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A Systematic Review of Burnout Among Staff Working in Services for Adults With Intellectual and Developmental Disabilities

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ABSTRACT

Background: The psychological wellbeing of staff who provide support to people with intellectual and developmental disabilities is one of the crucial factors in determining the quality of provision offered. An understanding of the current status and influencing variables of staff psychological wellbeing is considered to be vital in this respect.

Method: A systematic review of all studies involving staff working with people with intellectual disabilities using the Maslach Burnout Inventory Human Services Version (MBI-HS) published from May 2004 up to and including April 2024 was conducted.

Results: Twenty-one studies were found which allowed updated norms and comparisons with previously published norms (Skirrow and Hatton, *Journal of Applied Research in Intellectual Disabilities* 2007; 20(2):131–144) and normative scores from staff working in human services. Scores indicated significantly lower levels of Emotional Exhaustion and Depersonalisation and less Personal Accomplishment compared to norms for people working in human services. The positive trend in improving burnout scores previously reported by Skirrow and Hatton (*Journal of Applied Research in Intellectual Disabilities* 2007; 20(2):131–144) had not continued.

Conclusions: A 'National Observatory' approach is recommended to enable regular monitoring of staff wellbeing and exploration of influencing variables.

1 | Introduction

The psychological wellbeing of staff who support people with intellectual and developmental disabilities is increasingly recognised as critical to the quality of support provided (Baker, Stafford, and Hardiman 2019; Paris et al. 2021). Put simply, the demands of caring are such that having a state of good psychological wellbeing is essential for optimal quality of care. Furthermore, staff who have a state of good psychological wellbeing are less likely to be absent or to leave their employment, thus positively influencing continuity of care (Ejaz et al. 2013). The demands of caring, however, may have a detrimental effect on the psychological wellbeing of staff, with this relationship frequently examined through the lens of burnout.

Burnout is a stress-related phenomenon involving a state of physical, emotional, and mental exhaustion that occurs when staff feel overburdened by the demands of long-term involvement in emotionally demanding situations (Innstrand, Espnes, and Mykletun 2002). The long-term nature of the stressors inherent to the definition of burnout makes it a good conceptual fit to the provision of direct support to people with intellectual and developmental disabilities, where demands and challenges for staff are often unchanging and enduring (Skirrow and Hatton 2007).

In 2007, Skirrow and Hatton published a systematic review of staff burnout in services for adults with intellectual disabilities. To facilitate analysis and avoid confusion related to the choice of burnout measure, Skirrow and Hatton restricted their review to studies that had used the Human Services version of the Maslach Burnout Inventory (MBI-HS; Maslach, Jackson, and Leiter 1996), the most widely established universal measure of burnout. This measure is based on a conceptualisation of burnout comprising three basic dimensions: Emotional Exhaustion (EE)—also described as wearing out, loss of energy, depletion, debilitation, and fatigue; Depersonalisation (Dp), feelings of cynicism and detachment from the job—also described as negative or inappropriate attitudes, detached concern, irritability, loss of idealism, and withdrawal; and reduced Personal Accomplishment (PA) a sense of professional inefficacy—also described as reduced productivity or capability, low morale, and an inability to cope (Leiter and Maslach 2016). The MBI-HS was standardised on a population of 11,067 participants working in human services including education, social care, health, law enforcement, and so forth (Maslach, Jackson, and Leiter 1996). Psychometrics are consistently reported as having acceptable internal consistency (EE: $\alpha = 0.90$; Dp: $\alpha = 0.79$; PA: $\alpha = 0.71$) (Maslach, Jackson, and Leiter 1996), with Schaufeli et al. (2001) providing confirmation of the validity of the three-factor structure. The instrument's construct validity and reliability among staff working in intellectual disability services have also been demonstrated (Hastings, Horne, and Mitchell 2004).

The results of the Skirrow and Hatton review generated normative data for staff working in services for people with intellectual disabilities and concluded that the levels of burnout in this population were lower than normative samples from other human services and that there was a trend of rates decreasing over the preceding 20 years. However, sample characteristics and variation in the methodologies employed by the various studies made it difficult to identify demographic, client characteristics, and organisational variables associated with burnout.

In the current paper, we update the Skirrow and Hatton (2007) systematic review, employing a similar methodology, to further examine levels and current trends in burnout for staff working in services for people with intellectual disabilities.

2 | Method

The review protocol was registered on Prospero (ID = CRD 42021270607). (https://www.crd.york.ac.uk/prospero/#searchadvanced).

