Dyslexia and Employment

by Amanda Kirby and Hayley Gibbon

Addressing the Employment Gap

Despite increasing recognition of the lifelong impact for many having dyslexia and other co-occurring developmental disorders, there remains little research into the benefits of employment, the challenges of gaining employment and considering the support that may be required for some. This article starts to bring together some of the literature and offers some research questions that need to be answered to gain a deeper understanding.

In 2017, the UK government produced a report describing the need to reduce the employment gap for people with disabilities (81% of nondisabled people in work compared to 49% with disabilities, House of Commons, 2017). While this encompasses all disabilities, there is certainly evidence of the economic, social, and health impacts of being unemployed, which not only relate to the person but often their families as well. Hillier and Galizzi (2014) identified the high costs to families supporting their children with Autism Spectrum Disorder into employment, including time (e.g., preparing for work, transport to work, interview preparation, supervision, and emotional support) as well as loss of their income, loss of career opportunities, and depreciation of work skills.

What Is the Value of Employment?

There is much talked about stress and mental well-being for those in employment but a systematic review by Modini et al. (2016) discusses the health benefits associated with being in work, and also indicates that having good quality supervision at work can make a significant difference to well-being. It is less clear, however, which is most important for well-being: having interactions with others in the workplace; having daily routines in place; or the financial benefits. Other studies have highlighted that increased sense of agency and feelings of control over one's life and better subjective well-being are gains of being in employment. This is in contrast to being unemployed, which has been associated with increased mortality and higher suicide rates (Wanberg, 2012).

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The Person

In considering how to support people with dyslexia into and in employment, there can be two potential approaches. One approach is to support the person and start by describing the potential challenges for "people with dyslexia" and then provide practical solutions for support. However, while this may give some basic guidance, the approach could result in a rather narrow or stereotypical view, which in reality would be useful for some people but not for many others. It is not surprising that people in different jobs and work settings will require different adjustments. For example, office-based workers with access to a computer are likely to need different support from delivery drivers with no software on hand to assist them, but may need to record their calls. How valid would it be to take a narrow categorical approach when there is extensive evidence that dyslexia often overlaps with a number of other developmental disorders? In reality, it is rare that an adult has isolated difficulties in just one specific domain to a lesser or greater degree, i.e., reading and spelling difficulties alone (e.g., Kaplan, Wilson, Dewey & Crawford, 1998). Willcutt and Pennington (2000) showed 80% of children with Attention Deficit Hyperactivity Disorder (ADHD), and 60% of children with dyslexia met the criteria for at least one other diagnosis.

Conditions commonly co-occurring with dyslexia include:

- Attention Deficit Hyperactivity Disorder (ADHD)
- Autism Spectrum Disorder (ASD)
- Developmental Coordination Disorder (DCD)
- Dyscalculia
- Specific Communication Language Needs (SCLN)

Meeting the diagnosis of one condition doesn't mean that two individuals with the same "label" have the same patterns of strengths and challenges. Each of the above conditions represents an "umbrella" of symptoms and signs and a diagnosis is made on the basis usually of having some but not all of these.

Overlap between conditions has been described in a number of ways. Bishop and Snowling (2004) when referring to the overlap of SCLN and dyslexia discuss that:

"individual differences in reading and language disorders are better conceptualized in terms of a multidimensional model, in which there is continuous variation in component language and literacy skills, rather than discrete categories" (p. 862).

Abbreviations

ADHD: Attention Deficit Hyperactivity Disorder	ICF: International Classification of Functioning, Disability and Health Framework
ASD: Autism Spectrum Disorder	
DCD: Developmental Coordination Disorder	SCLN: Specific Communication Language Needs

Other terms used to represent this include spectra, diversity, divergence, specific learning difficulties, (neuro)developmental disorders, and learning differences. Therefore, it is unlikely that an adult with dyslexia will have *only* literacy-based challenges. In addition to the variability beneath these terms, research also shows that anxiety and depression co-occur often with some developmental disorders such as DCD (Kirby, Williams, Thomas, & Hill, 2013). Interestingly, one study using a computerized profiling system *(www.doitprofiler.com)* to screen 2,900 unemployed people to identify their potential barriers in gaining employment found that 65% of those reporting having a diagnosis of dyslexia also reported anxiety, depression, or panic attacks (Kirby & Smythe, 2017).

