Journal of Intellectual & Developmental Disability

ISSN: (Print) (Online) Journal homepage: informahealthcare.com/journals/cjid20

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To cite this article: Melissa A. Holding, Lynne Parkinson & Davina Taylor (19 Mar 2024): Work stress and professional quality of life in disability support workers: The mediating role of psychological flexibility, Journal of Intellectual & Developmental Disability, DOI: 10.3109/13668250.2024.2323204

To link to this article: https://doi.org/10.3109/13668250.2024.2323204

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Published online: 19 Mar 2024.

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JOURNAL OF INTELLECTUAL & DEVELOPMENTAL DISABILITY
https://doi.org/10.3109/13668250.2024.2323204

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Work stress and professional quality of life in disability support workers: The mediating role of psychological flexibility

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ABSTRACT

Background: This study aimed to explore perceived work stress and its association with burnout, compassion fatigue, and compassion satisfaction and the mediating effect of psychological flexibility on these relationships.

Method: Two hundred and fifty-one disability support workers across Australia reported on work stress, psychological flexibility, burnout, compassion fatigue, and compassion satisfaction through an online anonymous survey.

Results: Perceived work stress was found to have a significant relationship with burnout, compassion fatigue, and compassion satisfaction. Psychological flexibility had a significant mediating effect on all three relationships.

Conclusion: These results highlight the role that psychological flexibility has in response to work stress and the development of burnout, compassion fatigue, and compassion satisfaction in disability support workers.

ARTICLE HISTORY
Received 24 September 2022
Accepted 21 February 2024

KEYWORDS
Disability support workers; work stress; burnout; compassion fatigue; compassion satisfaction; psychological flexibility

Since 2012, the National Disability Insurance Scheme (NDIS) has been in effect in Australia to provide funding for people with a significant and permanent disability to gain reasonable and necessary support (Australian Institute of Health and Welfare, 2020). Those eligible under the NDIS access funding to purchase supports that aim to improve quality of life and enable valued participation in the community (Australian Institute of Health and Welfare, 2020). There has been a steady increase in NDIS participants. Over 390,000 people with disabilities accessed support through the NDIS in June 2020 and this increased to 592,059 participants by March 2023 (The National Disability Insurance Agency, 2020, 2023). The care and assistance provided by disability support workers are important in supporting people with disabilities to access and maintain an enhanced quality of life and valued participation in the community (Australian Institute of Health and Welfare, 2020).

Due to the increase in NDIS participants, there is a pressing need to increase the disability support worker workforce. As of May 2023, there were approximately 280,000 disability support workers. To meet the demand, this will need to increase to 385,000 by June 2025 (National Disability Insurance Scheme Review, 2023). Disability support workers have a diverse and demanding role that is influenced by the work environment and client support needs. Stress at work has been associated with substantial costs for disability support workers, including reduced mental health (Mutkins et al., 2011), work dissatisfaction, absenteeism, intention to leave their job, staff turnover (Hatton et al., 1999; Kozak et al., 2013), and lower work commitment (Smyth et al., 2015). Not only is work stress an important issue for disability support workers but it also has implications for the quality of service to people with intellectual disability (Judd et al., 2017; Singh et al., 2016).

In the literature, the commonly discussed negative aspects of working in professions that provide care to people who have experienced trauma are associated with compassion fatigue, secondary traumatic stress, and burnout. Compassion fatigue is a reaction to stress that develops through interactions with people who have experienced trauma (Figley, 1995). The behavioural and emotional symptoms of compassion fatigue

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closely resemble the same symptoms experienced by the traumatised person (Figley, 1995). Burnout results from exposure to chronic work stress factors and involves exhaustion and changes in attitude and behaviour over time (Innstrand et al., 2002). Secondary trauma is a response to stress that resembles posttraumatic stress disorder, except that it occurs through indirect exposure to trauma within caring relationships (Figley, 1995). Symptoms include intrusive imagery of the trauma or person who experienced the trauma, avoidance, hyperarousal, emotional distress, and cognitive changes (Figley, 1995). There has been contention in the literature about the distinction between compassion fatigue and other constructs, in particular secondary traumatic stress. In some studies, compassion fatigue has been described as a distinct construct involving a combination of burnout and secondary traumatic stress (Cocker & Joss, 2016; J. Singh et al., 2020; Rauvola et al., 2019; Stamm, 2010; Waller et al., 2017). Rather than being a component of compassion fatigue, secondary traumatic stress has been described as a consequence of general emotional and psychological fatigue when working with trauma (Newell et al., 2015). Other studies use the term interchangeably with secondary traumatic stress (Bride et al., 2007; Figley, 1995). Difficulties making distinctions between the two constructs are in part due to their high correlation to each other (Rauvola et al., 2019). Some researchers measuring compassion fatigue with the Professional Quality of Life Scale (ProQOL) use the term in place of secondary traumatic stress, presumably as their view aligns with the theory that compassion fatigue and secondary traumatic stress are synonymous constructs (Bell et al., 2019; Bride et al., 2007; Deighton et al., 2007; Hinderer et al., 2014; Hunsaker et al., 2015; Jacobson, 2006; Sarabia-Cobo et al., 2021; Slatten et al., 2020). In this study, secondary traumatic stress is referred to as compassion fatigue. The positive aspect of helping others who have experienced trauma is known as compassion satisfaction and is described as the pleasure and satisfaction experienced from helping others, feeling competent, and doing a good job (Stamm, 2010).

