

When the Desire to Do Good Makes You Feel Bad: Quality Indicators and Worker Stress

Abstract

Based on surveys of direct support professionals in Ontario's developmental services sector, this paper examines the complex nature of worker stress. Previous research has tended to focus on organizational employment practices and challenging behaviours as negative sources of worker stress. More generally this follows the underlying assumptions in industrial psychology which connects negative stressors with negative work experiences. In this study, we find asymmetries in workplace emotional outcomes – positive motivations interacting with positive emotions are associated with higher rates of burnout. Specifically, we found that prosocial motivation was a significant moderating variable, which when interacted with positive affect or perceived organizational support, was associated with higher feelings of emotional exhaustion when controlling for other factors. Implications for the use of quality indicators on worker stress are discussed.

The experience of work stress by staff that provide direct supports to persons with intellectual and developmental disabilities (IDD) has been of great concern to scholars and practitioners (Devereux et al., 2009a; Hickey, 2011; Skirrow & Hatton, 2007). Occupational stress has been associated with increased turnover (Hatton et al., 2001), decreased job satisfaction (Crawford et al., 2010; Dyer & Quine, 1998), and less quality interactions with people supported in disability services (Clegg et al., 1991; Rose et al., 1998; Schuengel et al., 2010). The dominant assumption in the industrial psychology literature in general, and the field of disability studies in particular, is that worker stress is associated with negative inputs, such as poor organizational practices (Skirrow & Hatton, 2007) and experiences with challenging behaviour (Hastings, 2002; Hensel et al., 2012). Conversely, positive inputs, such as prosocial motivation (Grant, 2008) and support for community inclusion principles (Jones et al., 2008) are associated with reduced stress (Noone & Hastings, 2009) and other positive work experiences (Hastings & Horne, 2004). Such analyses follow the broader theory in organizational studies of the contagion effects of positive emotions (Bono & Ilies, 2006). Positive emotions are associated with positive work experiences (Dutton et al., 2010). Conversely, negative emotions and similar negative inputs are associated with negative work experiences, such as occupational stress (Hatton & Lobban, 2007; Osipow, 1998). This paper explores the use of worker stress as a quality indicator. In particular, it challenges the dominant assumption in the literature

Author

Robert Hickey

School of Policy Studies,
Queen's University,
Kingston, ON

Correspondence

hickeyr@queensu.ca

Keywords

direct support worker,
stress,
burnout,
prosocial motivation

of emotional symmetries – that positive inputs are associated with positive outputs such as reduced worker stress.

Staff play a critical role in the delivery of high quality supports and services in the field of IDD (Hastings, 2010). Research of staff in the sector has tended to focus on staff well-being (Devereux et al., 2009b; Rose, 1999) and concerns that worker stress results in problems managing human resources (Hewitt & Larson, 2007), and in the degradation of quality services (Skirrow & Hatton, 2007). In order to better understand the experiences of worker stress and to develop more effective interventions to mitigate the negative effects of staff stress, research has focused on organizational practices (Devereux et al., 2009a) and exposure to challenging behaviours (Hastings, 2002; Hensel et al., 2012; Rose & Cleary, 2007). Intervention strategies tend to assume that staff need support to cope with negative stressors in order to address the negative emotional outcomes.

Research on staff in the developmental services sector has explored a variety of work stress theories (Devereux et al., 2009a). Devereux and colleagues (2009a) identified burnout, and the broader theoretical area of emotional overload as one of several streams of work stress theory that inform the current study. The relationship between the direct support worker and the person supported is central to Maslach's (1993) theory of burnout, as a source of stress. Interpersonal demands are considered the primary stressors which lead to emotional exhaustion and burnout over time (Maslach et al., 2009). The application of the emotional overload theory of work stress in developmental services has tended to focus on client demands in general (Dyer & Quine, 1998) and challenging behaviours in particular (Hastings, 2002). However, it is not theoretically clear that these demands reflect the interpersonal relationship or the environmental context of the workplace (Maslach & Leiter, 1997).

In their meta-analysis of the burnout literature, Skirrow and Hatton (2007) found that direct support workers reported levels of burnout that were somewhat lower than normative population samples using the Maslach Burnout Inventory (MBI). While a number of studies have focused on the experience of work stress

in association with challenging behaviours (Chung & Harding, 2009; Cudre-Mauroux, 2010; Mills & Rose, 2011), the most striking finding of the review by Skirrow and Hatton was that organizational factors were the most reliable predictors of burnout (Skirrow & Hatton, 2007, pp. 141). For example, work demands (Devereux et al., 2009b), role ambiguity (Hatton et al., 1999a), and managerial strategies (Swanson, 1987) have been found to be significantly associated with stress and burnout. As Maslach and Leiter explain, "we believe that burnout is not a problem of the people themselves but of the social environment in which people work," (Maslach & Leiter, 1997, pp. 18).

