



Systematic Review

It Is Time to Address Ableism in Academia: A Systematic Review of the Experiences and Impact of Ableism among Faculty and Staff

Sally Lindsay ^{1,2,*} and Kristina Fuentes ¹

¹ Bloorview Research Institute, Holland Bloorview Kids Rehabilitation Hospital, Toronto, ON M4G 1R8, Canada; kfuentesaiello@hollandbloorview.ca

² Department of Occupational Science and Occupational Therapy, Rehabilitation Sciences Institute, University of Toronto, Toronto, ON M5G 1V7, Canada

* Correspondence: slindsay@hollandbloorview.ca; Tel.: +1-416-425-6220 (ext. 3654)

Abstract: Faculty and staff with disabilities are significantly underrepresented within academia and experience alarming rates of discrimination, social exclusion and marginalization. This review aimed to understand the experiences and impact of disability discrimination (ableism) among faculty and staff. We conducted a systematic review while searching six international databases that identified 33 studies meeting our inclusion criteria. Of the 33 studies that were included in our review, they involved 1996 participants across six countries, over a 25-year period. The studies highlighted faculty and staff experiences of ableism in academia, which focused on disclosure (i.e., choosing to disclose or not), accommodations (i.e., lack of workplace accommodations and the difficult process for obtaining them) and negative attitudes (i.e., stigma, ableism and exclusion). Twenty-one studies explained the impact of ableism in academia, including a negative effect on physical and mental health, and career development. Coping mechanisms and strategies to address ableism in academia were also described. There is a critical need for more research and attention to the lived experiences of ableism among faculty and staff in academia and the impact that ableism has on their health and well-being.

Keywords: ableism; discrimination; disability; academia; faculty; staff



Citation: Lindsay, S.; Fuentes, K. It Is Time to Address Ableism in Academia: A Systematic Review of the Experiences and Impact of Ableism among Faculty and Staff. *Disabilities* **2022**, *2*, 178–203. <https://doi.org/10.3390/disabilities2020014>

Academic Editor: Paula Holland

Received: 20 January 2022

Accepted: 31 March 2022

Published: 7 April 2022

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

Although people with disabilities are one of the world's largest minority groups, they are often overlooked [1,2]. Research indicates that over the past decade there has been an increase in disability discrimination (i.e., ableism), which refers to unwanted, exploitative or abusive conduct against people with disabilities that violates their dignity and security, or creates intimidating or offensive environments [3]. Although legislation exists to help affirm the rights of people with disabilities, they experience persistent ableism, social exclusion, non-accommodating environments and a lack of opportunities [4–6].

Faculty, instructors and researchers with disabilities are among the groups that experience the highest levels of harassment, ableism and unfair treatment within post-secondary institutions [7]. People with disabilities persistently encounter barriers in the workplace, including inaccessible physical environments, lack of accommodations and modifications to existing facilities and practices, inadequate supports and policies, stigma and ableism, intentional exclusion, segregation and relegation to lesser services and opportunities [8–10].

Such persistent barriers encountered by people with disabilities likely contribute, in part, to their significant underrepresentation amongst academic staff [11,12]. For example, in Canada only 6.7% of university professors, instructors, teachers or researchers self-identify as having a disability [13], compared to 20% of working-age Canadians [14]. In the UK, only 2% of staff in universities has a declared health condition compared to 16% among working-age adults [11]. Similarly, an estimated 1–6% of Australians declare having

a disability within academia compared to 18% of the general population [15]. While we recognize that the percentage of people with disabilities within academia may not be the same as those within the general population, it is much lower than would be expected, and is an indicator of a low representation of people with disabilities in this field and/or people not feeling safe with disclosing their condition within these work environments.

Many researchers describe how academic workplaces can be challenging, anxiety-producing and toxic work environments, especially for people with disabilities where ableism is common [15–18]. For example, in Canada, 35% of university professors, instructors, teachers or researchers with a disability experienced ableism or unfair treatment and 47% encountered at least one form of harassment over the past year [7]. Ableism often presents noticeable social and psychological privileges for people without disabilities and often results in disadvantages for people with disabilities [19]. The continuing persistence of ableism and prejudice towards people with disabilities denies their opportunity to compete on an equal basis [10]. The United Nations Convention on Rights of Persons with Disabilities (Article 8) [20] states that a change of perceptions is essential to improving the situation of persons with disabilities where there is a need to combat stereotypes and prejudices and to promote awareness of the capabilities of persons with disabilities. One of the first steps in addressing this is to develop a better understanding of their experiences and the impact that ableism has on them.

Many post-secondary institutions continue to follow an individualized medical model of disability, which is reflected in their policies and practices that isolate and stigmatize people with disabilities who require workplace accommodations [12,13,21]. The lack of institutional supports and resources for staff and faculty in post-secondary institutions could be due to ableist assumptions. In many institutions, disability support services that are commonly available to students are not extended to staff and faculty [22,23]. Ableism is typically normalized within post-secondary education whereby academics with disabilities often internalize the stigma and discrimination they experience, making it difficult to disclose their condition and request accommodations [11]. These trends could help to explain, in part, why the rates of disclosure among faculty with disabilities are much lower than those of students [11,18].

There is increasing attention on higher education institutions to ensure they reflect the diversity of their communities [13,24]. As equity, diversity and inclusion (EDI) initiatives have rapidly increased across academic institutions, they have been criticized for being ineffective and motivated primarily by a concern for appearing inclusive rather than a desire to implement real change [24]. Nonetheless, the push for greater EDI in higher education reflects the growing formal recognition of the need to address barriers faced by members of equity-deserving groups such as people with disabilities [13,24]. Disability has arguably received much less attention compared to other equity-deserving groups within EDI discussions [13,15].

Wolbring and Lillywhite [13] conducted a review of EDI within universities while focusing on people with disabilities. They argue that more training on disability is needed among university administrators to eliminate biases that are related to abilities and ability privilege [13]. In order for EDI frameworks to build a culture of belonging for academics, they must allow for self-understanding of one's body [13]. In the EDI definitions they reviewed, they found that people with disabilities were the only equity-deserving group that was defined in a negative way, which can influence how and whether EDI is discussed in relation to people with disabilities [13].

Purposively including people with disabilities and addressing their needs for workplace accommodations could help enhance EDI while incorporating the diverse social identities within the research community, which is crucial for the advancement of scientific discovery [25]. To date, most of the EDI initiatives in academia have focused on student recruitment and faculty hiring but have often ignored the accessibility and inclusion needs of scientists and researchers at other levels (e.g., promotion, retention, workplace accommodations) [25]. Further, most previous research on ableism in academia has focused on

students with disabilities, which is important; however, there has been a notable lack of attention to faculty (i.e., professors, lecturers, instructors) and staff (i.e., non-faculty members including research coordinators, managers, research assistants, teaching assistants, research librarians, etc.) with disabilities. Our review aimed to understand the experiences and impact of ableism among faculty and staff with disabilities in academia.

2. Materials and Methods

2.1. Search Strategy and Data Sources

Our search strategy was developed in consultation with a librarian with expertise in disability. The following international databases were searched: Ovid Medline, Embase, PsychInfo, Healthstar, Proquest, Scopus (see Figure 1). Our search strategy included the following keywords: discrimination, ableism, disablism, social stigma, exclusion, prejudice, bullying, oppression, microaggression; academia, academic, academy, scientist, researcher, faculty; disability, disabled person, chronic disease, chronic illness (see Supplemental Table S1 for full search strategy). We also searched the reference lists of the articles that met our inclusion criteria.

2.2. Article Selection

Our inclusion criteria involved the following: involving a sample of people with disabilities (based on the International Classification of Functioning, Disability and Health), referring to an umbrella term for impairments, activity limitations and participation restrictions [26], published in a peer-reviewed journal from 1995 to September 2021; an empirical article with at least one finding focusing on ableism amongst faculty or staff within academia (e.g., college, university, higher education). We included various methodological designs to help capture the experiences and also the impact of ableism. We were inclusive of all languages. Any non-English articles that we found were translated.

Our exclusion criteria involved the following: non-peer reviewed, opinion, books, book chapters, theses, reviews, non-empirical articles, commentaries, conference abstracts and articles that did not focus on ableism or on staff or faculty. We did not focus on students because much attention has already been given to them [27]. We excluded non-peer reviewed literature because this is an important process that helps to ensure the quality, relevance, integrity and risk of bias in the published information [28].

2.3. Article Screening

We conducted the search across six databases where we identified 2327 articles (see Figure 1) after removing the duplicates. The first author and a research assistant each independently applied the inclusion criteria to screen the titles and abstracts for relevance, which left us with 125 potentially relevant full-text articles to screen. A further 92 articles were excluded because they did not meet our inclusion criteria (see Figure 1 for reasons). Any discrepancies between the screeners were discussed until consensus was reached. A total of 33 articles met our inclusion criteria for this review. We kept a log of inclusion decisions to provide an audit trail of our process.

2.4. Data Abstraction

The first author extracted and compiled the data from the 33 articles in the review using a structured abstraction form (see Supplemental Table S1). Information about each study (e.g., author, year, country, methods and findings) was abstracted. The second author independently reviewed the articles and checked the table for accuracy. Any discrepancies were discussed until consensus was reached. We also noted the limitations and risk of bias for each study. We also followed the preferred reporting items for systematic reviews and meta-analysis checklist (see Supplemental Table S2).