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In reality, the challenges and support needs for each person will vary depending the profile of the person in the context of their lives (in home and work settings) and may change over time. Moving from the more "relaxed" hours of university or college life to set working hours, which may include having to commute, adds a further dimension and demand to each day. In addition to this, there will be home demands, along with maintaining social and close relationships. For some this can cumulatively become the reason for the "straw that breaks the camel's back." It may not be one specific thing, such as increase in work demands or a personal event, but a number of elements that collide and cause a person to fall out of employment.

The Person and Their Environment

De Beer, Engels, Heerkens and van der Klink (2014) completed a systematic review of the literature relating to dyslexia and employment and used the International Classification of Functioning, Disability and Health Framework (ICF) in the context of employment (World Health Organization, 2001). This framework is increasingly being used across many conditions and takes a biopsychosocial approach in considering the person in the context of his or her environment.

This review categorized the research papers into work that had considered:

- *"Mental functions* with factors like feelings and emotions about dyslexia;

- *Activities* like reading or writing/spelling; *participation* with factors like acquiring and keeping a job;

- *Social relationships at work* where the attitudes and support of the employer and co-workers are important;

- *Working conditions* with factors like the availability of assistive technology and accommodations on the job; and

- *Personal factors* like self-disclosure and coping strategies" (p. 1).

They concluded from the review that the impact of dyslexia increases over the life course, including in the context of work. As a result, de Beer et al. (2014) expanded the ICF model to include environment as one interacting factor. The *work-related environmental factors*, as areas to consider, include: employment; social relationships; task contents; and other working conditions, including legislation. Key conclusions from the review were that there were continuing difficulties with reading, writing, and spelling, which doesn't seem that surprising. Another conclusion was the recognition that mental well-being challenges were noted a number of times in the papers that had been reviewed as being an issue for adults with dyslexia. However, there were also three positive emotions mentioned, and these were: "amount of passion"; "feelings of accomplishment" and "sense of strength" (p. 16). One practical finding was that the use of assistive technology for communication did positively influence work participation. However, attitudes by others to the disclosure of dyslexia were not always positively received. Knowing how to positively disclose (and deciding when and to whom to do so) may not be a skill that has been either discussed or taught and possibly could be practiced while still in education. Gaining appropriate support and understanding at the start of employment is undoubtedly better than waiting to the point where there are misunderstandings and work challenges leading to potential dismissal. Disclosure allows for a dialogue to occur. For the employer, it is also important to have a clear and shared discussion with the employee about who should be informed of the disclosure and what has been agreed to avoid discord and lack of trust.

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For some, starting any new job can re-awaken feelings they may have had when in school or entering higher education of wondering whether they will be able to cope in a new and often unfamiliar setting or being "found out." The person may arrive with lower levels of self-esteem and be more sensitive to criticism. Line managers may be also concerned about how to provide adjustments. Bewley and George (2016) state that often support is given initially but then fades quickly despite a potential changing landscape for work. Thus there is a need for ongoing and regular review.

It can be very easy to demonstrate a negative picture and describe all of the challenges that someone with dyslexia and other developmental disorders such as ASD has. This can be off-putting for employers who may also lack confidence and knowledge in how to make reasonable adjustments or even to start a conversation.

A review by de Beer and colleagues (2014) found there was a wage gap between those with dyslexia and those without. This has also been shown with individuals with ASD who are employed (Wilczynski, Trammell, & Clarke, 2013). Research has shown the meaningfulness of employment is at times questionable if it tends to be in low paid jobs with limited working hours, and if in jobs that are well below the individual's level of education and expertise (Holwerda, van der Klink, Groothoff, & Brouwer, 2012). The review by de Beer et al. (2014) mainly addressed challenges and took a biopsychosocial approach; there was less focus about what could be done to potentially adjust the work environment.