2.1 | Inclusion Criteria

The inclusion criteria were based on those from Skirrow and Hatton (2007), whereby studies using the MBI-HS with staff working directly with adults with intellectual and other developmental disabilities (published since the search conducted by Skirrow and Hatton in May 2004) were included. Studies using any other versions of the MBI-HS, including translated versions were excluded. Studies were only included in the review if they reported at least one of the three mean MBI-HS subscale scores (i.e., Emotional Exhaustion, Depersonalisation, and/or Personal Accomplishment) for their sample, and had been published in an English language journal. Where eligible studies included data pertaining to more than one point in time, mean subscales scores of the MBI-HS only at baseline data collection were included in the analysis of data.

2.2 | Search Procedure

The original Skirrow and Hatton study search strategy involved a fairly limited search of 'Psychinfo' and 'Medline'. The current strategy was expanded to include a systematic search of 'Psychinfo', 'Medline', 'CINAHL Plus with Full Text', 'PubMed', 'SCOPUS', and 'Social Sciences Citation Index' online databases (from May 2004 up to and including March 2024) performed by the second author using search terms relating to intellectual and developmental disabilities, staff working within services and the Maslach Burnout Inventory (Table 1). This resulted in 13,976 records. After 2431 duplicates were removed, the titles and abstracts of 11,557 articles were reviewed against the inclusion and exclusion criteria. The total number of full-text papers reviewed was 203, of which 21 have been included in this review for analysis (see Figure 1).

2.3 | Study Risk of Bias Assessment

A standard critical appraisal process of the quality of the studies was not considered appropriate, given the focus of this study was solely the analysis of MBI-HS data to enable updated norms and comparisons with normative scores from staff working in other human services. Therefore, the risk of bias assessment was confined to selection bias, that is, the representativeness of and comparability of participants.

3 | Results

Table 2 shows the characteristics of the included studies, including samples used and reported levels of burnout.

4 | Study Risk of Bias

4.1 | Recruitment Method

All studies utilised a non-probability convenience sampling method to recruit participants, of which 20 included participants from multiple services via word of mouth, advertisement shared in relevant magazines/newsletters, through direct professional contacts with organisations, and professional bodies.

4.2 | Data Collection Method

A response rate was calculated by authors of 11 studies, which ranged from 0.81% to 71% (Median = 35%) and depended largely on the target population. Authors of 12 studies did not report a response rate.

TABLE 1 | Search terms.

Burnout
TX burnout AND TX ((‘Maslach Burnout Inventory’ OR ‘Emotional Exhaustion’ OR Depersonalisation OR Depersonalization OR ‘Personal Accomplishment’))
Intellectual and other developmental disabilities
Intellectual and developmental disability
(TX (autis* OR asperg* OR hyperkinetic OR ‘developmental disorder’ OR disab* OR retard* OR handicap* OR subnormal*)) OR (TI (mental* NEAR/3 (disab* OR impair* OR handicap* OR subnormal* OR deficien* OR retard*)) OR AB (mental* NEAR/3 (disab* OR impair* OR handicap* OR subnormal* OR deficien* OR retard*)) OR TI (learning NEAR/3 (disab* OR impair* OR difficult* OR disorder*)) OR AB (learning NEAR/3 (disab* OR impair* OR difficult* OR disorder*)) OR TI (moron* OR imbecile* OR feeble*minded OR subnormal* OR retard) OR AB (moron* OR imbecile* OR feeble*minded OR subnormal* OR retard) OR TI (intellectual* NEAR/3 (disab* OR impair* OR handicap* OR disorder* OR subnormal* OR deficien*)) OR AB (intellectual* NEAR/3 (disab* OR impair* OR handicap* OR disorder* OR subnormal* OR deficien*)) OR TI ((low*functioning OR severe) NEAR/3 autis*) OR AB ((low*functioning OR severe) NEAR/3 autis*))

4.3 | Job Role

Authors of nine studies recruited direct support workers only. A further nine studies data included other professional roles including managers, psychologists, occupational therapists, psychiatrists, social workers, special education teachers, assistant teachers, and administrative personnel. In five studies it was unclear if participants were direct support workers or inclusive of a variety of other professionals.

5 | Meta-Analysis

All 21 studies reported mean scores for one or more of the MBI subscales. In order to weight for differences in sample size and variance in each study, the total population size was calculated by adding sample sizes across all 21 studies included in the review. Means and confidence intervals were calculated using the normal distribution and the standard inverse-variance method for random effects models (Marin-Martinez and Sánchez-Meca 2010) by means of the R statistics package (Table 3).