Studies of the person-environment fit constitute another theoretical stream in the study of work stress (Devereux et al., 2009a). In this tradition, researchers have focused on disparities between needs and supplies, or demands and abilities (Aitken & Schloss, 1994; Blumenthal et al., 1998; Dyer & Quine, 1998; Hatton et al., 1999b). Work stress in this tradition has been manifested as work overload, role ambiguity, and role conflict. The demand-control-support model of work stress (Karasek & Theorell, 1990) forms another stream of the work stress literature. Studies based on this theoretical framework have been used to explore staff stress in the developmental services sector (Rose, 1999) including in Ontario (Baines et al., 2002). A key feature of this theory of work stress suggests that support can work as a buffer, moderating the effects of demand and control on stress. However, as Devereux and colleagues (2009a) note, researchers in the field of developmental services have generally not explored the interactions of such variables.

The fourth work stress model informing the present study is equity theory. An important contribution from equity theory to studies of work stress has been to explicitly distinguish the micro, interpersonal relationships, from the macro, organizational relationships (Buunk & Schaufeli, 1993). Such a dual relationships model allows researchers to explore the distinct experiences of stress and burnout in the organizational and interpersonal domains. Research on the relationships between direct support staff and persons supported has traditionally focused on the incidence and length of communications and basic interactions (Piggott,

1996; McConkey et al., 1999). More recent studies have drawn upon equity theory and reciprocity to better understand the relationship between staff and the people they support (Disley et al., 2009b; Thomas and Rose, 2010). The most striking theme emerging from these studies is that the lack of reciprocal benefits for staff is predominantly experienced in relationships with the organization and fellow colleagues, not the person supported.

The current study draws upon prosocial motivation theory as a framework for understanding positive emotional inputs and motivations. Prosocial motivation is characterized by the desire to engage in work that is beneficial to others (Batson, 1987; Grant, 2007). Scholars have described prosocial motivation as an enduring personal characteristic of empathy and concern for others (Penner et al., 2005). However, prosocial motivation is not simply a fixed personal trait, rather it is also shaped by organizational design and the interpersonal nature of work (Grant, 2007). Prosocial motivation reflects the relational dimension of work. Grant (2007) explains that, "the motivation to make a prosocial difference is an inherently relational phenomenon; interpersonal relationships both cultivate and result from the motivation to make a prosocial difference" (p. 394). The nature of direct support work is relational by design through daily interactions between staff and the people they support.

Recent studies have challenged the underlying assumption of emotional symmetries, arguing that negative emotions can have positive organizational effects (Lindebaum & Fielden, 2011; Lindebaum, 2012) and that positive emotions have resulted in negative outcomes (Storbeck & Clore, 2005). Moreover, scholars of caregiving behaviours have developed theories which account for seemingly contradictory, yet independent positive and negative outcomes (Lawton et al., 1991). For example, Lawton and colleagues (1991) found that caregiver behaviour among adult children caring for elderly parents was associated with both greater caregiving satisfaction and burden. The dynamics of such emotional asymmetries would have important implications for interpreting worker stress as a quality indicator and for designing interventions to support staff and address stress.

The purpose of this study was to explore the role of prosocial motivation on the relationship between perceived organizational support, positive emotions, and emotional exhaustion. Specifically, whether prosocial motivation acts as a moderating variable between a variety of positive and negative inputs and negative emotional outcomes is tested.

Methods

This study was based on survey data collected in 2012. The current study was part of a larger program of research by the Multidimensional Assessment of Providers and Systems (MAPS), which worked on the development of quality indicators for developmental services in Ontario. One of the MAPS project streams examined the role and practices of staff in enhancing social inclusion, choice and independence. The survey instrument and related research activities were approved by the General Research Ethics Board at Queen's University.

Participants

The survey was administered at 15 developmental service agencies ranging in size from small (26 employees) to large (450 employees). Recruitment of participating agencies was based on their participation in the implementation of core competencies training for direct support workers. Therefore the pool of participating agencies was not a representative sample, but did include a range of representative characteristics. The agencies were located across the province of Ontario, including rural, urban, and northern communities. Local teams of human resource managers and employees distributed the survey packets to all direct support workers at each participating agency. Participation in the survey was strictly voluntary, and worker responses remained confidential and anonymous. While the research design did not ensure a representative sample of direct support workers, the participant characteristics were similar to earlier large scale surveys of direct support workers in Ontario (Hensel et al., 2012; Hickey, 2013).

