Understanding Neurodiversity and Executive Disfunction to Discover More Effective Accommodations and Create a More Inclusive Workforce for Neurodivergent Individuals

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Abstract

The goal of this paper is twofold. One: understand executive disfunction to gain a broader understanding of neurodiversity and the challenges those with neurodiversity face in the workforce. And two: research different accommodations to combat executive disfunction and evaluate their effectiveness. To accomplish these goals, an extensive literature review was conducted to understand neurodiversity, executive disfunction, government requirements relating to accommodations, and an exploration of current accommodations available. Additionally, research was conducted in the form of interviews and a survey to expand and add to the overall understanding of this research area.

Results of the survey indicate an overall lack of knowledge and understanding surrounding neurodiversity as a whole but also shows a prominent desire from respondents to learn more. The study indicated that there is a negative stigma surrounding neurodiversity, and that accommodations and resources in both academia and the workplace are viewed as inadequate and not easily accessible. Finally, people with close ties to neurodiversity were found to be less inclined to agree that neurodiversity is a weakness, and more willing to lead/manage neurodivergent individuals and work with neurodivergent individuals if given the opportunity. Overall, more research is needed on this topic.
Introduction

Neurodiversity is an often misunderstood and hidden branch of diversity. If we want to bring equity and inclusion to the workforce, then we need to learn how to properly assist this growing demographic of workers. Neurodiversity does not mean inferiority; it just means that their brains function in a way different from most. Although I myself am not neurodivergent, many of my family and friends are. As someone going into HR and management, it is my responsibility to learn how to best be able to assist people and foster an inclusive environment.

Neurodiversity is generally an underserved demographic as it can be hidden or masked. Often times, individuals’ status as neurodivergent does not get disclosed due to prejudices, bias, and data that shows they are preemptively stigmatized. Additionally, unemployment amongst the neurodiverse is extremely high and there are hiring practices putting them at a disadvantage from being hired in the first place. One of the main issues causing this is hesitation from management due to a lack of understanding and knowledge. The goal of this paper is to cure this hesitation and help managers learn ways they can be more inclusive in their workplace.

This paper will primarily be focusing on executive disfunction, a commonality of neurodiversity, and the different areas it affects. After gaining a deeper understanding of this issue, an evaluation of current research relating to executive disfunction accommodations and government requirements will be conducted. This will be used as a basis for interview discussions with local experts in neurodiversity and provide context to the survey conducted. Overall, this paper should serve as a resource for gaining a better understanding of neurodiversity and how to approach accommodations.
Research Questions

The purpose of this paper is to gain a deeper understanding of neurodiversity and what accommodations can be implemented to help them. To do this, we need to address the different facets and challenges the neurodiverse face and what current professionals are doing to accommodate them. The research questions below will help us accomplish this.

Research questions include:

- What is neurodiversity?
- Why is neurodiversity important to the workforce?
- What aspect/aspects of their diagnosis is most affecting their ability to work in the workforce?
- What is executive disfunction and how does it affect neurodivergent individuals?
- What is currently preventing neurodivergent individuals from entering the workforce?
- What is the government doing to support the neurodiverse?
- How well is neurodiversity currently being addressed in the workforce?
- What is the public’s opinion on neurodiversity?
- What current practices and accommodations are in place to help neurodivergent individuals? How effective are they?
- How can companies better support the neurodiverse?
Literary Review

Understanding Neurodiversity and its Place in the Workplace

To begin, we must understand what neurodiversity means. The word neurodivergent, in its simplest form can be defined as “neuro-” meaning related to the brain and “divergent” meaning different from the norm. The Employer Assistance and Resource Network on Disability Inclusion says that “neurodiversity describes the natural way that people think, learn, perceive the world, interact, and process information differently” (Neurodiversity in the Workplace, n.d.). Contrastingly, neurotypical people have brains and nervous systems that function “typically” (Neurodiversity in the Workplace, n.d.). The US department of labor outlines it as those with brains that work differently from the neurologically typical or neurotypical. Autism (also referred to as Autism Spectrum Disorder), attention deficit hyperactivity disorder (ADHD), dyslexia, Tourette’s syndrome, anxiety, obsessive-compulsive disorder (OCD), depression, intellectual disability, and schizophrenia are included under neurodiversity (Tapping the Power of Neurodiversity in the Workplace, 2021). These are some but not all diagnoses under neurodiversity. Neurodiversity affects a large amount of people as approximately 15-20% of the population is estimated to be neurodivergent (Doyle, 2020).

Unemployment amongst neurodivergent adults is estimated to be at least as high as 30-40%, three times the rate for people with disability and eight times the rate for people without disability (Yesenia, 2021). And this is not due to a lack of want. In fact, the National Autistic Society surveyed 2,000 autistic adults and showed that 77% (over three quarters) who were unemployed wanted to work. Additionally, four in ten say they have never worked, and only 16% are working full time paid work. This can be compared to 47% of disabled people and 80% of non-disabled people getting paid full time work (Government Must Tackle the Autism...
For more than a century, employers have used personality tests as a tool for hiring and recruitment (Deel, 2023). However, personality tests put neurodivergent candidates at a disadvantage. This is because neurodivergent candidates respond differently than neurotypical people and might be overlooked due to having “less desirable” characteristics (Wegmeyer & Speer, 2023). A study showed that pre-employment personality tests preyed on certain features of autism, which could cause disparate impact on that group. Although technically it can be difficult to argue discrimination due to the contra research arguing personality as a predictor of performance (Wiggleton-Little & Callender, 2023). It is not that the neurodivergent people don’t want to work, they just face more barriers to enter the workforce.

There are many benefits to having a neurodiverse workforce. For example, research has shown that professionals with autism can be 3 times more productive than average employees (Hutson & Hutson, 2023). Additionally, preliminary results of a study of software-testing roles suggested that neurodiverse testing teams were 30% more productive than others (“Neurodiversity as a Competitive Advantage,” 2017). Again, I want to emphasize throughout this paper that neurodiversity is about those who think differently, not inferiorly.

**Breaking Down Neurodiversity: What is Executive Disfunction?**

Neurodiversity is a hard subject to tackle considering how many diagnoses fall under it. It is often misunderstood and more often than not viewed as a weakness rather than a strength (Kay, 2023). This again ties into this concept that people view disabilities as being objectively bad (Rosqvist et al., 2020). Figure 1 demonstrates how neurodiversity can actually be
advantageous (Neurodiversity - NCI, 2022). Again, we are brought back to this centralized theme that neurodiversity is not inferiority but simply a difference in thinking, learning, and perceiving the world. So how is it that we are still failing this demographic? Let’s examine what inhibits neurodiverse individuals in the workplace to determine what accommodations may prove useful.

Figure 1: Neurodiversity—NCI (nciglobal,ncienterprise). (2022, April 25). [cgvBlogPost].
https://dceg.cancer.gov/about/diversity-inclusion/inclusivity-minute/2022/neurodiversity

As much as it would be interesting to look at all the areas affecting those who fall under neurodiversity, for the purposes of this paper we are going to focus on executive disfunction.

Executive disfunction, also known as executive dysfunction or executive functioning deficits, affects many of the diagnoses under neurodiversity. It deals with their executive area of the brain.
which includes functions such as attention, working memory, inhibition, motivation, planning, and problem solving. This in turn affects their abilities of goal setting, prioritizing, remembering information, controlling emotions, assessing progress, adapting, and makes completing tasks difficult (Fraser-Smith, 2022). In particular, we are going to focus on sensory issues and time management.