Work stress and professional quality of life

The demands of working in a disability support role and its association with burnout have been well-established in the literature. This has been an important area of focus given the number of disability support workers experiencing the consequences of work stress. Harries et al. (2015) found that over 40% of Australian disability support workers in their study reported experiencing burnout. Certain work conditions have been identified as increasing the likelihood that disability support workers will develop burnout, such as high demands, system pressures, low organisational support and working with people who have functional difficulties and challenging behaviours (Gray & Muramatsu, 2011; Harries et al., 2015; Outar & Rose, 2017; Paris et al., 2021; Smyth et al., 2015; Vassos et al., 2013; Vassos & Nankervis, 2012). The severity of burnout has been linked to the intensity of work stressors. For example, exposure to physical aggression and destruction of property of people with intellectual and developmental disabilities was found to be associated with higher levels of burnout in disability support workers (Smyth et al., 2015) and staff working in special education (Paris et al., 2021). While there is a clear link between work stress and burnout in disability support workers, to the authors' knowledge there is no research on how work stress may relate to compassion fatigue and compassion satisfaction in this profession. One study looked at the prevalence of compassion fatigue and compassion satisfaction in university students working at a week-long therapeutic recreational camp for people with disabilities (Waller et al., 2017). Most participants (82.4%) reported low levels of compassion fatigue and 17.6% reported average levels. Participants also reported average (40.7%) to high (59.3%) levels of compassion satisfaction. Further research may show whether levels of compassion fatigue and satisfaction in disability support workers differ when care is provided on an ongoing basis to people with intellectual disabilities. This is considered important given that it is increasingly likely that disability support workers will provide assistance to people with intellectual disability who have experienced trauma (Hulbert-Williams et al., 2014; Wigham et al., 2014), thus increasing the possibility of experiencing higher compassion fatigue and lower compassion satisfaction.

The relevance of examining work stress and its associations with compassion fatigue and compassion satisfaction in disability support work is supported by looking at these relationships in other helping professions. Nursing is a commonly represented helping profession in studies examining compassion fatigue and compassion satisfaction (Cavanagh et al., 2020). Work-related demands contributing to higher compassion fatigue and lower compassion satisfaction among nurses include role conflicts, role overload, and uncertainty about aspects of a role (Barr, 2017) as well as working increased hours (Hinderer et al., 2014; Hunsaker et al., 2015). Support from colleagues and managers has been associated with compassion fatigue and compassion satisfaction (Hinderer et al., 2014; Hunsaker et al., 2015). Fewer interests outside of work that

aid in stress reduction also appear to put nurses at risk of developing compassion fatigue (Hinderer et al., 2014). Client-related stressors such as providing ongoing care to critically ill patients, exposure to end-of-life situations, and working with traumatic situations appear to be linked to increased compassion fatigue (Berger et al., 2015).

Psychological flexibility

Coping is the ability to manage demands that exhaust or outweigh available resources (Lazarus & Folkman, 1984). Ways of coping with work stress is an important variable not just in the professional outcomes for disability support workers (Devereux et al., 2009; Kurz et al., 2014), but also for their clients (Singh et al., 2016), and at an organisational level (Nevill & Havercamp, 2019). Strategies that involve avoidance and control of internal experiences have been associated with higher levels of burnout or compassion fatigue in disability support workers (Nevill & Havercamp, 2019), oncology nurses (Duarte & Pinto-Gouveia, 2017), undergraduate nursing and psychology students (Martínez-Rubio et al., 2021), and special education staff (Paris et al., 2021). In fact, psychological inflexibility has been shown to be the strongest predictor of burnout when compared to other forms of coping, such as mindfulness and self-compassion (Martínez-Rubio et al., 2021).

In contrast to avoidance and control strategies, the literature has identified ways of coping that are linked to improved professional outcomes for those in helping professions. Psychological flexibility is one such example, which involves present-moment acceptance as well as value-driven behavioural change (Hayes et al., 2006). Noone and Hastings (2011) found that higher psychological flexibility was associated with lower levels of burnout in disability support workers. Similarly, in a study by Slowiak and Jay (2023) increased psychological flexibility was associated with lower levels of burnout. In a sample of geriatric care nurses, those who reported higher psychological flexibility also reported lower burnout and compassion fatigue as well as higher compassion satisfaction (Sarabia-Cobo et al., 2021). Psychological flexibility has also been shown to have a mediating effect on professional outcomes in response to work stress, such as job satisfaction (Novaes et al., 2018), psychological distress (Kurz et al., 2014), and burnout (Kurz et al., 2014).