A total of 1,198 completed and usable surveys were returned. This represents an estimated 40% return rate. The vast majority of survey respondents (89%) were women. Tenure in the

sector averaged over ten years, and an average of nine years at the current organization. A slight majority of the workers were part-time (52%) and some (20%) were employed in relief or casual positions. Given the high proportion of part-time workers, it was not surprising that 13% of survey respondents worked at more than one agency, and another 22% worked at organizations outside the IDD services field. The majority of respondents (51%) had attained a college diploma representing an educational attainment rate, much higher than the Ontario workforce as a whole (29%). The average hourly wage among survey respondents was \$19.11, above the minimum wage in the province (\$10.25), but well below the provincial workforce average of \$24.85 per hour (Statistics Canada, 2014).

Measures

The survey instrument included well-established measurements of burnout (Maslach et al., 2009), job satisfaction (Spector, 1985), organizational commitment (Allen & Meyer, 1990), and a range of demographic and personal characteristics. Exposure to challenging behaviours was measured by a frequency and intensity scale (Hensel et al., 2012). The survey used the Occupational Role Questionnaire (Osipow, 1998) to measure four distinct forms of occupational stress included in this study: role overload, role insufficiency, role ambiguity, and role boundary. Prosocial motivation, the desire to engage in work that is beneficial to others (Grant, 2007), was measured using a six-item construct. The Positive and Negative Affect Scale (PANAS) was used to measure emotional disposition (Watson et al., 1988). For a more detailed discussion of the variables and constructs used in the survey, see Hickey (2013).

Analytical Strategy

SPSS 21.0 was used to conduct statistical analyses of the data. The scale measure for the emotional exhaustion component of the Maslach Burnout Inventory (Maslach et al., 2009) was used as the dependent variable. For the regression, ordinary least squares analyses were conducted entering the control, independent, and interaction variables in blocks. Step 1 consisted of the first block of control variables, including personal characteristics and work-related

factors. In Step 2, independent variables were added – these consisted of the four measures of occupational stress, the other two components of burnout (depersonalization and feelings of personal accomplishment), and several measures for positive emotions: affective organizational commitment, prosocial motivation, and perceived organizational support. In Step 3, the interaction terms were added involving prosocial motivation, positive affect, perceived organizational support, and occupational stress. To further explore the interaction effects of these positive emotions, the regression results were used to generate graphical depictions of the interaction effects of prosocial motivation (Aiken & West, 1991; Preacher et al., 2006).

Results

Table 1 presents the results and standardized coefficients for the three steps in the regression analysis. Amongst the control variables, overall job satisfaction was found to have the most significant (negative) association with emotional exhaustion. As in previous studies which examined the impacts of challenging behaviours on workers (Hastings, 2002; Hensel et al., 2012), we found that exposure to challenging behaviour was positively associated with increased emotional exhaustion. However, challenging behaviours did not remain statistically significant once the independent variables were added to the model. Contrary to the assumption that the presence of dependents at home would contribute to tensions in work-life balance and greater emotional exhaustion, the opposite results were found. Respondents who did not have dependents at home experienced higher levels of emotional exhaustion. Men were found to experience lower levels of emotional exhaustion, controlling for all other factors.

The addition of independent variables in Step 2 resulted in a significantly improved model (Adjusted $R^2 = .240$, $p < .001$). Feelings of depersonalization and role overload stress were found to be strongly, and positively associated with emotional exhaustion. Negative emotional feelings (negative affect) was also strongly associated with emotional exhaustion. No direct association was found between the independent variables, which represented positive emotions and the negative emotional outcome of the dependent variable, emotional exhaustion.

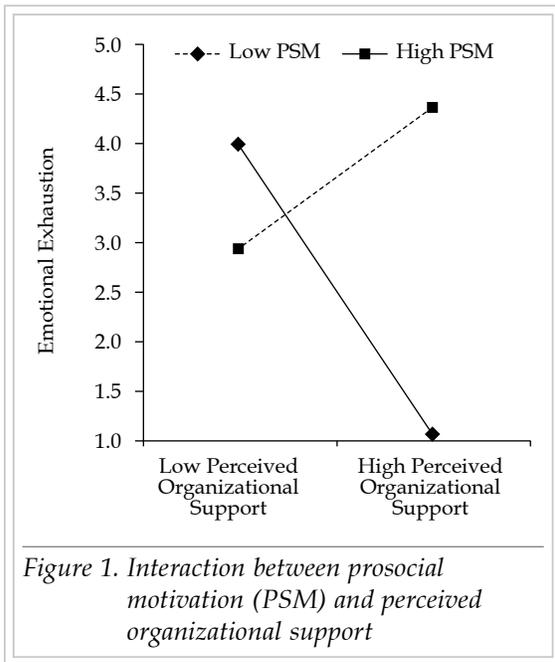
Table 1. Regression Results – Emotional Exhaustion