You may hear terms such as hypersensitivity and sensory overload/overstimulation when talking about neurodivergent individuals. This has to do with how they process the world around them. Research shows that 94.4% of adults with autism spectrum disorder report having their day significantly impacted due to sensory issues (Portland State University & Morgan, 2019).

Hypersensitivity simply refers to the body having an overreaction to stimuli. This affects areas such as their five senses (Sensory Issues, n.d.). Imagine trying to focus while wearing an itchy sweater, the AC is blasting cold air at you, and you keep overhearing the conversation happening five seats over. It may be difficult to concentrate on the intended task when their brains are focusing on the environment around them. Overloading the senses can lead to sensory overload or overstimulation. It is also important to acknowledge that neurodivergent individuals can also experience hyposensitivity or lack of responsiveness to stimuli (Sensory Issues, n.d.). The preferred working environment can be reflective of this facet of executive disfunction. For example, someone who is hypersensitive might prefer work in a quiet library or alone at their house whereas someone with hyposensitivity might prefer working in a café with a lot of stimuli around them.

Sensory overload and overstimulation is when the body gets too much stimulation from the surrounding environment (M, 2011). This leads the body to be unable to cope, and feels like tense anxiety as the brain puts all its focus on the stimulation and ignores other areas such as
speech, decision making, information processing, etc. Sensory overload can be built up or caused by an inciting incident (Sensory Issues, n.d.).

It is also relevant to address stimming when talking about sensory issues. Stimming is repetitive movements, sounds, or fidgeting as a way of trying to keep individuals’ sensory systems balanced. It is a form of self-regulating but may look odd to outside perspectives, which is why some individuals suppress it at the workplace (Sensory Issues, n.d.). Have you ever felt so nervous you start shaking out your hands to help calm yourself down? Stimming acts as a form of self-soothing manifested through physical motions or sounds, like one does when shaking their hands to calm themselves down.

Poor time management is often attributed to neurodivergent individuals, which can serve as a side effect of time blindness, waiting mode, or time paralysis. Time blindness refers to how neurodivergent individuals have difficulty conceptualizing time. This can inhibit their ability to perform tasks associated with a time demand or limit and can make it difficult to adept to schedules given to them externally (Bennett, n.d.). With neurodivergent individuals, time management is extremely difficult, and it is not uncommon for them to be late (Turner). Imagine trying to be on time but your alarms keep getting snoozed. It would be difficult right? That is what time blindness does.

Waiting mode occurs when they have something planned in the future, but are too aware of it and therefore they are unable to do anything in the moment. This can lead to feeling anxious, impatient, frustrated, and overwhelmed (Waiting Mode, n.d.). This can occur as a result of their inability to conceptualize time. In a world without clocks, you would worry about missing appointments too.
Time paralysis is similar but occurs when neurodivergent individuals, typically those with ADHD, are too overwhelmed that they shut down, freeze up, and feel paralyzed. This occurs when they get too overwhelmed by their environment or amount of information given. This can transpire in conjunction to a choice, a task, or due to sensory overload. It is important to understand that time paralysis is not procrastination as it is out of their control (Team, 2022). It is not that they are choosing to do nothing, they physically cannot. They are a deer in the headlights. They are aware of the danger, they are aware of the consequences, they want to move, but they can’t.

Executive function has a lot of different facets that all influence neurodivergent individuals. Now that we have a base understanding of what some of those facets are, we can use this paper to find different ways to combat their limitations and try and turn them into strengths.

**Stigma, Bias, and Masking**

One of the first barriers that the neurodivergent community faces is this concept of “disability”. When people use the word “disability” it is often associated with performing below average both neurologically and physically (Hutson & Hutson, 2023). It can be understood why people may be hesitant to reveal that they are part of the neurodivergent community for fear that they are viewed as less capable. When in reality, neurodiversity is not about performing inferiorly, it is simply functioning differently. Additionally, some argue that it is ableist prejudice and social barriers which are disabling, not the conditions of the diagnosis (Shields & Beversdorf, 2021). However, there are more prejudices beyond the negative societal connotation given to the word disability.
There are other prejudices surrounding neurodiversity as well. Anthony Pacilio, vice president of CAI Neurodiverse Solutions, explains that, “While no one neurodivergent individual is the same, misinformation and stereotypes may make it so employers are hesitant to recruit from this population, let alone support those who already work there” (Cuadra, 2022). This is reinforced by society, media, and research which often times exemplify the challenges while downplaying the strengths (Santhanam, 2023). A survey of 790 neurodiverse individuals revealed that 3 in 10 neurodivergent employees have not disclosed their status to their employers. A variety of reasons were given but among respondents 44% feel it is a private matter, 37% feared assumptions because of stereotypes, 34% said too much stigma, and 29% were worried about career impacts (note subjects were able to list multiple reasons for lack of disclosure) (Chartered Institute of Personnel and Development, 2024). Prejudice, stereotypes, and stigma play a part in the decision to disclose or not. Some individuals are able to avoid these prejudices by masking.

Neurodiversity is often referred to as an invisible disability because it is not something you can see (Radulski, 2022). Masking is when one hides or conceals one’s traits. This is done in the workplace as an adaptive response to safeguard themselves against possible negative social interactions or due to possible negative employment outcomes (Pryke-Hobbes et al., 2023). Essentially people mask to avoid social prejudice or negative employment outcomes as a result of them falling under the neurodiverse umbrella. Additionally, autistic adults who regularly mask are shown to be at an increased risk for symptoms such as depression, anxiety, and lifetime suicidality (Pryke-Hobbes et al., 2023). But if they are concealing this part of themselves, that means that they are not able to ask for the assistance they need.
Managements Perspectives

The main issue managers are facing when it comes to the problem of lack of inclusivity for the neurodiverse is a lack of training and understanding. Reports indicate that 44% of leaders and managers had no training on neurodiversity, where 35% were unsure and 21% did. This is not including the staff which reported having no such training in the first place (Gaul, 2021). People have a fear of the unknown and don’t want to invest in neurodiversity if they don’t know what it is or how to do it right (Cuadra, 2022). If managers want to be more inclusive, they need to be more educated.

Additionally, management needs to be supportive and accommodating to neurodivergent individuals. A survey of 300 neurodiverse individuals revealed that only 57% revealed their neurodiversity status to their employers. Of those who did, the response from their employers was that 65% were very to mildly supportive, with 25% neutral, and 10% unhelpful. Additionally, one third of respondents requested reasonable accommodations at work, with only half of requests getting approved, and a third of people stating accommodations were difficult to achieve even when approved (Understanding the Experience of Neurodivergent Employees in the Investment and Savings Industry, 2023). How is the workplace expected to be inclusive if neurodivergent individuals do not feel supported and are not able to receive the accommodations they need? It is the job of managers and leaders to put in the work to actively cultivate a work culture that is inclusive through knowledge, support, and accommodations.
The US Government

Am I Legally Required to Provide Accommodations?

Are accommodations mandated by the government? The answer to that question is it’s complicated. Under the Americans with Disabilities Act of 1990, “The ADA requires reasonable accommodations as they relate to three aspects of employment: 1) ensuring equal opportunity in the application process; 2) enabling a qualified individual with a disability to perform the essential functions of a job; and 3) making it possible for an employee with a disability to enjoy equal benefits and privileges of employment.” (Office of Disability Employment Policy, n.d.). This act also protects individuals with disabilities against discrimination in “job application procedures, hiring, firing, advancement, compensation, job training, and other terms, conditions, and privileges of employment” (Fact Sheet: Disability Discrimination, 1997). Please note that this applies to employers with 15 or more employees, state and local governments, and employment agencies and labor organizations. The federal sector also applies for nondiscrimination standards (Fact Sheet: Disability Discrimination, 1997). (If you have any questions on if you qualify under the ADA, please do further independent research or see resources below.)