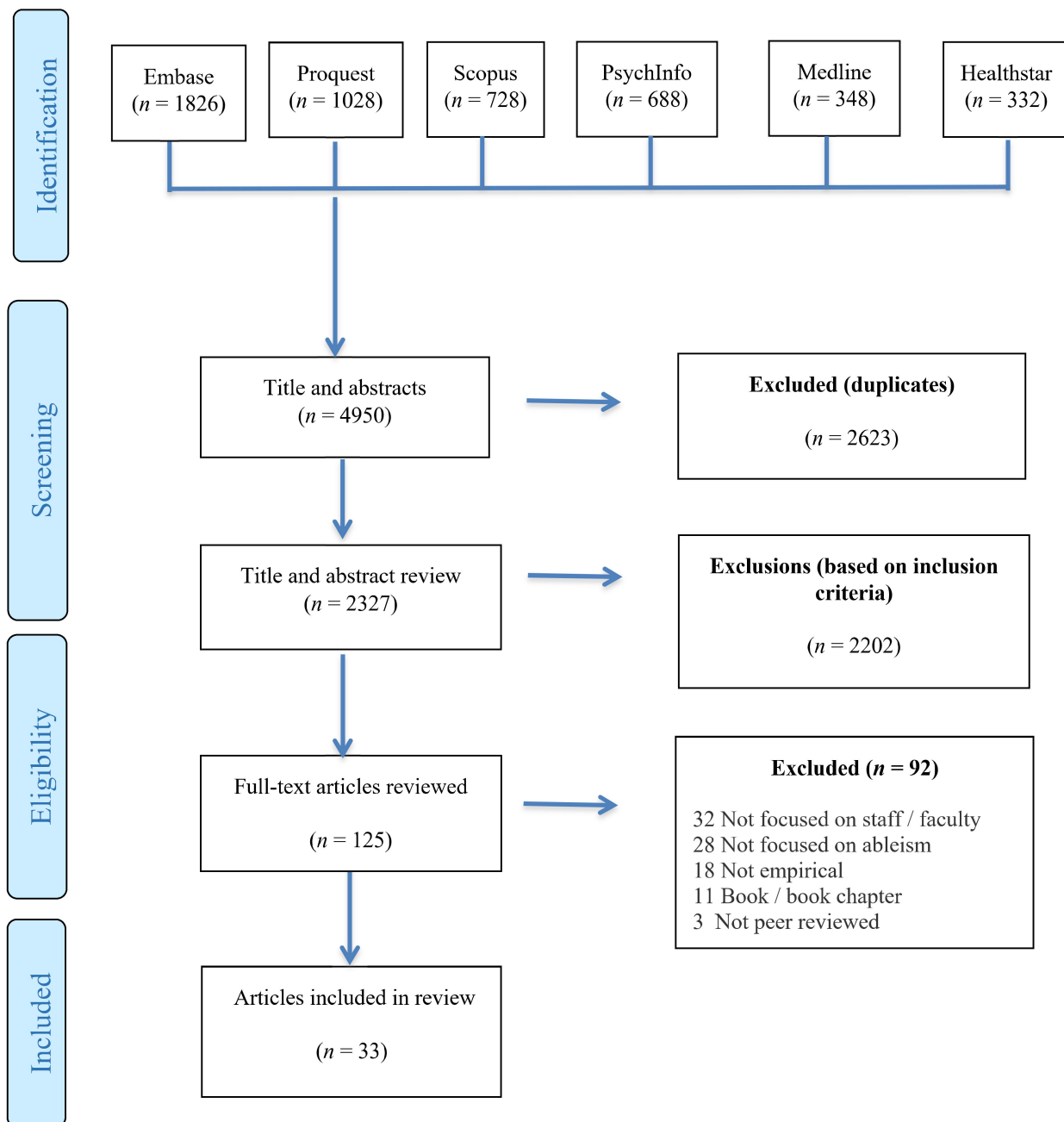


Figure 1. PRISMA flow diagram of the database search process.

2.5. Synthesis of the Findings

Both authors read all of the articles before extracting the data and summarizing them. We drew on the guidelines for narrative synthesis for analysing our findings because a meta-analysis was not practical given the diverse range of methodologies in our review [29]. A narrative synthesis involves organizing the content of the findings within and across the included studies [29]. We first collated the study findings into categories around the experiences of ableism in academia and the impact of ableism. Then, we analyzed the findings within each category. Next, we synthesized the findings across the included studies while highlighting key trends and considering how the studies varied by sample characteristics, methodological design and quality [29].

2.6. Quality Appraisal and Risk of Bias within Studies

We assessed the methodological quality of each study using the Standard Quality Assessment criteria [30]. There are separate checklists for quantitative (14 items) and qualitative studies (10 items) and each assesses the range of methodologies and risk of bias [30]. Both authors independently assigned a score for each item along with a total score for each study (see Supplemental Tables S3 and S4). Our inter-rater agreement was 95% for the qualitative studies and 78% for the quantitative studies. Articles with discrepant ratings were discussed and re-evaluated until consensus was reached.

Total scores ranged from 55% to 90% (mean 73%) for the qualitative studies and 62% to 88% (mean 73.8%) for the quantitative studies (see Supplemental Tables S3 and S4). Scores were considered good quality if they exceeded 70%. Areas where qualitative studies scored lower included lack of a theoretical framework; inadequately described sampling strategy, data collection or analysis description; lack of verification procedure and lack of reflexivity of the account. Meanwhile, areas where quantitative studies scored lower included methods and analysis sufficiently described, outcome well defined and results reported in sufficient detail. We also considered the limitations and risk of bias within each of the studies. Common limitations within the included studies involved small sample sizes, selection bias, self-reporting and lack of standardized measures in the quantitative studies.

3. Results

3.1. Study and Participant Characteristics

Our review included 33 studies involving 1996 participants (i.e., faculty, non-faculty academic staff, librarians) across six countries over a 25-year period. There were 14 studies conducted in the US, nine in Canada, seven in the UK and one each in Australia, Chile and South Africa (see Table 1). The types of disabilities of participants involved physical, mental, sensory, learning and other invisible disabilities. There were 13 studies that included various types of disabilities, while others focused on specific types such as multiple sclerosis, physical disability, visual impairment, invisible disabilities, deaf and hard of hearing, autism and mental illness.

Sample sizes ranged from 1 to 586. The majority of studies ($n = 25$) had a qualitative design, including autobiographies, interviews, case studies and visual methods. The remaining 8 studies were quantitative and involved surveys. There were 20 studies that applied a theoretical or conceptual framework, including the following: critical disability studies, ableist performativity, spaces of disability, social model of disability, functional diversity, post-colonial framework, Lefebvrian approach, Goffman's frontstage and backstage, intersectionality, poststructuralist theory of neoliberalism, social practice theory, Garland-Thomson's concepts of fit and misfit, neuroqueer approach, theory of personal tragedy, Butler's "framing the frame" and career theory.

3.2. Faculty and Staff Experiences of Ableism in Academia

The studies in this review described faculty and staff experiences of ableism in academia, which focused on disclosure (i.e., choosing to disclose or not), accommodations (i.e., lack of accommodations and process for obtaining them) and negative attitudes (i.e., stigma, ableism and exclusion).

3.2.1. Disclosure

Eighteen studies reported on how ableism within academia affected their decision whether to disclose their condition or not. For example, some faculty with a mental illness mentioned that disclosure is a personal and political issue and noted the importance of disclosing upfront to help avoid stigma [22]. Meanwhile, in a survey of faculty with mental illness, 62% disclosed to at least one person on campus, mostly colleagues or department chairs [31]. In another survey of faculty and university staff with various types of disabilities, researchers found that 77% of those with a disability revealed their condition to their supervisor [32]. Among academic librarians who disclosed their condition, many

felt supported and were able to build positive relationships with co-workers [33]. Similarly, some instructors who were deaf expressed their comfort with disclosing [34]. These findings highlight how inclusive work environments (e.g., supportive colleagues and a lack of ableism) could help people with disabilities to disclose their condition.

In contrast, for some people with disabilities, disclosing their condition felt involuntary or forced and as though they had no other option but to tell their employer about it [21]. For example, self-managing a disability (e.g., medication management, self-accommodations) could lead to others discovering their condition. In another study, some faculty with a disability felt an expectation to disclose if they were working in the field of disability studies and also felt that the disclosure process was difficult and invasive [35].

3.2.2. Non-Disclosure

Fourteen studies described how ableism influenced their decision to not disclose their condition. For instance, in a survey of staff and faculty with various types of disabilities, Kattari, Ingarfield, Hanna, McQueen and Ross [36] found that only 4% of faculty with a disability felt it was a safe place to share their disability-related needs. Some academic librarians with disabilities reported trying to pass as non-disabled rather than disclosing their disability to others [37]. Meanwhile, in Burns and Green's [33] study, a participant explained, "they can't fire me because of a medical diagnosis, but my coworkers sure can make my life hell if they only knew by their actions, assumptions, whispers, snide remarks, etc." (p. 649). In Dolan's [17] study focusing on professors with invisible disabilities, they found it was difficult to disclose because of the hypercompetitive academic culture. Pionke [23] similarly highlighted that disclosure could be difficult within a toxic work environment, which is common in academia. Choosing not to disclose was often a result of a fear of stigma and ableism from co-workers and university administration [12,33,38]. Brown and Ramlackhan [21] argue that non-disclosure of disability often occurs within academia because the neoliberalization of higher education can create such high productivity expectations that contribute to the silencing of academics with disabilities.

Some faculty and staff were concerned about their job security if they disclosed, especially if they were contract staff or did not have tenure [16,17,39,40]. Additionally, adjunct professors experienced a more hostile and toxic work environment than tenured professors [17] and as a result, often chose not to disclose because they did not want to hinder their job security or career development. Further, among academics who had either a mental health condition or autism, they stated it was challenging to decide whether to disclose or not because some people might feel uncomfortable with disclosing [41,42]. Additionally, in a case study of a faculty member with visual impairments, they did not disclose for fear of asking for help and felt they needed to prove their competence to others [43]. Similarly, Oesterheld and Fuente-Alba's [40] study on professors with visual impairments described the difficulty with disclosure and the pressure they felt to keep their disability hidden to protect their job security.