The analysis in the Skirrow and Hatton study used the sample size to weight each study, without accounting for the variance of each study. This restricted the information given by each study, where two studies with similar sample size, but with different variances will have the same weight in the calculation of this normative score. In order to make meaningful comparisons the data from the Skirrow and Hatton study were recalculated using the normal distribution and the standard inverse-variance method for random effects models described above. In addition, data that explicitly and exclusively pertained to staff who were not direct support workers was excluded (Table 3).

Given the overlapping confidence intervals, there is no evidence of difference in levels of reported burnout in the more recent studies in this review. The current data was also compared to the scores reported in the MBI handbook (Maslach, Jackson, and Leiter 1996). EE, Dp and PA scores are all lower than the Maslach norms with non-overlapping confidence intervals (Table 3).

As with the Skirrow and Hatton study, interpretation and analysis of the reported subscale scores were difficult due to the differences in scope and methodologies of the studies. Where the type and consistency of the data across studies permitted, associations between MBI subscale scores were investigated. Differences in MBI scores regarding setting (community/hospital), exposure to behaviours that challenge, and location (Europe/USA and Canada/Australia) were investigated using Mann–Whitney *U*/Kruskal–Wallis tests (as appropriate) with no significant differences found.

6 | Risk Factors for Burnout

As a result of the small numbers of studies involved and difficulties in codifying non-discrete data, further meta-analytic comparisons were not considered valid. Study-by-study analysis of the association between statistically significant burnout and participant/service-user characteristics and organisational variables is provided below (Table 4). For the purposes of this analysis other indices of poor psychological wellbeing were not investigated. As noted by Rose and Rose (2005), there appears to be a circular relationship between the components of burnout and other indices of poor psychological with these appearing to overlap and arguably may be measuring the same construct.

6.1 | Staff Characteristics

In the main, only weak associations or small effect sizes were reported regarding individual staff characteristics. Weak associations or small effect sizes were reported in regard to staff personality traits, cognitive/attributional style except for prosocial motivation, mindfulness and global and specific reciprocal relationships, which had moderate associations and expressed emotion which had one study indicating a strong association and two weak.

Hickey (2014) found that prosocial motivation significantly moderated the association of EE and role boundary stress with Dp. Prosocial motivation also moderated the effects of role ambiguity stress with a direct support worker's sense of PA. In contrast,

