USE OF EVIDENCE AND NEURODIVERSITY AT WORK

Is a little knowledge a dangerous thing? A stakeholder perspective on the use of evidence about neurodiversity at work.

By

Prof. Almuth McDowall

School of Psychological Sciences, Birkbeck University of London

(Corresponding author: a.mcdowall@bbk.ac.uk)

Dr Nancy Doyle

Birkbeck University of London

Dr Meg Kiseleva

Specialist Unit for Review Evidence, Cardiff University

Abstract

This brief practice-focused paper reports on data relevant to the use of evidence and the provision of training to support knowledge and neurodiversity, which broadly refers to naturally occurring differences in neurocognition. We report on relevant data from 985 employees and 127 employer representatives collected as part of a wider study. Applying principles of evidence-based management (EBM) as a benchmark, we find that employers and employees disproportionately avail themselves of stakeholder perspectives, professional experience and judgment at the expense of building on scientific evidence. Internet searches are a 'go to' resource, and 11% of employers do not seek any advice at all. In-house training from colleagues and from those with lived experience are more frequent than specialist external training. We discuss implications for refining the principles of EBM to comprise policy and legal advice which is highly pertinent in a diversity context. We further call for more rigorous training on neurodiversity as a substantive topic, but also the evaluation and synthesis of evidence to inform genuine and value-driven inclusion strategies and activities in organisations.

Keywords: Neurodiversity; Neurodivergence; Neuroinclusion; Diversity; Evidence-based Management; Evidence-based Practice; Training.

Introduction: What is neurodiversity?

Over the past decades, the world of work has witnessed an increased focus on managing workplace diversity which refers to a range of processes, and arguably associated policies, to foster a sustainable work environment where people are valued for their similarities and differences (Patrick & Kumar, 2012). There have been contrasting perspectives on the focus and value of such practice. One lens has focused on the business case for diversity management which purports that increased diversity leads to increased organisational efficiency and productivity (e.g. McKinsey, 2020). Others have advocated for a value-driven approach to encourage organisations to not only be accepting and harness their workforce diversity internally, but by doing so also to contribute to wider society through offering equitable opportunities for all (e.g. Mor Barak, 2000). Recent focus on neurodiversity at work is in line with the latter perspective. The term neurodiversity originated from online advocacy movements referring to natural neurocognitive differences in human functioning (for a helpful overview of terminology see Walker, 2021). It is estimated that about 15% to 20% of the adult population is neurodivergent, which means that their brains work differently from the population norm (Moeller et al., 2021). Neurodivergence comprises different conditions, including attention deficit hyperactivity disorder (ADHD), autism, dyslexia, dyspraxia and tic conditions. People in these categories are also referred to as neurominorities (Doyle & McDowall, 2021) and are the focus of the current paper. We further included mental health conditions in our operationalisation of neurodivergence as people think differently when they are anxious or depressed, for example.

There has been increasing emphasis in organisational practice on supporting neurodivergent workers and harnessing their considerable strengths, which include divergent thinking, creativity and focus (McDowall, Doyle & Kiseleva, 2023). As a result, specific programmes have sprung up, such as 'Autism at Work'. Yet, our own research has found that while well-intentioned, such programmes may have unintended consequences as they are more likely to be accessed, for example, by white and male employees (Doyle, McDowall & Waseem, 2022).

In order to truly facilitate workplace diversity and inclusion, it is therefore important that organisations and individuals utilise good quality evidence and ensure up-to-date knowledge.

Knowledge, training and evidence based management for neurodiversity

The evidence base for fostering diversity regarding gender identification or race and racial identity, for example, is more established and mature than for neurodiversity. Regarding diversity training outcomes concerning (a) the business case, (b) learning (knowledge and attitudes), and (c) social justice (equality of opportunity), Alhejji and colleagues (2016) found that literature remains fragmented and methodologically limited and that comparatively little is known about social justice outcomes arising from diversity training and more about the business outcomes in terms of efficiency and performance. Little is known regarding who delivers relevant training. This is particularly pertinent in the neurodiversity context because, notwithstanding considerable strengths, individuals are also highly likely to present with different conditions (Walker, 2021). At the organisational and legal meso- and macro-level, employer obligations vary between countries. For example, in the UK, the setting for the present research, the Equality Act 2010[1] holds that once employees declare a disability which is a protected condition, employers are obliged to facilitate reasonable adjustments specific to individual circumstance and need. Yet, this is a complex issue as neurodivergent conditions remain underdiagnosed in adult populations since research remains focused on children and teenagers (Doyle & McDowall, 2021).

