

*Systematic Review in Occupational Health*

# Challenges and opportunities for the employment of workers with disabilities: A systematic approach

Georgia Libera FINSTAD<sup>1\*</sup>, Gabriele GIORGI<sup>2</sup>, Salvatore ZAFFINA<sup>3</sup>, Giulia FOTI<sup>4</sup>, Giulio ARCANGELI<sup>5</sup>, Nicola MUCCI<sup>6</sup>

## **Affiliations:**

<sup>1</sup> Department of Human Sciences, European University of Rome, Rome, Italy. E-mail: georgialibera.finstad@unier.it  
ORCID: 0000-0003-3234-9197

<sup>2</sup> Department of Human Sciences, European University of Rome, Rome, Italy. E-mail: gabriele.giorgi@unier.it ORCID:  
0000-0002-7340-356X

<sup>3</sup> Post-Graduate Medical Training Programme in Occupational Health, Catholic University of the Sacred Heart, Rome, Italy. Occupational Medicine Unit, "Bambino Gesù" Children's Hospital, Rome, Italy. E-mail: salvatore.zaffina@opbg.net  
ORCID: 0000-0003-0827-6442

<sup>4</sup> Business@Health Lab, Rome, Italy; E-mail: giuliafoti.98@gmail.com ORCID: 0000-0002-1496-2054

<sup>5</sup> Department of Experimental and Clinical Medicine, University of Florence, Florence, Italy. E-mail: giulio.arcangeli@unifi.it ORCID: 0000-0002-0094-0399

<sup>6</sup> Department of Experimental and Clinical Medicine, University of Florence, Florence, Italy. E-mail: nicola.mucci@unifi.it  
ORCID: 0000-0003-0579-1035

\*Corresponding Author:

Dr Georgia Libera Finstad, PhD Candidate, Department of Human Sciences, European University of Rome, 00163 Rome, Italy.

## **Abstract**

**Introduction:** The analysis of inclusive human resources (HR) practices is a fundamental topic of the future of work. The aim of this review is to systematically analyze the employment cycle of people with disabilities (PWDs) focusing on the recruitment and selection phase and the subsequent career management process.

**Methods:** We followed a systematic approach and applied the PRISMA methodology. A literature search was performed on the Google Scholar, PubMed, Scopus, Web of Science, and Psycinfo databases and 28 articles were included in the literature synthesis.

**Results:** Results highlight that PWDs are subjected to discrimination before and after entering the labor market. Employers' concerns are often associated with a lack of adequate resources and information on the management of this occupational population. Inclusive practices such as ability building programs, flexible working schedules, mentoring and top management commitment can be effective tools for achieving positive outcomes for workers and organizations.

**Discussion and Conclusion:** The employment of PWDs should be analyzed as a continuous process, providing opportunities for training and professional development. Evidence-based strategies are

needed for the selection and career advancement of PWDs. Formal disability-related policies should be implemented in the workplace as part of the strategic plan.

**Take-home message:** This review offers new insights into the management of different disabilities in the workplace considering the views of workers and employers, thus highlighting the need for a differential approach. Future studies are required to investigate the employment of PWDs in the context of the post-pandemic world of labor.

**Key words:** Barriers; career management; disability; disclosure; discrimination; employment; employee selection; hiring; recruitment.

**Cite this paper as:** Finstad GL, Giorgi G, Zaffina S, Foti G, Arcangeli G, Mucci N. Challenges and opportunities for the employment of workers with disabilities: A systematic approach. *J Health Soc Sci.* 2022;7(1):53–79. Doi: 10.19204/2022/CHLL4.

Received: 10 November 2021; Accepted: 10 March 2022; Published: 15 March 2022

---

## INTRODUCTION

People with disabilities (PWDs) represent the largest minority group with over 1 billion (15% of the world population) of individuals living with some form of disability. Furthermore, this number will increase significantly due to demographic phenomena such as progressive aging and the increase in chronic diseases. These trends are inevitably reflected in the labor market, underlining the need to analyze inclusive HR practices for the management and valorization of this occupational population [1–3].

Disability is generally defined as a bio-psycho-social phenomenon that depends on the interaction between the individual and the environment. In this perspective, the promotion of individual participation is emphasized, especially in the employment context [4]. The employment of PWDs is also promoted by several national and international legislations that prohibit discrimination and require employers to make accommodations, employ quota systems and avoid disability-based assessments, such as the Americans with Disabilities Act (ADA), the French Law No 2005-102, the Norwegian Working Environment Act or the Italian Law 68/99 [5–7].

Despite all these initiatives, PWDs employment rates remain low worldwide and may worsen due to the COVID-19 pandemic and global economic crisis. For example, in the United States in 2019 19.3% of PWDs were employed compared to 66.3% of people without disabilities while in 2020 these percentages were 17.9 and 61.8%, respectively [8,9]. Additionally, when PWDs have a job, this is usually characterized by horizontal and vertical segregation, low income, low status, poorer career trajectories, and a lack of skills acquisition and self-determination opportunities [10,11].

In the first place, PWDs face a high degree of discrimination in hiring contexts as a product of various aspects such as stigma associated with their condition, false beliefs about their skills, selection processes that do not guarantee the necessary accommodations and corporate cultures that discourage flexible solutions [12,13]. The reference literature suggests numerous barriers that belong both to the context and to the attitude of recruiters and organizations. For example, Becker's taste-based model of labor discrimination [14] states that employers prefer certain employees and hold prejudices and stereotypes against minorities, as in the case of PWDs. As a consequence, they are unwilling to hire members of minority groups regardless of the workers' level of competence and even if the organization has to face a penalty. On the other side, according to the statistical model of

labor discrimination [15,16], employers are not inherently discriminatory, but rather have unrealistic expectation about the productivity of minority members that stem from the imperfect information they have to make inferences, creating a vicious cycle in which minorities are excluded from the market and less information is available.

The improper assumptions about the performance of PWDs can hinder the selection process, leading to potential bias. For example, PWDs are often viewed as victims, and employers/recruiters typically react with pity, sorrow or compassion [12,17,18]. Indeed, employers are concerned with issues such as the level of fit with the cultural and physical environment, costs of accommodations or performance evaluations [19]. Nevertheless, these assumptions are usually inconsistent with reality, as evidence highlights that PWDs are productive and loyal employees and that the costs of accommodations are less than what employers expect [20]. In this regard, previous experiences with PWDs are associated with a more positive evaluation and consequent employment [21].

In the second place, PWDs face discrimination and unequal treatments after being employed with fewer opportunities for career advancement and professional development. Evidence shows that PWDs usually work at the lowest levels of the organizational hierarchies [22,23] despite having educational and professional experience levels equal to those of people without disabilities [24,25]. Career development is the process by which the employee can strengthen and acquire skills and refine professional goals thanks to different experiences and tasks performed in one or more organizations.