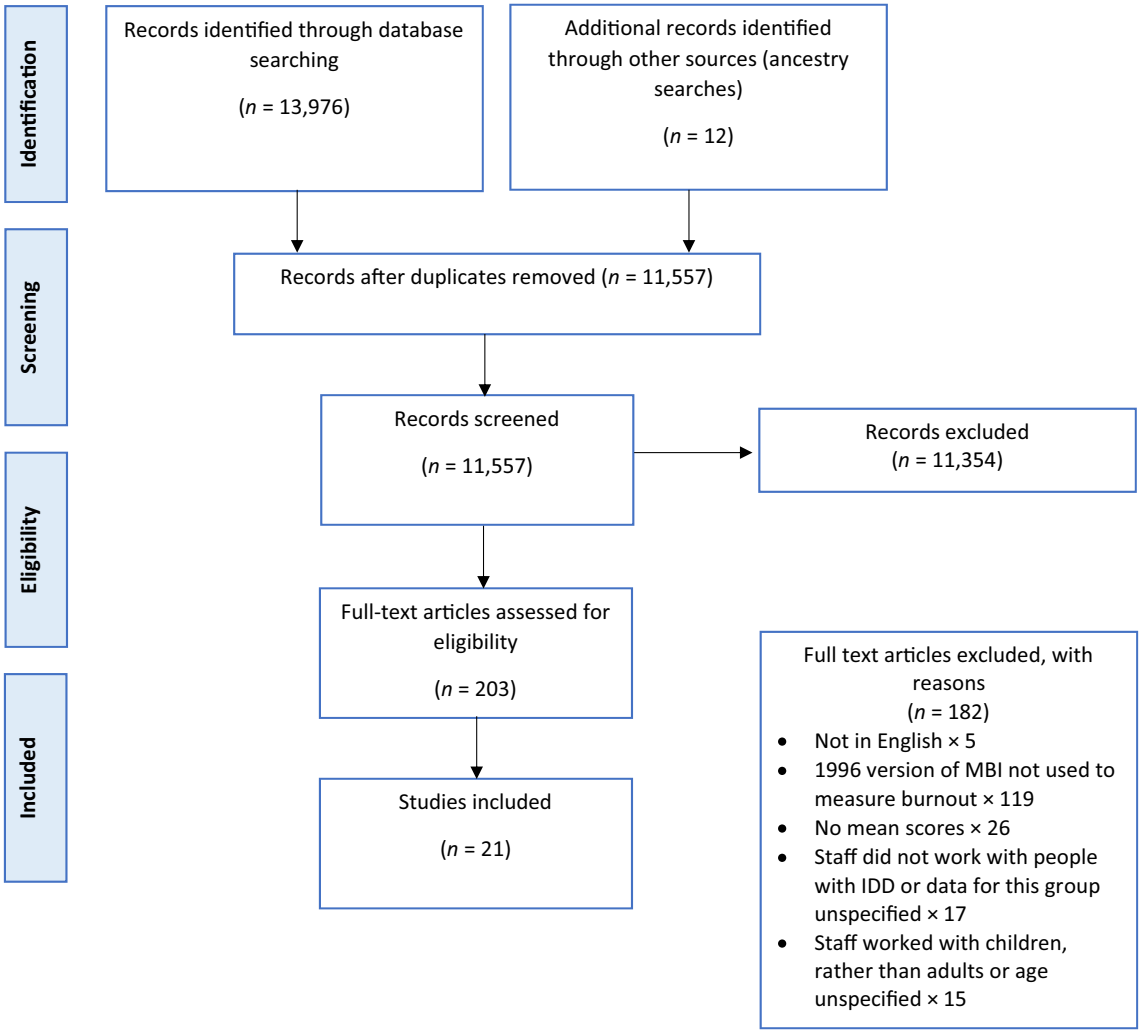

FIGURE 1 | PRISMA chart of search results.

prosocial motivation magnified feelings of EE when interacted with a sense of PA.

6.2 | Client Characteristics

In regard to client characteristics, the relationship between behaviours that challenge and burnout was the most commonly investigated relationship. Behaviours that challenge were measured in a variety of ways, including staff self-reported exposure to aggression or challenging behaviour, standardised measures including the Behaviour Problems Inventory (Rojahn et al. 2001), the Checklist of Challenging Behaviours (Harris, Humphreys, and Thomson 1994), and the Aberrant Behaviour Checklist (Aman et al. 1985). Authors of one study reported perceived level of challenging behaviour which was rated as low to medium by the staff who had direct client contact (Thomas and Rose 2010).

Two studies attempted to identify associations between type of behaviour and MBI scores. Smyth, Healy, and Lydon (2015) suggested that greater severity of aggressive/destructive behaviour was weakly but significantly correlated with EE. Frequency of aggression, standardised severity and perceived severity were all found to be significantly positively correlated with EE and DP, all were weak associations except for perceived severity and EE, while there was a weak but significant positive correlation between standardised severity and PA (Hensel, Lunsky, and Dewa 2012). Severity of aggression was a partial mediator of higher EE among hospital staff with a small effect size calculated to be 0.18 and suggested that exposure to more severe forms of client aggression among hospital staff contributed, at least in part, to them feeling more emotionally exhausted (Hensel, Lunsky, and Dewa 2014).

In contrast, general exposure to behaviours that challenge was shown to be unrelated to burnout among staff, including the frequency of exposure and type of support provided (Mutkins, Brown, and Thorsteinsson 2011). Rose and Rose (2005) found that high-stress levels and moderate burnout were not associated with self-reported thoughts and feelings regarding challenging behaviour (Rose and Rose 2005). Further, Rose et al. (2013) found that the influence of behaviours that challenge on EE is fully mediated by fear of assault and suggested that if reported fear of assault can be reduced, staff will experience less EE.

Vassos et al. (2013) found a moderate association between low adaptive skills and EE and weak associations with DP and low

TABLE 2 | Sample characteristics and reported mean MBI subscale scores across reviewed studies.