Thus, there are different stakeholders relevant to neurodiversity and neuroinclusion:

a) Employers, who want to harness neurodivergent talent but also comply with local legal requirements.
b) Employees, who want to be valued for their strengths but may also require specialist support and development for experienced challenges, such as difficulties with working memory and concentration.
c) Governments and policy makers to support diversity and inclusion in wider society.

Evidence-based management (EBM) is a helpful framework for evaluating and synthesising evidence from different sources. The premise is that management decisions should be based on critical thinking, evaluation and triangulation of a range of valid and reliable evidence (Centre for Evidence-based Management, CEBMa, N.D.). There are broadly four different types of evidence (Barends, Rousseau & Briner, 2014) which are:

a) organisational data, facts and figures
b) professional experience and judgment
c) scientific research findings
d) stakeholder values and concerns.

For the neurodiversity context, we would also add a fifth source: policy advice and legal guidance.

It is important to make use of the best available evidence where possible. There is a hierarchy of trustworthiness for each of these sources, including for peer-reviewed academic research where, for example, rigorous systematic reviews, controlled randomised studies, or rigorous qualitative research are more reliable and valid sources of evidence than small scale correlational research or limited case studies. The other sources of evidence are also important but in different ways as, for example, an initiative such as training will fall flat if people don't like it, meaning it's important to investigate stakeholder values and concerns. Yet, research tells us that although managers like the concept of evidence-based practice (EBP), so have positive attitude towards it, there are barriers in practice including a lack of time and not understanding academic research (Barends et al, 2017).

[1] https://www.gov.uk/guidance/equality-act-2010-guidance.

Rationale and research question

Training is not only important for increasing knowledge in organisations, but also for affective outcomes such as more positive attitudes, so 'changing hearts and minds' (e.g. Kraiger, Ford & Salas, 1993). It is also important to understand which sources of evidence stakeholders in organisations avail themselves of. While EBM has focused on managers, we contend that, in the neurodiversity context, it is equally important to also investigate evidence use by employees given the strong and vocal influence of the advocacy movement and relevant groups, which may be internal or external to the organisation. Thus, our research questions were:

a) What sources of evidence and advice do employers and employees draw on to inform themselves about neurodiversity?
b) From whom do employers commission training on neurodiversity?

Research approach and methods

Acknowledgement

The data reported here is based on a wider research project using a bespoke survey to investigate neurodivergent experience at work, funded by the charity Neurodiversity in Business (NiB). An earlier practice-focused report was published following their inaugural conference online (McDowall, Doyle & Kiseleva, 2023), and other academic publications are currently being prepared.

Data Collection Methods and Sample Description

Following ethical approval from the researchers' institution, a bespoke survey was co-created and disseminated through social media channels. We had responses from 985 employees, all of whom identified as neurodivergent and who worked in organisations of varied sizes within varied sectors (e.g. 17.3% Professional Services, 15.6% Health and Social Care, 13.7% Technology). The majority (77.2%) were employed full-time and 31.2% had line management responsibilities.

We had responses from 127 employer representatives who were also from varied sectors (e.g. 17.3% Technology, 14.2% Professional Services, 11.8% Health and Social Care) and nearly 50% came from organisations with more than 1,000 employees. 52% operated internationally.

All employees and 31.5% of employer representatives self-identified as neurodivergent. Both sub-samples had an overrepresentation of cis-gender women (employers 73.2%, employees 67.2%).

Survey item development

In order to co-create the survey, we engaged with a range of employer and employee representatives, including people with lived experience. We asked them which sources of advice they would usually consult, to create a list of relevant sources, which we then supplemented based on our own professional knowledge of specific guidance on neurodiversity recently published by professional associations. We asked employers and employees to indicate which sources they regularly turned to.

Findings

We now report the descriptive statistics. Regarding our first research question relating to the sources of evidence, Table 1 contrasts employee and employer use of evidence mapped against the CMBA criteria augmented by the additional policy advice source. The cells detailing the frequencies are shaded in descending grading to signpost level of usage. Internet searches are by far the most preferred source for employees, followed by tapping into networks, advocacy groups and reading lived experience literature. Employers also undertake such

searches, but equally turn to lived experience literature and specific charities, as well as NiB. Regarding 'other' sources of advice not listed here, employees referenced medical and health professionals such as therapists, psychologists and doctors, as well as self-help support groups, newspapers and magazines outside of work as well as employee resource groups at work. Employees were slightly more likely than employer representatives to turn to academic literature. Concerningly, 11% of employers did not seek any advice (compared to 8.7% of employees).