This process is often non-linear, complex and influenced by individual and environmental variables such as the level of self-efficacy, career expectations, decision-making difficulties and/or organizational norms. Internal HR practices can influence career development by changing the training opportunities, performance evaluation methods, and counseling/mentoring programs offered to each employee [26,27]. Few studies have addressed the professional progress of PWDs and the possible mechanisms underlying discrimination [28]. For example, employers' attitudes could act as a barrier as they are usually inclined to think that PWDs are unproductive, have no work ethic, are less committed to their job and may not want to advance. As a consequence, they do not assign major projects and responsibilities that are indispensable for demonstration of competence and promotions [24,29].

Furthermore, there is usually a disassociation between ratings and performance, with experimental evidence of leniency bias and lack of constructive feedbacks that do not allow employees to grow [30,31]. Eventually, jobs may be designed without taking disability-related needs into account and PWDs may be placed in jobs without being able to decide on the basis of their professional aspirations and skills. [32]. Indeed, it is essential to investigate every aspect of the employment cycle as most of the research focuses on the selection phase without analyzing what happens when the socialization process begins [2].

The aim of this review is therefore to systematically analyze two crucial aspects of the relationship between the worker and the organization, namely the recruitment phase and the career advancement process, considering the perspective of both employees and employers. In particular, this review aims to analyze employer's hiring intentions, attitudes, perceptions, concerns, hiring policies and practices, possible barriers and influencing factors, workers' employment experiences, career management practices, career development trajectories and perceptions. To the best of our

knowledge, this is one of the first studies specifically focused on the recruitment/selection phase and the subsequent career management phase of PWDs, especially considering that promotion is still treated as a controversial aspect. As suggested by scholars, there is a research gap with respect to the link between the selection and the professional advancement of this professional group [33,34].

## **METHODS**

### ***Search strategy and study eligibility***

A literature search was performed on the Google Scholar, PubMed, Scopus, Web of Science, and PsycInfo databases from 25 September 2021 up to 15 October 2021. The search strategy was focused on two main moments of the employment cycle, namely the recruitment and selection process and career advancement of PWDs. The search strategy used a combination of the following keywords: “disability”, “people with disabilities”, “workplace”, “recruitment”, “job interview”, “employee selection”, “career development”, “advancement”, “management”, “success”, “barrier”, “discrimination”. A manual research was also performed screening the bibliographic references of the most significant papers. The research was based on the following PICO scheme:

- Population: workers, employers;
- Intervention: disability in the workplace;
- Comparison: not considered;
- Outcome: hiring intentions, hiring policies, employment experiences and strategies, career management and development practices, career transitions and trajectories.

Two independent reviewers (G.L.F. and G.G.) carried out the first screening by reading titles and abstracts of the papers identified by the search strategy. A further selection was subsequently made by reading the full texts. The judgment on the inclusion of each article was performed independently and disagreements were solved with the aid of a third reviewer (G.F.).

### ***Inclusion criteria***

The inclusion criteria followed the PICO scheme presented above. We restricted the literature search to articles published between 2005 and 2021 and written in English only. We only included articles specifically focused on the recruitment and selection process and the career development/management of people with disabilities, considering both employees and employers perspectives. In particular, articles focusing on hiring policies and practices, employment experiences, career strategies and trajectories were included. Furthermore, we focused on different types of disabilities (e.g., physical, intellectual, invisible).

### ***Exclusion criteria***

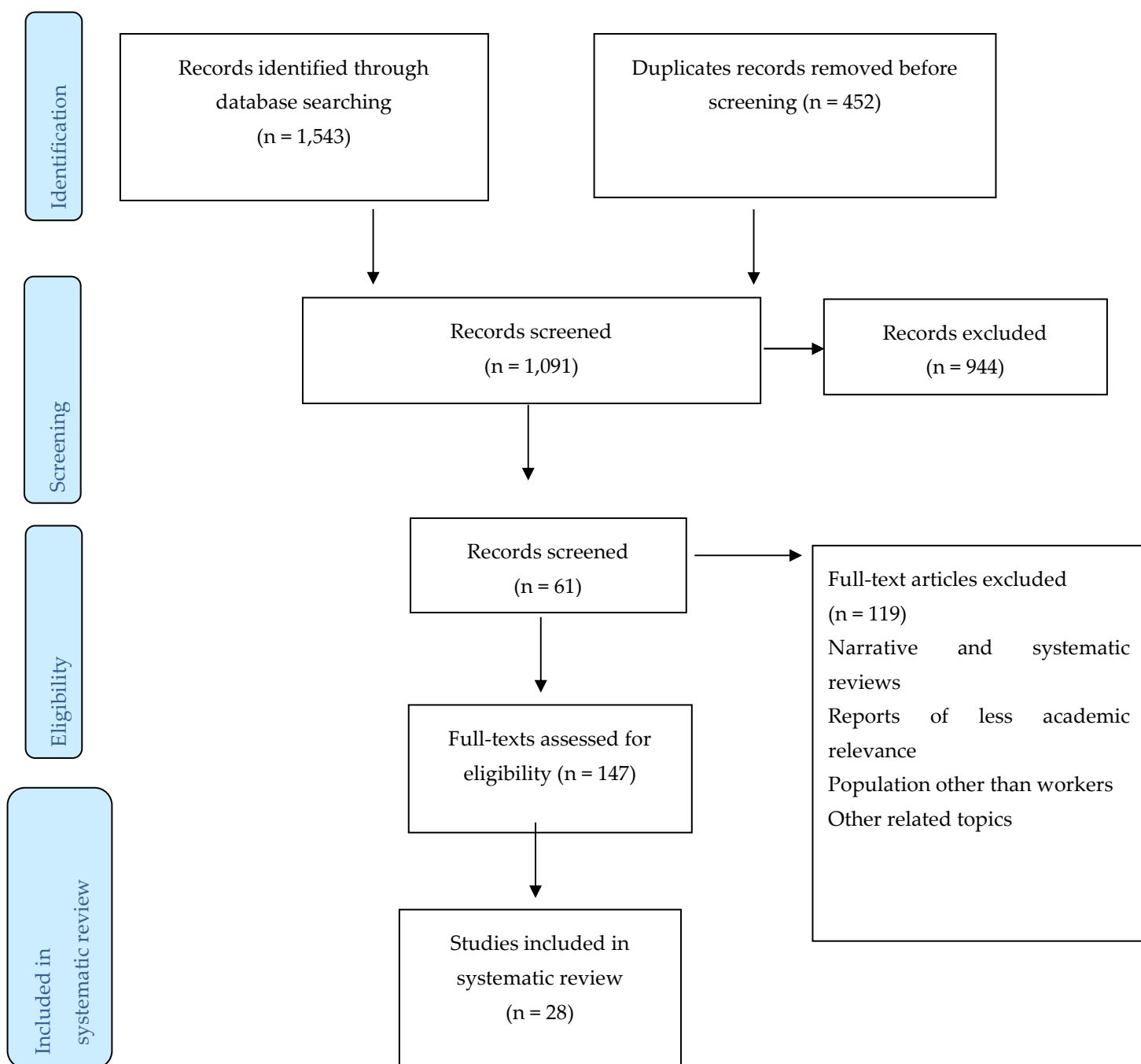
Articles written before 2005 and written in languages other than English were excluded. Narrative and systematic reviews, letters to editors, commentaries and reports of less academic relevance were excluded from the synthesis. Narrative and systematic reviews with relevant information were discussed in other paragraphs (i.e., introduction and discussion sections). Studies using populations other than workers (e.g., students) were excluded. Furthermore, topics related to disability HR practices but not focused on selection/career management processes were excluded.