One study found that the extent of disclosure was often related to the type of disability [16]. Specifically, those with mental health conditions often chose to not disclose at work, which could have resulted from the stigma associated with their condition [16]. Some people with disabilities did not disclose because they either did not need workplace accommodations or were unfamiliar with the process of how to obtain it, which was the case for 46% of academics with disabilities in the study by Shigaki et al. [32].

3.2.3. Accommodations

Twenty-one studies reported on workplace accommodations they received or lack thereof, and the often lengthy and difficult process for obtaining them. Some faculty and staff with disabilities requested and received accommodations. For example, among faculty and university staff with various types of disabilities, 43% felt their job accommodation would improve their job performance and 78% of those who requested workplace modi-

fications received it [32]. Others described how receiving accommodations depended on their ability to disclose their condition to others and also the availability of institutional support [39].

3.2.4. Lack of Accommodations

Twelve studies focused on the lack of accommodations, difficulty finding institutional supports, inaccessible buildings, campus, teaching rooms and/or workspaces, which was the case among those with multiple sclerosis, invisible disabilities and other various types of disabilities [12,23,34,39,40,44–50]. Some people with disabilities were unaware of the university supports available to them. For example, Price et al. [31] found that 70% of faculty with mental illness had no, or limited, familiarity with workplace accommodations. Meanwhile, some academics with mobility or sensory disabilities explained challenges with mobility and navigating inaccessible routes on campus to attend meetings and/or to teach their classes [37]. For instance, one faculty member with a physical disability explained how they were often assigned to a building and/or teaching room that was difficult to access and how they experienced a lot of resistance, ableism and bullying from university administration when they asked to have their class scheduled in a more accessible space [46]. Even more concerning is that some faculty experienced a lack of accessible health and safety workplace standards such as emergency exits and accessible parking [46,47]. Additionally, four studies noted how travelling and attending conferences, which are required to perform academic duties, were often physically inaccessible and/or difficult for many people with disabilities [39,51–53].

3.2.5. Process for Obtaining Accommodations

Eight studies reported on the difficult process of obtaining accommodations and especially the challenges with finding or navigating institutional resources [16,21,54], which could have been due, in part, to universities often framing disability as an individual medical problem [12,42]. A participant in Merchant's [12] study shared,

"It's so many different bits of the university, spread out everywhere, where no one—none of these different factions seem to talk to each other. So, occupational health may talk to HR by sending them the report, but how does that then feed back into your own department? Estates? Parking? Facilities? All these different things"

(p. 282).

Other studies described how a great deal of time and effort was required to navigate the accommodations process while also advocating for their needs and fighting resistance and ableist attitudes from university administration [21]. For example, a case study of an academic woman with arthritis explained how it took four years to receive the accommodations they requested [51]. This woman was also initially denied an accessible parking pass, with it taking more than six months of advocating and overcoming institutional ableism to receive one [51]. As Chouinard (p. 5) explained,

"There was no recognition that it might be possible to modify my job and/or work environment in ways that would enable me to continue with at least some components of my job; both my colleagues and the insurance carrier assumed you were either able-bodied enough to do your job or you weren't" [51].

Additionally, in Morrison's [42] study focusing on a woman with autism, they described how there was no formal policy or process to access workplace accommodations and that the university often made it difficult to even qualify for an accommodation. Others similarly found that going through the accommodation process was difficult, time consuming and expensive to obtain medical documentation—suggesting this could be a result of institutional ableism [23,49].

3.2.6. Negative Attitudes, Stigma, Ableism, Exclusion

The majority of the studies ($n = 21$) in this review reported negative attitudes towards people with disabilities, including stigma and ableism (i.e., microaggression, marginalization, toxic work environments, bullying, aggressive retaliation, harassment) and social exclusion (i.e., being othered, social isolation, dismissive attitudes) within academia from university administrators, managers, chairs of departments, co-workers and sometimes students. Such discriminatory environments were consistently reported across faculty with the following disability types: multiple sclerosis [38,43], arthritis [50], physical disabilities [46,50], deafness [34,47,53,54], invisible disabilities [17,23,45], mental illness [31], autism [42,52] and other various types of disabilities [21,32,33,36,38,40,48,49]. For example, in a survey of faculty and university staff with disabilities by Shigaki et al. [32], 26% of respondents experienced job discrimination and 20% encountered disability-related harassment. A faculty member with an invisible disability in Dolan's [17] study explained,

"I've given up. I had fantasies of getting tenure. I used to be much more nervous about revealing (my disability, so I) worked harder and covered it up. I was on the tenure track and once let it slip to a member of my hiring committee that I was struggling with the (side effects of my disability). Because the school was located in a remote area, they had trouble to find decent hires. Her comment in response to my revelation was, 'oh, you know, we always get the damaged goods.' That was like a knife stabbing my heart" (p. 11).

3.3. Impact of Ableism in Academia

Twenty-one studies highlighted the impact of academic ableism, which included a negative effect on physical and mental health, and career development. Several studies in the review noted how universities often frame disability as a medical problem and an individual responsibility [12,38,42], which could lead to ableism. Lourens [43] highlighted ableism at the institutional level, which involved disability being excluded within discussions about EDI in higher education. In particular, Olsen et al. [48] mentioned that universities often institute policies that stigmatize scholars with disabilities, leading to social isolation, exclusion, poor self-esteem, anxiety and depression.

Some studies focused on how the impact of institutional ableism led to physical and/or psychological harm (i.e., stress, anxiety, depression) resulting from a lack of accommodations [23,43,51]. For example, Inckle [46] highlighted that the unpaid labour of navigating academics with a disability could have a negative impact on mental health and career development in addition to violating principles of equality. Others similarly commented on the additional work it took to obtain workplace accommodations, physical access to workspaces and social inclusion [50]. In particular, for faculty members who used a mobility device, it often took extra time to travel across campus, causing physical exhaustion [43]. Additionally, a woman with autism explained how her constant efforts to appear normal to others was *"exhausting, alienating and traumatic"* [42] (p. 707). A participant in Williams and Mavin's [55] study shared, *"I mean, one only wants the adjustments in order to be able to do the job and what people don't appreciate is that if you are struggling and in pain doing part of your job it affects other things you're doing as well, and you know, I found that really difficult"* (p. 132). Some studies, such as Bassler [45], described the pressure for people to compensate for the stigma that is often associated with having a disability by over-achieving. Doing so, however, can lead to physical exhaustion and stress.

Ableism within academia also influenced the professional lives and career development of academics with disabilities [17]. Many people with disabilities mentioned that it was not really an option to have a reduced workload or reduced hours as a professor and expressed concerns that they would be unable to earn enough money to make a living if they had reduced hours [17]. Several studies mentioned how the *"one-size-fits-all"* approach to performance metrics could negatively impact the career development and health and well-being of academics with disabilities [42,43,46] who are judged by the normative, ableist standards of productivity and efficiency of people without disabilities [38,51]. For

example, many participants in Horton and Tucker's [16] study highlighted how problems such as anxiety and stress were exacerbated in teaching and conference settings, which required public speaking and this often negatively impacted their academic performances. Similarly, England [22] found that people with mental health issues often struggled with their work productivity.

Other studies also noted how institutional ableism can create career-related barriers for university staff with disabilities [12,53]. The impacts of ableism can affect career choices and opportunities [45]. For example, the barriers in the physical environment and lack of inclusive design can cause barriers to a collegial work environment, as O'Brien [47] noted in their study with deaf academics. Such challenges and lack of access to workspaces can lead to exclusion and alienation of academics [47]. Several studies highlighted the negative career impacts resulting from an inability to network and travel to conferences, which often have many barriers and physically inaccessible environments [51–53]. An example from a participant, a geographer with a mental health condition from Horton and Tucker's [16] study, explained, *"I am resigned to my condition holding me back in the future. There seems to be an expectation that academics need to be superhuman and untouchable—anything out-of-the-ordinary is seen as a weakness"* (p. 85).

3.4. Coping and Strategies to Address Ableism

Seven studies described coping mechanisms and strategies to address ableism within academia. For example, Bassler's [45] study of music scholars with invisible disabilities found that an opportunity to teach online or having their office relocated was helpful, in addition to flexibility in scheduling and deadline extensions, especially for tenure. In Brown and Sheidlower's [37] study of academic librarians with various types of disabilities, the librarians described that having allies, mentors and role models helped with their quality of life. In another study, focusing on academic librarians, the authors found that some people were able to build positive relationships and felt supported [33]. Meanwhile, in an autobiography, a faculty member with mental illness revealed the following coping strategies: becoming an expert, recognizing your symptoms early, engaging in your treatment, developing a plan, finding a support, getting healthy and resting [22]. A study of academics with a mental health condition by Green et al. [41] reported on the importance of advocating for your needs. Further, in an autoethnography, a university lecturer with a visual impairment highlighted the importance of creating an open and responsive attitude among colleagues to help support those with a disability to become their true self [43]. Additionally, Pionke [23] noted that strategies for an academic librarian with a hidden disability involved developing a culture of equity, using universal design, educating all employees and modelling appropriate behaviours, including improving academic experiences of people with disabilities through networking opportunities and institutional changes.

Table 1. Characteristics of included studies.