There is a growing body of evidence to support the effectiveness of interventions designed to increase psychological flexibility on professional outcomes. Acceptance and Commitment Therapy (ACT) and interventions incorporating mindfulness, which aim to promote psychological flexibility, have been associated with lower psychological distress and burnout in disability support workers (Bethay et al., 2013; McConachie et al., 2014; Noone & Hastings, 2009, 2010). In a randomised control trial comparing a three-day mindfulness group, psychoeducation, and training-as-usual in-service group, disability support workers in the mindfulness group reported a significant decrease in perceived stress, levels of burnout and compassion fatigue, and a significant increase in compassion satisfaction (N. N. Singh et al., 2020). This is one of the only studies to examine an intervention targeting aspects of psychological flexibility on all aspects of professional quality of life in disability support workers. However, further research is needed to examine if mindfulness as a component of psychological flexibility, and acceptance, behaviour, and commitment processes are associated with professional quality of life. While these studies show the main effect of psychological flexibility, there is limited research exploring the mediating effect of this style of coping. Furthermore, while associations between work stress, psychological flexibility, and burnout have been examined in disability support workers, compassion fatigue and compassion satisfaction have not.

Aims of the study

The aim of the study was to explore the association between perceived work stress and professional quality of life and the influence of psychological flexibility on these relationships.

Hypotheses

(1) *Hypothesis 1.* Perceived work stress will be positively correlated with burnout. Disability support workers with higher work stress will experience higher levels of burnout.
(2) *Hypothesis 2.* Perceived work stress will be positively correlated with compassion fatigue. Disability support workers with higher work stress will experience higher levels of compassion fatigue.
(3) *Hypothesis 3.* Perceived work stress will be negatively correlated with compassion satisfaction. Disability support workers with higher work stress will experience lower levels of compassion satisfaction.
(4) *Hypothesis 4.* Psychological flexibility will mediate the relationship between perceived work stress and burnout. Disability support workers who experience high work stress but who have higher levels of psychological flexibility will experience lower levels of burnout.

(5) *Hypothesis 5.* Psychological flexibility will mediate the relationship between perceived work stress and compassion fatigue. Disability support workers who experience high work stress but who have higher levels of psychological flexibility will experience lower levels of compassion fatigue.
(6) *Hypothesis 6.* Psychological flexibility will mediate the relationship between perceived work stress and compassion satisfaction. Disability support workers who experience high work stress but who have higher levels of psychological flexibility will experience higher levels of compassion satisfaction.

Method

Participants

The population of interest in this study was disability support workers in Australia, who were 18 years of age or older and provided direct care to one or more people with an intellectual disability. Of the 345 respondents who agreed to participate in the study, 92 were excluded as 45% or more data was missing from their surveys. Missing data on the excluded surveys ranged from 51 to 81 (100%) items, with no systematic patterns observed. Two respondents were excluded due to extreme values on the compassion satisfaction measure. In total, 251 disability support workers participated in the study (191 female and 60 male). Using Cohen's (1992) recommendation for sample size in a regression, for a model with two predictor variables (perceived work stress and psychological flexibility) 30 participants would be needed to show a large effect (power = .80; alpha = 0.05; two-tailed multiple regression).

Table 1 summarises the main characteristics of participants. Participants were employed as support workers (79.7%) or provided direct care in manager or administrator (20.3%) roles. Direct care was described to potential participants as providing support and assistance to one or more persons with an intellectual disability to help them participate and be fully included within their social network and community. Most participants worked in supported accommodation (47.0%) and were in permanent part-time (39.8%) or permanent full-time (35.9%) positions. Approximately 46% of participants had been in their current employment 2–5 years. The most common age groups were between 26 and 35 years (29.5%) and 46 and 55 years (27.5%), and most were Australian-European (79.7%) ethnicity. In total, 30% of participants possessed a certificate as their highest level of education.

Design and procedure

This study used a quantitative cross-sectional design. Individuals and organisations that provide support to people with intellectual disability were identified using the NDIS list of registered providers across Australia. Identified services were contacted by email and invited to take part in the study (Number of emails: ACT = 656, NSW = 2964, NT = 234, SA = 900, TAS = 588, VIC = 1776, WA = 604). After receiving written permission from services, an information page was posted to social media sites by the researchers or management team of the service. The information page was also circulated by the management team on the internal

Table 1. Participant demographics ($N = 251$).