### ***Data extraction and quality assessment***

Data were manually extracted by the authors and inserted into a spreadsheet, including authors, title, research design, type of sample, type of disability, nation and a brief summary (Table 1). After the

collection of the data, each paper was labeled according to one of the two major topics (recruitment/career management) and a summary of the results was carried out by the reviewers according to a qualitative approach. The assessment of their quality was carried out with a 16-item quality assessment tool (QATSDD) having a good reliability and validity for use in the quality assessment of a diversity of studies in a wide variety of health fields including psychology, allied health, medicine, public health, nursing, health services and social sciences [35, 36]. It contains 16 reporting criteria scored on a scale from 0 to 3 (Not at all/Very slightly/Moderately/Complete). These criteria apply to quantitative and qualitative studies. Figure 1 shows a flow-diagram of the literature search strategy and the review process following PRISMA 2009 flow diagram rules.

## RESULTS



**Figure 1.** Flowchart for identification of studies included in the systematic review (*n* =28).

Twenty-eight articles that met inclusion criteria after the title-abstract reading phase were identified and evaluated following a systematic approach. The summary of the articles included is reported in Table 1. The majority of the studies were conducted in the United States (13 articles, 46,43% of the total). Other countries included Australia (n=3), India (n=3), Italy (n=2), United Kingdom (n=2), Denmark (n=1), Norway (n=1), Austria (n = 1), Spain (n=1) and Malaysia (n=1).

The articles included in the review adopted heterogeneous methodologies. Most of the studies used qualitative methodologies (e.g., focus groups, interviews) representing 25% of the total, followed by cross-sectional studies (6 studies, 21.43% of the total) and experimental studies (5 studies, 17. 86% of the total).

The papers analyzed a large pool of disabilities using different classifications. Most of the studies analyzed multiple disabilities together (e.g., intellectual disabilities, down syndrome, sensory disabilities, chronic diseases, psychiatric disorders, autism spectrum syndromes, limb atrophy, physical disabilities, hearing impairment) representing 28.57% of the total. Other types of disabilities analyzed separately concern physical disability (5 articles, 17.86% of the total), disability in general - not further specified (5 articles, 17.86% of the total), intellectual disabilities (4 articles, 14.29% of the total) autism spectrum (n=1), invisible disability (n=1), visual impairment (n=1), hearing impairment (n=1), acquired hearing impairment (n=1), multiple sclerosis (n=1).

The findings for each topic are described in the following paragraphs and further summarized in Table 1.

Authors and year	Country	Study design	Topic	Study sample	Type of disability	Main findings
Ameri et al, [38]	USA	Field experiment (quantitative)	R&S	6,016 job applicants	Spinal cord injury, Asperger's syndrome	Disability applications received 26% fewer expression of interest (i.e., desire for an interview, asking for further credentials, inviting to apply for another position). The disability gap was larger for small private-sector employers and in the case of more experienced applicants while no differences between the type of disability were detected.
Shamshi ri-Petersen et al, [19]	Denmark	Vignette experiment (quantitative)	R&S	1,901 managers	Physical disability (use of a wheelchair)	71.5% of managers stated that they were likely to hire the non-disabled applicant while this percentage falls by almost 50 points when the wheelchair was introduced. Intentions increase

Authors and year	Country	Study design	Topic	Study sample	Type of disability	Main findings
Erickson et al, [39]	USA	Survey (quantitative)	R&S	675 human resource manager	Physical and/or mental disability	slightly when information about financial compensation was provided. The survey aims to investigate the hiring policies and practices of different organizations. Including workers with disabilities in their organization's diversity and inclusion plan (54%) and having relationships with community organizations that promote the employment of people with disabilities (53%) were the most commonly implemented practices. Larger organizations and federal contractors were more likely to implement each policy. The logistic regression analyses showed that 9 out of 10 practices significantly increased the likelihood of hiring people with disabilities (except for "evaluates pre-employment screenings to ensure they are unbiased").
Spirito Dalgin et al, [40]	USA	Vignette experiment (quantitative)	R&S	60 employers	Invisible disabilities (physical and psychiatric)	The study examined the impact of disclosure (brief vs detailed) and type of disability (no disability, insulin-dependent diabetes and bipolar disorder) on employers' perception of the candidates conceptualized as "hiring decision" and "employability". Results indicate that disclosure had no significant effects and that employer responses did not differ between brief vs detailed

Authors and year	Country	Study design	Topic	Study sample	Type of disability	Main findings
Ameri et al, [41]	USA	Experimental (quantitative)	R&S	858 workers (study 1) 853 workers (study 2) 467 workers (study 3)	Physical disability (use of a wheelchair)	disclosure. Employers rated the employability of the psychiatric disabled candidate as significantly lower, regardless of the type of disclosure.  The study examined the role of five classic influence tactics (i.e., revealing an alternative, using a numerical anchor, showing imperfections, showing hard or soft skills) during a job interview for candidates with or without a disability. Results show that tactics used during the first phases are counterproductive. Displaying soft skills was not associated with a better evaluation of the level of employability for candidates with disabilities. The perception of trustworthiness acts as a mediator.
Nota et al, [9]	Italy	Experimental (quantitative)	R&S	80 employers	Intellectual disability (Down Syndrome, sensory disability and psychological problems)	Employers' attitudes towards workers with psychological problems (e.g., aggressiveness) were negative. Focusing on previous work successes and workers' strengths was associated with more positive evaluations regardless of the type of disability. Employers evaluated PWDs more positively with respect to the social acceptability aspects rather than the work performance. Previous experience in hiring PWDs did not show significant effects.