Now to qualify under the ADA, you need to qualify as having a disability. This is where things get tricky. The ADA defines disability as an individual who “1) Has a physical or mental impairment that substantially limits one or more major life activities; 2) Has a record of such an impairment; or 3) Is regarded as having such an impairment” (Fact Sheet: Disability Discrimination, 1997). The individuals with the disabilities must also be able to perform the essential function of the job, with or without reasonable accommodation (Fact Sheet: Disability Discrimination, 1997). Now neurodiversity is a blanket term for a lot of different conditions and
not all of them qualify as a disability (“The Employment of Persons with a Disability and/or Neurodiversity,” 2023). This does not mean that they would not benefit from accommodations, just that they are not entitled to them under law.

It is also important to note that an employer does not have to provide reasonable accommodations if it imposes “undue hardships” as specified as “an action requiring significant difficulty or expense when considered in light of factors such as an employer's size, financial resources, and the nature and structure of its operation,” (Fact Sheet: Disability Discrimination, 1997). Employers are also not required to provide personal use items such as glasses or hearing aids. Additionally, employers are also not required to lower quality or production standards as an accommodation as the employee must be able to perform the essential functions of the jobs with or without the accommodations (Fact Sheet: Disability Discrimination, 1997). This answers the question of exemption from legal responsibility to provide accommodations, but not the ethical ones.

The Interactive Process

Once you go to your employer to request accommodations either verbally or in writing, you may go into what is referred to as the “interactive process” by the Equal Employment Opportunity Commission (EEOC) (Fact Sheet: Disability Discrimination, 1997). Now the interactive process is used to help determine reasonable accommodations but is not always necessary. The Job Accommodation Network (JAN) uses the example that a person in a wheelchair requesting blocks to lift up their desk would be able to be request, identify, and provide the accommodation without a formal process (Interactive Process, n.d.). But it is not always this clear cut which is where the interactive process comes into play.
The interactive process is broken down into 6 steps as specified by the Job Accommodation Network’s article called the *Interactive Process*:

1. Recognizing an Accommodations Request – This can be a written or verbal request for accommodations relating to a medical condition. Please note, that the words accommodation, ADA, or disability do not need to be mentioned to qualify as an accommodations request (*Interactive Process*, n.d.).

2. Gathering Information – You need to identify what the limitations and problems are. The employee who requested the accommodation is often the best source for information and possible accommodations, although the employee may also be uncertain of the exact cause or possible solution. In this case, discuss what limitations are interfering with job performance and what specific tasks are the issue. The employer may also need to gather any information needed to process the request. This may include documentation of the disability. Please note that under the ADA, medical documentation may be requested to determine whether the employee has a disability as well as requested accommodation and information (*Interactive Process*, n.d.).

3. Exploring Accommodation Options – This is about brainstorming accommodations options and solutions to the issues. Again, it is important to talk with the employee who requested the accommodation about what they suggest. Failing that, they can ask their medical provider for recommendations. Additionally, there are many outside sources such as JAN (linked below) or disability related organizations which have useful resources. Just make sure to remain confidential and follow the rules of the ADA when using outside resources (*Interactive Process*, n.d.).
4. Choosing an Accommodation – It is ultimately up to the employer to pick which accommodation to implement, but it is highly recommended to consider the preference of the employee in this process. It is also important to note that once an accommodation gets chosen, it is not set in stone and may be revisited in the future if it is no longer proving effective (Interactive Process, n.d.).

5. Implementing the Accommodation – Taking action to implement the accommodation is arguably one of the most important steps to the overall success. Make sure changes are implemented, employees are trained in proper use, and it is communicated to essential personnel (Interactive Process, n.d.).

6. Monitoring the Accommodation – There is a reason this is called the “interactive” process. Changes occur and accommodations need to be periodically checked to evaluate ongoing effectiveness. It is also important to maintain the accommodation so it will continue to function as required. Ongoing communications is also important to monitor and adjust the accommodations as needed as well as build trust with employees (Interactive Process, n.d.).
Accommodations

There are a variety of accommodations available depending on the individuals’ preferences and their diagnosis. Due to this aspect and a general lack of research regarding workplace accommodations, this paper is going to focus the research in on the effectiveness of different common accommodations that are centered around combating executive dysfunction. JAN, the Job Accommodation Network, breaks executive dysfunction into the larger categories of time management, memory, concentration, organization and prioritization, multi-tasking, paperwork, social skills, and attendance/getting to work on time (Executive Functioning Deficits, n.d.). Within these areas we will examine in greater detail specific recommended accommodations to evaluate their effectiveness.

Time Management

Executive disfunction can result in time blindness, waiting mode, or time paralysis as discussed in the literary review. These aspects can make effective time management difficult for some neurodivergent individuals due to their inability to mark time. Because of this, visual aids to show may prove useful (Executive Functioning Deficits, n.d.). To this extent, the Attention Deficit Disorder Association recommends setting reminders and alarms to combat time blindness as well as the use of visual timers to track the time (“ADHD Time Blindness,” 2023). A research study interviewed 36 US-based neurodivergent professionals and use of a timer or clock within eyesight was cited as a way to better be aware of the passage of time (M. Das et al., 2021). Timers can also come in the forms of smartwatches, time management apps, and electronic calendars as the use of digital supports become more widespread (Mpofu et al., 2021).
The Attention Deficit Disorder Association also mentioned trying the Pomodoro technique which involves dividing time into 25 minute blocks with 5 minute breaks (“ADHD Time Blindness,” 2023). The Pomodoro technique was designed by Francesco Cirillo and consists of doing 25 minutes of work with 5 minute breaks. Cirillo writes that we are bound to be distracted, but by treating the distractions in a gentle way by writing them down to acknowledge their value and stopping for longer breaks, it allows us to be at greater ease with what we are doing (Cirillo, 2018). The Pomodoro technique has been shown to improve reading ability for students studying at home (Kisno, 2020). Members of an online research writing group who used the Pomodoro technique also reported a feeling of connection with their colleges and writing process (Hammond et al., 2023). The Pomodoro technique may be useful for neurodiverse and neurotypical alike.

Memory

Checklists and planners are recommended for keeping track of information and job duties (Executive Functioning Deficits, n.d.). Organization for those with learning disabilities benefit from using checklists to track activities and inspire a sense of accomplishment and self-confidence. Organizers and planners provide an overview of what needs to be accomplished (Finstein et al., 2007). A study with Autism Spectrum Disorder (ASD) and neurotypical students found that ASD individuals favored physical tools such as planners, pen and paper to do lists, and calendars due to their control and flexibility. However, physical tools were rarely chosen by their neurotypical counterpart who favored digital tools (Młocka, 2023). Planners and checklists may prove an effective, and relatively cheap, accommodation.
Concentration

In the literary review, we discussed hypersensitivity, sensory overload/overstimulation, and sensory issues which can cause one to get distracted and loose concentration. Some recommended accommodations to combat this are reducing auditory distractions, reducing visual distractions, and taking breaks (*Executive Functioning Deficits*, n.d.).