Demographic	*N*	Percentage (%)
Sex		
Female	191	76.1
Male	60	23.9
Age		
18–25 years	23	9.2
26–35 years	74	29.5
36–45 years	47	18.7
46–55 years	69	27.5
56 years and older	38	15.1
Ethnicity		
Australian, Other[a]	15	6.0
Australian, European	200	79.7
Australian, Aboriginal or Torres Strait Islander	17	6.8
Non-Australian	19	7.6
Highest level of education		
Did not finish high school	11	4.4
Completed year 12	17	6.8
Certificate	76	30.3
Diploma	67	26.7
Bachelor degree	57	22.7
Postgraduate degree	23	9.2
Occupation		
Support worker	200	79.7
Manager or administrator	51	20.3
Primary employment setting		
Other[b]	29	11.6
Supported accommodation	118	47
Respite	17	6.8
Day service program	30	12
Community access[c]	36	14.3
Community support[d]	21	8.4
Employment type		
Permanent full-time	90	35.9
Permanent part-time	100	39.8
Casual	54	21.5
Contract	7	2.8
Length of current employment		
Less than 1 year	50	19.9
2–5 years	116	46.2
6–10 years	54	21.5
More than 10 years	31	12.4

[a]Australian, Other includes New Zealand Māori, Indonesian, Indian, Fijian, South African, African, El Salvadoran, Hispanic, and Filipino.
[b]Other primary employment setting includes employment, administration, forensic disability service, school, social enterprise, assessment, government services, community nursing, individualised support, and across multiple settings.
[c]Community access includes learning and life skills development.
[d]Community support includes intervention, counselling, and case management.

intranet and email. Individuals who chose to participate in the study were provided with additional information about the purpose of the study, anonymity, and confidentiality; and completed an online informed consent and questionnaire. In exchange for participation, participants could enter a draw to win one of two $50 Coles gift cards. A response rate could not be calculated as the researchers could not determine how many disability support workers accessed the study information page. The study was approved by the Human Research Ethics Committee of Central Queensland University (approval number: H17/03-04) for the period May 2017 to October 2017.

Measures

Demographic information

Demographic information about sex, age, ethnicity, qualifications, occupation and type of service, employment details, and length of current employment was collected from participants. Age was collected as categorical data only, as direct questions about the date of birth or age may be considered sensitive, thus are commonly expressed as groups (Mondal, 2017).

Perceived work stress

Perceived work stress was assessed using the Staff Stressor Questionnaire (SSQ) (Hatton et al., 1999). The SSQ is a 33-item self-report measure about possible sources of stress for individuals who work with people with disability. Items are rated on a 5-point Likert scale (1 = *not at all* to 5 = *a great deal*). The questionnaire is comprised of seven subscales: client challenging behaviour, poor client skills, lack of staff support, lack of resources, low-status job, bureaucracy, and work-home conflict. An overall score was calculated by summing the responses for each item, with higher scores indicating higher perceived work stress. Hatton et al. (1999) reported internal consistency ranging from $\alpha = .58$ to $\alpha = .89$ for the subscales and evidence of construct validity. Good internal consistency has been reported for the overall summed score with $\alpha = .94$ (Kurz et al., 2014). In the current study, a summed score of all items was used to gain an impression of perceived work stress and how this related to psychological flexibility overall. In the current study, reliability was $\alpha = .94$ for the summed score, indicating good internal consistency.

Professional quality of life

Burnout, compassion fatigue, and compassion satisfaction were measured with the ProQOL-Version 5 (ProQOL-5) (Stamm, 2010). The ProQOL-5 is a 30-item self-report measure, rated on a 5-point Likert scale (1 = *never* to 5 = *very often*). The measure is comprised of three subscales: burnout, secondary traumatic stress, and compassion satisfaction. Consistent with previous research (Figley, 1995) secondary traumatic stress is referred to as compassion fatigue in this study. Higher scores on the compassion fatigue and burnout subscales indicate higher risk for experiencing both outcomes. Higher scores on the compassion satisfaction subscale indicate greater satisfaction in one's ability to be effective in their work role. Items from each subscale were summed to provide a subscale total. Acceptable internal consistency has been reported for the burnout ($\alpha = .75$), compassion fatigue ($\alpha = .81$), and compassion satisfaction ($\alpha = .88$) subscales (Stamm, 2010). In the current study, good internal consistency was shown for compassion satisfaction ($\alpha = .92$) and compassion fatigue ($\alpha = .83$), and adequate internal consistency for burnout ($\alpha = .78$). Adequate construct validity has also been established (Stamm, 2010).

Psychological flexibility

Psychological flexibility was measured with the Acceptance and Action Questionnaire-II (AAQ-II) (Bond et al., 2011). This measure is comprised of 10 items and rated on a 7-point Likert scale (1 = *never true* to 7 = *always true*). Higher scores on the AAQ-II indicate higher levels of psychological flexibility. The reliability of the AAQ-II has been examined in studies and shown to have good internal consistency; $\alpha = .87$ to $\alpha = .92$ (Bond et al., 2011; Kurz et al., 2014). Adequate internal consistency was established in the current study with $\alpha = .83$. Research has also shown that the AAQ-II is a unidimensional measure of psychological flexibility (Bond et al., 2011).