Study number	Title (author(s), date)	Country of origin	Sample characteristics	Mean EE (SD where reported)	Mean Dp (SD where reported)	Mean PA (SD where reported)
1	Bethay et al. (2013). A Controlled Pilot Evaluation of Acceptance and Commitment Training for Intellectual Disability Staff	USA	34 intellectual disability staff recruited from a large, state-funded residential facility for individuals with intellectual disabilities in the USA. The facility provides 24h care to several hundred individuals	Control Group ($n=16$): 17.81 (11.03) Intervention group ($n=18$): 16.78 (13.32)	Control Group ($n=16$): 4.13 (3.12) Intervention group ($n=18$): 5.50 (3.99)	Control Group ($n=16$): 33.19 (9.81) Intervention group ($n=18$): 33.44 (8.05)
2	Chao, McCallion, and Nickle (2011). Factorial validity and consistency of the Maslach Burnout Inventory among staff working with persons with intellectual disability and dementia	USA	435 staff were recruited during a project in one region of New York state focused upon improving care for persons with intellectual disability and dementia	15.3 (10.7)	3.0 (4.1)	38.6 (7.3)
3	Dennis and Leach (2007). Expressed emotion and burnout: the experience of staff caring for men with learning disability and psychosis in a medium secure setting	UK	10 nursing staff and healthcare support workers caring for people with learning disabilities on a medium secure unit	13.6 (9.1)	11.1 (9.7)	33.3 (6.2)
4	Disley, Hatton, and Dagnan (2013). The Equity Perception Scale—Intellectual Disability Services (EPS-IDS): Evaluating the reliability and validity of a new measure	UK	143 intellectual disability service staff from the north of England	13.92 (8.40)	1.84 (2.21)	36.66 (7.44)
5	Elliot and Daley (2013). Stress, coping, and psychological well-being among forensic health care professionals	UK	135 forensic health care professionals in four medium secure units, of which 2 Forensic Mental Health Services and two forensic learning disability Services. 63 participants from the LD services	15.79 (9.52)	5.86 (4.40)	33.64 (7.06)

(Continues)

TABLE 2 | (Continued)

Study number	Title (author(s), date)	Country of origin	Sample characteristics	Mean EE (SD where reported)	Mean Dp (SD where reported)	Mean PA (SD where reported)
6	Hastings et al. (2018). Who's challenging who training for staff empathy towards adults with challenging behaviour: cluster randomised controlled trial	UK	236 staff from 118 residential care settings for adults with ID and challenging behaviour. The primary analysis included data from 121 staff in 76 settings (51% of staff, 64% of settings)	Control group ($n = 102$): 13.5 (10.39) Intervention group ($n = 101$): 13.9 (8.5)	Control group ($n = 101$): 2.3 (2.82) Intervention group ($n = 104$): 2.6 (2.98)	Control group ($n = 102$): 39.9 (6.32) Intervention group ($n = 103$): 40.8 (5.57)
7	Hensel, Lunsky, and Dewa (2012). Exposure to client aggression and burnout among community staff who support adults with intellectual disabilities in Ontario, Canada	Canada	926 community staff who support adults with intellectual disability in Ontario	18.7 (11.5)	4.7 (4.9)	36.9 (7.5)
8	Hensel, Lunsky, and Dewa (2014). The mediating effect of severity of client aggression on burnout between hospital inpatient and community residential staff who support adults with intellectual disabilities	Canada	42 matched pairs out of 926 community residential group home and 58 staff from four specialised hospital units who care for adults with intellectual disabilities	Community staff ($n = 42$): 17.1 (11.5) Hospital staff ($n = 42$): 24.6 (12.7)	Community staff ($n = 42$): 4.7 (4.9) Hospital staff ($n = 42$): 6.4 (6.0)	Community staff ($n = 42$): 35.6 (7.3) Hospital staff ($n = 42$): 34.7 (8.2)
9	Hensel, Hensel, and Dewa (2015). Exposure to aggressive behaviour and burnout in direct support providers: The role of positive work factors	Canada	671 direct support workers working in community service settings for adults with developmental disabilities and were exposed to aggressive behaviour at least monthly were examined	20.1 (12)	Not reported	Not reported
10	Hickey (2014). Prosocial motivation, stress, and burnout among direct support workers	Canada	1570 staff from 16 agencies that provide a variety of services and supports to people with intellectual disabilities	16.83 (10.27)	3.36 (4.18)	38.77 (6.77)

(Continues)

TABLE 2 | (Continued)