Authors and year	Country	Study design	Topic	Study sample	Type of disability	Main findings
Bjørnshaugen et al, [6]	Norway	Experimental study	R&S	600 private sector employers	Physical disability (use of a wheelchair)	The study examines the influence of using a wheelchair on employers' hiring intentions. The results highlight that workers with a disability had 48% of less probability of being invited to job interviews. Wheelchair user was invited only in 12 cases, while the non-disabled candidate was invited in 76 cases. The callback ratio was 1.93.
Jans et al, [42]	USA	Focus group (qualitative)	R&S	41 employed people with disabilities	Physical (mobility), sensorial (vision, hearing/speech) and mental health disability	The study analyzes the experiences and strategies of 41 successfully employed workers with disabilities. Decisions about disclosure (if disclose or not, when and how) depend on the type of disability. Useful strategies include: addressing possible employers concerns about accommodations, asking about performance and work routines, emphasizing the abilities rather than the disclosure, demonstrating specific skills, practicing for the interview and using networking and social connections as a resource.
Scott et al, [43]	Australia	Survey and interviews (mixed methods)	R&S	29 employers	Autism spectrum	The study aims to analyze the perception of employers regarding the usability, implementation and perceived barriers in using the Integrated Employment Success Tool (IESTTM) as a workplace resource for the recruitment/management of

Authors and year	Country	Study design	Topic	Study sample	Type of disability	Main findings
						people on the autism spectrum. The use of the IESTTM manual provided a structured and systematic way to evaluate and assist workers. The results highlight that the package led to a better understanding of autism strengths and possible workplace resources to employ. More than two thirds of participants were satisfied with the use and implementation of the tool.
Kocman et al, [44]	Austria	Survey and interviews (mixed methods)	R&S	30 human resource managers	Physical, intellectual disability and mental disorders	People with physical disabilities are preferred over intellectual disabilities but both groups are preferred over mental disorders. Perception of lack of skills and legal issues related to dismissal were highlighted as primary concerns for the employment of people with intellectual disabilities. Safety issues are perceived as obstacles for people with mental disorders.
Houtenville et al, [45]	USA	Cross-sectional survey (quantitative)	R&S	320 employers	People with a disability	22.8% of large companies actively recruit PWDs compared with just 12.4% of small companies. The main concerns of employers regard the cost of the workers followed by the possible lack of skills, the difficulties for the supervisor and doubts about the level of productivity. The main challenges highlighted concern the nature of the job, the cost of accommodations and the search for qualified workers. Possible

Authors and year	Country	Study design	Topic	Study sample	Type of disability	Main findings
Ipsen et al, [46]	USA	Cross-sectional survey (quantitative)	R&S	2,132 adults with disabilities	Psychological, physical, chronic disease, intellectual/developmental, neurological disabilities	information for persuading employers regards the level of job performance, attendance and retention. The study analyzes possible differences between conventional recruitment methods (disability-related conferences, disability-related organizations, groups and service providers) and Amazon's Mechanical Turk (MTurk) methods for people with different disabilities. MTurk had a greater proportion of people with mental and chronic illness, while the conventional sample reported more physical, IDD/Autism, sensory, and neurological disability and included 197 respondents from rural areas. MTurk is a useful recruiting method but it should be employed in conjunction with conventional strategies.
Coffey et al, [47]	UK	Survey and interviews (mixed methods)	R&S	111 visually impaired women	Visual impairment	The most frequently reported barriers to employment were negative employers' attitudes and provision of workplace adjustments. Lower confidence due to previous experiences and having to care for someone below the age of 16 influenced the barriers experienced. The qualitative findings highlight a general lack of knowledge about VI women's ability.

Authors and year	Country	Study design	Topic	Study sample	Type of disability	Main findings
Lyons [17]	USA	Experimental studies (quantitative)	&S	336 workers (study 1) and 310 workers (study 2)	Hearing impairment	This research investigates the influence of disability onset controllability on the relationship between disclosure strategies and affective reactions (e.g., pity, admiration, sorrow, sympathy, proud) that underlie hiring intentions across 2 experiments. The results highlight that when workers are seen as responsible for their disability, strategies that de-emphasize the disability lead to lower hiring intentions through the affective reaction (pity).
Kulkarni et al, [10]	India	Interview-based study (qualitative)	CD	58 workers	Visual impairment, limb atrophy, hearing impairment, other disabilities	The main career management strategies were: displaying and maintaining a positive mind-set, sensitizing people to ability rather than obstacles to reduce stereotypes, being involved in disability advocacy activities and participating in homophilous networks.
Kulkarni [48]	India	In-depth interviews (qualitative)	CD	17 key human resources figures from 17 companies	People with disabilities	The study analyzes the career initiatives promoted by employers for the development of PWDs. Seventeen HR figures from five different states who were in charge of policy making were asked about career management philosophies and practices. Results highlight the importance of meritocracy and the usefulness of five specific actions: using the right terminology, sensitization initiatives, accommodation audits, visibility of successful

Authors and year	Country	Study design	Topic	Study sample	Type of disability	Main findings
Lindstrom et al, [49]	USA	Case-study methodology (qualitative)	CD	8 young adult workers	Learning disability, emotional disability, orthopedic Impairment	<p>stories, ability building programs.</p> <p>Previous work experience, transition services and family support were crucial for initial placement while postsecondary training, steady work experiences and personal attributes (e.g. self-efficacy) were related to career advancement.</p>
Villanueva-Flores et al, [50]	Spain	Cross-sectional (quantitative)	CD	459 workers	Physical disabilities	<p>This study investigates perceived inequity, perceived discrimination and job dissatisfaction using the theoretical framework of organizational injustice. The results supported 4 hypotheses showing that the perception of discrimination in career development is positively related to perception of disability-related inequity, that perceived inequity and perceived discrimination are positively related to job dissatisfaction and that perceived discrimination mediates the relationship between perceived inequity and job dissatisfaction. On the other side, gender does not moderate the relationship between perceived inequity and perceived discrimination.</p>
Dean et al, [51]	USA	Retrospective descriptive study design (quantitative)	CD	12 adults with disabilities (workers)	Intellectual disabilities	<p>The study analyzes the Self-Determined Career Design Model (SDCDM) model implemented within a</p>

Authors and year	Country	Study design	Topic	Study sample	Type of disability	Main findings
						community service agency designed to involve people with intellectual disability in the career design process. The SDCCDM model comprises 3 phases: setting a career goal, creating a career plan and self-monitoring of the progresses. Results show that 9 out of 12 participants found employment. After one year, five participants were still working with an average of 3.8h a day for 2.3 days a week
Baldrige et al, [52]	USA	Interview-based study (qualitative)	CD	40 workers who lost hearing after beginning their careers	Acquired disability (hearing loss)	The study analyzes the experience of career transitions and sustainable careers for workers who have experienced hearing loss after having entered the employment market. Interviews highlighted 4 main themes: redefining one's identity (facing the hear loss, recognizing the related career changes), redefining career success (economic freedom and help of others), redefining work (roles and activities) and formal and informal social groups as a resource (support groups, co-workers).
Yanchak et al, [53]	USA	Survey (quantitative)	CD	90 people with disabilities receiving vocational evaluation services	Cognitive impairment and physical disability	The research analyzed possible differences in dysfunctional career thoughts and perception of vocational identity in individuals with cognitive and physical disabilities. People with cognitive impairment had more dysfunctional career thoughts