In the UK there is a legal obligation under the Equality Act (2010) for employers to recognize the needs of individuals who meet the criteria as having a disability and to ensure the employer puts in place reasonable adjustments and not to have discriminatory practices. In the U.S., section 503 of the Rehabilitation Act of 1973, updated in 2014, prohibits federal contractors and subcontractors from discriminating against and requires affirmative action for qualified individuals with disabilities in all aspects of employment. An individual is classified as "disabled" under the Equality Act (2010) if they have a physical or mental impairment that has a substantial and long-term negative effect on their ability to perform normal daily activities. A timely question is *what does substantial and long-term mean*? "Substantial" is more than minor or trivial (e.g., it takes much longer than it usually would to complete a daily task like getting dressed). Long-term means 12 months or more (e.g., someone with ASD). Employers must make reasonable adjustments to make sure disabled workers (including contract workers, trainees, apprentices, and business partners) are not seriously disadvantaged when doing their jobs.

On a practical level this could include:

- Making reasonable adjustments in the recruitment process (e.g., avoiding having handwritten cover letters);

- Offering alternative ways of doing tasks or operating (e.g., allowing someone with ASD to have their own desk instead of "hot desking," i.e., moving from one desk to another and not having their own protected work space.

- Making physical changes (e.g., using an audio-visual fire alarm for a deaf person);

- Changing equipment (e.g., providing a tablet/smart phone to record information in meetings rather than having to handwrite notes);

- Allowing employees who become disabled to make a phased return to work (e.g., working flexible hours or part time if returning with a mental health challenge); and/or

- Offering employees training opportunities, recreation, and refreshment facilities.

Granted, the types of challenges that dyslexic employees face within the workplace will differ depending on both individual and situational variances. That said, common challenges include "time management, organisation, planning, structuring written communication and presenting information" (Beetham & Okhai, 2017, p. 59).

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In situations where these challenges affect the employee's ability to meet deadlines and produce work to a required standard, employers with a lack of knowledge about dyslexia could misinterpret this as a performance concern and may mistakenly initiate a formal performance management procedure rather than signposting, or indicating to the employee sources of information and ways to be screened or assessed, for dyslexia. A number of general strategies that could be considered by employers include:

- Awareness training for staff;

- Training for line managers to understand how to provide appropriate support;

- Development of policies and procedures to ensure jobs are advertised fairly and interview and induction processes are not biased against the person with dyslexia and other developmental disorders;

- Use of workplace champions to promote inclusion and demonstrate success at all levels;

- Setting of support networks within the organization;

- Having peer support mentors to provide ad hoc support;

- Offering accessible application processes;

- Ensuring interview processes are fair.

Specific strategies could include:

- Offering an extended induction phase;

- Shared information plans on agreed adjustments between the employer and employee;

- Options for flexible working hours or work settings;

- IT adaptations including software and hardware; and

- Regular short review meetings to monitor progress.

More research work is still required to explore potential barriers to success of the above approaches.

Flexible Approaches to Working Practices

If individuals with dyslexia and other related conditions have increased risk of stress and anxiety, could flexible working practices be a good option for some? Workplace flexibility refers to "the ability of workers to make choices influencing when, where, and for how long they engage in work-related tasks" (Hill et al., 2008, p. 152). This definition draws attention to two separate domains of workplace flexibility: first, spatial flexibility referring to the location of work, demonstrated through work arrangements such as home-working (also known as telecommuting or teleworking) and remote work; and second, temporal flexibility, which refers to worker choice regarding the distribution of worked hours.

Over recent years there has been a growing interest in the potential health implications of workplace flexibility more generally. Advocates suggest that workplace flexibility contributes to better health, in part because it helps workers better balance their work and family lives (Corporate Voices for Working Families & WFD Consulting, 2005; Halpern, 2005) and enables workers to maintain healthier lifestyles (Grzywacz, Casey, & Jones, 2007). In one particular study, Grzywacz, Carlson and Shulkin (2008) investigated the impact of perceived schedule (i.e., temporal) flexibility on employee stress from a health perspective. Using data from several businesses across a variety of industries, their study tested associations between employee participation in formal flexible work arrangements, perceived flexibility, and stress and burnout. Findings revealed that stress and burnout were lower for those engaged in all types of formal flexible arrangements. In fact, 30–50% of observed differences were noted between workers engaged in flexitime (either alone or combined with compressed work weeks) relative to those not engaged in formal flexible arrangements. These results provide evidence, therefore, that supports advocates' calls for employers to expand flexible arrangements, particularly flexitime. In a more recent systematic review of the literature, findings also from Joyce, Pabayo, Critchley and Bambra (2010) suggest that flexible working interventions that increase worker control and choice such as self-scheduling are likely to have a positive effect on employee health outcomes.