Study number	Title (author(s), date)	Country of origin	Sample characteristics	Mean EE (SD where reported)	Mean Dp (SD where reported)	Mean PA (SD where reported)
11	Langdon, Yágüez, and Kuipers (2007). Staff working with people who have intellectual disabilities within secure hospitals: expressed emotion and its relationship to burnout, stress, and coping	UK	27 nursing staff of adults with intellectual disabilities detained within a secure hospital	16.63 (10.17)	5.37 (4.39)	11.52 (5.12)
12	Lloyd, Kalsy, and Gatherer (2008). Impact of dementia upon residential care for individuals with Down syndrome	UK	20 paraprofessionals paid carers working within residential group homes providing 24-h daily care for adults with moderate intellectual disabilities	Non-decline control group ($n = 11$): 12.36 (6.47) Dementia group: 24.22 (11.98)	Non-decline control group ($n = 11$): 2.82 (2.93) Dementia group: 3.56 (3.56)	Non-decline control group ($n = 11$): 12.73 (8.30) Dementia group: 9.67 (3.96)
13	Mutkins, Brown, and Thorsteinsson (2011). Stress, depression, workplace and social supports and burnout in intellectual disability support staff	Australia	80 support staff from 18 intellectual disability organisations in New South Wales	17.90 (12.84)	4.68 (5.39)	34.71 (9.17)
14	Nevill and Havercamp (2019). Effects of mindfulness, coping styles and resilience on job retention and burnout in caregivers supporting aggressive adults with developmental disabilities	USA	97 direct support professionals recruited from local residential provider agencies, day programmes and sheltered workshops	Retained ($n = 64$): 18.27 (12.51) Non-retained ($n = 33$): 20.18 (14.60)	Retained ($n = 64$): 5.53 (6.38) Non-retained ($n = 33$): 5.76 (5.22)	Retained ($n = 64$): 37.91 (8.34) Non-retained ($n = 33$): 35.33 (8.09)
15	Noone and Hastings (2011). Values and psychological acceptance as correlates of burnout in support staff working with adults with intellectual disabilities	UK	59 support staff working in services for adults with intellectual disabilities	28.12 (10.47)	9.92 (7.36)	43.73 (8.29)
16	Rose and Rose (2005). Staff in services for people with intellectual disabilities: the impact of stress on attributions of challenging behaviour	UK	107 direct-care staff working in National Health Service (NHS) Trust residential community homes for adults with intellectual disabilities	25.46 (11.54)	9.54 (6.12)	27.94 (7.21)

(Continues)

TABLE 2 | (Continued)

Study number	Title (author(s), date)	Country of origin	Sample characteristics	Mean EE (SD where reported)	Mean Dp (SD where reported)	Mean PA (SD where reported)
17	Rose et al. (2013). Client characteristics, organisational variables and burnout in care staff: the mediating role of fear of assault	UK	77 direct care workers from 6 organisations	19.86 (11.09)	4.72 (5.38)	36.40 (6.67)
18	Smyth, Healy, and Lydon (2015). An analysis of stress, burnout, and work commitment among disability support staff in the UK	UK	138 disability support workers in the UK working in 18 residential community homes within a large organisation dedicated to serving adults with intellectual and developmental disabilities	13.20 (10.00)	2.03 (3.01)	35.54 (7.68)
19	Thomas and Rose (2010). The relationship between reciprocity and the emotional and behavioural responses of staff	UK	155 questionnaires were given to staff that had direct client contact in intellectual disability services. Of these 102 completed surveys were returned, 7 of which were removed prior to analysis resulting in sample of 95 staff	16.56 (14.15)	4.25 (5.08)	35.13 (8.56)
20	Vassos et al. (2013). Work engagement and job burnout within the disability support worker population	Australia	258 disability support workers	19.98 (13.19)	3.95 (4.47)	35.86 (7.49)
21	Vassos et al. (2019). Can the job demand-control-(support) model predict disability support worker burnout and work engagement?	Australia	325 disability support workers in disability support services in Australia	19.98 (13.19)	3.95 (4.47)	35.85 (7.49)

TABLE 3 | MBI scores with sample size and confidence intervals.

Study	EE	Dp	PA
Maslach MBI norms	20.99 ($N=11,067$) (95% CI 20.8 21.2)	8.73 ($N=11,067$) (95% CI 8.62 8.84)	34.58 ($N=11,067$) (95% CI 34.4 34.7)
Skirrow and Hatton	17.26 ($N=1289$) (95% CI 14.54 19.97)	4.37 ($N=1289$) (95% CI 3.55 5.19)	34.30 ($N=1289$) (95% CI 32.91 35.69)
Current study	18.01 ($N=5425$) (95% CI 16.36 19.56)	6.26 ($N=4754$) (95% CI 3.44 9.08)	31.72 ($N=4754$) (95% CI 27.59 35.85)

TABLE 4 | Statistically significant risk factors: Effect sizes and strength of association.