Noise cancelling headphones or noise reduction headphones are proven to help with auditory distractions. It is important to first understand that noise cancelling does not mean silence. The way noise cancelling headphones work is that it picks up ambient noise around you (best in the low to medium pitch range) and produces the opposite reverse sound waves to neutralize surrounding noise (*What Is Noise Cancellation and What Can I Expect?*, n.d.). Think of it like this, the headphones may cancel out the sound of the ceiling fan in the background but if you spoke to me, I would be able to hear you just fine. This is proven to help people who struggle with concentration issues because of sensory factors. A study researching autistic students in managing their sensory accommodations showed that noise reduction headphones decreased attention fluctuation (Monasky, 2022). Additionally, another study found that use of noise cancelling headphones indicates a reduction of psychophysiological stress and anxiety from auditory stimuli (Pfeiffer et al., 2019). A case study of an individual with ASD also showed that headphone usage resulted in longer and more consistent attention to tasks (Rowe et al., 2011).

Now visual distractions are a bit harder to accommodate than simply supplying headphones. The main suggestions focus around removing visual clutter or visual distractions through redesign or relocation. A set up with space enclosures such as the typical cubical is also shown to be effective in this regard (*Executive Functioning Deficits*, n.d.).
neurodiversity in the workplace in relation to architecture suggests that places should have a purpose. There should be cell settings similar to private offices which allow for high levels of autonomy and focus with little interaction, either enclosed or high partitions. Then there can be den environments such as conference rooms that promote collaboration and idea generation, so high interaction but little autonomy. A hive setting is an open concept office set up where people work in close proximity to each other but independently, so little interaction and little autonomy. And finally, a club environment which is a balance of all three where you move from high levels of interaction to high levels of autonomy (Cassidy, 2018). This allows for diversity in terms of those who are hypersensitive, hyposensitive, and neurotypical.

Finally taking breaks can help with concentration. This applies to neurodivergent and neurotypical individuals. Taking micro-breaks increases long-term motivation, increases productivity, and prevents decision fatigue (The Importance of Taking Breaks During In-Person Work (November 2022), n.d.). Although for neurodivergent individuals, some reported needing reminders to take breaks (Irvine et al., 2024). This is especially prevalent when they go into states referred to as “hyper focused” where they are extremely concentrated, engaged, and focused in on a task or activity but can forget to take breaks or even eat (Gama & Lacerda, 2023).

**Organization and Prioritization**

Color-coding schemes and systems are recommended a few times under the JAN accommodations but it fit best under the category of organization and prioritization (Executive Functioning Deficits, n.d.). However, there was a distinct lack of research surrounding this topic area beyond saying that it is effective so what was found is limited. For example, using color
with dyslexia has been effective in difficulties patient difficulties in reading and an improvement of 35% was reported with autistic patients using color overlay (Dzulkifli & Mustafar, 2013). It is stated that color-coding can help those with ASD prioritize their time (Hunter & Hunter, 2022). Additionally, color has a strong effect on recognition memory (Wichmann et al., 2002). A research study of neurodiverse postsecondary students also recommended color-coding to increase visual stimulation, engage attention, and help them focus. Use of colorful pens and stickers also increase engagement (Thomas, 2020). Although research in this area is limited, what is there demonstrates its effectiveness and the lack of data shows a need for further research.

**Multi-Tasking**

Multi-tasking is interesting in terms of accommodations due to it providing similar recommendations to that of memory, time-management, and organization. Most of the JAN recommendations center around creating flow charts and mapping out what and how something needs to get done (Executive Functioning Deficits, n.d.). This overall can be summarized as having structure in their tasks. But when diving into the research on multi-tasking, you get some interesting results.

To begin, a 2011 study took 45 men with ADHD and tested their multitasking abilities against a control group. The results? Those with ADHD did not show a significant impairment compared to their non-ADHD counterparts. That said, they performed better with non-interleaving tasks and performed best in structured conditions whereas the control group performed best in the least structured conditions (Gawrilow et al., 2011). This supports the idea that those with ADHD perform better under more structured environments.
However, results are not the only measure of efficacy. The study also examined mood while multitasking and Gawrilow et al. found:

“Adults with ADHD indicated less vigor, more fatigue, more depression, and more anxiety; they had worse mood and felt less in control after the instruction to perform the task (i.e., even before starting the task). After performing the task, adults with ADHD still felt less vigor (dependent on condition), more fatigue, more depression, and more anxiety; they had worse mood and felt less in control. In addition, they also felt more aroused, perceived the task as more difficult and effortful, had a greater fear of failure, and judged the task to be a greater challenge.” (Gawrilow et al., 2011)

It is also important to note that the best mood and most motivation was under the structured non-interleaving conditions (Gawrilow et al., 2011). Although those with ADHD did not perform inferiorly to those without ADHD, their perceptions of their abilities and overall mood were worse than the control. Although mood did not alter the outcome, it is an important factor to consider for employee satisfaction and mental wellbeing. Either way, the data is evident that those with ADHD performed better in structured environments with non-interleaving tasks both in terms of mood and ability. If the position requires multitasking, making it structured can be beneficial to your ADHD employees.

**Paperwork**

Issues with paperwork tie back to workplace distractions, time management, disorganization, and/or prioritization. Some accommodations for this include automating paperwork into electric files, using checklists in place of writing responses, and using templates of emails or letters. But one accommodation was particularly interesting which was re-designing
commonly used forms to have a larger font, wider spacing, and allowing space for hand-written responses (Executive Functioning Deficits, n.d.). This deals with the readability of the paperwork.

Dyslexia is a neurological disability included under neurodiversity that impairs one’s ability to read and write. There is research that certain fonts and formatting can help people with dyslexia and even help with readability for neurotypical individuals too. The British Dyslexia Association recommends using sans serif fonts such as ariel or alternatives include Verdana, Tahoma, Century Gothic, Trebuchet, Calibri, Open Sans. They also recommend using 12-14 font with 1.5 inter-word spacing and using bold instead of italics (Association, n.d.). A study with 48 subjects with dyslexia also recommended the fonts Helvetica, Courier, Arial, Verdana and CM for both readability and subject preference. They also found that sans serif, monospaced and roman fonts increased reading performance significantly. It also notes to avoid italics and Arial It font in particular due to them causing decreased readability (Rello & Baeza-Yates, 2013). Interestingly, a previous study and one with 64 subjects with dyslexia and 64 without dyslexia both found that fonts advertised as dyslexia friendly did not show any differences than standard letterform when it came to reading speed and accuracy. This includes fonts such as OpenDys and OpenDys It (Galliussi et al., 2020; Rello & Baeza-Yates, 2013). For this reason, their use cannot be recommended.

This accommodation can be relatively simple and free to implement. Word and most emails have it so you can set default documents to your preferred settings. By setting it to default, you can make the change once and not have to continually remember to use a proper font. These fonts and changes are also free to implement. As with most accommodations, it is still recommended to talk with the individual on their preferences.
Social Skills

Under social skills recommendations for accommodations, sensitivity training/disability awareness was recommended (Executive Functioning Deficits, n.d.). But is that actually effective? Well a study of 165 participants found that those who underwent sensitivity training showed significantly more positive behavior changes than the control group (Bare & Mitchell, 1972). Additionally, a more comprehensive analysis of 100 previous studies showed that 78/100 detected “changes significantly greater than those shown by the controls” (Smith, 1975). Furthermore, 31 of said studies measured one month or more after training with 21 (out of the 31 studies) found significant change indicating long term positive implications of sensitivity training (Smith, 1975).