Statistical analyses

The data was analysed using the statistical package IBM SPSS Version 24.0 (IBM Corp., 2016). The data was checked for normal distribution. All measures were not normally distributed ($p < .05$) using the Kolmogorov–Smirnov test; however, this is common in larger samples and reflects the nature of the construct measured (Pallant, 2016). Visual inspection of the perceived work stress, psychological flexibility, burnout, and compassion fatigue measures showed a reasonably normal distribution. However, this was not the case for the compassion satisfaction measure where two extremely low values were noted as outliers. Therefore, non-parametric tests were employed.

Reliability

To test the internal consistency of all measures, a series of Cronbach alpha coefficient reliability scores were calculated.

Univariate analyses

A series of *t*-tests and one-way analyses of variance (ANOVA) examined significant differences between demographic sub-groups for compassion fatigue and burnout measures. The non-parametric tests Mann–Whitney *U* Test and Kruskal–Wallis Test were used to test significant differences between demographic sub-groups and compassion satisfaction as this measure was not normally distributed.

Bivariate analyses

To test the correlational relationships between perceived work stress, psychological flexibility, compassion fatigue and burnout, Pearson product-moment correlation coefficients were calculated. The non-parametric Spearman Rank-Order Correlation (rho) was used to examine the correlational relationships between these variables and compassion satisfaction.

Mediation analyses

As the compassion satisfaction measure was not normally distributed the non-parametric method of bootstrapping was used to test for mediation of psychological flexibility in the work stress and professional quality of life relationship. Data from the original sample size is resampled 5000 times to build an estimate of the sampling distribution for the indirect effect in the resampled data. A mediation analysis was then conducted to test the attribution of demographic variables on psychological flexibility and professional quality of life outcomes. Dummy coding was conducted as demographic variables were categorical variables. In line with Field (2013), the majority of each demographic sub-group was assigned as the reference and compared to all other groups. Demographic variables that had significant differences between sub-groups at the 0.25 level or below were included in the mediation. Traditional significance levels ($p < .05$) can overlook important variables when conducting univariate analyses; therefore 0.25 is recommended for such analyses (Bursac et al., 2008).

Results

Descriptive statistics

ProQOL standardised subscale scores

The raw ProQOL data was transformed into *t*-scores and compared to the standardised subscale scores outlined in the ProQOL-5 manual (Stamm, 2010). High burnout was found in 25.9% of respondents, 24.7% of respondents had high compassion fatigue, and 27.1% of respondents had low compassion satisfaction. Average burnout was found in 47.4% of respondents, 51% of respondents had average compassion fatigue, and 43% of respondents had average compassion satisfaction. Low burnout was found in 26.7% of respondents, 24.3% of respondents had low compassion fatigue, and 29.9% of respondents had high compassion satisfaction.

Association between demographic variables and professional quality of life

There was a significant difference at the $p < .05$ level in burnout for the type of employment, F (3, 247) = 4.64, $p = .004$. There were no significant differences in compassion fatigue or compassion satisfaction across other demographic variables at the $p < .05$ level.

Correlations between work stress and professional quality of life

There was a strong, positive correlation between perceived work stress and burnout ($r = .57$, $p = .000$), with high levels of perceived work stress associated with higher levels of burnout. There was a positive correlation between perceived work stress and compassion fatigue ($r = .49$, $p = .000$), with high levels of perceived work stress associated with higher levels of compassion fatigue. A negative correlation between perceived work stress and compassion satisfaction was found ($r = -.28$, $p = .000$), which indicates an association between high levels of work stress and lower levels of compassion satisfaction (see Table 2). A negative correlation was found between perceived work stress and psychological flexibility ($r = -.36$, $p = .000$), with high perceived work stress associated with lower psychological flexibility (see

Table 2. Correlations ($N = 251$).

		Work stress	Psychological flexibility
Burnout	Pearson correlation	.57*	−.56*
	Sig. 2-tailed	.000	.000
	N	251	251
Compassion fatigue	Pearson correlation	.49*	−.57*
	Sig. 2-tailed	.000	.000
	N	251	251
Compassion satisfaction	Spearman's rho	−.28*	.36*
	Sig. 2-tailed	.000	.000
	N	251	251
Psychological flexibility	Pearson correlation	−.36*	
	Sig. 2-tailed	.000	
	N	251	

*$p < .01$ level (two-tailed).

Table 3. Mediation model for perceived work stress and burnout.

		Outcome						
		M (Psychological flexibility)				*Y* (Burnout)		
Predictor		Coeff.	*SE*	*p*		Coeff.	*SE*	*p*
X (Work stress)	*a*	−.15 [−.19, −.10]	.02	.000	c^1	.11 [.09, .14]	.01	.000
M (Psychological flexibility)		–	–	–	*b*	−.27 [−.33, −.20]	.03	.000
Constant	i_1	62.13 [58.10, 66.17]	2.05	.000	i_2	27.65 [23.23, 32.06]	2.24	.000
		R^2 = .13				R^2 = .47		
		F = (1, 249) = 36.94, p = .000				F = (2, 248) = 111.33, p = .000		

Table 2). There was a negative correlation between psychological flexibility and compassion fatigue (r = −.57, p = .000) and between psychological flexibility and burnout (r = −.56, p = .000), with high psychological flexibility associated with lower compassion fatigue and burnout. There was a positive correlation between psychological flexibility and compassion satisfaction (r = .36, p = .000), indicating that higher psychological flexibility was associated with higher compassion satisfaction (see Table 2).