Area	Risk factor	Study numbers	Strength of association[a]/ effect size[b,c]
Staff characteristics	Age	13	**None**
		16	**Weak** for PA
		18	**Weak** for Dp
	Gender	20	Significant difference with females higher no effect size, means or Sds reported
		21	Significant difference with females higher no effect size, means or Sds reported
	Education	20	Tertiary qualified higher Dp Cohen *f* 0.15 **small**
Staff personality traits/ cognitive/attributional style	Expressed emotion	3	**Strong** association with high expressed emotion and Dp (tau = 0.45)
		11	Sig difference between high expressed emotion and Dp and low PA. No effect sizes reported
	Prosocial motivation	10	**Weak** neg with EE and Dp **Moderate** with PA
	Psychological acceptance	15	**Weak** for EE
	Mindfulness	14	**Weak** with EE, Dp and PA. **Moderate** between ability to describe one's actions non-judgementally and low Dp
	Commitment	18	
	• Affective		**Weak** with high PA
	• Normative		**Weak** with EE and low PA
	• Continuance		**Weak** with EE and Dp
	Reciprocal relationships		
	Global reciprocity	19	
	• Organisation		**Moderate** with EE, weak with Dp, **Weak** neg PA

(Continues)

TABLE 4 | (Continued)

Area	Risk factor	Study numbers	Strength of association[a]/ effect size[b,c]
	• Colleagues		**Weak** with EE and Dp, **none** with PA
	• Service users		**Weak** association with EE and DP, **none** with PA
	Specific reciprocity		
	• Organisation		**Moderate** with EE, **Weak** Dp, **Weak** neg PA
	• Colleagues		**Weak** association EE, no association Dp or PA
	• Service users		**Weak** association EE, no association Dp or PA
Client characteristics	Behaviours that challenge	7	**Weak** with frequency and severity with EE, Dp and PA
		8	Severity and EE Cohen *d* 0.36 (**small**)
		13	**No effect**
		16	**No effect**
		17	**Weak** between aggression EE, DP, PA. **Weak** between other CB and EE **Moderate** with Dp
		18	**No effect**
		20	**Moderate** with EE and Dp **Weak** with PA
	Poor client skills	20	**Moderate** with EE **Weak** with Dp and PA
	Down syndrome and dementia	12	Cohen *d* 1.2 (**large**)
Service characteristics	Setting	8	Hospital staff had significantly higher EE scores Cohen *d* 0·18 (**small**)
		20	Rural staff had higher PA *d* 0.34 (**small**)
	Organisational/ supervisor support	13	**Weak** neg with EE and Dp
		20	**Weak** neg with EE and Dp
		21	**Weak** neg with EE and Dp
	Social/colleague support	13	**Weak** with PA, **none** with EE and Dp
		21	**Weak** with PA **Weak** neg EE
	Workload	20	**Strong** with EE, **Weak** with Dp
		21	**Strong** with EE, **Weak** with Dp
	Role clarity/ambiguity	20	**Moderate** neg EE **Weak** neg with Dp and PA

(Continues)

TABLE 4 | (Continued)

Area	Risk factor	Study numbers	Strength of association[a]/ effect size[b,c]
		10	**Weak** with EE and Dp **Weak** neg PA
	Role overload	10	**Moderate** with EE **Weak** with Dp
	Role insufficiency	10	**Weak** with EE and Dp **Moderate** neg PA
	Role boundary/conflict	10	**Moderate** with EE **Weak** with Dp **Weak** neg with PA
		20	**Moderate** with EE **Weak** Dp and PA
	Low job status	20	**Moderate** with EE **Weak** with Dp and PA
	Work home conflict	20	**Moderate** with EE **Weak** with Dp and PA
	Job control	20	**Weak** neg with EE and PA
		21	**Weak** neg with EE and PA
	Job feedback	20	**Moderate** with EE **Weak** Dp and PA
	Influence over work	20	**Weak** neg with EE and PA
	Lack of resources	20	**Moderate** with EE **Weak** with Dp and PA

[a]For absolute values of *r*, 0–0.19 is regarded as very weak, 0.2–0.39 as weak, 0.40–0.59 as moderate, 0.6–0.79 as strong and 0.8–1 as very strong correlation.
[b]Cohen *d* and *f* 0.2 be considered a 'small' effect size, 0.5 represents a 'medium' effect size and 0.8 a 'large' effect size.
[c]Kendall's Tau 0.07 indicates a **weak** association; 0.21 indicates a **medium** association; 0.35 indicates a **strong** association.

PA. While Lloyd, Kalsy, and Gatherer (2008) found significant differences regarding client Down Syndrome and dementia with a large effect size.