Authors (Country)	Sample Characteristics	Objective	Methodology (Theoretical Perspective)	Findings *
Babyak, 2020 (US) [44]	1 independent academic scholar in musicology (multiple sclerosis, female)	To describe the experiences of an independent scholar with a disability	Autobiography (intersectionality)	<ul style="list-style-type: none"> - Physically inaccessible environments - Social exclusion, microaggressions and discrimination - Ableist attitudes and academic guidelines - Lack of accommodations for faculty with disabilities
Bassler, 2008 (US) [45]	39 music academia scholars with invisible disabilities (18 faculty' 21 students; socio-demographic characteristics not specified) *	To explore the challenges faced by scholars with invisible illness	Surveys and interviews (theory: not used)	<ul style="list-style-type: none"> - Difficulty finding institutional resources - Unhelpful disabilities offices - Uncooperative colleagues - Inappropriate invocations of fairness - Difficulty obtaining accommodations (especially for mental illness) - Lack of funding - Confusion of physical and mental disability - Pressure to compensate by over-achieving - Risks and costs of concealment - Pressure toward undesirable disclosure - Stigma, discrimination and lack of empathy from colleagues (especially for younger scholars) - Strategies to address ableism: - Online teaching - Office relocation - Flexibility in scheduling and deadline extensions (especially for tenure)
Brown and Sheidlower 2019 (US) [37]	54 academic librarians with disabilities (mobility, psychological, sensory, cognitive, learning; socio-demographic characteristics not specified)	To explore the experiences of academic librarians with a disability	Survey and interviews (theory: not used)	<ul style="list-style-type: none"> - Challenges: mobility issues, winter weather, fatigue, trying to navigate a neurotypical world, visibility of the disability, social dynamics - Requesting reasonable accommodations - Impact in the job market/career - Passing as non-disabled - Having allies and mentors, role models helped with quality of life - Written communication can be helpful

Table 1. Cont.

Authors (Country)	Sample Characteristics	Objective	Methodology (Theoretical Perspective)	Findings *
Brown and Ramlackhan, 2021 (UK) [21]	30 academics with disabilities; socio-demographic characteristics not specified	To understand the experiences of academics with disabilities in higher education	Constructivist practice-based inquiry (critical disability studies)	<ul style="list-style-type: none"> - Academics with disabilities felt marginalized and othered - Neoliberalization of higher education has created productivity expectations that contribute to the silencing of disabled academics' perspectives and experiences resulting from constructions of normality and stigmatization - A lot of time and effort needed to self-advocate - Don't always have a choice to disclose - Improving academic experiences of people with disabilities through networking opportunities, institutional changes
Burke, 2013 (US) [54]	1 deaf academic and interpreter (female)	To describe challenges that deaf academic and interpreter experience in academia	Case study (co-constructing communication)	<ul style="list-style-type: none"> - Stigma and exclusion, social isolation - Challenge of interpreters needing specialized academic language - Sense of vulnerability, intimacy and autonomy experienced - Difficulty getting accommodations
Burns and Green, 2019 (US) [33]	549 librarian academics (180 tenured/tenure-track) with various types of disabilities (56% had mental illness; socio-demographic characteristics not specified)	To determine if mental illness stigma affects academic librarians and their professional environments	Online survey (theory: not used)	<ul style="list-style-type: none"> - Stigma and discrimination influences disclosure of condition - Burnout; toxic work environments and bullying from co-workers and administrators - Some people could disclose and build positive relationships and felt supported - Having a disability makes them more empathetic and understanding - 40% said that people are understanding of their condition
Chouinard, 1996 (Canada) [51]	1 female with arthritis in academics	To explore issues of equity and accommodation for disabilities in an academic setting	Autobiography (theory: not used)	<ul style="list-style-type: none"> - Difficulties accessing accommodations (it took 4 years) - Viewed as an "other" academic - Marginalized and isolated, faced stigma and systemic discrimination - Lack of support staff - Dealing with pain at work - Lack of recognition that with the right modifications to the work and environment, continuing to work was possible - Difficulty travelling to conferences; inaccessibility at conferences; inaccessible teaching rooms and buildings - Denied an accessible parking pass (it took 6 months to finally get one) - Got a workload reduction - Impact: Stress, anxiety, depression, loneliness, marginalization, harassment and hostile work environment - Performance evaluation based on ableist standards - University developed new standards for others for accommodations moving forward

Table 1. Cont.

Authors (Country)	Sample Characteristics	Objective	Methodology (Theoretical Perspective)	Findings *
Dolan, 2021 (US) [17]	16 professors with invisible disabilities (11 females)	To explore the experiences of academics with invisible disabilities	Online interviews (ableist performativity)	<p>Neoliberalism fosters ableism in higher education Themes included:</p> <ul style="list-style-type: none"> - Ableism, disclosure and neoliberal realities - Negative impact of disability on professional lives - Most only disclose if absolutely necessary because it is a hypercompetitive academic culture - Seems more difficult to disclose for those that don't have tenure; having more job security and tenure allows for possibility to disclose - Adjunct professors face even more hostile and toxic work environment - Many try to conceal their disability - Can't make a living wage as a part-time professor and lose benefits - Not really an option for a reduced workload or reduced hours as a professor - Non-disclosure can lead to a lot of stress
England, 2016 (US) [22]	1 professor with bipolar disorder; socio-demographic characteristics not specified	To provide an autobiographical reflection of the experiences of mental illness and disclosure in academia	Autobiography (theory: not used)	<ul style="list-style-type: none"> - Disclosing a disability is a personal and political issue; disclosed upfront to help avoid stigma - Those with mental health issues often struggle with productivity - Productivity is essential for success in academia, especially during certain times of the year and certain career stages (e.g., probationary period of tenure); these are especially difficult times for people with mental health issues - Coping strategies for navigating working in academia: become an expert, recognize Early symptoms, engage in your treatment, develop a plan, find support, get healthy and rest
Green et al., 2020 (US) [41]	9 academics with mental health diagnosis (5 females)	To explore how academics with mental health diagnoses navigate their condition in an academic setting	Qualitative online discussion (theory: not used)	<ul style="list-style-type: none"> - Deciding whether or not to disclose - Affordances and struggles - Many of them focus their research on their condition - Advocacy and accommodations - Accommodation arrangements in higher education institutions are more difficult to obtain as a faculty member than as a student

Table 1. Cont.

Authors (Country)	Sample Characteristics	Objective	Methodology (Theoretical Perspective)	Findings *
Horton and Tucker, 2013 (UK) [16]	75 geographer academics with a disability (gender not specified for 84% of sample)	To explore how diverse disabilities intersect with academic careers	Survey (spaces of disability)	<ul style="list-style-type: none"> - Among geographers who have disclosed, they are active and politicised in relation to their disabilities and work to impact inclusionary change in their institutional spaces - Those with mental health conditions often do not disclose at work - Struggles with getting accommodations - Disability had an adverse effect on their research, teaching and career development - Extent of disclosure was related to type of condition - Most of those who did not disclose were early career
Inckle, 2018 (UK) [46]	1 female faculty with a physical disability	To describe the experiences of having a visible disability in academia	Autobiography (theory: not used)	<ul style="list-style-type: none"> - Unpaid labour of navigating academics with a disability can have a negative impact on mental health and career as well as violating principles of equality - Difficulty accessing teaching rooms, buildings, crossing through campus (limited availability and resistance to being scheduled in wheelchair accessible rooms); it takes a long time to get access - Stigma and ableism and disbelief that you can have a disability and be an academic - Lack of accessibility health and safety standards (e.g., emergency exists) - Difficulty negotiating access to accessible parking - Resistance, discrimination and bullying from university administration - Impact: additional time of unpaid labor to negotiate accommodations, emotionally draining, impact on career
Kattari et al., 2020 (US) [36]	586 students, staff ($n = 10$) and faculty ($n = 24$) with various disabilities; socio-demographic characteristics not specified	To explore how students, staff and faculty experience issues of access and accommodations, discrimination, inclusion and community	Needs assessment survey (theory: not used)	<ul style="list-style-type: none"> - Half of faculty with a disability reported keeping universal design principles in mind when designing their courses, while less than one-fifth of faculty without reported doing so - Only 4% of faculty with a disability felt their department was a safe place to share their disability-related needs - 87% of faculty with a disability felt that disability awareness was not a priority in their department - Stigma associated with having a disability - Ableist language and microaggression - Experiences of minimizing, dismissive and bullying, microaggression

Table 1. Cont.

Authors (Country)	Sample Characteristics	Objective	Methodology (Theoretical Perspective)	Findings *
Long and Stabler, 2021 (US) [56]	81 university members (16% faculty, 8% staff) * various types of disabilities; socio-demographic characteristics not specified	To explore the experiences of people with disabilities; members of a university community	Online survey (institutional model of disability)	<ul style="list-style-type: none"> - Difficulty getting accommodations - Physically inaccessible work environment - Lack of formal training within the university on disability awareness - Importance of building stronger community on campus for people with disabilities
				Impact: negative psychological impact, extra time to use assistive devices, physical exhaustion
Lourens, 2021 (South Africa) [43]	1 university female lecturer with a visual impairment	To describe experiences of a university lecturer with a visual impairment	Autoethnography (theory: not used)	<ul style="list-style-type: none"> - Importance of creating an open and responsive attitude among colleagues to help support those with a disability to become their true self - Socially excluded in some academic environments, including conferences - You need to be independent and tone down disabled self to be respected - Didn't ask for accommodations; fear of asking for help and needing to prove competence - Trying to fit within a system built for sighted bodies; fear of social exclusion - Disability was not included within EDI discussions - One-size-fits-all performance metrics for academic progression
McDermid, 2009 (Canada) [34]	18 deaf (11 females, 7 males from 5 American sign language programs; 4 deaf studies programs); 16 hearing instructors (9 females, 7 males)	To explore the challenges of deaf college instructors	Interviews (post-colonial framework)	<ul style="list-style-type: none"> - Some deaf faculty had a good experience in being able to teach a hearing cohort of students - Collectivist orientation in the deaf culture - Diffuse perspective (comfortable disclosing) - Some deaf faculty felt isolated and unsupported - Politeness: deaf instructors had a conflict when providing feedback to students who became defensive when given criticism; criticized for their communication being too direct - Deaf faculty experienced oppression (including from union members), exclusion and a lack of supports; often had to operate in their second language (ASL) - Support staff were not required to work in ASL

Table 1. Cont.

