service and support programs across Nova Scotia and at a hospital in Ontario. However, this method of recruitment meant that any parent who did not have access to these services (or who chose not to access them) were not included in this study, thus restricting the range of types of parents we sampled. Also, parents of children with mild special needs may not

have been included as their child may not have had severe enough symptoms to be involved in these programs. The exclusion of an important sub-population of parents with special needs children from our sample may have eliminated parents who have fewer community supports and who, consequently, may be experiencing increased strain. This method of recruitment may have provided more conservative findings, in that there may have been restriction of range, and the individuals who may be experiencing the highest degree of negative personal outcomes were excluded. Future research should try to access parents who have limited access to and/or use of community support.

This study focused solely on parents with special needs children, and did not include a comparison group (e.g., parents with typical children). Prior research in the U.S. suggested that the experiences of these employed parents are distinctively different from employed parents of typically developing children; particularly in their ability to find appropriate child care (Rosenzweig, Brennan, Huffstutter, & Bradley, 2003). However, it would be beneficial to compare the demands, resources, and strain outcomes of parents with special needs children to parents caring for a typical child.

The main focus of the study was on examining how work and family demands can influence work-family conflict and strain outcomes in parents with special needs children; however, more research is needed in Canada on the specific arrangements these families make with their organization to ensure that they can be successful both in the workplace and at home. Almost 60% of our sample was employed part-time or not at all, and the majority of our sample reported that their underemployment was directly related to their child's special need. It is imperative to examine whether these parents are satisfied to remain underemployed to care for their child or if they would prefer to maximize their employment outside of the home. Future studies should examine the flexibility of

working hours, the level of job demands, and employment policies for workplace caregivers, as well as the supports that the full-time workers have at home to determine how parents can maintain their optimal level of employment while caring for a child with special needs.

Because the current study used a single-time sampling, the direction of the relationships could not be ascertained. For example, I cannot demonstrate conclusively with these data that role-specific strain (i.e., work difficulties, burnout, child difficulties, and parent strain) leads to between-role strain (i.e., work parent conflict, work spouse conflict, and general strain). It could be that conflict between roles may impact the difficulty a parent experiences within a role (Westman, Etzion, & Gortler, 2004). The relationship between within-role strain and between-role strain may also be curvilinear. For example, strain experienced because of either the work or family role may lead to increased between-role strain in parents with special needs children. However, increased strain among roles could also lead to increased strain either at work or within their family. Therefore, longitudinal research is needed to identify the direction of these associations. Furthermore, data on strain should be collected over a variety of time intervals because perceptions of strain may change substantially over time (Warfield et al., 1999).

The data for this study was gathered using only a self-report survey questionnaire, which may have lead to mono-method bias. Mono-method bias may have inflated the strength of the observed relationships among demands, role-specific strain, between-role strain and resources. In the future, data should be gathered through multiple sources (e.g., from both parents, observation, etc.). However, the possibility of adding other methods to this study was not possible. To account for the possibility of a single common factor, I conducted the Harman single factor test (Harman, 1967) of the single-common-method-

factor approach, which is a commonly used statistical technique where researchers run an EFA on all study items together. In this method, the factor structure is examined to determine if a single factor emerges or if one general factor accounts for the majority of covariance among the measures (Podsakoff et al., 2003). With all of the study variables considered simultaneously, the first factor accounted for 28.6% of the variance, however, there were an additional 27 factors with Eigenvalues over 1, which considered with the first factor, accounted for 98.7% of the variance. This suggests that one common method factor does not account for the majority of the variability in the study.

The majority of the data collected was from parents living in Nova Scotia; therefore, it cannot be described as truly “Canadian” data. Approximately 10% of the data was collected from parents in Ontario while the remaining was collected from Nova Scotian parents. Therefore, the data may not provide an adequate representation of Canadian data. Future research should aim to collect data from parents caring for a child with special needs from a variety of locations across Canada in order to provide a more accurate illustration of the physical and psychological health of these parents in Canada.