While general sensitivity training serves as a foundation for understanding diverse perspectives, targeted programs such as autism acceptance training can offer a deeper, more nuanced approach to fostering understanding and inclusivity. A 2021 study with 238 participants assessed the impact of a brief autism acceptance training module on explicit and implicit biases towards those on the autistic spectrum found that participating in the training resulted in fewer misconceptions, lower stigma of autistic adults, higher expectations of autistic functional abilities, and more positive first impressions of autistic adults. Moreover, participants in the training expressed more inclusive and accepting attitudes surrounding autism and were less likely to endorse misconceptions surrounding autism. They also expressed greater interest with interacting with autistic individuals (Jones et al., 2021). This data indicates that if companies want to foster a social and inclusive workplace environment, then sensitivity training may prove beneficial.
Attendance/Getting to Work on Time

Some individuals struggle with getting to work on time due to a variety of factors, activities, processes, and interruptions that occur when trying to leave or during the commute. JAN recommends allowing a flexible work schedule or the ability to work remotely to accommodate this (Executive Functioning Deficits, n.d.). The ADA or Americans with Disabilities Act even includes working from home as a reasonable accommodation (Work at Home/Telework as a Reasonable Accommodation, 2003). But how effective is this? Well, the results are mixed.

A study with 36 neurodivergent professionals who worked remotely during the 2020 COVID pandemic was conducted through semi-structured interviews. The results were split. Some advocated for remote work stating that they are able to make workspaces more accessible and well-suited for their needs (M. Das et al., 2021). This is because they are able to tailor their environment to limit distractions and work when they are most productive (Kahlow, 2022). That said, some did not like working remotely. They stated that they had to perform additional cognitive and emotional labor to modify their homes into making it accessible for working. They also reported facing issues with shared physical spaces and interacting through virtual workspaces (M. Das et al., 2021). Remote work has also caused issues due to lack of concrete time cues, different kinds of distractions, and issues communicating, which if not managed effectively can cause issues such as burnout, anxiety, productivity loss, demotivation, and quitting (M. H. Das Najma Hamdani, and Maitraye, 2023). Ultimately it is up to the individual and the employer to determine if remote or flexible work is the right accommodation for the situation.
Interviewing Local Experts

Sometimes it is not about what you are asking but rather about knowing the right questions to ask. To that extent, I decided to reach out to my local network of experts to find out more about their thoughts on neurodiversity, executive disfunction, and accommodations.

Rejection Sensitivity Dysphoria

Speaking with Juliann Decker, a leadership trainer, facilitator, and coach, she brought up that rejection sensitivity dysphoria may be a barrier for neurodiverse individuals (J. Decker, personal communication, March 25, 2024). Rejection sensitivity dysphoria (or RSD) is not exclusive to the neurodivergent population, but it is often associated with ADHD. “Dysphoria” meaning strong/overwhelming feeling of discomfort or pain. RSD is the experience of severe emotional pain due to a failure or feeling rejected. It is suspected to occur because the differences in brain structure means that the brain can’t regulate rejection-related behaviors and emotions and thusly resulting in a greater intensity of the emotion. The difference between rejection sensitivity and RSD is the intense, overwhelming level of emotional pain associated with RSD (Rejection Sensitive Dysphoria (RSD), n.d.). An estimated 99% of people with ADHD are affected by RSD and one-third consider it to be the most difficult aspect of ADHD (Bedrossian, 2021). In the workplace, this can hinder people from contributing and advocating for themselves due to a fear of failure or social rejection.

Mirroring and Body Doubling

Juliann Decker, a leadership trainer, facilitator, and coach, also brought up the concept of mirroring and body doubling as a possible effective accommodation. She explained it
to me as essentially people working independently but holding each other accountable for making progress. There are different programs available to assist in finding working partners and can be effective remotely over zoom, teams, or other digital platforms. Juliann says it is helpful in terms of getting a jump start of difficult tasks and by feeling supported in the process (J. Decker, personal communication, March 25, 2024).

What is body doubling? Body doubling allows one to work alongside someone, a body double, to focus better and perform a monotonous task that would have proved difficult to accomplish alone. One study analyzing body doubling reported that the majority of participants felt more motivated with the body double and that they were able to concentrate better, with a small minority reporting a preference to working alone. It is important to note that this study participation criteria was not surrounding a neurodiversity status (Annavarapu, 2024). A survey on body doubling received 220 responses with 87.7% of participants reporting to be neurodivergent (139 ADHD, 82 Autistic, 11 OCD, and 11 Dyscalculia). They performed body doubling a few different ways including using pre-recorded content or live content. See chart below. The most popular locations for body doubling included the library and cafes. Body doubling was reported to help them get past the anxiety and be able to start difficult tasks. They report being able to stay focused and feel less overwhelmed (Eagle et al., 2023).
Women and Adult Diagnoses

When talking with Jensen Mecca, Chief Client Officer of Vero AI and an IO Psychologist, one area we discussed was a general lack of diagnoses and understanding for how different diagnosis present in women and adults (J. Mecca, personal communication, April 5, 2024). Why is that? To begin let’s look at ADHD. It is important to note that ADHD does not appear in adulthood so late diagnoses are not due to a late onset of the condition. ADHD is categorized by inattention, impulsivity, and hyperactivity (Waite, 2010). The

hyperactive/impulsive behavior patterns are more typical of boys which lead to more externalized behaviors of disruptions (Waite, 2010), whereas girls have more prominent inattentiveness than hyperactivity/impulsivity (Quinn & Madhoo, 2014). Sadly anxiety and depression are also common comorbidities with female ADHD and can lead to misdiagnosis (Quinn & Madhoo, 2014).

Autism diagnoses runs into similar problems as ADHD diagnoses. This is because autism was traditionally considered a “male” condition. This reflects in today’s statistics as boys are 10 times more likely to be referred for an autism diagnosis than girls and also 4 times more likely to receive a diagnosis. Also an estimated 80% of females with autism are undiagnosed by the age of 18 (Understanding Undiagnosed Autism in Adult Females, n.d.). This may because strong evidence indicates that the experience of autism differs between males and females. For one, females are increasingly likely to internalize their difficulties, which often leads to them presenting as anxious, passive, depressed, or having eating difficulties (Leedham et al., 2020). This can partially be explained by the fact that females are better at social camouflage and masking than males. A study with 182 autistic women scored significantly higher on masking and compensatory factors than autistic men (Hull et al., 2020). Some autistic women also report unconscious and automatic mimicry in social situations (Bargiela et al., 2016). Masking and social mimicry allow autistic women to “fit in” with society but can make diagnosis more difficult.

Adults with Autism Spectrum Disorder (ASD) also run into issues surrounding diagnosis. It can be difficult because a large part of the diagnosis relies on developmental history, which there may not be records for or may be recalled inaccurately due to the passage of time (Huang et al., 2020). There is also the psychological effect to consider. A study with 665 ASD participants
reported that 94.4% were concerned about not being believed, 92.3% about not being listened to, or 92% that they were going to be perceived as “making up” symptoms. Also 87.6% reported an inability to communicate their symptoms adequately and 81% worried over cultural norms not recognizing adults with ASD (Lewis, 2017). There is also a cost barrier to consider as most insurances do not cover the often costly testing process to receive a diagnosis (Women and Autism: Diagnosis and Treatment in Adulthood | OHSU, n.d.). There are many barriers to receiving a diagnosis as an adult.

There are also significant impacts to being diagnosed later in life. A survey with ASD participants found that the distribution of responses indicated that the timing of ASD diagnosis may lead to a significant difference in the extent of challenges, with those with a late diagnosis may experience greater difficulties. This is hypothesized to be because the earlier the diagnosis, the more opportunity to learn tools and interventions. This also indicates a need for those diagnosed later to need more support and more strategies (Młocka, 2023). It is more beneficial to increase early testing and make it more widespread because it can allow access to more tools and interventions to be better prepared later in life.