Authors and year	Country	Study design	Topic	Study sample	Type of disability	Main findings
Wilson-Kovacs et al, [28]	UK	Interview-based study (qualitative)	CD	14 workers with disabilities	Different physical impairments	<p>indicating more decision-making confusion. Vocational identity did not change according to the disability type and the moderation hypothesis was not supported.</p> <p>The study analyzes the obstacles associated with the lack of career advancement of PWDs using a qualitative approach. The results of the in-depth interviews highlight that subjects related precariousness to a lack of opportunity in career advancement and emphasized the lack of recognition of their contributions and the need for a constructive feedback. Time and resources required to fulfil duties were overlooked and participants experienced a lack of support networks and role models.</p>
Santilli et al, [54]	Italy	Cross-sectional (quantitative)	CD	120 workers with disabilities	Mild intellectual disability	<p>The research investigates the relationship between career adaptability, hope and life satisfaction of people with mild intellectual disabilities. Specifically, based on Life Design approach the study hypothesized a partial mediation model in which career adaptability predicts life satisfaction directly and indirectly through hope. The Career Adapt-Abilities Scale-Italian Form, The Adult Trait Hope Scale, The Satisfaction with Life Scale were used to</p>

<b>Authors and year</b>	<b>Country</b>	<b>Study design</b>	<b>Topic</b>	<b>Study sample</b>	<b>Type of disability</b>	<b>Main findings</b>
Alexander et al, [55]	Australia	Mixed-methods sequential explanatory design (mixed methods)	CD	3 staff and 4 employees with disabilities	Intellectual disability	measure the constructs. The results support the partial mediation model. The study investigates the use and the knowledge by the staff of 15 training strategies and the point of view of 4 employees with intellectual disabilities on the on-the-job training received. Staff recognized the 87% (13/15) of the strategies but only employed two (Show and Tell and Individual Training Plans). Workers with disabilities appreciated their training but highlighted several skills they would have liked to acquire and for which they were not receiving training such as web design, welding, disassembly or customer relations.
Gupta et al, [11]	India	Exploratory study – interviews (qualitative)	CD	9 PWDs with executive position	Physical disability	The study investigates the perceptions of professionally qualified PWDs regarding their career development. The interviews explored individual aspects (e.g., sources of motivation, roles) challenges related to colleagues and supervisors' attitudes and the organizational environment (e.g., practices, equitable opportunities, disability awareness). The results highlight 4 themes: negative influence of affirmative actions, lack of appropriate career paths and job design, low expectations of superiors and peers and



Authors and year	Country	Study design	Topic	Study sample	Type of disability	Main findings
						absence of inspirational platforms.
Lindstrom et al, [56]	USA	Multiple-case study longitudinal design (qualitative)	CD	4 young adult workers with disabilities	Intellectual and developmental disability	The study analyzed initial employment experiences and career development of young workers with ID/DD. Initial work experiences were influenced by family expectations and advocacy while training, supervision, flexible employers and supportive co-workers were key factors when entering the labor market. People maintained low-wage service industry employment even if they were overall satisfied.
Vijayasingham et al, [57]	Malaysia	In-depth interviews (qualitative)	CD	10 workers with neurological disease	Multiple sclerosis (MS)	This study investigated the work transitions and careers of individuals with MS. The results highlight those chronic diseases disrupted careers and led to transitions even with a mild / episodic phase. Participants' sense of agency in managing their careers was undermined. Workers were able to employ different strategies and resources to maintain meaningful work experiences with varying levels of effectiveness depending on variables such as higher education, better relationship networks, and long experience working with a single organization.

Authors and year	Country	Study design	Topic	Study sample	Type of disability	Main findings
Meacham et al, [58]	Australia	Case-study methodology (qualitative)	CD	5 workers with disabilities at research Site 1 and 6 workers with disabilities at research Site 2	Intellectual disability (people with cognitive and learning disabilities, Down Syndrome and autism)	The study investigates the influence of HR workplace innovation programs on the socialization and career construction of workers with intellectual disabilities. The results highlight that innovation programs gave workers a sense of purpose, helping them achieve success in their current role, develop career aspirations, self-esteem and confidence while also creating a disability inclusive environment.

*Note:* R & S: Recruitment and Selection, CD: Career Development

### ***Recruitment and selection***

Fourteen studies analyzed the topic of recruitment and selection through different methodologies and were considered qualitatively adequate by the reviewers. These studies highlighted the challenges that workers with disabilities face when entering the job market. The results of a study conducted to observe the behaviour of Norwegian employers towards possible applicants with a wheelchair showed that the presence of a disability reduces the probability of being invited to an interview by 48 per cent [6]. In another sample of Danish employers hiring intentions decreased when employers evaluated candidates in wheelchairs [19]. Similarly, in another study job applications mentioning disability received 26% fewer expressions of interest from the employer [38]. Concerns expressed by employers include the belief that PWDs cannot perform the duties of the role, that supervisors may be uncomfortable in assessing PWDs, and that PWDs do not have the necessary skills and are not productive [45]. Employers' decisions appear to be influenced by the nature of the disability [9] (visible, hidden, stigmatized, multiple), the extent to which people need accommodations and the perceived 'disability friendly' nature of organizations [42].

In addition, when workers are seen as responsible for their disability, decategorization as a strategy increases observers' pity reactions that subsequently reduce their hiring intentions [17]. Results revealed that job interview tactics like revealing a strong alternative, setting a numerical anchor or demonstrating approachability through imperfections were counterproductive during the first phases while displaying soft skills was not useful for candidates with disabilities [41]. Possible perceived barriers in the workplace include the provision of workplace adaptations, limited mobility and having an additional disability/health condition [47]. Managers also perceive more barriers to hiring people with intellectual disabilities and mental disorders than physical disabilities [38,42].

Employment for this population is hindered by the perception of lack of skills, legal problems (intellectual disabilities) and safety issues (mental disorders) [44]. Nevertheless, the presence of facilitative tools can be of great help to employers. For example, the use of the Integrated Employment Success Tool (IESTTM) with autistic people increased employers' knowledge of autism and workplace strategies [43]. Furthermore, organizations with more than 500 employees were much more likely to recruit PWDs than smaller organizations [39]. The integration of unconventional methods such as internet marketplaces (i.e., Amazon's Mechanical Turk) with traditional methods for the selection of PWDs was also an excellent organizational strategy [46].