The low sample size may have affected the reliability of the statistics. More specifically, Tabachnick and Fidell (2007) stated that there should be at least 15 respondents per predictor to conduct a relatively reliable multiple regression. In the present study, this rule of thumb was not met because there were only 95 cases used in the work-related multiple moderated regression. However, there was no theoretical reason to delete any of the independent variables or predictors used in this study, so it was not possible to improve upon the small number of cases per predictor in each moderated regression conducted. It is difficult to recruit a large number of parents caring for a child with special needs to complete a survey, but future research should focus on recruiting a

larger sample to allow more sophisticated statistics and to ensure generalizability across this population.

Interestingly, 80% of parents in our sample reported they were either married or in a common-law relationship. This percentage is in contrast to research conducted in the United States on this population, which indicates that up to 80% of parents with a special needs child are divorced (Vogel, 1996). It would be interesting to conduct further research on this finding to determine if this is a finding unique to our sample or if Canadian parents caring for a child with special needs child are more likely to remain married than the American parents in the abovementioned study. In addition, it would be interesting to examine whether having a spouse is beneficial, in terms of the stress and strain they experience, for parents caring for special needs children.

As indicated by the Environmental Scan, supports for parents caring for a child with special needs were not consistently accessible across Canada. Different governmental and community supports are offered across provinces. For the current study, the main focus of data collection and the Environmental Scan was on Ontario and Nova Scotia. As evidenced in the Environmental Scan, both communities and provincial government focus on different supports to offer to families caring for a child with special needs. For example, Ontario offers many provincially-funded supports for these families, but there are long wait times for services so families do not experience the full benefit of these services (Valentine, 2001). However, Nova Scotia offers many community-based programs but because these services are mostly based in urban centres, it may be difficult for the rural population to benefit from these resources. It is likely that many of the parents caring for a child with special needs across Canada experience similar demands in

their work and family lives. Furthermore, these parents would likely benefit from similar supports; both provincial and community based.

Future research should examine which supports are most utilized by these parents and which resources they perceive to be most beneficial. In addition to examining parental perceptions of supports, it may be useful to examine the actual utilization of support services and its relation to strain outcomes. This knowledge would better inform program development across Canada and could better enable parents caring for a child with special needs to optimally balance their work and family lives. Similarly, many questions remain about the ways in which employed parents caring for a child with special needs can be supported. Future research should examine how these parents use different childcare arrangements to help them mitigate the strain experienced from the increased demands of caring for a child with special needs.

Despite the abovementioned limitations, this study helps to expand the understanding of how parents with special needs children in Canada are able to integrate their work and family lives and how the increased demands they face may lead to decreased health outcomes.

Conclusion

Many of the parents did not have full-time employment outside of their home and several child and work factors significantly contributed to their levels of strain and conflict. However, there are several important work, family, community, and individual resources, such as organizational support, job control, parental self care, social support, and access to community programs helped buffer the negative impact of these demands on strain outcomes. Therefore, in order to help these parents balance their responsibilities and reduce strain, future research should focus on how these parents are better able to

access these work and family resources and examine the effectiveness of intervention programs to minimize their overall conflict and strain.

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Appendix A

Complete List of Scales

Role Overload (Beehr, Walsh, & Taber, 1976)

I am given enough time to do what is expected of me on my job.
It often seems like I have too much work for one person to do.

Financial Stability (Day & Francis, 2006)

I have financial stability.
My job provides me with a good income.

Work Difficulties (Day & Francis, 2006)

Using the 5-point scale below, please indicate the extent to which each is an accurate or an inaccurate description of your job.

I find it difficult to work and care for my child.
I am forced to take work outside my area of expertise because of the strain of caring for my child.
I find it difficult to afford child care while I am at work.
I find it difficult to find a flexible job that gives me time to care for my child.
My coworkers treat me differently than others because of the special need of my child.
My ability to advance in the company I work for is compromised because of the constraints associated with caring for my child.

Child Difficulties (Day & Francis, 2006)

Using the 5-point scale below, please indicate the extent to which you agree with the following statements.