Authors (Country)	Sample Characteristics	Objective	Methodology (Theoretical Perspective)	Findings *
Merchant et al., 2020 (UK) [12]	11 university staff, various disabilities (6 females, 5 males)	To explore the experiences of staff with disabilities in UK universities	Interviews (social practice theory; ableism)	<ul style="list-style-type: none"> - Disability is viewed as a medical problem - Staff with disabilities had to organize their own supports; extra time and energy to navigate bureaucratic issues - Experienced exclusion, discrimination and intense isolation - Ableism creates barriers for staff with disabilities - Non-disclosure and fear of discrimination - Lack of sensitivity around disability - Physically inaccessible work environment - Attending conferences and meetings is challenging
Morrison, 2019 (Canada) [42]	1 female with autism and ADHD in academia	To describe neurodivergence in academic accommodations	Autobiography (neuro queer approach)	<ul style="list-style-type: none"> - University has ableist values and practices (one-size-fits-all approach to academic performance metrics) - Academic accommodations frames disability as a medical problem - Moral panic and academic ableism (university struggling to manage legal requirements to accommodate disability at the same time to defend itself against financial/legal threats while maintaining ableist competitive abilities) - Capacity for student accommodations but not for faculty - Double standards: can provide accommodations but expected to achieve the same as everyone else - Difficulties in deciding to disclose and obtaining accommodations (process is designed to be humiliating and laborious) - Trying to appear normal to others is exhausting, alienating and traumatic - No formal policy or process to access eligible accommodations; university seems to make it difficult to qualify for an accommodation
O'Brien, 2020 (UK) [47]	5 deaf academics; socio-demographic characteristics not specified	To explore how deaf academics navigate the physical environments of their workplaces	Walking interviews (Lefebvrian approach)	<ul style="list-style-type: none"> - Deaf academics face distinct barriers to their involvement in and access to their work environment - Lack of accessibility of higher education (perceived space); physically inaccessible spaces; lack of health and safety features for deaf people in the workplace - Problems of university planning (conceived space) - Barriers to a collegial work environment based on how the space was designed (lack of inclusive design) - Lack of communication and lack of access can lead to exclusion/alienation of academics - Lack of privacy in conversations for those who may also know sign language - Layout of the teaching rooms was often not compatible with deaf instructors

Table 1. Cont.

Authors (Country)	Sample Characteristics	Objective	Methodology (Theoretical Perspective)	Findings *
Oesterheld and Fuente-Alba, 2021 (Chile) [40]	8 faculty with various disabilities; socio-demographic characteristics not specified	To describe the experiences of university professors with visual disabilities	Interviews (social model of disability/ functional diversity; theory of personal tragedy)	<ul style="list-style-type: none"> - Physical environmental barriers - Non-inclusive computer systems - Faculty must use their own resources to make accommodations, which are often not considered and take a lot of time - Lack of considerations for accessible teaching assignments - Experience stigma discriminatory and ableist attitudes from students and university administration - Difficult to disclose; felt pressure to keep their disability hidden - Riskier to disclose with insecure employment
Olsen et al., 2020 (UK) [48]	4 academics with disabilities (3 females)	To explore the experiences of academics with disabilities in higher education	Autobiographies (theory: not used)	<ul style="list-style-type: none"> - Physically inaccessible workspaces - Conferences are often not compatible with the needs of people with disabilities - Targeted exclusion, rejection and structural inequality - Silencing disabled academics' voices - Attitudinal barriers, discriminatory practices, exclusion, marginalization, microaggressions - Everyday academic work tasks often take more time for disabled researchers but they have the same metrics - Overworking is normalized in academics and it takes a toll on physical and mental health - Accommodation needs often go unaddressed; difficulty accessing accommodations - Non-disabled researchers in the field of disability studies do not always value lived experiences of people with disabilities - Difficulty accessing physical and mobility-related accommodations - Impact: isolation and exclusion, poor self-esteem, anxiety and depression - Universities often institute policies that stigmatize scholars with disabilities

Table 1. Cont.

Authors (Country)	Sample Characteristics	Objective	Methodology (Theoretical Perspective)	Findings *
Pionke, 2019 (US) [23]	1 academic librarian with a hidden disability (post-traumatic stress disorder); socio-demographic characteristics not specified	To describe the experience of being an academic library employee with a disability	Autobiography (theory: not used)	<ul style="list-style-type: none"> - Going through the accommodation process is difficult (time consuming and expensive to obtain medical documentation) - Academic libraries have ableist views that limit the abilities and potential of staff with disabilities - People with disabilities are undervalued and under-supported - Disability accommodations office is understaffed and underfunded - Inaccessible buildings, classrooms and discrimination - Disclosure and accommodation process can lead to stigma, discrimination and ableism; disclosure is fraught with uncertainty; difficult to disclose in a toxic work environment - Academic environment can heighten anxiety and trigger anxiety attacks - Experienced “cultural pushback” after seeking accommodation: resistance and “aggressive retaliation” to requesting accommodations; lack of privacy, confidentiality; was excluded and singled out - Hostile work environment; passive-aggressive behaviour from managers, bullied and excluded by colleagues - Impact: poor physical and mental health during the long wait for accommodations - Strategies: develop a culture of equity, use universal design, educate all employees, model appropriate behaviours
Price et al., 2017 (US) [31]	267 faculty with mental illness (66% were tenured or tenure-track; 69% female)	To understand how often and to whom faculty with mental illness disclose their disability	Survey (critical disability studies)	<ul style="list-style-type: none"> - 70% of faculty with mental illness had no or limited familiarity with accommodations - 62% disclosed to at least 1 person on campus (mostly colleagues or department chairs) - 75% felt supported by their spouse/significant others rather than their colleagues (29%) and supervisors (25%)
Rinaldi, 2013 (Canada) [35]	1 female researcher with an eating disorder and obsessive-compulsive disorder	To consider the implications of reflexivity in disability research	Autobiography (feminist methodologies)	<ul style="list-style-type: none"> - Expectation to disclose when you are in disability studies - Disclosing is difficult and invasive - Can practice researcher reflexivity in disability studies without publicly taking a position

Table 1. Cont.

Authors (Country)	Sample Characteristics	Objective	Methodology (Theoretical Perspective)	Findings *
Saltes, 2020 (Canada) [49]	9 teaching assistants with disabilities, aged 26–38, 6 females, 2 males, 1 non-binary; various disabilities	To understand the teaching experiences of graduate students (teaching assistants) with disabilities	Interviews, visual methods (social model of disability)	<ul style="list-style-type: none"> - Physically inaccessible environments (campus, buildings and rooms) - Disclosure, non-disclosure - Stigma, ableism - Teaching evaluations were impacted by disability - Difficulty accessing accommodations; disability resource centres in universities are usually targeted toward students, not faculty or graduate students in teaching roles - Ableist conceptions of what constitutes a “legitimate” academic discourages teaching assistants from pursuing academic careers
Shigaki et al., 2012 (US) [32]	167 faculty and university staff (68% female; 17% faculty; 83% staff); various types of disability	To identify employee perceptions regarding disability-related workplace issues in higher education	Online survey (minority group model)	<ul style="list-style-type: none"> - 26% of those with a disability experienced job discrimination; 20% had disability-related harassment - 77% of those with a disability revealed their disability to their supervisor - 46% did not disclose because they didn’t need accommodations or did not know how to go about it - 43% felt their job accommodation would improve their job performance - 78% of those who requested workplace modifications received it
Smagorinsky, 2011 (US) [52]	1 male professor (Asperger’s and anxiety disorder)	To explore issues related to the intersection of mental health and education	Autoethnography (theory: not used)	<ul style="list-style-type: none"> - Questioning notions of normalcy—has been told by colleagues that they find him difficult - Ability and disability: able to work long and intensive hours; potential stigma - Typicality and atypicality—anxiety with travel, conferences and public speaking - Neurodiverse faculty members deserve a more empathetic environment
Stone et al., 2013 (Canada) [39]	35 Canadian academics with multiple sclerosis (10 males, 25 females); 23 were in tenure-track positions	To explore the experiences seeking accommodations among academics with multiple sclerosis	Interviews (Goffman’s frontstage and backstage)	<ul style="list-style-type: none"> - Seeking accommodations depends on disclosure to others and the availability of institutional supports - Some didn’t feel that they needed accommodations; some did not seek accommodations because they associated the process with stress - Some barriers in the physical environment - Stress can make symptoms worse - Women’s disclosures were often met with less understanding than men’s - Concerned about stigma and job security if they disclosed (especially for those untenured) - Many felt “othered” by university administrators

Table 1. Cont.