### ***Career development***

Fourteen studies investigated the topic of career development and were considered qualitatively adequate by the reviewers. The results show that during the first few years of their careers, PWDs maintained stable employment but earned annual salaries significantly below the threshold. Factors that could influence employment opportunities were family support and expectations, school and work experiences, job development services and work environments [56] while ongoing career advancement was supported by a combination of factors including: participation in post-secondary education or training, stable work experience, and a set of personal attributes including self-efficacy and persistence [49]. Specific HR practices and career management philosophies play a pivotal role alongside workplace innovation programs [46,56]. On the other side, PWDs use positive strategies to proactively cope with challenges and barriers [10]. PWDs receive fewer training experiences than those without a disability.

The results of the study by Alexander et al, [55] show that staff reported knowing 15 training strategies but consistently applied only two. PWDs were eager to learn new job skills but were not receiving the necessary training. This perceived discrimination can be also due to the perception of unfairness when peers who do not have a disability are used as a comparative benchmark. These perceptions of inequality and discrimination cause dissatisfaction in organizations [50]. PWDs experience that affirmative action in the workplace leads to positive discrimination and negatively affects their development. In addition, the lack of appropriate career paths and job design, low expectations of superiors and peers, and the absence of inspirational platforms are increasingly present [11] while precariousness is closely linked to the perceived lack of opportunities for career advancement [28].

In the case of acquired disabilities, workers engage in a wide-ranging search for meaning and answers by redefining themselves, seeking career success and adopting new job roles [52]. The research by Vijayasingham et al [57] revealed that chronic illnesses (i.e., multiple sclerosis) disrupt careers and lead to transitions even with a mild/episodic phase. On the other side, there is growing evidence that a career-defining process can have a strong impact in supporting adults with intellectual disabilities in setting and achieving work-related goals and securing employment [51]. In addition, results show that individuals with cognitive disabilities had more decision-making confusion and external conflicts than individuals with physical disabilities [53] while career adaptability indirectly predicted life satisfaction [54].

## DISCUSSION

Disability is not a *quality* but stems from the interaction of the individual with the environment and is defined according to three axes: impairment in a person's body structure/function or mental functioning, activity limitation (e.g., difficulty seeing, hearing, walking) and participation restrictions in normal daily activities (e.g., working or engaging in social activities) [4]. Participation in the labor market therefore represents one of the main objectives for individual health and social sustainability, especially considering the post-COVID-19 world of labor. Work contributes directly to the psychological well-being of workers [59] and even more so for PWDs, representing an opportunity for autonomy, financial independence, social inclusion and building a sense of identity and purpose [60–62].

On the other hand, hiring and retaining PWDs has beneficial effects for employers. According to the results of the literature, diversity across the organizational structure is associated with higher levels of innovation, performance, problem solving, lower discrimination costs and lower turnover rates [61,62]. Indeed, following the resource-based theory of competitive advantage, according to which resources (including human resources) should be rare, valuable and difficult to replicate, hiring and retaining PWDs represent an advantage in terms of untapped loyal and skilled employees [43,63]. Despite the possible strategic advantages and international regulations, PWDs are still under-represented across sectors and face numerous barriers, highlighting the need to analyze suitable recruiting and retention strategies. In this regard, scholars suggest that most of the research has focused on the selection and initial stage of the employment, without considering the topics of development and promotion [11,34].

The main purpose of this review was to address this gap by providing an overview of the challenges and opportunities for PWDs during the recruitment phase and career management process. We emphasize the word “process” since career management should be understood as a continuous and dynamic planning rather than a static and circumscribed event in time. Furthermore, we took into consideration the type of disability investigated by the studies in order to analyze possible differences. Most of the previous studies did not consider disability as a heterogeneous group, highlighting the need for a differential approach. As also suggested by Stone and Colella [12], employers' attitudes largely depend on the type of disability (e.g. chronicity, visibility) with some subgroups (e.g. intellectual or psychiatric disabilities) facing multiple barriers and discrimination [44].

The results highlight that employers are very often unwilling to hire and train PWDs. For example, dealing with a candidate in a wheelchair during an interview drastically decreases the employer's intention to hire [19]. From the beginning of the selection process there is significant discrimination, with job applications in which disability is mentioned from the outset receiving 26% less interest from the employer, even when the disability does not interfere with the specific role [38]. In addition, employers seem to prefer people with physical disabilities over intellectual disabilities, but both groups are preferred over mental disorders [44]. Perception of lack of skills and legal issues related to dismissal were perceived as obstacles for the employment of people with intellectual disabilities while safety issues were the main concerns for people with mental disorders [44].

The type of disability (visible, hidden, stigmatised, multiple) also influences the management of the job interview [42]. Analyzing the topic of disclosure, the worker should decide both if (in the case

of invisible disabilities), when (before the interview, during the interview, when a job is offered) and how (multiple strategies) to disclose the disability during the recruitment process. For example, there are several strategies that workers can employ such as integration (emphasizing the positive aspects of the disability) or de-categorization (focusing on other characteristics) while if the disability is not immediately visible, the worker could decide to omit this information to avoid possible biases, even if this can have negative consequences in terms of accommodations during the hiring process and the subsequent relationship with the organization [17,40].

In addition, barriers to employment were perceived to a greater extent in the case of intersectionality, as when PWDs are also caregivers. For example, the findings of the research conducted on a sample of visually impaired women highlighted the complex relationship between different identities and roles [47]. The obstacles experienced in obtaining a job inevitably lead to a state of precariousness and insecurity. Job insecurity is associated with a lack of opportunities and the lack of recognition of the worker's contributions together with the need for constructive feedback are two issues that are becoming increasingly salient. PWDs experience a lack of time and resources to fulfil tasks along with a lack of support networks and role models [28]. Indeed, they do not receive proper training [55], do not have adequate career paths and job design, experience lower expectations from their supervisors and colleagues and have to cope with a lack of inspirational platforms [11].

Furthermore, the findings of another study [55] showed that although company staff knew multiple training strategies (e.g., Show and Tell, Fading, Self-Instruction, Match-To-Sample, Individual Training Plans) they only employed two of them, despite the desire of PWDs to learn different skills. Lack of challenging tasks coupled with fewer training and mentoring opportunities could also lead PWDs to devalue their own performance and decrease proactive self-determination efforts, creating a vicious cycle [30,31]. In this regard, inclusive organizational policies are becoming increasingly necessary. HR practices such as creating awareness programs, accommodation audits to ensure workplace accessibility, ability building programs, flexible working schedules, mentoring and top management should be considered core practices within an inclusive organization [43,46].

In addition, results show that one factor associated with the implementation of inclusive policies is organizational dimension. In fact, organizations with more than 500 employees were much more likely to report hiring PWDs than smaller organizations. For this reason, targeted information programs could help small and medium-sized companies find qualified candidates with disabilities (e.g., internship programmes, relationships with community provider organizations) while other practices such as the use of tax incentives could support their placement. es [39]. Another innovative methodology is the use of tailored tools such as the IESTTM, which has proved to be a great resource for assessing and assisting autistic people in the workplace [43]. Indeed, it is essential to establish clear job interview processes and use validated tools that help HR staff and employers to extrapolate the potential level of competence of candidates and assess their degree of fit with the context.