Having increased time constraints (e.g., doctor appointments, having to be home to care for child)
Challenging behaviour of my special needs child
The constant attention required by my special needs child
Following strict diet and nutrition requirements of my child (children)
The difficulty in giving enough attention to my other child/children
The unpredictability of my child's condition and/or treatment (e.g., difficulty to plan events & vacations)
The lack of sleep as a result of special needs child

The extra costs associated with traveling to the hospital (e.g. gas, food, parking)
 The expense of medication of my special needs child.
 My child's temperament/personality can be a challenge.

Parent Strain (Schumm et al., 1986)

*When **thinking about your child/children**, to what extent, if any, is each of the following issues **a concern** to you? (NOTE: Choose "1" for all issues that are not applicable to you).*

- ...the financial strain.
- ...feeling trapped or bored.
- ...their physical well-being (e.g., health problems, accidents, etc.)
- ...fighting or not getting along between my children.
- ...the heavy demands and responsibilities of parenting.
- ...their teen-age years (e.g., getting into trouble, drugs, sex).
- ...being unsure if I'm doing the right thing for them.
- ...my children not showing appreciation or love.
- ...problems with their schooling or education.
- ...feeling disappointed in what they're like (that is, the kind of people they are).
- ...not having enough control over them.
- ...them needing me less as they get older.
- ...having too many arguments and conflicts with them.
- ...their interference in my relationship with my spouse/partner.

Work Parent Conflict (Day,1996)

*Please think about **your responsibilities as an employee and as a parent**. Using the following scale, please circle the number that best represents the extent to which you agree or disagree with the following.*

- My work and parent responsibilities often conflict.
- I do **not** find it difficult to be productive as both an employee and a parent.
- I often feel that I am divided between work and parent responsibilities.
- It is hard to balance my roles as an employee and as a parent.
- I find it difficult to successfully complete all my work and parent activities.
- I sometimes feel that I am overwhelmed with both my work and parent responsibilities.

Work Spouse Conflict (Day,1996)

*Please think about **your responsibilities as an employee and as a spouse**. Using the following scale, please circle the number that best represents the extent to which you agree or disagree with the following.*

NOTE: If you do not have a spouse or partner, please skip to the next set of items.

My work and spouse responsibilities often conflict.
 I do **not** find it difficult to be productive as both an employee and a spouse.
 I often feel that I am divided between work and spouse responsibilities.
 It is hard to balance my roles as an employee and as a spouse.
 I find it difficult to successfully complete all my work and spouse activities.
 I sometimes feel that I am overwhelmed with both my work and spouse responsibilities.

General Strain (Bartone, Ursano, Wright, & Ingraham, 1989)

The following is a list of complaints that people sometimes have. Using the scale below, please indicate how often you have experienced each of these complaints at any time over the last few weeks.

General aches or pains
 Headaches
 Skin rashes or itching
 Lack of appetite
 Upset stomach
 Overly tired/lack of energy
 Sweating hands, feeling wet & clammy
 Nervousness or tenseness
 Trouble sleeping
 Muscle twitching or trembling
 Crying
 Rapid heartbeat (while not exercising or working hard)
 Feeling life is pointless
 Feeling down or blue or depressed
 Common cold or flu
 Difficulty concentrating
 Dizziness or faintness
 Loss of interest in things, such as TV, news, & friends
 Taking medication to sleep or calm down
 Shortness of breath (while not exercising or working hard)

Organizational Support:

Please think about the organization you work for. Using the following scale, please indicate the number that best represents the extent to which you agree or disagree with the following.

My organization fails to appreciate any extra effort from me.

My organization would ignore any complaint from me.
 My organization disregards my best interests when it makes decisions that affect me.
 Help is available from my organization when I have a problem.
 My organization really cares about my well-being.
 My organization is willing to help me when I need a special favour.
 My organization cares about my general satisfaction at work.
 My organization shows very little concern for me.
 My organization cares about my opinions.