6.3 | Setting Characteristics

Weak associations were found between burnout and type of setting, supervisor/organisation support, social/colleague support, job control and influence over work. With moderate associations found with role clarity/overload/insufficiency/conflict, low job status, work home conflict, job feedback and general lack of resources. Furthermore, strong associations with workload and EE were found with weak relationships with DP and PA. Vassos et al. (2019) found a significant three-way interaction between high workload, low control over workload, and low colleague support for EE and PA with R^2 (>0.40), indicative of a large effect size.

7 | Discussion

This systematic review updated the review of Skirrow and Hatton (2007) and allowed the generation of current norms for staff working in services for people with intellectual and developmental disabilities. These norms were generated from non-probability samples, with variable response rates and included some staff who were not direct support workers. Thus, these should be considered tentative, but are the best available given the current data. The scores on EE and Dp continued to be lower than the norms reported in the MBI manual, with non-overlapping confidence intervals (indicating lower emotional exhaustion and depersonalisation). PA scores were also lower and with non-overlapping confidence intervals (indicating less personal accomplishment). While Skirrow and Hatton found a decreasing trend in the 20-year period covered by their study, the similarity with scores in their cohort and the current review provides no evidence for any further reduction in burnout over time since 2004.

Leiter and Maslach (2016) stated that the three dimensions of burnout are correlated much of the time, but that when they are not correlated a profile perspective is implied. Five profiles emerged from their analysis; Burnout (high on all dimensions), Engaged (low on all three), Overextended (high on EE only), Disengaged (high on Dp only) and Ineffective (high on inefficacy only, i.e., a low PA score). Much of the research regarding burnout in this area, while acknowledging the three dimensions, has tended to consider burnout as a unitary construct. The computed means from this review would not be consistent with a picture of classic burnout but do appear to be a better fit with the Ineffective profile described by Leiter and Maslach with lower levels of EE and Dp[1] with higher levels of inefficacy as reflected by lower scores of PA.[2] They suggest such a profile captures a

core self-evaluation staff have regarding the low value of their work and the low quality of their contribution. The identification of such a profile could well have clear implications for staff support initiatives which would need to be designed specifically to promote efficacy and underline the value of the individual staff members' contribution. Such interventions might include greater involvement in care planning and establishment of role clarity and the delivery of specific contingencies for staff behaviours in concurrence with these clarified roles.

Participants were recruited from a wide range of services and none of the included studies were specifically designed to recruit representative samples of staff working with adults with intellectual or developmental disabilities, with most using a cross-sectional design with convenience sampling methods to recruit participants. Combining the use of multiple non-probability samples raises questions regarding representativeness. Although as argued previously, this is the best data available to date, hence the norms generated here should be considered as interim pending further investigation using appropriate sampling. The methods used to summarise and report potentially influential variables were largely inconsistent across studies, thus not allowing for meta-analysis and making it difficult to synthesise and compare findings. For example, while behaviour that challenges have been frequently cited as a cause of poor psychological wellbeing in staff, it was defined and measured differently across studies. While the results from individual studies shed some light on potentially important relationships, in the absence of replication, these remain tentative. Thus, clear and unequivocal relationships between many of the variables discussed and burnout remain difficult to discern.

Given the critical relationship between the psychological wellbeing of direct support staff and the quality of care they provide, a robust and focussed future research strategy is called for in order to establish the ongoing state of work-based psychological wellbeing in this population and to more clearly understand those factors that both challenge and enhance wellbeing. While this review has enabled the generation of updated norms and a provisional profile to be established, it has also uncovered wide methodological inconsistencies in the studies considered. As such, it is argued that a 'national observatory approach' to regularly survey the wellbeing of staff and explore these relationships over time, and across services, may be well justified. This would enable a consistent and systematic approach to investigation of relationships between critical staff, service setting and client variables and staff wellbeing. Many larger services currently routinely audit the state of staff wellbeing. The role of the national observatory could be to standardise, coordinate and synthesise these data sets. Given, there is a well-established conceptual fit between burnout and the experience of direct support staff, it is recommended that the Human Services Version of the Maslach Burnout Inventory (MBI-HS) is the preferred outcome measure in any such programme of research (further justified by the extensive literature regarding the MBI-HS in this field and within other human services).

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Ethics Statement

The authors have nothing to report.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data supporting the findings of this study are available upon reasonable request from the corresponding author.

Endnotes

[1] Non-overlapping confidence intervals.

[2] Overlapping confidence intervals.

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