	Step 1	Step 2	Step 3
Control variables			
Years in sector	-.038	.026	.038
Intent to quit	.252***	.110**	.113**
Part-time	-.131**	-.061	-.058
Relief/casual	-.100*	-.094**	-.092*
Outside job	-.061	-.042	-.040
Overall satisfaction	-.379***	-.166***	-.158***
Gender	-.070	-.065*	-.068*
Challenging behaviours	.116**	.043	.031
No dependents	.092*	.070*	.070*
Aboriginal	.009	.018	.010
Disability	.058	.041	.062
Visible minority	.013	-.014	-.016
Independent variables			
Depersonalization		.287***	.271***
Personal accomplishment (pa)		-.082*	-.076
Perceived organizational support (pos)		-.010	-.045
Affective organizational commitment (aoc)		.015	.035
Role overload (ro)		.226***	.220***
Role insufficiency (ri)		.085*	.082
Role ambiguity (ra)		.014	.013
Role boundary (rb)		-.003	.003
Prosocial motivation (psm)		-.003	.047
Positive affect (posaff)		.008	-.002
Negative affect (negaff)		.141***	.170***
SPCQ – Work skills		-.022	-.024
SPCQ – Motivation		-.021	-.042
Interaction terms			
Psm_x_pa			-.004
Psm_x_pos			.122*
Psm_x_negaff			-.037
Psm_x_posaff			.109*
Psm_x_aoc			-.073
Psm_x_ro			.059
Psm_x_ri			.025
Psm_x_ra			-.020
Psm_x_rb			-.003
Adjusted R ²	.406	.641	.650
Δ Adjusted R ²		.240***	.015*

* $p < .05$, ** $p < .01$, *** $p < .001$

The addition of the interactive terms resulted in a marginal improvement in the explanatory power of the model (Adjusted $R^2 = .015, p < .05$). The interactions terms for prosocial motivation (PSM) were significant for the positive emotions (perceived organizational support and positive affect), but not for the negative experiences of occupational stress or negative emotions. The most significant finding for this study is that the interaction effects of the positive emotions were both associated with higher levels of emotional exhaustion, a negative emotional outcome. Positive dispositions and perceived organizational support, when interacted with stronger motivations to engage in work beneficial to others, were associated with the negative indicators of higher emotional exhaustion.

Overall, workers with high PSM tended to feel less emotional exhaustion when they perceived less organizational support (Figure 1). However, when prosocially motivated workers felt highly supported by the organization, they tended to also experience more intense feelings of emotional exhaustion. The desire to have a beneficial effect on the people supported, and feeling that this prosocial orientation was supported by the organization, was associated with higher rates of burnout.



Once again, prosocially motivated workers who generally experienced more positive emotions (high positive affect) had substantially higher

rates of emotional exhaustion (Figure 2). At the low end of the positive affect scale, the opposite occurred. Employees who reported high levels of prosocial motivation and low levels of positive affect, experienced lower levels of emotional exhaustion when controlling for other factors.