Job Control:

Below are listed a number of questions about different aspects of your job. Using the following 5-point scale, please indicate the extent to which each is an accurate or an inaccurate description of your job. Write the appropriate number in front of each question.

How much can you generally predict the amount of work you will have to do on any given day?
 How much control do you have over the scheduling and duration of your rest breaks?
 How much control do you have over when you come to work and when you leave?
 How much control do you have over when you take vacations or days off?
 How much control do you have over how you do your work?
 How much control do you have over the amount you earn at your job?
 How much control do you have over how your work is evaluated?

Self Care:

I have the opportunity to get out of the house.
 I have the opportunity to socialize with people my own age and with similar interests.
 I make time for myself.
 Being unable to find time for myself.

Social Support (Coworker, Spouse, Family/Friends):

*The following questions ask you to think about the **support you receive from people around you**. Using the scale below, please indicate how supportive are (a) your co-workers; (b) your spouse or partner, and (c) your other family and friends.*

To what extent do these people express interest and concern for your personal well-being?
 To what extent can you count on these people to listen to your problems?
To what extent can you count on the following people to listen to you when you just need to talk?
 How much useful feedback do you receive from each of the following people?

To what extent can you rely on the following people to provide you with the advice, suggestions, or directives that you may need?

To what extent do these people provide their time for you when you need it?

To what extent can you depend on the following people to help you with work or chores (at home or at your job) when you need it?

To what extent do these people go out of their way to do things to make your life easier for you?

To what extent can these people be relied on when things get tough for you?

These people go out of their way to make my **work life** easier for me.

These people go out of their way to make my **non-work life** easier for me.

Community Programs:

There are programs/facilities in the community that make it easier to balance my family responsibilities.

Appendix B

Environmental Scan.

An environmental scan was conducted to compile a summary of the most commonly utilized resources available across Canada for families and their children with special needs. Information gathered through both contacts gained during the recruitment of participants and internet resources was used to assemble this scan. This scan is a broad overview of only the most prevalent programs used by children with special needs and their families in Canada. For a more comprehensive report outlining specific policies and programs in place for children with special needs and their families across Canada, please consult Valentine (2001).

Federal Government

In Canada, there are over one thousand resource programs aimed at providing all families with the support they need (Valentine, 2001). The range of programs offered are extensive, parents caring for special needs children can access programs ranging from: referral services, parent education, tax credits, resource libraries, support groups for parents, and caregiver training and support. (MacAulay, n.d.).

There are financial incentives for parents caring for a child with special needs, provided by the Federal government. Employed parents caring for any child in Canada can receive a Child Care Expense Deduction for child care, to a maximum of \$7,000 annually (Valentine, 2001). Furthermore, parents caring for a special needs child can receive a Medical Expense Tax Credit if they have above average medical costs. This tax credit provides relief for medical expenses related to a variety of disabilities (Valentine, 2001). In addition to the above mentioned credits, the Disability Tax Credit provides \$3,500 of funding annually to parents caring for a child with a severe disability.

Moreover, parents caring for a special needs child may be eligible for parental leaves covered by Employment Insurance (Valentine, 2001). Parents of special needs children are eligible to apply for parental leave, to a maximum of \$413 per week. This support can enable these parents to balance their work and family lives.

Despite the wide array of services, many parents still feel their special needs child is underserved by the government in terms of educational support, community programs, and therapy and rehabilitation services (Churchill Academy, n.d.). Therefore, in 1997, the federal government launched the National Children's Agenda (NCA) as the next step in addressing the needs of children in Canada (Valentine, 2001; Varga-Toth, 2006). The NCA was framed as an opportunity to work together across sectors and levels of government to ensure that Canada's children have the best possible opportunity to develop to their full potential as healthy, successful, and contributing members of society (Varga-Toth, 2006). It was through this initiative that the Centre of Excellence for Children and Adolescents with Special Needs (CECASN) was established in 2000 (Varga-Toth, 2006). This organization ensures that important knowledge about children and their healthy development is broadly distributed among families, community-based organizations, educators, health professionals, non-government organizations, and government (Varga-Toth, 2006). Furthermore, this organization aims to make special needs programs more available to rural and northern communities across Canada (Centres of Excellence for Children and Adolescents with Special Needs: Children and Adolescents with Special Needs, 2007).