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If flexible working arrangements have been shown to result in improved health outcomes for typically developing populations, the size of the effect could potentially be even greater for neurodiverse groups who face more daily difficulties and have additional barriers to overcome and greater risks of stress and the impact on mental well-being. For some, the over-stimulating workplace may hamper their ability to be successful. Giving options of working from a quieter space or from home may be one way in which businesses could support individuals.

At the present time there are limited studies exploring the potential options for flexible working and what is optimal for different neurodiverse groups of people. More research needs to take place to explore this. For some, remote working may be a panacea and offer new job opportunities such as providing IT services from home, but for others this may increase feelings of loneliness and social isolation.

In a recent Advisory Conciliation and Arbitration Service document, "*Neurodiversity at Work,*" Bewley and George (2016) make an important point in employing people with neurodiverse populations. They state that there has been a move to engage generalists who can move flexibly from task to task and this approach may be disadvantageous to someone who has a narrower but deeper set of skills that, if harnessed, can be of benefit to a team.

Holwerda, van der Klink, Groothoff and Brouwer (2012) have suggested that negative views towards people with developmental disorders such as ASD may well be why there are lower expectations and poorer work outcomes as there has been overemphasis on impairment and social deficits instead of strengths and expertise. Perhaps to encourage employers to actively employ people with a neurodiverse profile, there is a need for a positive "marketing" approach. Interestingly, some employers are starting to see that encouraging a diverse work force may actually confer a business advantage as this may offer the potential for novel approaches and/or solutions to challenges. A recent Harvard Business Review article titled "Neurodiversity—a competitive advantage" (Austin & Pisano, 2017) cited companies, including Microsoft, Deloitte, IBM and Ford, that see the benefits in employing people with neurodiverse profiles. Indeed, Government Communications Headquarters in the UK has been actively recruiting people with dyslexia and Developmental Co-ordination Disorder as spies ("Dyslexia and me," 2016).

In order for employers to feel more confident supporting people with dyslexia and other co-occurring conditions, there is a need to have some knowledge and confidence of the conditions and some practical understanding of how to make adjustments and not be in fear of having a conversation with the employees. In the UK, there are several initiatives starting to make some headway, including some specialist recruitment agencies matching the needs of the employer with the talents of the candidates and providing some initial onsite support to smooth interview and induction processes.

The UK government, in trying to address the gap in employment for people with all disabilities, has supported work from a group of organizations and voluntary sector bodies working in this specific area. As a result of this, a new website has been launched with freely available information for employers about a range of neurodiverse conditions and provides practical guidance on topics on employment support *(www.neurodiversityemployment.org.uk)*. The website also has information for individuals applying for jobs, including advice relating to positive disclosure.

The Disability Confident *(https://disabilityconfident.campaign.gov.uk/)* campaign encourages employers to gain and then translate knowledge into good employment practices. Employers can display their "badge" if they gain the skills and this allows employees to have greater confidence in being supported. A further government program in the UK, Access to Work *(https://www.gov.uk/access-to-work/overview)*, delivers assistance to those with disabilities at any stage from the interview process and beyond and can (if appropriate) provide technology support as well as other types of support, such as on-site job coaching. Increasing awareness in the U.S. by employers to encourage neurodiversity in the workplace has been noted by companies, including Enrst and Young and Microsoft.

Making It Work

While the good news is that there is increasing awareness of dyslexia and other related conditions, in general there remains a gap in employment rates and pay for people with developmental disorders. More research is required to understand optimal work settings and ensuring that employment practices are fair for all.

As Confucius said, "Success depends upon previous preparation, and without such preparation there is sure to be failure." Individuals need to gain the knowledge about how to best work and be supported while still in education. However, there is also the onus on the employer to not just respond to someone disclosing they have dyslexia but have in place fair and equal practices to ensure that people are not being disadvantaged and that they take a person-centered approach. This also needs to be more than one-off initiatives.

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