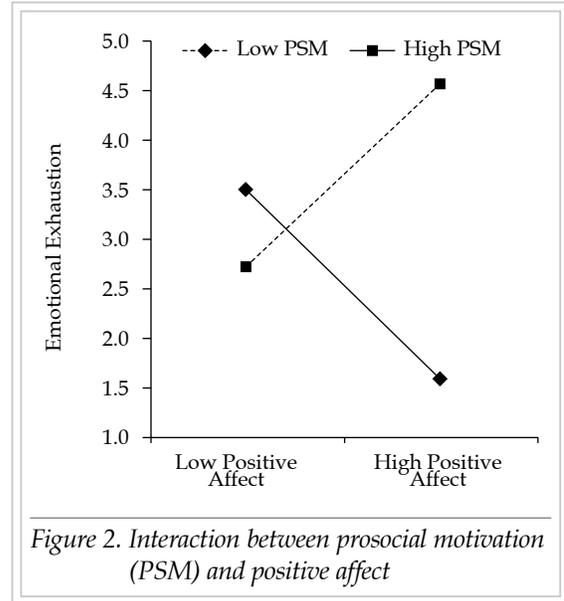


Figure 2. Interaction between prosocial motivation (PSM) and positive affect

Discussion

The findings of the current study suggest that both the dominant model of symmetrical emotions and the dynamics of emotional asymmetries were present in the experience of worker stress by direct support professionals. Negative emotional states, negative affect and feelings of depersonalization, and negative stressors, role overload and role insufficiency, had a strong and direct association with emotional exhaustion. At the same time, positive emotional feelings and perceptions of organizational supported, when interacted with prosocial motivation, were also associated with higher feelings of emotional exhaustion.

The interpretation of these seemingly contradictory results are informed by previous research into worker stress in the IDD field (Devereux et al., 2009a), especially in the area of equity theory (Disley et al., 2009a; van Dierendonck et al., 1996). In particular, this line of research found that when staff felt over-benefited, they scored higher on emotional exhaustion than staff who felt under-benefited. Consistent with this theory

of work stress, we found that direct support professionals who are prosocially motivated experienced higher rates of emotional exhaustion when the positive emotions associated with the ideals of community living confronted the shortcomings of a financially constrained service system.

These findings also raise questions over the use and interpretation of indicators concerning staff perceptions of organizational support. A large body of literature in the field of IDD has established that feeling a lack of organizational support is associated with stress and burnout (Hatton & Lobban, 2007; Ito et al., 1999; Mascha, 2007; van Dierendonck et al., 2001; White et al., 2006). However, the current study finds that perceived organizational support is positively associated with emotional exhaustion when interacted with prosocial motivation. One interpretation of these results is that organizations which support prosocial benefits of direct support work heighten the disconnections between service idealism and service reality (Balcazar et al., 1998; Hatton et al., 1999b).

Finally, these findings caution against simplistic interpretations of quality indicators. In an effort to reduce emotional exhaustion, organizational rules and institutional practices have historically emphasized “professional detachment,” or similar forms of emotional disengagement to cope with emotional exhaustion (Schuengel et al., 2010). Positive staff interactions have been found to break these rules (Forster & Iacono, 2008), and the quality of services is enhanced through emotional engagement (Schuengel et al., 2010). Similarly, from the perspective of people receiving supports, positive characteristics of support staff included a non-patronizing attitude, empathy, and motivation (Clarkson et al., 2009; Roeden et al., 2011). Thus, quality indicators related to staff stress may reflect problems associated with financial constraints or other barriers to the ideals of community living rather than deficiencies in staff behaviour or challenges associated with people supported.

Conclusions

Direct support workers play a critical role in the lives of people with IDD. The experience of stress and burnout not only has negative consequences for staff, but it also impacts the quality of services and outcomes for people supported. Measuring

the experience of worker stress can therefore serve as an important indicator of quality in the provision of developmental services. However, contrary to the dominant model of worker stress in industrial psychology, this study found evidence of emotional asymmetries. Prosocial motivation, when interacted with positive emotions or perceptions of organizational support, was associated with increased emotional exhaustion. These findings suggest that interventions designed to reduce stress through the mitigation of negative stressors may not appropriately address the nature of stress in developmental services. More generally, this paper demonstrates the complex and multidimensional nature of worker stress in the field of developmental services. The prevalence of burnout among direct support workers is an important indicator, but caution is warranted in the interpretation and formulation of quality improvement strategies based on such indicators.

Key Messages From This Article

Persons with disabilities: Staff feel burned out when they can't support people in the way that they want to support them.

Professionals: The desire to have a beneficial impact on the people supported may result in greater burnout when workers confront financial constraints or other barriers to the ideals of community living.

Policymakers: Measures of worker stress in developmental services has important implications for assessing quality and ensuring sustainable services. The experience of occupational stress is complex and seemingly contradictory. Developing quality indicators for developmental services in Ontario requires a comprehensive, multi-faceted approach to understand the role and practices of staff in support social inclusion, choice and independence.

Acknowledgements

This work was undertaken as part of the Multidimensional Assessment of Providers and Systems (MAPS). MAPS is a research program to inform the assessment of services and supports for adults with intellectual and developmental disabilities in Ontario, Canada. MAPS (www.mapsresearch.ca) was supported by a

research grant from the Policy Research and Analysis Branch of the Government of Ontario's Ministry of Community and Social Services (2010–2013). The author gratefully acknowledges the contributions and participation of the hundreds of direct support professionals who took part in the survey. This project would not have been possible without research assistance from Adrianna Pearce and Macey Nielessen. The views expressed in this article are not necessarily the views of all MAPS researchers, collaborators or those of the Ministry.