Mediation analyses

Perceived work stress and burnout

As can be seen in Table 3 and Figure 1, perceived work stress negatively predicted psychological flexibility (path *a*), b = −.15 and psychological flexibility negatively predicted burnout (path *b*), b = −.27. A bias-corrected bootstrap confidence interval for the indirect effect (path *ab*, b = .04) based on 5000 bootstrap samples was above zero, .02 to .06. Perceived work stress positively predicted burnout independent of psychological flexibility (path c^i), b = .11. Nevertheless, there was a significant indirect effect of work stress on burnout through psychological flexibility. Even after controlling for primary employment setting and length of current employment, the indirect effect of psychological flexibility on perceived work stress and burnout was not overly different and a bias-corrected bootstrap confidence interval for the indirect effect (path *ab*, b = .04) based on 5000 bootstrap samples was above zero, .02 to .06.

Perceived work stress and compassion fatigue

As can be seen in Table 4 and Figure 2, perceived work stress negatively predicted psychological flexibility (path *a*), b = −.15 and psychological flexibility negatively predicted compassion fatigue (path *b*), b = −.29. Perceived work stress positively predicted compassion fatigue independent of psychological flexibility (path c^i), b = .09. A bias-corrected bootstrap confidence interval for the indirect effect (path *ab*, b = .04) based on 5000 bootstrap samples was above zero, .03 to .06, indicating that there was a significant indirect effect on compassion fatigue by work stress through psychological flexibility. While controlling for the age, ethnicity, and primary

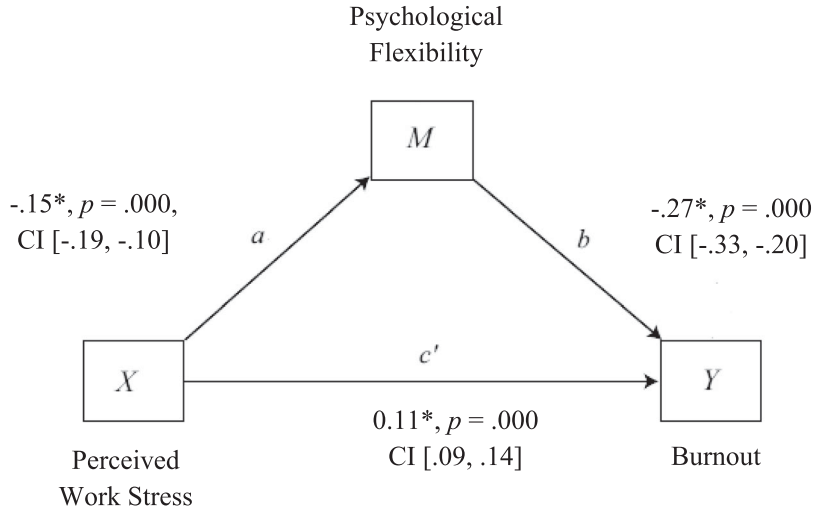

Figure 1. Mediation model for the influence of psychological flexibility on perceived work stress and burnout.

Table 4. Mediation model for perceived work stress and compassion fatigue.

		Outcome						
		M (Psychological flexibility)				Y (Compassion fatigue)		
Predictor		Coeff.	SE	p		Coeff.	SE	p
X (Work stress)	a	−.15 [−.19, −.10]	.02	.000	c^1	.09 [.06, .12]	.01	.000
M (Psychological flexibility)		–	–	–	B	−.29 [−.36, −.22]	.03	.000
Constant	i_1	62.13 [58.09, 66.17]	2.05	.000	i_2	28.03 [23.38, 32.69]	2.37	.000
		R^2 = .13				R^2 = .42		
		F = (1, 249) = 36.94, p = .000				F = (2, 248) = 89.13, p = .000		

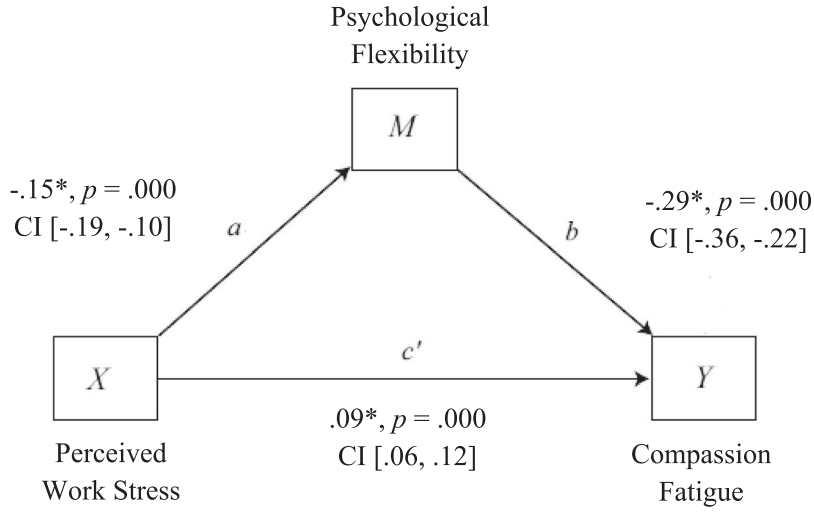

Figure 2. Mediation model for the proposed influence of psychological flexibility on work stress and compassion fatigue.