### ***Strengths and limitations***

This review represents one of the first attempts to analyze the employment cycle of PWDs considering the recruitment phase and the subsequent career management process as a part of a unique experience. Furthermore, we took into consideration the type of disability to uncover possible differences and similarities in the attitudes of employers and perceptions/experiences of employees. Nevertheless, some limitations should be addressed. While we followed a systematic approach using

the PRISMA methodology, we did not analyze the risk of bias. Studies were conducted in several countries (although the majority of the studies were carried out in the United States) with different cultural norms and legislations that could have influenced the attitudes towards PWDs.

Most of the studies used a qualitative methodology, followed by cross-sectional designs. Even if valid and reliable, the quality of the findings in qualitative methods could be influenced by the level of competence and perspectives of the researcher. Together with cross-sectional designs, these types of methodologies limit the possibility of making causal inferences. Eventually, even if we tried to follow a differential approach to provide a comprehensive overview, the review included a limited sample of disabilities.

In addition, certain studies included multiple disabilities with different features in the same category, thus limiting the possibility of analyzing the specific challenges and opportunities.

### ***Practical implications***

This review offers interesting insights into possible HR practices that could be implemented to foster the employment and professional advancement of PWDs, achieving positive results for both workers and organizations. For workers, increasing exposure and networking (e.g., internship programs), provides the opportunity for skills demonstration and connections [11,40]. For organizations, some of the key factors for successful HR inclusive practices include top management commitment, disability & diversity goals as a part of the strategic plan and the formal inclusion of disability recruiting and retention policies (e.g., appropriate accommodations, on-the-job trainings, mentoring programs, flexible work schedules, disability awareness trainings) [37,43,64].

Structured application and performance evaluation processes limit the influence of job-irrelevant factors (e.g., disability-related) by making the *fit* between the applicant and the role the main goal. Organizations should rely on clear and up-to-date job analyses in order to extrapolate the essential duties and related abilities for every position [31]. For career management, this implies shifting the focus towards capability-driven careers and clear and constructive performance evaluations [10].

### **CONCLUSION**

In conclusion, this review offers interesting insights into the possible challenges and opportunities associated with the employment and career advancement of PWDs. Both the employers' and the employees' perspective were taken into account, providing a comprehensive overview of the topic of disability in the workplace and highlighting possible strategies for bridging the gap between the untapped talent pool of PWDs and organizations.

**Author Contributions:** Conceptualization: GLF, GG, GF. Study design, methodology: GLF, SZ. Data curation: GA, NM. Formal analysis: GG, SZ. Project Administration: NM. Supervision: GA, GG, NM, SZ. Writing/original draft: GLF, GF. Writing-review & editing: GG, GLF, GA, SZ.

**Funding:** None

**Acknowledgments:** None

**Conflicts of Interest:** None

**Data Availability Statement:** Some or all data and models that support the findings of this study are available from the corresponding author upon reasonable request.

**Publisher's Note:** Edizioni FS stays neutral with regard to jurisdictional claims in published maps and institutional affiliation.

## References

1. World Health Organization. Disability and health [Internet]. 2020 [cited 2022 March 2]. Available from: <https://www.who.int/news-room/fact-sheets/detail/disability-and-health>.
2. Bonaccio S, Connelly CE, Gellatly IR, Jetha A, Martin Ginis KA. The Participation of People with Disabilities in the Workplace Across the Employment Cycle: Employer Concerns and Research Evidence. *J Bus Psychol*. 2020 Apr;35(2):135–158.
3. Giorgi G, Lecca LL, Leon-Perez JM, Pignata S, Topa G, Mucci N. Emerging Issues in Occupational Disease: Mental Health in the Aging Working Population and Cognitive Impairment—A Narrative Review. *BioMed Res Int*. 2020 Jan 30;2020:1–6.
4. World Health Organization. International Classification of Functioning, Disability and Health [Internet]. 2001 [cited 2022 March 2]. Available from: <http://apps.who.int/iris/bitstream/handle/10665/42407/9241545429.pdf;jsessionid=576D325B8B6E7D6B39C400F312D3537F?sequence=1>.
5. Louvet E. Social judgment toward job applicants with disabilities: Perception of personal qualities and competences. *Rehabil Psychol*. 2007;52(3):297–303.
6. Bjørnshagen V, Ugreninov E. Disability Disadvantage: Experimental Evidence of Hiring Discrimination against Wheelchair Users. *Eur Sociol Rev*. 2021 Sep 20;37(5):818–833.
7. Grillo A, Luongo F, Bellagambi R, Ferrero C, Cupelli V, Arcangeli G. [Employment of disabled people regarding Italian Law “68/99”: Florence’s ASL N. 10 experience]. *G Ital Med Lav Ergon*. 2013 Feb 14;34:226–228.
8. U.S. Bureau of Labor Statistics. Persons with a Disability: Labor Force Characteristics News Release [Internet]. 2021 [cited 2022 March 2]. Available from: <https://www.bls.gov/news.release/disabl.htm>.
9. Nota L, Santilli S, Ginevra MC, Soresi S. Employer Attitudes Towards the Work Inclusion of People With Disability. *J Appl Res Intellect Disabil*. 2014 Nov;27(6):511–520.
10. Kulkarni M, Gopakumar KV. Career Management Strategies of People With Disabilities. *Hum Resour Manage*. 2014 May;53(3):445–466.
11. Gupta A, Priyadarshi P. When affirmative action is not enough: challenges in career development of persons with disability. *Equal Divers Incl Int J*. 2020 Apr 10;39(6):617–639.
12. Stone DL, Colella A. A Model of Factors Affecting the Treatment of Disabled Individuals in Organizations. *Acad Manage Rev*. 1996 Apr;21(2):352–401.
13. Schur L, Kruse D, Blasi J, Blanck P. Is Disability Disabling in All Workplaces? Workplace Disparities and Corporate Culture. *Ind Relat J Econ Soc*. 2009 Jul;48(3):381–410.