References

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage Publications.
- Aitken, C. J., & Schloss, J. A. (1994). Occupational stress and burnout amongst staff working with people with an intellectual disability. *Behavioral Interventions*, 9, 225–234.
- Allen, N., & Meyer, J. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of occupational psychology*, 63, 1–18.
- Baines, D., Hadley, K., Slade, B., Fay, K., Pollack, S., Brooker, ... Dmimitrova, D. (2002). Improving work organization to reduce injury and illness: Social service, stress, violence, and workload. Hamilton, ON: McMaster University
- Balcazar, F. E., MacKay-Murphy, M., & Keys, C. B. (1998). Assessing perceived agency adherence to the values of community inclusion: Implications for staff satisfaction. *American Journal on Mental Retardation*, 102, 451–463.
- Batson, C. D. (1987). Prosocial Motivation: Is it ever truly altruistic? In: Leonard, B. (ed.), *Advances in Experimental Social Psychology* (pp. 65–122). San Diego, CA: Academic Press.
- Blumenthal, S., Lavender, T., & Hewson, S. (1998). Role clarity, perception of the organization and burnout amongst support workers in residential homes for people with intellectual disability: A comparison between a National Health Service trust and a charitable company. *Journal of Intellectual Disability Research*, 42, 409–417.
- Bono, J. E., & Ilies, R. (2006). Charisma, positive emotions and mood contagion. *The Leadership Quarterly*, 17, 317–334.
- Buunk, B. P., & Schaufeli, W. (1993). Burnout: A perspective from social comparison theory. In: Schaufeli, W., Maslach, C., & Marek, T.(ed.), *Professional burnout: Recent developments in theory and research* (pp. 53–69). Washington, D.C.: Taylor and Francis.
- Chung, M. C., & Harding, C. (2009). Investigating burnout and psychological well-being of staff working with people with intellectual disabilities and challenging behaviour: The role of personality. *Journal of Applied Research in Intellectual Disabilities*, 22, 549–560.
- Clarkson, R., Murphy, G. H., Coldwell, J. B., & Dawson, D. L. (2009). What characteristics do service users with intellectual disability value in direct support staff within residential forensic services? *Journal of Intellectual and Developmental Disability*, 34, 283–289.
- Clegg, J. A., Standen, P. J., & Cromby, J. J. (1991). Interactions between adults with profound intellectual disability and staff. *Journal of Intellectual and Developmental Disability*, 17, 377–389.
- Crawford, M. J., Adedeji, T., Price, K., & Rutter, D. (2010). Job satisfaction and burnout among staff working in community-based personality disorder services. *The International journal of social psychiatry*, 56, 196–206.
- Cudre-Mauroux, A. (2010). Staff attributions about challenging behaviours of people with intellectual disabilities and transactional stress process: A qualitative study. *Journal of Intellectual Disability Research*, 54, 26–39.
- Devereux, J., Hastings, R., & Noone, S. (2009a). Staff stress and burnout in intellectual disability services: Work stress theory and its application. *Journal of Applied Research in Intellectual Disabilities*, 22, 561–573.
- Devereux, J. M., Hastings, R. P., Noone, S. J., Firth, A., & Totsika, V. (2009b). Social support and coping as mediators or moderators of the impact of work stressors on burnout in intellectual disability support staff. *Research in Developmental Disabilities*, 30, 367–377.