The NCA initiative is making a substantial improvement in the lives of families with preschool children (Valentine, 2001). However, the requirements of school-aged children and adolescents with special needs and their families have yet to be fully

addressed (Valentine, 2001). Valentine states that school-aged children with special needs and their families do not “benefit from full access to work, education, and individual and community supports and services” (pp. 68). Therefore, the Federal government delegates the elements of the care of these children to the provincial government left in the hands of the individual provinces.

Provincial Governments

All provinces throughout Canada provide some programs and services for children with special needs and their families. Six provincial governments (British Columbia, Alberta, Saskatchewan, Quebec, New Brunswick, and Nova Scotia) have formally acknowledged the lack of consistent support provided to children with special needs and their families and have developed independent, government-wide, disability-specific policy advisory bodies (Valentine, 2001). The overall provision of specific programs and supports is mainly under provincial authority (Valentine, 2001). All provinces provide services related to education, health, and social services and act as a liaison between the federal government and the families caring for a special needs child by strengthening inclusion and equality with typically developing children (Valentine, 2001).

Many provinces provide access to the following services: speech language pathology, occupational therapy, physical therapy, and dietary services. However, there are generally long wait list for these services and there may be a lack of coordination of services, and multiple barriers to access (Missiuna, Pollock, Caltagirone, Maggioira & Zwaigenbaum, 2003). In many provinces, there seems to be more focus on providing services for younger children and children with more severe special needs. This focus on mainly providing services for children with severe disabilities creates a large problem for children with moderate or mild disabilities and their parents (Missiuna et al., 2003).

Furthermore, some provinces put funding restrictions on the number of services a child can have access to at any given time (Missiuna et al., 2003). However, if the parent has the financial resources, there are privately funded alternatives to these programs (Missiuna et al., 2003).

Child care is a common provincially subsidized program for parents caring for a special needs child. Child care provides three key benefits for these parents: “(1) a labour adjustment strategy; (2) respite for parents; and (3) a developmental opportunity for children” (Valentine, 2001, pp. 54). However, child care inclusion is not based on a provincial policy, but rather on a centre-by-centre and child-by-child basis (Valentine, 2001). There is no provincial legislature that requires child care facilities to accept children with special needs. Therefore, many child care providers are not trained in providing care for children with special needs, and are therefore not qualified to accept these children (Valentine, 2001). This creates a shortage of facilities to care for children with special needs.

Inconsistency of Support across Provinces.

Many services are inconsistently offered and/or subsidized across the provinces, particularly mental health services for children with an emotional, learning, or behavioural need (Valentine, 2001). These supports are often under-funded, which may leave them virtually unavailable in some regions throughout Canada. To resolve this issue, all provinces, except Newfoundland and Labrador, have created programs to extend community-based mental health services to children and youth with special needs (Valentine, 2001). An outline of the supports offered throughout Ontario and Nova Scotia, the two provinces of focus in the current research, is detailed below.

Ontario.

The Ontario government's record on disability support for children is weak (Valentine, 2001). The government has consistently made promises to dedicate personnel to the improvement of children's issues, however, many of these have proven empty promises (Valentine, 2001). For example, in 2003 the Liberal government committed to increasing the funding for autism interventions; however the wait lists have increased dramatically with autistic children waiting for services during the Liberals run in office (Benzie, 2007).

However, in Ontario, a provincially funded Children's Treatment Centres (CTC) exists to provide services for children with special needs. There are 21 CTCs across the province that provide rehabilitation services to nearly 45,000 children and youth with moderate or severe disabilities every year (Ontario Association of Children's Rehabilitation Services, n.d.). These disabilities can be physical, developmental, and/or communicative. Each centre is geared towards providing the best services to the community in which they are situated (Ontario Association of Children's Rehabilitation Services, n.d.).