Advice Source	Evidence Category	Employees (N=985)	Employers (N=127)
		Frequencies (percentages)	
Internet searches	Stakeholder concerns	638 (64.8%)	45 (35.4%)
Own professional network (e.g., on LinkedIn)	Stakeholder concerns	490 (49.7%)	N/A
Advocacy groups online	Professional Experience, Stakeholder concerns	422 (42.8%)	30 (23.6%)
Lived experience literature	Stakeholder concerns	421 (42.7%)	47 (37.0%)
Specific charities (e.g., BDA, ADHD Foundation, National Autistic Society, Dyspraxia Foundation)	Professional Experience, Scientific Evidence, Stakeholder Concerns	368 (37.4%)	45 (35.4%)
Academic literature	Scientific Evidence	306 (31.1%)	35 (27.6%)
Neurodiversity in Business (NiB)	Professional Experience, Stakeholder Concerns	225 (22.8%)	43 (33.9%)
Handbooks and practitioner books	Stakeholder Concerns, Scientific Evidence	181 (18.4%)	20 (15.7%)
Government advice	Policy Advice	160 (16.2%)	30 (23.6%)
The NHS	Professional Judgment, Scientific Evidence	145 (14.7%)	24 (18.9%)
ACAS (UK forum for free impartial advice on workplace rights, rules and best practice)	Policy Advice	97 (9.8%)	35 (27.6%)
Private specialist companies	Policy Advice, Professional Advice, Stakeholder Concerns	80 (8.1%)	34 (26.8%)
Business Disability Forum	Policy Advice	78 (7.9%)	29 (22.8%)
Trade Unions	Policy Advice	73 (7.4%)	8 (6.3%)
British Psychological Society or its members	Scientific Evidence	63 (6.4%)	17 (13.4%)
Chartered Institute of Personnel Development or its members	Policy Advice, Scientific Evidence	40 (4.1%)	30 (23.6%)
Valuable 500 (global partnership to end disability exclusion)	Policy Advice	15 (1.5%)	6 (4.7%)
National Institute of Occupational Safety and Health	Policy Advice, Scientific Evidence	13 (1.3%)	9 (7.1%)
Royal Medical Colleges	Policy Advice, Professional Judgment, Scientific Evidence	8 (0.8%)	5 (3.9%)
Society of Occupational Medicine or its members	Professional Judgment, Scientific Evidence	8 (0.8%)	11 (8.7%)
Other	N/A	135 (13.7%)	11 (8.7%)
Do not seek advice		86 (8.7%)	14 (11.0%)

Table 1: ***Sources of Advice about Neurodiversity at Work Used by Employees***

We collected organisational data which we operationalised as policy presence and domain-specific knowledge from employers only. Regarding the prevalence of policies, 117 employer representatives (92.1%) confirmed that they had equality, diversity and inclusion policies. Sixty employer representatives (47.2%) said they had specific disability inclusion policies and 29 (22.8%) that they had neurodiversity inclusion policies. Regarding benchmarking to external UK charters, 53 participants (41.7%) said their organisations had, or were working towards, the UK Disability Confident scheme. 21 (16.5%) towards the Race Equality Charter and 18 (14.2%) towards Stonewall, which benchmarks lesbian, gay, bi and trans inclusion. 9 (7.1%) referenced Valuable 500, which is a disability forum, 8 (6.3%) Dyslexia Friendly employer, 3 (2.4%) Athena Swan (gender equality in education), and 14 (11.0%) 'Other'. We asked employer representatives if they could estimate the prevalence of neurodivergent workers in their organisations; of the 56 (44.1%) who said that they could, the majority (44.6%) estimated this at 0-10%, which is lower than the likely population prevalence rate. 74.8% (95 employer representatives) were able to estimate staff turnover percentages with 38.9% estimating this between 0-10% and 36.8% between 11-20%. However, only 26% indicated that their organisation monitors differences for minority groups including neurodivergent workers.

Further, we asked employers to self-rate knowledge and support for neurodiversity and neurodivergent needs on a 5-point agreement scale as is shown in Table 2 below. Support was rated higher than knowledge.