employment setting a bias-corrected bootstrap confidence interval for the indirect effect based on 5000 bootstrap samples was above zero, .03 to .06 (path *ab*, b = .04).

Perceived work stress and compassion satisfaction

As can be seen in Table 5 and Figure 3, perceived work stress negatively predicted psychological flexibility (path *a*), b = −.15 and psychological flexibility positively predicted compassion satisfaction (path *b*), b = .20. Perceived work stress negatively predicted compassion satisfaction independent of psychological flexibility (path c^i), b = −.05. A bias-corrected bootstrap confidence interval for the indirect effect (path *ab*, b = −.03) based on 5000 bootstrap samples was below zero, −.05 to −.02, indicating that there was a significant indirect effect on compassion satisfaction by work stress through psychological flexibility. While controlling for sex, employment role, age, and ethnicity a bias-corrected bootstrap confidence interval for the indirect effect based on 5000 bootstrap samples was below zero, −.05 to −.01 (path *ab*, b = −.01).

Table 5. Mediation model for perceived work stress and compassion satisfaction.

		Outcome						
		M (Psychological flexibility)				Y (Compassion satisfaction)		
Predictor		Coeff.	SE	p		Coeff.	SE	p
X (Work stress)	a	−.15 [−.19, −.10]	.02	.000	c^1	−.05 [−.09, −.02]	.02	.005
M (Psychological flexibility)		–	–	–	B	.20 [.11, .29]	.05	.000
Constant	i_1	62.13 [58.09, 66.17]	2.05	.000	i_2	34.26 [27.79, 40.73]	3.28	.000
		R^2 = .13				R^2 = .14		
		F = (1, 249) = 36.94, p = .000				F = (2, 248) = 20.33, p = .000		

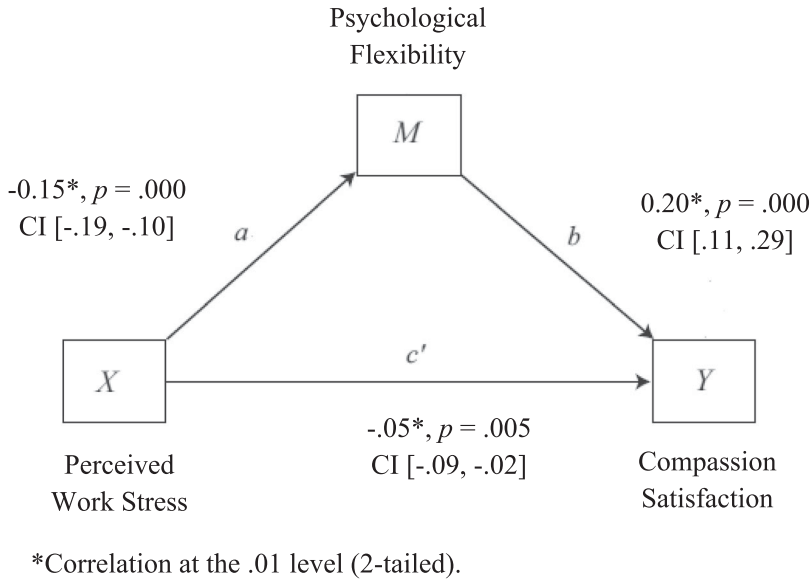

Figure 3. Mediation model for the proposed influence of psychological flexibility on work stress and compassion satisfaction.

Discussion

The current study examined the association between work stress and professional quality of life in disability support workers and the mediating effect of psychological flexibility. In support of hypothesis one, a significant relationship was found between higher perceived work stress and higher burnout in disability support workers. This finding was expected and is consistent with several studies that have established this link in the field of disability support (Gray & Muramatsu, 2011; Harries et al., 2015; Outar & Rose, 2017; Paris et al., 2021; Smyth et al., 2015; Vassos et al., 2013; Vassos & Nankervis, 2012). In relation to the other components of professional quality of life, results confirm that disability support workers who perceived aspects of their work as more demanding were more likely to report higher compassion fatigue (supporting hypothesis 2) and lower compassion satisfaction (supporting hypothesis 3). This study extends the existing research on compassion fatigue and compassion satisfaction in helping professions and is the first to examine the link between work stress and these constructs in disability support work. Compassion fatigue and compassion satisfaction are constructs that have largely been overlooked within the field of disability support. While most of the participants in this study reported average levels of burnout, compassion fatigue, and compassion satisfaction, 25% of participants reported high levels of burnout and compassion fatigue and low levels of compassion satisfaction. These prevalence rates are consistent with research suggesting that the majority of helping professionals report average professional quality of life (Cavanagh et al., 2020) and around a quarter report upper and lower levels (Berger et al., 2015; Duarte & Pinto-Gouveia, 2017; J. Singh et al., 2020). These results also suggest that a considerable portion of disability support workers may be experiencing extreme aspects of professional quality of life, which are associated with the demands within their role.