Authors (Country)	Sample Characteristics	Objective	Methodology (Theoretical Perspective)	Findings *
Titchkosky, 2008 (Canada) [50]	1 female professor with a physical disability	To describe the experiences of exclusion in a university environment	Narrative case studies (interpretive sociological approach)	<ul style="list-style-type: none"> - Accessible spaces do not equate to justice or inclusion - Inaccessible washrooms (many of which have misleading signage indicating accessibility) for people with disabilities - Physical barriers across campus; a lot of work to obtain access and inclusion - Disability is seen as a justifiable excludable type; lack of access is deemed “reasonable”, regardless of whether people see it as good or bad - Extraordinary exclusion (stigma, stereotyping, discrimination based on assumption that people with disabilities are “rare” and don’t belong in university setting)
Titchkosky, 2010 (Canada) [57]	1 female professor with a disability	To explore meanings made of disability in the bureaucratic management of university life	Narrative/autobiography (Butler’s “framing the frame”)	<ul style="list-style-type: none"> - Access as a form of perception - Underrepresentation of faculty with disabilities at university - Despite introduction of provincial accessibility legislation, disability remains low-priority in bureaucratic management of university life
Waterfield et al., 2018 (Canada) [38]	5 female academics with various types of disabilities	To explore the experiences of faculty with disabilities	Qualitative (part of larger study) (poststructuralist theory of neoliberalism; Garland-Thomson’s concepts of fit and misfit)	<ul style="list-style-type: none"> - Disability is often viewed as an individual responsibility, leaving disabled academics to navigate accommodations without institutional support - Disabled academics are compared to the normative standard of productivity and efficiency; some positioned themselves as hard-working and some as good enough - Some avoided disclosure for fear of discrimination/stigma; those who disclosed did so selectively and strategically - Questioning belonging in academia and working above and beyond to compensate for disability
Williams and Mavin, 2015 (UK) [55]	8 academics (5 females) with various types of disabilities	To explore the impairment effects of career boundaries of academics with disabilities	Interviews and narrative accounts (career theory)	<ul style="list-style-type: none"> - Impairment effects shape career choices and opportunities by being negated or influencing expectations of employers to provide inclusive contexts that acknowledge impairment effects as legitimate - For some, the flexible nature of academic work makes it conducive to managing impairment effects; for others, however, efforts to manage impairment effects in academia have been met with resistance

Table 1. Cont.

Authors (Country)	Sample Characteristics	Objective	Methodology (Theoretical Perspective)	Findings *
Woodcock et al., 2007 (Australia) [53]	3 female academics who are deaf	To describe the experiences of academics who are deaf in mainstream universities	Case study (theory: not used)	<ul style="list-style-type: none"> - Access difficulties, negative attitudes and lack of knowledge lead to difficulties finding employment, successful tenure and promotion - Technology can help somewhat with communication but it has challenges - Interpreters are relatively scarce and difficult to find/book; unqualified interpreters can hinder the course material delivery; often lack knowledge of the content terminology - Deaf academics teach somewhat differently than a hearing academic; may be more difficult to get hired - Misperceptions about cost of accommodations of hiring a deaf academic - Barriers to collegiality: continuing concern over cost, negative attitudes and discrimination, ostracism, which can impact career pathway - Challenges of attending academic conferences (difficulty arranging accommodations) - Takes additional time for planning and preparation

* We report only on the findings related to our research question. We also recognize the difference in identity-first and people-first language and use the author's original terms when reporting their findings.

4. Discussion

This systematic review explored the experiences and impact of ableism within academia on faculty and staff. Focusing on this topic was important for enhancing the EDI of under-represented groups. Our findings showed that faculty and staff often found the decision to disclose was difficult, with many choosing not to disclose for fear of job insecurity and discrimination. These results are consistent with other literature on disability disclosure demonstrating that deciding to disclose a disability at work is a complex process [58]. A recent review of workplace disability disclosure processes showed that there are the following types of disclosure strategies: concealment strategies, full voluntary disclosure and selective disclosure [58]. Participants in the studies within our review mainly concealed or had involuntary/forced disclosure and there were few that had full voluntary disclosure. These findings suggest that participants in academia may feel uncomfortable disclosing and there is likely significant institutional ableism that impacted their decision to disclose. Fear of stigma and ableism is consistently one of the main reasons why people choose not to disclose [58–61]. Our findings contrast other studies describing the potential benefits to disclosing such as helping to create an atmosphere of acceptance, enhanced social integration and improved company morale, retention and productivity [62,63]. It appears that academia, which is often described as having a hypercompetitive and toxic work environment, is likely influencing people's decisions to conceal their condition and not disclose. We recommend that universities and other academic research-based institutions strive to create more inclusive and accessible environments for people with all types of disabilities so they feel comfortable disclosing their condition, if they choose to do so. Disability needs to be embedded in institutional discussions, policies and practices of EDI.

The results of this review highlight how faculty and staff with disabilities in academia experience a lack of workplace accommodations, and encounter a difficult process for obtaining them. Receiving workplace accommodations, such as modified tasks, accessible environment, adaptive technology and flexible hours, can help to optimize the participation of workers with disabilities and help extend working life while enhancing physical and psychological health [61,64,65]. Although workplace accommodations have the potential to improve work participation, they are largely underutilized, mostly because people are concerned about having to disclose their condition to receive accommodations, or are unaware of the process to obtain them [8,66]. It is evident that a more transparent and efficient process is needed for obtaining workplace accommodations within academia. Research shows that being knowledgeable about the available supports and effective communication with employers can help facilitate disability disclosure [59]. Additionally, workers with disabilities who have accommodations are less likely to leave [66].

The results of this review underscored the negative attitudes, including stigma, discrimination, exclusion and microaggressions, that people with disabilities persistently encounter within academia. Previous research indicates that workplace ableism often results from a lack of knowledge and experience in working with people who have a disability [67]. Other studies highlight that many people without disabilities are often uncomfortable around those who have a disability, regardless of the type or severity of the impairment [68]. Such discomfort can lead to discriminatory attitudes and behaviours towards people with disabilities and can be a barrier to successful workplace inclusion [59,67]. Lacking knowledge about disability can adversely impact attitudes and behaviours toward people with disabilities, perpetuating stigma and social exclusion [69]. Employers who have experience working with people who have a disability tend to have more positive attitudes towards them [70,71]. Having more experience with and knowledge about people with disabilities can help to reduce stereotypes, while improving empathy, positive attitudes and social inclusion [59,72]. Research shows that organizations with a strong commitment to diversity and inclusion at the senior management level often have more promising inclusive employment practices [73–75]. It is very clear from the findings of this review that an attitudinal shift is needed to enhance the EDI of faculty and staff with disabilities in academia.

Our review noted the impact of ableism within academia on people's physical and mental health, as well as their career progression. Other research similarly illustrates that discrimination has negative consequences for the health and well-being of individuals belonging to disadvantaged groups [6]. Some argue that people with disabilities comprise one of the groups most affected by discrimination [6]. Ableism is associated with lower health and well-being, and this effect has a greater magnitude when compared to the effect of being discriminated because of other disadvantaged group memberships [6]. Other research from the UK highlights that disability discrimination was associated with depression, poor self-rated health, greater psychological distress and poorer mental functioning and life satisfaction [76]. Research indicates that lacking accommodations can lead to poor performance and being dismissed and/or have a negative impact on physical and psychological health [77]. More research is needed on the impact of ableism in academia on physical and psychological health.

Some coping mechanisms and strategies to address academic ableism were also noted in our review, which included a flexible schedule, working remotely, having mentors and role models, and self-care. Some studies indicate that having flexible work hours could help to decrease the effect of fatigue and stress on health conditions [78,79]. There were many important lessons learned from how people adapted to working during the COVID-19 pandemic and employers should consider continuing to support employees, particularly those with disabilities, with a flexible, work-from-home option so that it can allow them to control their environment and any adaptations they may need [80,81]. Such adaptations could have potential benefits for many people including those with disabilities. It is important to recognize that not all work within academia can be completed remotely, and there are certain tasks and positions that may require more innovative approaches to address ongoing barriers faced by researchers with disabilities. As some of the articles in this review highlighted, universities should aim for implementing universal design principles across their campuses and in terms of education delivery, and this may help to limit the need for individual accommodation requests.

Limitations, Risk of Bias across Studies and Future Directions

There are several limitations of this review. First, the studies in our review were from six countries, all of which have different cultural norms and policies relating to people with disabilities. The fact that most studies were conducted in the US, Canada, the UK and Australia (countries that are all broadly defined as liberal democracies) presents an opportunity for a comparative analysis of ableism across higher education systems. The geographical concretion of the studies also highlights the need for more empirical research on academic ableism in many areas of the world, particularly in lower-income countries. Second, the studies included various different types of disabilities and it is difficult to discern the impact of disability type on experiences of ableism. More research is needed to explore this further. Third, this review did not exclude articles based on quality, and many of the studies varied greatly in methodological quality. More rigorous and theoretically informed research is needed to understand the ableism experiences of staff and faculty within academia. In particular, many studies did not describe the demographics of their sample. Given that age, gender and race/ethnicity are all salient factors in deciding whether and how to disclose a disability at work, it is important that future research addresses this. Fourth, we acknowledge the potential methodological limitations, including selection bias of research focusing on autobiographies and lived experiences where those who identify as disabled may have been more likely to participate in the studies within this review. Therefore, the findings should be interpreted with caution because perceptions may be skewed towards those who needed accommodations and experienced stigma. It is important to note that we included autobiographies because we recognize how difficult it must have been for many researchers to publicly disclose their condition in an effort to enhance positive change in this area. As more people feel comfortable disclosing, researchers could consider building on other research to gain a better understanding of

patterns of disclosure and workplace accommodations, and how this may vary by other intersectional factors such as age, gender disability type, race/ethnicity, field of study and so forth. Additional research is needed to further explore the impact (e.g., physical, mental and career impact) of ableism within academia among faculty and staff. Future studies could consider focusing on academic staff such as research assistants, coordinators and other personnel. Finally, more research is needed on strategies, policies and practices that faculty, staff and university administrators can use to reduce or eliminate ableism in academia.