- Disley, P., Hatton, C., & Dagnan, D. (2009a). Applying equity theory to staff working with individuals with intellectual disabilities. *Journal of Intellectual & Developmental Disability, 34*, 55–66.
- Disley, P., Hatton, C., & Dagnan, D. (2009b). Applying equity theory to staff working with individuals with intellectual disabilities. *Journal of Intellectual and Developmental Disability, 34*, 55–66.
- Dutton, J. E., Roberts, L. M., & Bednar, J. (2010). Pathways for positive identity construction at work: Four types of positive identity and the building of social resources. *Academy of Management Review, 35*, 265–293.
- Dyer, S., & Quine, L. (1998). Predictors of job satisfaction and burnout among the direct care staff of a community learning disability service. *Journal of Applied Research in Intellectual Disabilities, 11*, 320–332.
- Forster, S., & Iacono, T. (2008). Disability support workers' experience of interaction with a person with profound intellectual disability. *Journal of Intellectual & Developmental Disability, 33*, 137–147.
- Grant, A. M. (2007). Relational job design and the motivation to make a prosocial difference. *Academy of Management Review, 32*, 393–417.
- Grant, A. M. (2008). Does intrinsic motivation fuel the prosocial fire? Motivational synergy in predicting persistence, performance, and productivity. *Journal of Applied Psychology, 93*, 48–58.
- Hastings, R. P. (2002). Do challenging behaviors affect staff psychological well-being? Issues of causality and mechanism. *American Journal on Mental Retardation, 107*, 455–467.
- Hastings, R. P. (2010). Support staff working in intellectual disability services: The importance of relationships and positive experiences. *Journal of Intellectual & Developmental Disability, 35*, 207–210.
- Hastings, R., & Horne, S. (2004). Positive perceptions held by support staff in community mental retardation services. *American Journal on Mental Retardation, 109*, 53–62.
- Hatton, C., Emerson, E., Rivers, M., Mason, H., Mason, L., Swarbrick R.,... Alborz, A. (1999a). Factors associated with staff stress and work satisfaction in services for people with intellectual disability. *Journal of Intellectual Disability Research, 43*, 253–267.
- Hatton, C., Emerson, E., Rivers, M., Mason, H., Swarbrick, R., Mason, L., ... Alborz, A. (2001). Factors associated with intended staff turnover and job search behaviour in services for people with intellectual disability. *Journal of Intellectual Disability Research, 45*, 258–270.
- Hatton, C., & Lobban, F. (2007). Staff supporting people with intellectual disabilities and mental health problems. In Bouras, N., & Holt, G. (2nd ed.), *Psychiatric and behavioural disorders in intellectual and developmental disabilities* (pp. 388–399). New York, NY: Cambridge University Press.
- Hatton, C., Rivers, M., Mason, H., Mason, L., Emerson, E., Kiernan, C., ... Alborz, A. (1999b). Organizational culture and staff outcomes in services for people with intellectual disabilities. *Journal of Intellectual Disability Research, 43*, 206–218.
- Hensel, J. M., Lunsy, Y., & Dewa, C. S. (2012). Exposure to client aggression and burnout among community staff who support adults with intellectual disabilities in Ontario, Canada. *Journal of Intellectual Disability Research, 56*, 910–915.
- Hewitt, A., & Larson, S. (2007). The direct support workforce in community supports to individuals with developmental disabilities: Issues, implications, and promising practices. *Mental Retardation and Developmental Disabilities Research Reviews, 13*, 178–187.
- Hickey, R. (2011). The role and practices of direct support workers in promoting greater social inclusion, choice, and independence: An exploratory review of the literature. Kingston, ON: Multidimensional Assessment of Providers and Systems (MAPS), Queen's University.
- Hickey, R. (2013). Prosocial motivation, stress and burnout among direct support workers. *Journal of Applied Research in Intellectual Disabilities, 27*(2), 134–144.