The provincial government also provides home-based services through the Community Care Access Centres (CCAC) that contract out the above-mentioned services. The CCACs are the local point of access to community-based health care services. CCACs are funded by the Ministry of Health and Long-Term Care and were created to coordinate a variety of health services to maintain an individual's health, independence and quality of life (Ontario Association of Community Care Access Centres, n.d.).

If parents are unable to find the appropriate resources for their children they may need to look beyond programs only offered to special needs children to find the services most beneficial to them and their children. For example, in Ontario, a program called

Ontario Early Years Centre is geared towards providing parents caring for any young child access to information about programs and services that are available in their community. Furthermore, this program encourages parents to take part with their children in a wide range of programs and activities and gives them answers to questions they may not have access to elsewhere. This program is provincially funded and is aimed at providing information to improve the lives of parents and young children in Ontario.

(Ontario Early Years Centres, n.d.).

Nova Scotia.

Other provinces experience similar issues related to children with special needs. Similar to Ontario, the concerns of parents have not been a primary focus around the cabinet table in Nova Scotia (Valentine, 2001). There is a strong need for a more coordinated and integrated approach to policy development surrounding program development for children with special needs (Valentine, 2001). However, Nova Scotia does offer a variety of programs and services aimed to improve the lives of children and their families with special needs.

Nova Scotia offers approximately 120 programs for children with special needs and their families (Nova Scotia Community Organizations Directory, n.d.). Among these programs is the Early Intervention Program, designed to deliver family centred services to children with special needs, from birth until they enter school. These programs are generally composed of a home visit program, a preschool outreach program, and a variety of in-centre programs, including respite mornings, parent discussion workshops, parent-tot playgroups, parent networking, and summer program options (Progress Centre for Early Intervention, n.d.; Nova Scotia Community Services, n.d.).

The province of Nova Scotia offers provincially funded respite programs. However, unlike other provinces, access to financial support for respite care is subject to income-tests. The respite services are run through the Services for Physically and Developmentally Challenged Children Program and are need-tested, and income-tested wherein the program and family both pay for the services based on a sliding scale formula (Valentine, 2001). In Nova Scotia, both in-home and out-of-home respite programs are available. For the out-of-home program, four Nova Scotian regions have an apartment available for weekend respite. In this situation, the family hires a 24-hour trained worker to travel with them and provide child care. These respite services include: meeting the care needs of the child; offering the child opportunities to develop social, recreational, and life skills; strengthening families by reducing stress and improving long-term functioning and quality of life (Health Canada, 2003).

In addition to providing programs for respite care, the province of Nova Scotia has created a child care program to allow child care agencies the opportunity to receive an extra \$28-\$70 per full day if they choose to care for a child with special needs. This funding is intended to cover the costs associated with including special needs children in the program and to ensure parents caring for a special needs child do not incur increased costs for child care. However, this grant depends on availability and is not an entitlement. (Nova Scotia Community Services, n.d.).

Community Programs.

Communities throughout Canada are also interested in providing support, and filling gaps in Federal and Provincial government support in services for children with a variety of special needs and their families. There are no provincial programs that support the development of recreational programs for children with special needs. This

responsibility is therefore passed to the individual communities across Canada and is subsequently sporadic in implementation (Valentine, 2001). A number of the commonly utilized community programs throughout Canada are outlined below.

Therapeutic Riding can provide a child with special needs a unique and holistic approach to therapy, rehabilitation, and recreation. A relationship with an animal can provide invaluable emotional and physical therapy for any child, while riding a horse can improve muscle tone, balance, posture, coordination, motor development, and emotional well-being, according to the North American Riding for the Handicapped Association (NARHA). In addition to therapeutic riding, hearing and visually impaired children may benefit greatly from being paired with a companion or service dogs (Parenthood.com, n.d.).