Item	**Overall (N=126-127)** Mean (SD)
How would you describe the general level of knowledge about neurodiversity in your organisation?	3.08 (1.16)
How supportive are staff in your organisation about neurodivergent needs on average?	3.83 (0.92)

Table 2: ***Knowledge About and Support for Neurodiversity, As Rated by the Employer Representatives***

Regarding the second research question, Table 3 shows that 60 employer representatives (47.2%) reported that they implemented neurodiversity awareness training. Responses show that employers use different providers for delivery of training, with awareness training from someone with lived experience and in-house training from a colleague rated as most frequent. External training is less likely to be commissioned.

	Overall (N=60)
Awareness training with someone with lived experience	45 (35.4%)
In-house training from a colleague	44 (34.6%)
External professional - Educator	32 (25.2%)
External professional - HR professional	22 (17.3%)
External professional - Psychologist	20 (15.7%)
External professional - Medical professional	12 (9.4%)
External professional - Other type of professional	11 (8.7%)

Table 3: ***Types of Neurodiversity Awareness Training Provided***

Summary of findings

Addressing our first research question on the use of evidence, we established that employers and employees alike are far more likely to consider stakeholder concerns and professional experience than scientific evidence. Self-reported use and knowledge of organisational data elicited that only about a quarter tracked valuable business information regarding differences in turnover between minority groups. Curiously, support for neurodiversity was rated higher than knowledge. The data also indicated that employer representatives likely underestimated neurodivergent prevalence rates in their workers.

With reference to our second research question, training was more likely to be commissioned in house and from people with lived experience than from external experts, although it was a cautiously positive sign that respondents turned to more than one provider.

Implications for research and practice

The first implication of our findings concerns a potential conceptual refinement to the CBMa evidence-source framework to include a fifth evidence category of policy and legal advice, which is particularly relevant in a diversity context. Neurodivergent conditions can, but of course do not have to, be disabling, and disability is a protected characteristic in many jurisdictions. Employer representatives have to stay abreast of relevant guidance and seek regular professional advice as necessary. For example, we habitually encounter in our own

practice the contention that "surely all adjustments are reasonable" from people with lived experience. The reality is that, yes, many jobs can and should be adjusted to play to individual strengths and accommodate challenges but, no, not all adjustments are reasonable as there is a job to be done and tasks to be completed. As an example, it would not be reasonable for a project manager to ask for and be granted numerous time extensions if such adjustment then impedes the progress of other people in the work team and endangers timely delivery to the client.

The second implication concerns over-reliance on stakeholder values and concerns and professional experience to the detriment of taking on board scientific evidence. Employees, and indeed employers, are likely to turn to the Internet for advice. Yet, much of such advice is not curated or reviewed, so may be inaccurate or downright misleading. This is risky for employers and employees alike. Neurodivergent conditions are complex as co-occurrence is the norm and not the exception (McDowall, Doyle & Kiseleva, 2023). Different conditions come with differing preferences regarding preferred ways of working, and it is important to foster informed and holistic understanding – many advocacy-based sources of advice are condition-specific. Future research should investigate to what extent publicly available information actually reflects best scientific evidence in a fast-moving field, so that misunderstandings and misconceptions can be dispelled.

The third implication concerns professional societies and academics. Clearly, the evidence they generate and disseminate is not yet taken up and translated into organisational knowledge. Accessible summaries in multiple formats, and readily available toolkits and resources, are clearly needed.

The fourth implication considers who delivers any training and what training is being commissioned for – for example to educate people about essential knowledge regarding neurodivergence, to instigate organisational activities to boost specialist support or to work wider organisational change towards genuine neuroinclusion. Contracting training from people with lived experience is important for credibility and trust, but this needs to be equally paired with input from external experts to ensure that organisational policies and activities are based on sound evidence. Here, employer representatives rated knowledge of neurodiversity lower than support offered – yet support without commensurate knowledge could be ineffective or even carry risks. A little knowledge can be a dangerous thing.

Conclusion

Getting neuroinclusion right is complex. Holistic understanding and appreciation of the challenges and strengths of differing conditions, as well as the overlap between them and with other health challenges is important. Knowledge about supporting potentially complex individual needs should be paired with furthering knowledge of how to strategise and manage organisational change in a diversity management context. We ascribe to a values-based perspective, which goes beyond the business case rhetoric for organisations to take wider responsibility for a just and fair society which genuinely celebrates the differences and contributions of all people. A key premise for making this happen is evidence-based activities. Our data shows that there is a need to educate employers and employees alike on neurodiversity as a substantive topic, but there is also a need to train everyone regarding the quality, purpose and critical synthesis of different types of evidence more broadly.

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