- Ito, H., Kurita, H., & Shiiya, J. (1999). Burnout among direct-care staff members of facilities for persons with mental retardation in Japan. *Mental Retardation, 37*, 477–481.
- Jones, J., Ouellette-Kuntz, H., Vilela, T., & Brown, H. (2008). Attitudes of community developmental services agency staff toward issues of inclusion for individuals with intellectual disabilities. *Journal of Policy and Practice in Intellectual Disabilities, 5*, 219–226.
- Karasek, R., & Theorell, T. (1990). *Healthy work: stress, productivity, and the reconstruction of working life*. New York, NY: Basic Books.
- Lawton, M. P., Moss, M., Kleban, M. H., Glicksman, A., & Rovine, M. (1991). A two-factor model of caregiving appraisal and psychological well-being. *Journal of Gerontology, 46*, 181–189.
- Lindebaum, D. (2012). I rebel – therefore we exist: Emotional standardization in organizations and the emotionally intelligent individual. *Journal of Management Inquiry, 21*(3), 262–277.
- Lindebaum, D., & Fielden, S. (2011). “It’s good to be angry”: Enacting anger in construction project management to achieve perceived leader effectiveness. *Human Relations, 64*, 437–458.
- Mascha, K. (2007). Staff morale in day care centres for adults with intellectual disabilities. *Journal of Applied Research in Intellectual Disabilities, 20*, 191–199.
- Maslach, C. (1993). Burnout: A multidimensional perspective. In Schaufeli, W., Maslach, C., & Marek, T. (ed.), *Professional burnout: Recent developments in theory and research* (pp. 19–32). Washington, D.C.: Taylor and Francis.
- Maslach, C., Jackson, S. E., & Leiter, M. P. (2009). *Maslach burnout inventory*. Mountain View, CA: Consulting Psychologists Press.
- Maslach, C., & Leiter, M. P. (1997). *The truth about burnout: How organizations cause personal stress and what to do about it*. San Francisco, CA: Jossey-Bass.
- McConkey, R., Morris, I., & Purcell, M. (1999). Communications between staff and adults with intellectual disabilities in naturally occurring settings. *Journal of Intellectual Disability Research, 43*, 194–205.
- Mills, S., & Rose, J. (2011). The relationship between challenging behaviour, burnout and cognitive variables in staff working with people who have intellectual disabilities. *Journal of Intellectual Disability Research, 55*, 844–857.
- Noone, S. J., & Hastings, R. P. (2009). Building psychological resilience in support staff caring for people with intellectual disabilities: Pilot evaluation of an acceptance-based intervention. *Journal of Intellectual Disabilities, 13*, 43–53.
- Osipow, S. H. (1998). *Occupational stress inventory, revised edition (OSI-R)*. Odessa, FL: Psychological Assessment Resources Inc.
- Penner, L. A., Dovidio, J. F., Piliavin, J. A., & Schroeder, D. A. (2005). Prosocial behavior: Multilevel perspectives. *Annual Review of Psychology, 56*, 365–392.
- Piggott, M. J. (1996). *A descriptive analysis of the interaction patterns between adults with severe disabilities and their support staff: Application of coercion theory to residential support*. University of Oregon, OR: ProQuest Information & Learning, US.
- Preacher, K. J., Curran, P. J., & Bauer, D. J. (2006). Computational tools for probing interactions in multiple linear regression, multilevel modeling, and latent curve analysis. *Journal of Educational and Behavioral Statistics, 31*, 437–448.
- Roeden, J. M., Maaskant, M. A., & Curfs, L. M. G. (2011). The views of clients with mild intellectual disabilities regarding their working relationships with caregivers. *Journal of Applied Research in Intellectual Disabilities, 24*, 398–406.
- Rose, J. (1999). Stress and residential staff who work with people who have an intellectual disability: A factor analytic study. *Journal of Intellectual Disability Research, 43*, 268–278.
- Rose, J., Jones, F., & Fletcher, B. C. (1998). The impact of a stress management programme on staff well-being and performance at work. *Work & Stress, 12*, 112–124.
- Rose, J. L., & Cleary A. (2007). Care staff perceptions of challenging behaviour and fear of assault. *Journal of Intellectual & Developmental Disability, 32*, 153–161.

- Schuengel, C., Kef, S., Damen, S., & Worm, M. (2010) "People who need people": Attachment and professional caregiving. *Journal of Intellectual Disability Research, 54*, 38-47.
- Skirrow, P., & Hatton, C. (2007). "Burnout" amongst direct care workers in services for adults with intellectual disabilities: A systematic review of research findings and initial normative data. *Journal of Applied Research in Intellectual Disabilities, 20*, 131-144.
- Spector, P. E. (1985). Measurement of human - service staff satisfaction - development of the job-satisfaction survey. *American Journal of Community Psychology, 13*, 693-713.
- Statistics Canada (2014). Average hourly wages of employees by selected characteristics and occupation, unadjusted data, by province. CANSIM Table 282-0069. Ottawa, ON: Statistics Canada.
- Storbeck, J., & Clore, G. L. (2005). With sadness comes accuracy; with happiness, false memory: Mood and the false memory effect. *Psychological Science, 16*, 785-791.
- Swanson, D. (1987). Stress and burnout: II. Stress in residential rehabilitative services. *Residential Treatment for Children & Youth, 4*, 31-44.
- Thomas, C., & Rose, J. (2010). The relationship between reciprocity and the emotional and behavioural responses of staff. *Journal of Applied Research in Intellectual Disabilities, 23*, 167-178.
- van Dierendonck, D., Schaufeli, W. B., & Buunk, B. P. (1996). Inequity among human service professionals: Measurement and relation to burnout. *Basic & Applied Social Psychology, 18*, 429-451.
- van Dierendonck, D., Schaufeli, W. B., & Buunk, B. P. (2001). Burnout and inequity among human service professionals: A longitudinal study. *Journal of occupational health psychology, 6*, 43-52.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 54*, 1063-1070.
- White, P., Edwards, N., & Townsend-White, C. (2006). Stress and burnout amongst professional carers of people with intellectual disability: Another health inequity. *Current Opinion in Psychiatry, 19*, 502-507.