The Need for Society to Change

One consistent theme across multiple interviews is the need for society to change. When talking with Cinthia Satornino, a marketing faculty at the University of New Hampshire (UNH) and co-chair of UNH’s Neurodiversity Task Force, she talked about creating a neuro-inclusive environment. Our conversation revolved around how the workforce is a system and that system is not designed in a way that is inclusive. It is designed for the “neurotypical” but “neurotypical” does not really exist because there is no average of all people, there is no “normal”. Cinthia
describes it as, “Like being a left-handed person in a right-handed world. The systems are set up to support right-handedness” (C. Satornino, personal communication, April 3, 2024).

There are also barriers preventing change. There are barriers in terms of getting diagnosed (see Women and Adult Diagnoses). There are barriers in terms of getting accommodations. There is a rigidity in terms of lack of knowledge surrounding neurodiversity. There is also the stigma barriers and incorrect perpetuations of neurodiversity in media. Sometimes a structural shift is needed. Cinthia put it as, “don’t treat the symptoms, create a structure that’s mitigating the emerging systems” (C. Satornino, personal communication, April 3, 2024).

The problem with the workplace is that not everyone is able to advocate for themselves and not everyone is willing to accommodate. Elisa Bolton, Director of Psychological and Counseling Services at UNH, said that the skill most needed for transitioning from education into the workplace is, “Self-advocacy as many workplaces may not appreciate the importance of fostering an inclusive workplace,” (E. Bolton, personal communication, April 8, 2024). Good managers are able to see what their employees need to be successful and assist them regardless of neurotype. Everyone has strengths and challenges; we need to stop treating diversity as if it is obtrusive. We are at the cusp of seeing this change, but more advocation is needed in order to see shifts in society.
Survey on the Public’s Opinion of Neurodiversity

Introduction

The significance of this study is multifaceted. First, I want to establish whether there is this negative social and intellectual connotation for neurodivergent individuals. Second, I want to get a baseline knowledge of what people know about neurodiversity, since lack of the public’s knowledge and training on neurodiversity is reported to be a barrier for the community. As this generation of students will become the future workforce, I also believe that this information collected in the survey will indicate the future direction of the priorities of the upcoming workforce’s opinions and knowledge. For example, whether they view the resources and accommodations as currently adequate and accessible for neurodivergent individuals also indicates if they view them as an issue which needs to be addressed. My hypothesis is that those with more connections to the neurodiverse community will be more accepting than those without connections to neurodiversity.

Research Question

The questions I wanted to research were as follows:

- Does the public know what neurodiversity is and what falls under it?
- Is the public's opinion on neurodiversity positive or negative?
- How does neurodiversity impact someone's perception on their ability to do work?
- Does the public believe there are adequate resources and accommodations for neurodivergent individuals?
- Does the public believe the resources and accommodations for neurodivergent individuals are accessible?
• How well informed does the public feel on neurodiversity and do they wish they were more informed?

• Does having a close tie to neurodiversity (self, family, friend, significant other) significantly differ in the responses to the questions above as opposed to those without a close tie?

Method
Participants

Participants in this study were students attending the University of New Hampshire (UNH) over the age of 18. College students are the rising generation of workers and their knowledge and data will give valuable insight into what the future workplace may look like. This study was approved by UNH’s Institutional Review Board (IRB) and all participants consented to participating in the survey as well as the reporting of the data in aggregate. Participants were recruited through contacting professors at UNH’s Paul College of Business and Economics and asking them to share the survey with their classes. Additionally, posters and a digital flyer was displayed around the college. Participation was entirely voluntary. Of 94 initial submissions, 16 responses had to be removed due to incompletion resulting in 78 viable responses.

The demographic information is as follows:

Table 1.1: Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Woman</td>
<td>45</td>
</tr>
<tr>
<td>Man</td>
<td>30</td>
</tr>
<tr>
<td>Transgender</td>
<td>1</td>
</tr>
<tr>
<td>Gender Expansive</td>
<td>1</td>
</tr>
<tr>
<td>-----------------</td>
<td>---</td>
</tr>
<tr>
<td>Prefer not to Say</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 1.2: Ethnic/Racial Group

<table>
<thead>
<tr>
<th>Ethnic/Racial Group</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>White/Caucasian</td>
<td>73</td>
</tr>
<tr>
<td>Native American, Inuit, or Aleut</td>
<td>0</td>
</tr>
<tr>
<td>Asian American/Pacific Islander</td>
<td>6</td>
</tr>
<tr>
<td>African American/Black/Caribbean</td>
<td>0</td>
</tr>
<tr>
<td>Latin/Hispanic</td>
<td>3</td>
</tr>
<tr>
<td>Other (Please Specify)</td>
<td>1</td>
</tr>
<tr>
<td>Prefer Not to Say</td>
<td>1</td>
</tr>
</tbody>
</table>

***Other Category Identified as fully Slavic

Table 1.3: Age

<table>
<thead>
<tr>
<th>Age</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-19</td>
<td>13</td>
</tr>
<tr>
<td>20-21</td>
<td>47</td>
</tr>
<tr>
<td>22-23</td>
<td>13</td>
</tr>
<tr>
<td>24+</td>
<td>4</td>
</tr>
<tr>
<td>Prefer Not to Say</td>
<td>1</td>
</tr>
</tbody>
</table>
**Procedure**

Participants took a survey on Qualtrics. The survey was set to "anonymize responses" so that no IP address or other identifying information was collected. Participants were asked demographic questions. Participants were then asked multiple choice questions about their understanding of and impact that neurodiversity has on them. Following this, participants were then informed about neurodiversity’s definition (as defined by the US Department of Labor) and then answered questions related to their knowledge and viewpoints on issues surrounding neurodiversity. To do so, they choose either agree or disagree when given a prompt.

**Results**

The first area addresses what their understanding of neurodiversity is. To accomplish this, they self-reported their perception of knowledge levels relating to neurodiversity. Following this, they selected what diagnoses they believed qualified as neurodiverse. They then reported what, if any, connections they had to neurodiversity. Results are as follows:
Graph 1: Rating Perceived Knowledge of Neurodiversity

How Would you Rate your Current Understanding of Neurodiversity?

- Strong Understanding: 11%
- Moderate Understanding: 45%
- Weak Understanding: 44%

Graph 2: Perceptions of Diagnoses under Neurodiversity

Please Select Any/All Diagnoses that Fit within the Context of Neurodiversity (Please Select All that Apply)

- Attention Deficit Disorder (ADHD): 64
- Autism: 63
- Obsessive-Compulsive Disorder (OCD): 53
- Dyslexia: 49
- Anxiety: 46
- Intellectual Disability: 44
- Tourette's Syndrome: 41
- Schizophrenia: 39
- Depression: 30

*Please note that the values above are numbers of time it was selected not percentages, and participants were able to select as many values as desired.
Graph 3: Connections to Neurodiversity

Does Neurodiversity Affect You in Any Way?
(Please Select All that Apply with the Exception that the Last Three Options are Mutually Exclusive)

- I am Neurodivergent: 17
- I have a Significant Other who is Neurodivergent: 5
- I have Family who are Neurodivergent: 30
- I have Friends who are Neurodivergent: 35
- Other (Please Specify): 1
- None of the Above: 7
- I Don’t Know What Neurodivergent Is: 20
- I Prefer Not to Answer: 4

*Please note that the values above are numbers of time it was selected not percentages, and participants were able to select as many values as desired. The Other (Please Specify) identified as suspecting that they are neurodivergent.