In relation to psychological flexibility, the results showed evidence that psychological flexibility mediated the relationships between perceived work stress and burnout (supporting hypothesis 4), compassion fatigue, (supporting hypothesis 5), and compassion satisfaction (supporting hypothesis 6). These results suggest that disability support workers who use skills related to psychological flexibility (i.e., acceptance, present-moment awareness, and value-driven behaviour) in response to the demands in their roles are more likely to experience lower burnout and compassion fatigue and higher compassion satisfaction. Kurz et al. (2014) and Novaes et al. (2018) established that psychological flexibility has a mediating effect on professional outcomes of job satisfaction, psychological distress, and burnout in response to work stress. This study extends this research and is the first to examine whether psychological flexibility mediates the relationships between work stress and compassion satisfaction and compassion fatigue.

The results of this study, examing the association of perceived work stress and aspects of professional quality of life, imply that interventions that aim to strengthen and maintain psychological flexibility may be useful for disability support workers. Mindfulness intervention is a core aspect of psychological flexibility and has been linked to significant decreases in compassion fatigue and

burnout, increases in compassion satisfaction (Singh et al., 2020) and reduced psychological stress (Singh et al., 2016; Singh et al., 2020) in disability support workers. Bethay et al. (2013) found that disability support workers with elevated psychological distress at the start of a three-day program targeting psychological flexibility as well as education about applied behaviour analysis reported significant reductions in psychological distress and believability of burnout-related thoughts post-test and after three months. Increased psychological flexibility does not eliminate high work stress for disability support workers but appears to change how they respond to demands to lessen the risk of elevated burnout, compassion fatigue, and lower compassion satisfaction.

Limitations

There were several limitations to this study, that should be acknowledged. The study could not establish a response rate and therefore potential sampling bias could not be examined. This may pose a threat to the representativeness of the sample and the generalisability of the findings. However, the number of questionnaires returned was substantially more than the number recommended by Cohen (1992) for a regression analysis. The relational analyses should be robust despite these concerns (Smith, 1983). Another sampling issue is the number of incomplete surveys, with 92 responders excluded due to 45% or higher missing item responses. While there were no systematic patterns observed for these missing items, there is the potential for biased estimates. The demographics of the sample closely resemble those expected for this population, with females and those in middle age predominant so could be thought to represent this group quite well.

As age was collected as categorical ranges only, we acknowledge that we were unable to include age as a continuous variable, which could limit analyses on age. However, asking direct questions about date of birth or age can be considered sensitive, with the potential to allow identification, thus people are more likely to respond to a range of options (Mondal, 2017).

Self-report measures were included in the study, which raises the possibility of social desirability bias and underreporting on measures and items that may be perceived as negative, such as the compassion fatigue and burnout scales. However, only validated scales were used, to optimise methodological rigour. This study involved a cross-sectional design to gain information about perceived work stress, psychological flexibility, and professional quality of life, therefore, causal inferences cannot be made due to the correlational nature of the research. Future research could involve a longitudinal design to allow inferences to be made regarding causality.

Finally, there have been significant changes to disability support work with the continuing rollout of NDIS during and since the data in this paper was collected. However, we have no reason to expect that the variable relationships explored here would be significantly impacted by these ongoing changes. This paper remains relevant to the work health of disability support workers (Australian Institute of Health and Welfare, 2020), and for identifying strategies for the ever-increasing number of disability support workers needed in Australia (National Disability Insurance Scheme Review, 2023).

Conclusion

The role of disability support work is integral to the quality of life of people with intellectual disability and involves diverse and demanding responsibilities. The current study contributes to the evidence that psychological flexibility mediates the relationship between work stress and burnout. This study is also the first to specifically examine the indirect influence of perceived work stress in disability support work on compassion fatigue and compassion satisfaction through psychological flexibility. Developing and maintaining psychological flexibility may be beneficial for reducing burnout and compassion fatigue and increasing compassion satisfaction in disability support work. In relation to practical applications, the current results show some optimism for incorporating interventions that promote psychological flexibility such as ACT for disability support workers. Further research may include a focus on the effects of delivering an ACT-based program on work stress, burnout, compassion fatigue, and compassion satisfaction. Exploration of other intervention formats may also add to the understanding of how psychological flexibility can be supported in disability support work roles.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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