5. Conclusions

Our systematic review highlighted faculty and staff experiences of ableism within academia, which focused on decisions to disclose, workplace accommodations and negative attitudes such as stigma, ableism and exclusion. Faculty and staff experienced many negative impacts on their physical and mental health, and career development. Coping mechanisms and strategies to address ableism within academia included flexible scheduling, mentoring and positive supports, modelling appropriate behaviours and universal design. There is a critical need for more research and attention to the lived experiences of ableism among faculty and staff in academia and the impact that ableism has on their health and well-being.

Supplementary Materials: The following supporting information can be downloaded at: <https://www.mdpi.com/article/10.3390/disabilities2020014/s1>: Table S1: Search Strategy; Table S2: PRISMA checklist; Table S3: Standard quality assessment of qualitative studies; Table S4: Standard quality assessment of quantitative studies.

Author Contributions: Conceptualization, S.L.; methodology, S.L.; data abstraction and formal analysis S.L. and K.F.; writing—original draft preparation, S.L.; writing—review and editing, S.L. and K.F. All authors have read and agreed to the published version of the manuscript.

Funding: Funding for this study was provided, in part, by the Canadian Institutes of Health Research and Social Sciences and Humanities Research Council partnership grant and the Kimel Family Fund through the Holland Bloorview Kids Rehabilitation Hospital.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: Not applicable.

Acknowledgments: We would like to acknowledge this land on which the University of Toronto operates. For thousands of years, it has been the traditional land of the Huron-Wendat, the Seneca and the Mississaugas of the Credit. Today, this place is still home to many Indigenous people from across Turtle Island and we are grateful to have the opportunity to work on this land. We would like to thank the TRAIL lab staff, students and volunteers for their support.

Conflicts of Interest: The authors declare no conflict of interest. The funders had no role in the design of the study; in the collection, analysis or interpretation of the data; in writing the manuscript or in the decision to publish the results.

References

1. World Health Organization. *World Report on Disability*; WHO Press: Geneva, Switzerland, 2011.
2. Friedman, H.; Lopez-Pulmarejo, T.; Friedman, L. The largest minority group: The disabled. *BQuest* **2006**, 1–14. Available online: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2345457 (accessed on 4 January 2022).
3. Harder, J.; Keller, V.; Chopik, W. Demographic experiential, and temporal variation in ableism. *J. Soc. Issues* **2019**, 75, 683–706. [CrossRef]
4. Lindsay, S. Discrimination and other barriers to employment for teens and young adults with disabilities. *Disabil. Rehabil.* **2011**, 33, 1340–1350. [CrossRef] [PubMed]
5. Daley, A.; Phipps, S.; Branscombe, N.R. The social complexities of disability: Discrimination, belonging and life satisfaction among Canadian youth. *Soc. Sci. Med. Popul. Health* **2018**, 5, 55–63. [CrossRef]

6. Branco, C.; Ramos, M.; Hewstone, M. The association of a group-based discrimination with health and well-being: A comparison of ableism with other 'isms'. *J. Soc. Issues* **2019**, *75*, 814–846. [CrossRef]
7. Statistics Canada. Unfair Treatment, Discrimination or Harassment among Postsecondary Faculty and Researchers, Table 37-10-0169-01. Ottawa, Canada. 2021. Available online: <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3710016901> (accessed on 4 January 2022).
8. Lindsay, S.; Cagliostro, E.; Leck, J.; Shen, W. Disability disclosure and workplace accommodations among youth with disabilities. *Disabil. Rehabil.* **2019**, *41*, 1914–1924. [CrossRef] [PubMed]
9. Roessler, R.T.; Neath, J.; McMahon, B.T.; Rumrill, P.D. Workplace discrimination outcomes and their predictive factors for adults with multiple sclerosis. *Rehabil. Couns. Bull.* **2007**, *50*, 139–152. [CrossRef]
10. Shaw, L.; Chan, F.; McMahon, B. Intersectionality and disability harassment: The interactive effects of disability, race, age and gender. *Rehabil. Couns. Bull.* **2012**, *55*, 82–91. [CrossRef]
11. Brown, N.; Leigh, J. Ableism in academia: Where are all the disabled and ill academics? *Disabil. Soc.* **2018**, *33*, 985–989. [CrossRef]
12. Merchant, W.; Read, S.; D'Evelyn, S.; Miles, C.; Williams, V. The insider view: Tackling disabling practices in higher educational institutions. *High. Educ.* **2020**, *80*, 273–287. [CrossRef]
13. Wolbring, G.; Lillywhite, A. Equity/equality, diversity, inclusion (EDI) in universities: The case of disabled people. *Societies* **2021**, *11*, 49. [CrossRef]
14. Morris, S.; Fawcett, G.; Brisebois, L. *A Demographic, Employment and Income Profile of Canadians with Disabilities Aged 15 Years and over*; Statistics Canada: Ottawa, ON, Canada, 2018.
15. Mellifont, D.; Smith-Merry, J.; Dickinson, H.; Llewellyn, G.; Clifton, S.; Ragen, J.; Raffaele, M.; Williamson, P. The ableism elephant in the academy: A study examining academia as informed by Australian scholars with lived experience. *Disabil. Soc.* **2019**, *34*, 1180–1199. [CrossRef]
16. Horton, J.; Tucker, F. Disabilities in academic workplaces: Experiences of human and physical geographers. *Trans. Inst. Br. Geogr.* **2013**, *39*, 76–89. [CrossRef]
17. Dolan, V. But if you tell anyone, I'll deny we ever met: The experiences of academics with invisible disabilities in the neoliberal university. *Int. J. Qual. Stud. Educ.* **2022**, 1–18. [CrossRef]
18. Handforth, R. *Qualitative Research on Barriers to Progression of Disabled Scientists*; Careers Research & Advisory Centre: Cambridge, UK, 2020.
19. Dunn, D. Outsider privileges can lead to insider disadvantages: Some psychosocial aspects of ableism. *J. Soc. Issues* **2019**, *75*, 665–682. [CrossRef]
20. United Nations. Convention on the Rights of Persons with Disabilities. 2006. Available online: <https://www.internationaldisabilityalliance.org/CRPD> (accessed on 4 January 2022).
21. Brown, N.; Ramlackhan, K. Exploring experiences of ableism in academia: A constructivist inquiry. *High. Educ.* **2022**, 1–15. [CrossRef]
22. England, M. Being open in academia: A personal narrative of mental illness and disclosure. *Can. Geogr.* **2016**, *60*, 226–231. [CrossRef]
23. Pionke, J. The impact of disbelief: On being a library employee with a disability. *Libr. Trends* **2019**, *67*, 423–435. [CrossRef]
24. Tamtik, M.; Guenter, M. Policy analysis of equity, diversity and inclusion strategies in Canadian universities: How far have we come? *Can. J. High. Educ.* **2019**, *49*, 41–56. [CrossRef]
25. Peterson, R. We need to address ableism in science. *Mol. Biol. Cell* **2021**, *32*, 507–511. [CrossRef]
26. World Health Organization. International Classification and Functioning. 2007. Available online: <https://www.who.int/standards/classifications/international-classification-of-functioning-disability-and-health> (accessed on 5 January 2022).
27. Brown, R.; Silny, M.; Brown, J. Ableism in the academy? A systematic review and meta-analysis of experiences of students with disabilities in US higher education. In *Social Justice and Education in the 21st Century*; Pearson, W., Reddy, V., Eds.; Springer: Cham, Switzerland, 2021.
28. Kreiman, J. On peer review. *J. Speech Lang. Hear. Res.* **2016**, *59*, 480–483. [CrossRef] [PubMed]
29. Petticrew, M.; Roberts, H. *Systematic Reviews in the Social Sciences: A Practical Guide*; John Wiley & Sons: Hoboken, NJ, USA, 2008; ISBN 978-1-4051-2110-1.
30. Kmet, L.M.; Lee, R.C.; Cook, L.S. Standard Quality Assessment Criteria for Evaluating Primary Research Papers from a Variety of Fields. Alberta Heritage Foundation for Medical Research (AHFMR). 2004. Available online: <https://era.library.ualberta.ca/items/48b9b989-c221-4df6-9e35-af782082280e> (accessed on 5 January 2022).
31. Price, M.; Salzer, M.S.; O'Shea, A.; Kerschbaum, S.L. Disclosure of mental disability by college and university faculty: The negotiation of accommodations, supports and barriers. *Disabil. Stud. Q.* **2017**, *37*. [CrossRef]
32. Shigaki, C.L.; Anderson, K.M.; Howald, C.L.; Henson, L.; Gregg, B.E. Disability on campus: A perspective from faculty and staff. *Work* **2012**, *42*, 559–571. [CrossRef]
33. Burns, E.; Green, K. Academic librarians' experiences and perceptions on mental illness stigma and the workplace. *Coll. Res. Libr.* **2019**, *80*, 638–657. [CrossRef]
34. McDermid, C. Two cultures, one programme: Deaf professors as subaltern? *Deaf. Educ. Int.* **2009**, *11*, 221–249. [CrossRef]
35. Rinaldi, J. Reflexivity in research: Disability between the lines. *Disabil. Stud. Q.* **2013**, *33*. [CrossRef]