Following this, they were given the following information, “The US department of labor outlines it as those with brains that work differently from the neurologically typical or neurotypical. Autism, attention deficit hyperactivity disorder (ADHD), dyslexia, Tourette’s syndrome, anxiety, obsessive-compulsive disorder, depression, intellectual disability, and schizophrenia are included under neurodiversity” with a link to the cited source (Tapping the Power of Neurodiversity in the Workplace, 2021). The final section had them rate agree/disagree to the following statements.
Table 2.1: Agree/Disagree Statements Totality of Respondents

<table>
<thead>
<tr>
<th>Ref. Number</th>
<th>Below, Please Indicate Whether You Agree or Disagree with the Following Statements.</th>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>Neurodiversity is a weakness.</td>
<td>17%</td>
<td>83%</td>
</tr>
<tr>
<td>Q2</td>
<td>Neurodiversity inhibits someone’s ability to work.</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>Q3</td>
<td>There is a negative stigma surrounding neurodiversity.</td>
<td>88%</td>
<td>12%</td>
</tr>
<tr>
<td>Q4</td>
<td>I would feel comfortable working with neurodivergent individuals in professional settings.</td>
<td>90%</td>
<td>10%</td>
</tr>
<tr>
<td>Q5</td>
<td>I would be open to befriending neurodivergent individuals in personal settings.</td>
<td>90%</td>
<td>10%</td>
</tr>
<tr>
<td>Q6</td>
<td>I worry when working with neurodivergent individuals about offending them.</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>Q7</td>
<td>I would feel comfortable managing/leading a neurodivergent individual.</td>
<td>79%</td>
<td>21%</td>
</tr>
<tr>
<td>Q8</td>
<td>If given the opportunity, I would choose to have a neurodivergent individual work with me.</td>
<td>63%</td>
<td>37%</td>
</tr>
<tr>
<td>Q9</td>
<td>There are adequate resources and accommodations for neurodivergent individuals attending UNH.</td>
<td>58%</td>
<td>42%</td>
</tr>
<tr>
<td>Q10</td>
<td>There are adequate resources and accommodations for neurodivergent individuals in the workplace.</td>
<td>24%</td>
<td>76%</td>
</tr>
<tr>
<td>Q11</td>
<td>The resources and accommodations for neurodivergent individual are easily accessible at UNH.</td>
<td>59%</td>
<td>41%</td>
</tr>
</tbody>
</table>
Q12 | The resources and accommodations for neurodivergent individual are easily accessible in the workplace. | 31% | 69%
---|---|---|---
Q13 | I am well informed about what neurodiversity is. | 41% | 59%
Q14 | I wish I knew more about neurodiversity. | 90% | 10%

Table 2.2: Agree/Disagree Statements Comparison (C)

*Close Tie is defined as identifying as neurodivergent or having friends, family, and/or a significant other with neurodiversity as represented in Graph 3. No close ties is identified by selecting “I don’t know what neurodiversity is” in Graph 3.

<table>
<thead>
<tr>
<th>Ref. Number</th>
<th>Below, Please Indicate Whether You Agree or Disagree with the Following Statements.</th>
<th>Close Ties (n=47)</th>
<th>No Close Ties (n=20)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Agree</td>
<td>Disagree</td>
</tr>
<tr>
<td>C1</td>
<td>Neurodiversity is a weakness.</td>
<td></td>
<td>6%</td>
</tr>
<tr>
<td>C2</td>
<td>Neurodiversity inhibits someone’s ability to work.</td>
<td></td>
<td>64%</td>
</tr>
<tr>
<td>C3</td>
<td>There is a negative stigma surrounding neurodiversity.</td>
<td></td>
<td>98%</td>
</tr>
<tr>
<td>C4</td>
<td>I would feel comfortable working with neurodivergent individuals in professional settings.</td>
<td></td>
<td>91%</td>
</tr>
<tr>
<td>C5</td>
<td>I would be open to befriending neurodivergent individuals in personal settings.</td>
<td>91%</td>
<td>9%</td>
</tr>
<tr>
<td>-----</td>
<td>-------------------------------------------------------------------------------</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>C6</td>
<td>I worry when working with neurodivergent individuals about offending them.</td>
<td>38%</td>
<td>62%</td>
</tr>
<tr>
<td>C7</td>
<td>I would feel comfortable managing/leading a neurodivergent individual.</td>
<td>85%</td>
<td>15%</td>
</tr>
<tr>
<td>C8</td>
<td>If given the opportunity, I would choose to have a neurodivergent individual work with me.</td>
<td>72%</td>
<td>28%</td>
</tr>
<tr>
<td>C9</td>
<td>There are adequate resources and accommodations for neurodivergent individuals attending UNH.</td>
<td>62%</td>
<td>38%</td>
</tr>
<tr>
<td>C10</td>
<td>There are adequate resources and accommodations for neurodivergent individuals in the workplace.</td>
<td>19%</td>
<td>81%</td>
</tr>
<tr>
<td>C11</td>
<td>The resources and accommodations for neurodivergent individual are easily accessible at UNH.</td>
<td>55%</td>
<td>45%</td>
</tr>
<tr>
<td>C12</td>
<td>The resources and accommodations for neurodivergent individual are easily accessible in the workplace.</td>
<td>26%</td>
<td>74%</td>
</tr>
</tbody>
</table>
Discussion

Does the public know what neurodiversity is and what falls under it?

The first goal of this research was to determine what the public’s baseline knowledge of neurodiversity is. Graph 1 demonstrates that the public does not feel confident in their knowledge surrounding neurodiversity. 45% expressed weak knowledge, 44% expressed moderate knowledge, with the minority of 11% expressing strong knowledge about neurodiversity. This indicates that there is a lack of knowledge surrounding neurodiversity. It is also important to note that people’s baseline knowledge about the diagnoses under neurodiversity is incomplete. Graph 2 shows that individuals do not know what diagnoses fall under neurodiversity as all listed are applicable. Attention Deficit Disorder (ADHD), Autism/Autism Spectrum Disorder, and Obsessive-Compulsive Disorder (OCD) were the most commonly associated with neurodiversity.

Is the public's opinion on neurodiversity positive or negative?

Table 1 has statement questions to evaluate if neurodiversity is viewed in a positive or negative light. Majority of 88% agree that there is a negative stigma surrounding neurodiversity (Q3). Contrastingly, majority of 83% also disagree that neurodiversity is a weakness (Q1). Now this does not necessarily mean the inverse, that they perceive neurodiversity as a strength, but it
does indicate that respondents do not view it negatively. This suggests that although they perceive society as a whole viewing neurodiversity negatively, they do not necessarily view neurodiversity negatively themselves. Additionally, 90% report being open to befriending neurodivergent individuals in personal settings (Q5). What’s interesting is evaluating how this translates to the work environment.

Despite majority reporting that neurodiversity is not a weakness, 60% perceive that neurodiversity inhibits someone’s ability to work (Q2). Additionally, 90% report that they would feel comfortable working with neurodivergent individuals in professional settings (Q4). However, only 79% report feeling comfortable managing/leading a neurodivergent individual (Q7), and only 63% would actively choose to have a neurodivergent individual work with them if given the opportunity (Q8). Although the reasoning behind this decreasing comfortability is purely speculative, based on the data it may be due to a fear of offending neurodivergent individuals as 40% report worrying about offending them when working together (Q6). It could also be because of the perception that neurodiversity inhibits their ability to work (Q2). More research is needed for a definitive conclusion.