Oakville, Ontario offers a unique program, funded through their municipal government, which benefits both children with special needs and their parents. It is through this program, titled the Oakville Parent-Child Centre that parents can build confidence by communicating and sharing ideas with other parents caring for special needs children and develop lifelong friendships. The children can learn about the world around them by participating in recreational programs with children similar to them. This drop-in program allows parents and their children a time to bond in an environment that they are comfortable with (Oakville Parent-Child Centre, n.d.).

Organizationally Funded Programs

Approximately twenty percent of employees in Canada have problems affecting their overall job performance (Family Services Employee Assistance Programs, n.d.). These employees tend to have lower job performance, higher absenteeism, more grievances, more disability claims, and poor morale. To minimize these programs, many

large organizations use Employee Assistance Programs (EAPs) (Family Services Employee Assistance Programs, n.d.). EAPs can be provided directly by the organization or by a combination of the organization and the union. The programs offered by various organizations can vary vastly in scope: some may focus only on specific issues such as substance abuse, while others may focus on a wide range of potential employee issues and family problems. Some are even more extensive, combining the above mentioned services with access to prevention programs to improve employee health and wellness (Family Services Employee Assistance Programs, n.d.). Organizations may choose to offer any of the following to their employees: Crisis Counselling, Psychological and Social Counselling, Financial Counselling, Eldercare Counselling, Advisory Services, and Child Care Information (Family Services Employee Assistance Programs, n.d.). The costs of EAPs can vary depending on the services and programs that are offered to employees. For example, an EAP that offers only access to substance abuse services will cost the organization much less than offering a wide range of employee improvement services. However, loss in productivity can cause the organization substantially more than offering EAPs to their employees, as troubled employees work at about 50-70% of their potential production capacity (Family Services Employee Assistance Programs, n.d.). Overall, EAPs are designed to reduce the strain and improve the overall functioning of employees. Therefore, by offering EAPs to employees, organizations may improve not only their employee's health and well-being, but also their overall bottom line (US Department of Health and Human Services, n.d.).

Many of the above mentioned services offered through organizational EAPs may benefit the parents of a special needs child by enabling them to cope with working outside the home and balance their work and family lives more effectively. For example, if a

parent is experiencing financial strain because their spouse is remaining at home to care for their child with special needs, financial counseling may be of benefit. Furthermore, having a trained psychological counsellor available to discuss any concerns with may increase a parent's quality of life and allow them more freedom in caring for their child (Family Services Employee Assistance Programs, n.d.).

The Canadian Union of Postal Workers have created one of the most unique programs in North America to provide support to union members who have a child with special needs (Moving Mountains: Work, Family, and Children with Special Needs, 2002). The Special Needs Project is sponsored by the Canadian Union of Postal Workers (CUPW) and was designed to help reduce a variety of stressors (financial, emotional, and physical) on all postal workers that are caring for a special needs child. This program not only provides information and advice on other support programs available in the community, but also provides funding specifically for child care, recreational programs, specialized transportation, uninsured medical expenses, and support workers. After enrolling in this program, members reported significantly less financial burden, stress, and increased well-being of their special needs child (Moving Mountains: Work, Family, and Children with Special Needs, 2002).

In conclusion, although many programs exist in Canada, many parents still report not having access to the services they need (Valentine, 2001). Indeed, it is clear that some individuals fall through the cracks for any number of reasons (such as living in rural areas without access to community programs). The tendency for governmental agencies to delegate responsibilities to lower levels (e.g, Federal to Provincial; Provincial to community) means that some individuals may feel they have almost none of the services that would truly benefit them. Therefore, it is important to examine which programs are

most utilized and useful to parents caring for a child with special need and ensure those programs are readily available to a wide range of parents and children throughout Canada.

******For a complete listing of the federal and provincial programs that are available across Canada for children with special needs and their parents, please consult Valentine's (2001) article titled: Enabling citizenship: Full inclusion of children with disabilities and their parents.



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University**

Halifax, Nova Scotia
Canada B3H 3C3

Patrick Power Library

tel 902.420.5534

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