36. Kattari, S.K.; Ingarfield, L.; Hanna, M.; McQueen, J.; Ross, K. Uncovering issues of ableism in social work education: A disability needs assessment. *Soc. Work Educ.* **2020**, *39*, 599–616. [\[CrossRef\]](#)
37. Brown, R.; Sheidlower, S. Claiming our space: A quantitative and qualitative picture. *Libr. Trends* **2019**, *67*, 471–486. [\[CrossRef\]](#)
38. Waterfield, B.; Beagan, B.; Weinberg, M. Disabled academics: A case study in Canadian universities. *Disabil. Soc.* **2018**, *33*, 327–348. [\[CrossRef\]](#)
39. Stone, S.; Crooks, V.; Owen, M. Going through the back door: Chronically ill academics' experiences as unexpected workers. *Soc. Theory Health* **2013**, *11*, 151–174. [\[CrossRef\]](#)
40. Oesterheld, F.; Fuente-Alba, L. Infiltrados en la academia: Capacitismo en la universidad desde la experiencia de académicos con discapacidad/diversidad funcional en Chile. *Polis* **2021**, *20*, 99–121. [\[CrossRef\]](#)
41. Green, A.; Dura, L.; Harris, P.; Heilig, L.; Kirby, B.; McClintick, J.; Pfender, E.; Carrasco, R. Teaching and researching with a mental health diagnosis: Practices and perspectives on academic ableism. *Rhetor. Health Med.* **2020**, *3*, 1. [\[CrossRef\]](#)
42. Morrison, A. Unreasonable, unnecessary, and inappropriate: Biographic mediation of neurodivergence in academic accommodations. *Biography* **2019**, *42*, 693–719. [\[CrossRef\]](#)
43. Lourens, H. Supercropping the academy: The difference narrative of a disabled academic. *Disabil. Soc.* **2021**, *38*, 1205–1220. [\[CrossRef\]](#)
44. Babyak, T. My intersecting quests as a disabled independent scholar. *Curr. Musicol.* **2020**, *107*, 158–164. [\[CrossRef\]](#)
45. Bassler, S. But you don't look sick: A survey of scholars with chronic, invisible illnesses and their advice on how to live and work in academia. *J. Soc. Music. Theory* **2008**, *15*. [\[CrossRef\]](#)
46. Inckle, K. Unreasonable adjustments: The additional paid labour of academics with disabilities. *Disabil. Soc.* **2018**, *33*, 1372–1376. [\[CrossRef\]](#)
47. O'Brien, D. Negotiating academic environments: Using Lefebvre to conceptualize deaf spaces and disabling/enabling environments. *J. Cult. Geogr.* **2020**, *37*, 26–45. [\[CrossRef\]](#)
48. Olsen, J. Reporting from the margins: Disabled academic reflections on higher education. *Scand. J. Disabil. Res.* **2020**, *22*, 265–274. [\[CrossRef\]](#)
49. Saltes, N. It's all about student accessibility. No one ever talks about teacher accessibility: Examining ableist expectations in academia. *Int. J. Incl. Educ.* **2020**, 1–27. [\[CrossRef\]](#)
50. Titchkosky, T. To pee or not to pee? Ordinary talk about extraordinary exclusions in a university. *Can. J. Sociol.* **2008**, *33*, 37–60. [\[CrossRef\]](#)
51. Chouinard, V. Disabled women exploring ablest spaces. In *Embodied Geographies: Spaces, Bodies and Rites of Passage*; Teather, E., Ed.; Routledge: London, UK, 1999.
52. Smagorinsky, P. Autoethnographic consideration of neuroatypicality, extranormativity and education. *Teach. Coll. Rec.* **2011**, *113*, 1700–1732. [\[CrossRef\]](#)
53. Woodcock, K.; Rohan, M.; Campbell, L. Equitable representation of deaf people in mainstream academia: Why not? *High. Educ.* **2007**, *53*, 359–379. [\[CrossRef\]](#)
54. Burke, T. Coming out of the hard of hearing closet: Reflections on a shared journey in academia. *Disabil. Stud. Q.* **2013**, *33*, 3.
55. Williams, J.; Mavin, S. Impairment effects as a career boundary: A case study of disabled academics. *Stud. High. Educ.* **2015**, *40*, 123–141. [\[CrossRef\]](#)
56. Long, R.; Stabler, A. This is not okay: Building a creating collective against academic ableism. *J. Curric. Pedagog.* **2022**, 1–27. [\[CrossRef\]](#)
57. Titchkosky, T. The not-yet-time of disability in the bureaucratization of university life. *Disabil. Stud. Quarterly* **2010**, *30*. [\[CrossRef\]](#)
58. Tomas, V.; Ahmed, H.; Lindsay, S. Unravelling the complexities of workplace disability disclosure among persons with non-visible disabilities: A qualitative meta-ethnography. *J. Occup. Rehabil.* **2021**, in press. [\[CrossRef\]](#)
59. Lindsay, S.; Cagliostro, E.; Carafa, G. A systematic review of workplace disclosure and requests for accommodations among youth with disabilities. *Disabil. Rehabil.* **2018**, *40*, 2971–2986. [\[CrossRef\]](#)
60. Allen, S.; Carlson, G. To conceal or disclose a disabling condition? A dilemma of employment transition. *J. Vocat. Rehabil.* **2003**, *19*, 19–30.
61. Brohan, E.; Henderson, C.; Slade, M.; Thornicroft, G. Development and preliminary evaluation of a decision aid for disclosure of mental illness to employers. *Patient Educ. Couns.* **2014**, *94*, 238–242. [\[CrossRef\]](#)
62. Munir, F.; Leka, S.; Griffiths, A. Dealing with self-management of chronic illness at work: Predictors for self-disclosure. *Soc. Sci. Med.* **2005**, *60*, 1397–1407. [\[CrossRef\]](#) [\[PubMed\]](#)
63. Solovieva, T.I.; Dowler, D.L.; Walls, R.T. Employer benefits from making workplace accommodations. *Disabil. Health J.* **2011**, *4*, 39–45. [\[CrossRef\]](#) [\[PubMed\]](#)
64. Allaire, S.H.; Li, W.; LaValley, M.P. Work barriers experienced and job accommodations used by persons with arthritis and other rheumatic diseases. *Rehabil. Couns. Bull.* **2003**, *46*, 147–156. [\[CrossRef\]](#)
65. Dong, S.; Oire, S.N.; MacDonald-Wilson, K.L.; Fabian, E.S. A comparison of perceptions of factors in the job accommodation process among employees with disabilities, employers, and service providers. *Rehabil. Couns. Bull.* **2013**, *56*, 182–189. [\[CrossRef\]](#)
66. Bruyere, S.; Ericson, W.; van Looy, J. Comparative study of workplace policy and practices contributing to disability non-discrimination. *Rehabil. Psychol.* **2004**, *49*, 28–38. [\[CrossRef\]](#)

67. Lindsay, S.; Leck, J.; Shen, W.; Cagliostro, E.; Stinson, J. A framework for developing employer's disability confidence. *Equal. Divers. Incl.* **2019**, *38*, 40–55. [[CrossRef](#)]
68. Fichten, C.; Schipper, F.; Cutler, N. Does volunteering with children affect attitudes toward adults with disabilities? *Rehabil. Psychol.* **2005**, *50*, 164–173. [[CrossRef](#)]
69. Lindsay, S.; Cancelliere, S. A model for developing disability confidence. *Disabil. Rehabil.* **2017**, *40*, 2122–2130. [[CrossRef](#)]
70. Lindsay, S.; Cagliostro, E.; Albarico, M.; Mortaji, N.; Karon, L. A systematic review of the benefits of hiring people with disabilities. *J. Occup. Rehabil.* **2018**, *28*, 634–655. [[CrossRef](#)] [[PubMed](#)]
71. Graffam, J.; Smith, K.; Shinkfield, A.; Polzin, U. Employer benefits and costs of employing a person with a disability. *J. Vocat. Rehabil.* **2002**, *17*, 251–263.
72. Campbell, J.; Gilmore, L. Changing student teachers' attitudes towards disability and inclusion. *J. Intellect. Dev. Disabil.* **2003**, *28*, 369–379. [[CrossRef](#)]
73. Broughton, A.; Strebler, M. Reaping benefits from diversity. *Strateg. HR Rev.* **2008**, *7*, 5–11. [[CrossRef](#)]
74. Ball, P.; Morris, M.; Hartnette, J.; Blanck, P. Breaking the Cycle of Poverty: Asset Accumulation by People with Disabilities. *Disabil. Stud. Q.* **2006**, *26*. [[CrossRef](#)]
75. Lindsay, S.; Goodfellow, A.; Stergiou-Kita, M.; Kirsh, B.; Lero, D. Inclusionary business practices for recruiting and retaining people with disabilities. In *Physical Disabilities: Perspectives, Risk Factors and Quality of Life*; Nova Science Publishers: New York, NY, USA, 2017.
76. Hackett, R.; Steptoe, A.; Lang, R. Disability discrimination and well-being in the United Kingdom: A prospective cohort study. *BMJ Open* **2020**, *10*, e035714. [[CrossRef](#)]
77. Wilton, R. Disability disclosure in the workplace. *Just Labour* **2006**, *8*, 24–30. [[CrossRef](#)]
78. Vick, A. Living and working precariously with an episodic disability: Barriers in the Canadian context. *Can. J. Disabil. Stud.* **2014**, *3*, 1. [[CrossRef](#)]
79. Schur, L.; Ameri, M.; Kruse, D. Telework after COVID: A silver lining for workers with disabilities? *J. Occup. Rehabil.* **2020**, *30*, 521–536. [[CrossRef](#)] [[PubMed](#)]
80. Harpur, P. Rights of persons with disabilities and Australian anti-discrimination laws: What happened to the legal protections for people using guide or assistance dogs? *Univ. Tasman. Law Rev.* **2010**, *29*, 49–79.
81. Lindsay, S.; Ahmed, A.; Apostolopoulos, D. Facilitators for coping with the COVID-19 pandemic: A qualitative study comparing youth with and without disabilities. *Disabil. Health* **2021**, *14*, 101113. [[CrossRef](#)] [[PubMed](#)]