Does the public believe there are adequate resources and accommodations for neurodivergent individuals? And are they accessible?

It is important to address that this question is about respondents’ perception on accommodations and resources. As only about 22% of respondents identified as neurodivergent themselves in Graph 3, this section may not be reflective of peoples’ actual experiences. For this section, the questions were divided up to reflect perceptions of what is available in academia, or more specifically at UNH the college respondents are attending, verses in the workplace. Now
for academia, 58% viewed having adequate resources (Q9) and 59% reported that they are easily accessible (Q11). These statistics as is are already disturbing but they get worse in the context of the workplace. Only 24% agree that there are adequate resources and accommodations in the workplace (Q10) with 31% agreeing that they are easily accessible (Q12). When three fourths of respondents believe that there are inadequate resources and accommodations, and that said accommodations are not easily accessible, then there is adequate cause for change.

How well informed does the public feel on neurodiversity and do they wish they were more informed?

Q13 in Table 2.1 addresses how informed people feel about neurodiversity with over half, 59%, addressing that they do not feel well informed. It is important to also note that about 26% (20/78) of respondents did not know what neurodiversity is according to Graph 3. This indicates that at least some of the respondents who do have direct connections to neurodiversity still feel uninformed about the topic. Additionally, Q14 shows that 90% of respondents wish they knew more about neurodiversity. This data indicates that lack of knowledge is not a result of lack of desire to be more well informed.

Does having a close tie to neurodiversity (self, family, friend, significant other) significantly differ in the responses to the questions above as opposed to those without a close tie?

Of the 78 viable responses, 48 respondents (61.5% of the total) reported having close ties to neurodiversity as in they were neurodivergent or had friends, family, or a significant other with neurodiversity (the other category was excluded). Additionally, 20 respondents (25.6% of
the total) reported not knowing what neurodiversity is. Their responses are recorded in Table 2.2 for comparison. To this extent, the statement with the starkest difference in responses was question C13, which relates to how informed about neurodiversity respondents felt. 60% of respondents with close ties agreed with feeling well informed about neurodiversity whereas only 10% of respondents without close ties agreed. It makes sense that those who identified as not knowing what neurodiversity is would report feeling less informed, but as for those with close ties, 60% is low considering their relations to these conditions. This may also inform other variances between the two groups’ responses.

There was also interesting data in relation to perceptions of neurodiversity. C1 showed that those with connections to neurodiversity were less likely to have the perception that neurodiversity is a weakness with 94% disagreeing whereas only 65% of those without ties disagreed. This could relate back to the reported lack of knowledge about neurodiversity or be due to a lack of personal exposure with neurodiversity. The Social Skills section talks about how those that underwent sensitivity training and increased their knowledge about neurodiversity had fewer misconceptions, a lower stigma, and higher expectations (Jones et al., 2021). In relation to stigma, those without close ties reported less belief of a negative stigma surrounding neurodiversity than those with close ties in C3. Although these percents were relatively still high at 70% and 98% respectively, it could be viewed that the reasoning behind this is due to a lack of first- or second-hand experience with these stigmas. Either way, these percentages are still high and warrant the need for further evaluation of the stigma associated with neurodiversity.

Looking further into the data, those without close ties report feeling more uncomfortable managing/leading neurodivergent individuals (C7) and choosing to work with neurodivergent individuals if given the opportunity (C8). Where 85% of those with close ties would feel
comfortable managing/leading neurodivergent individuals, only 55% without close ties would feel comfortable (C7). Similarly, 72% with close ties verses 40% without close ties would choose to have a neurodivergent individual work with them if given the opportunity (C8). It could be argued this is due to the lack of information and knowledge about neurodiversity, as established in the paragraph above. As discussed in the Management Perspective section, people fear the unknown and hesitate if they don’t feel they have the knowledge needed to lead effectively (Cuadra, 2022). This could be the reason behind the hesitation to manage neurodivergent individuals as it relates to not having the knowledge to be effective leaders, although this is purely speculatory.

Overall, there may be a few differences as a result of having a close tie to neurodiversity or not but the responses stayed relatively similar.

Conclusion

More research is needed for definitive conclusions on any topic discussed, however the data does indicate a few trends. First that there is an overall lack of knowledge and understanding surrounding neurodiversity as a whole (Graph 1 and Table 2.1 Q13). Second that this lack of knowledge is not due to a lack of desire as a majority reported wanting to learn more (Table 2.1 Q14). Third, people perceive that society gives neurodiversity a negative stigma but that neurodiversity should not be viewed as a weakness (Table 2.1 Q3 and Q1). Fourth, accommodations and resources in both academia and especially the workplace are viewed as inadequate and not easily accessible (Table 2.1 Q9-Q12). And finally, people with close ties to neurodiversity were less inclined to agree that neurodiversity is a weakness, and more willing to
lead/manage neurodivergent individuals and work with neurodivergent individuals if given the opportunity (Table 2.2 C1, C7, and C8).

Limitations

Due to the demographic of survey participants, the results of the poll are only indicative of UNH college students and may not be representative of society as a whole. The respondents were all from the University of New Hampshire (UNH) and were primarily recruited through the business college. Although any college had the possibility of taking the survey, the flyers and professors contacted to advertise in their classes were limited to the business school due to personal access. Additionally, it was limited in terms of age as the majority of respondents were below 21 (Table 1.3), as well as limited in race due to New Hampshire and UNH being predominately white in population (Table 1.2). This in turn limited the pool of respondents.
The Need for Future Research

Although the term “Neurodiversity” is relatively new, the diagnoses under it are not. And yet there is a continual lack of research surrounding this topic area. This is especially prevalent beyond the realm of academia, as these diagnoses do not go away when one reaches adulthood and goes off into the workplace. Meanwhile, there is a gapping lack of research and resources for those individuals. It is also important to consider that some people are not diagnosed until well into adulthood and did not have the resources and coping mechanisms that academia research provides to fall back on. Because of this, it is our job to fill the gaps.

Why is there not more research currently available? Based on personal experience in research crafting, it can be hard to find willing participants under a protected class, especially in large enough numbers to have significant data. Additionally, many individuals do not disclose their disability due to the negative stigma and bias in society. Kevin Antshel summarized the point perfectly in his paper on ADHD:

Studying the occupational functioning of young adults with ADHD is challenging because a study that collected information from a supervisor or coworker could inadvertently bias these individuals against the individual with ADHD. Further, many individuals with ADHD may be uncomfortable having researchers ask their supervisor research-related questions. Workplace behavior may also be difficult to reliably assess within an uncontrolled work setting (i.e., different supervisors or coworkers present on different days; varying demands across days). (Antshel, 2018)

Collecting research in the workplace is not easy, and adding the facet of requiring the disclosure of a diagnosis does not make it easier. That said, just because something is not easy does not
mean that it is not worthwhile to accomplish. If we want more effective accommodations, then we need more research to back it up.

Limitations

I would also like to take some time to address some gaps in this paper. You may note that my citations are heavily focused on ADHD and Autism/Autism Spectrum Disorder resources. This is because these two diagnoses yield the most search results in an already greatly limited field. As much as I wish this could be fully comprehensive, with the current data available that is simply unrealistic. That said, I am proud for being able to contribute to the available resources on this topic and want to thank you for taking the time to be more educated and inclusive on the topic of neurodiversity in the workplace.
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