14. Becker GS. The economics of discrimination. 2. ed., 6. impr. Chicago, Ill.: Univ. of Chicago Press; 1995. 167 p. (Economics research studies of the Economics Research Center of the University of Chicago).
15. Arrow K. The Theory of Discrimination [Internet]. Princeton University, Department of Economics, Industrial Relations Section.; 1971 Oct [cited 2022 March 2]. Available from: <https://EconPapers.repec.org/RePEc:pri:indrel:30a>.
16. Phelps ES. The Statistical Theory of Racism and Sexism. *Am Econ Rev.* 1972;62(4):659–661.
17. Lyons BJ, Volpone SD, Wessel JL, Alonso NM. Disclosing a disability: Do strategy type and onset controllability make a difference? *J Appl Psychol.* 2017 Sep;102(9):1375–1383.
18. Fiske ST, Cuddy AJC, Glick P, Xu J. A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *J Pers Soc Psychol.* 2002 Jun;82(6):878–902.
19. Shamshiri-Petersen D, Krogh C. Disability Disqualifies: A Vignette Experiment on Danish Employers' Intentions to Hire Applicants with Physical Disabilities. *Scand J Disabil Res.* 2020 Jul 3;22(1):198–209.
20. Wells SJ. Counting on workers with disabilities. *Hum Resour Manag Int Dig [Internet].* 2008 Jan 1 [cited 2021 Nov 15];16(6). Available from: <https://doi.org/10.1108/hrmid.2008.04416fad.003>.
21. Hernandez B, McDonald K, Divilbiss M, Horin E, Velcoff J, Donoso O. Reflections from Employers on the Disabled Workforce: Focus Groups with Healthcare, Hospitality and Retail Administrators. *Empl Responsib Rights J.* 2008 Sep;20(3):157–164.
22. Barnes C, Mercer G. Disability, work, and welfare. *Work Employ Soc.* 2005;19(3):527–545.
23. Baldwin ML, Johnson WG. A Critical Review of Studies of Discrimination Against Workers with Disabilities. In: *Handbook on the Economics of Discrimination [Internet].* Edward Elgar Publishing; 2006. Available from: [https://EconPapers.repec.org/RePEc:elg:eechap:2634\\_5](https://EconPapers.repec.org/RePEc:elg:eechap:2634_5).
24. Hyde M. Sheltered and Supported Employment in the 1990s: The experiences of disabled workers in the UK. *Disabil Soc.* 1998 Apr;13(2):199–215.
25. Jones GE. Advancement opportunity issues for persons with disabilities. *Hum Resour Manag Rev.* 1997 Mar;7(1):55–76.
26. Baruch Y. Transforming careers: from linear to multidirectional career paths: Organizational and individual perspectives. *Career Dev Int.* 2004 Jan;9(1):58–73.
27. Sullivan SE, Baruch Y. Advances in Career Theory and Research: A Critical Review and Agenda for Future Exploration. *J Manag.* 2009 Dec;35(6):1542–1571.
28. Wilson-Kovacs D, Ryan MK, Haslam SA, Rabinovich A. 'Just because you can get a wheelchair in the building doesn't necessarily mean that you can still participate': barriers to the career advancement of disabled professionals. *Disabil Soc.* 2008 Dec;23(7):705–717.
29. Cunningham I, James P, Dibben P. Bridging the Gap between Rhetoric and Reality: Line Managers and the Protection of Job Security for Ill Workers in the Modern Workplace. *Br J Manag.* 2004 Sep;15(3):273–290.
30. Colella A, DeNisi AS, Varma A. The impact of ratee's disability on performance judgments and choice as partner: The role of disability–job fit stereotypes and interdependence of rewards. *J Appl Psychol.* 1998;83(1):102–111.
31. Brecher E, Bragger J, Kutcher E. The Structured Interview: Reducing Biases Toward Job Applicants with Physical Disabilities. *Empl Responsib Rights J.* 2006 Nov 28;18(3):155–170.



32. Boyle MA. Social barriers to successful reentry into mainstream organizational culture: Perceptions of people with disabilities. *Hum Resour Dev Q.* 1997;8(3):259.
33. Kulkarni M, Lengnick-Hall ML. Socialization of people with disabilities in the workplace. *Hum Resour Manage.* 2011 Jul;50(4):521–540.
34. Vornholt K, Uitdewilligen S, Nijhuis FJN. Factors Affecting the Acceptance of People with Disabilities at Work: A Literature Review. *J Occup Rehabil.* 2013 Dec;23(4):463–475.
35. Sirriyeh R, Lawton R, Gardner P, Armitage G. Reviewing studies with diverse designs: the development and evaluation of a new tool: Reviewing studies with diverse designs. *J Eval Clin Pract.* 2012 Aug;18(4):746–752.
36. Harrison R, Jones B, Gardner P, Lawton R. Quality assessment with diverse studies (QuADS): an appraisal tool for methodological and reporting quality in systematic reviews of mixed- or multi-method studies. *BMC Health Serv Res.* 2021 Dec;21(1):144.
37. Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *J Clin Epidemiol.* 2021 Jun;134:178–189.
38. Ameri M, Schur L, Adya M, Bentley FS, McKay P, Kruse D. The Disability Employment Puzzle: A Field Experiment on Employer Hiring Behavior. *ILR Rev.* 2018 Mar;71(2):329–364.
39. Erickson WA, Schrader S von, Bruyère SM, VanLooy SA, Matteson DS. Disability-Inclusive Employer Practices and Hiring of Individuals With Disabilities. *Rehabil Res Policy Educ.* 2014;28(4):309–328.
40. Spirito Dalgin R, Bellini J. Invisible Disability Disclosure in an Employment Interview: Impact on Employers' Hiring Decisions and Views of Employability. *Rehabil Couns Bull.* 2008 Oct;52(1):6–15.
41. Ameri M, Kurtzberg T, Schur L, Kruse D. Disability and influence in job interviews. *Int J Confl Manag.* 2021 Apr 6;32(2):266–291.
42. Jans LH, Kaye HS, Jones EC. Getting Hired: Successfully Employed People with Disabilities Offer Advice on Disclosure, Interviewing, and Job Search. *J Occup Rehabil.* 2012 Jun;22(2):155–165.
43. Scott M, Falkmer M, Kuzminski R, Falkmer T, Girdler S. Process evaluation of an autism-specific workplace tool for employers. *Scand J Occup Ther.* 2020 Sep 21;1–13.
44. Kocman A, Fischer L, Weber G. The Employers' perspective on barriers and facilitators to employment of people with intellectual disability: A differential mixed-method approach. *J Appl Res Intellect Disabil.* 2018 Jan;31(1):120–131.
45. Houtenville A, Kalargyrou V. People with Disabilities: Employers' Perspectives on Recruitment Practices, Strategies, and Challenges in Leisure and Hospitality. *Cornell Hosp Q.* 2012 Feb;53(1):40–52.
46. Ipsen C, Kurth N, Hall J. Evaluating MTurk as a recruitment tool for rural people with disabilities. *Disabil Health J.* 2021 Jan;14(1):100991.
47. Coffey M, Coufopoulos A, Kinghorn K. Barriers to employment for visually impaired women. *Int J Workplace Health Manag.* 2014 Sep 2;7(3):171–185.
48. Kulkarni M. Organizational career development initiatives for employees with a disability. *Int J Hum Resour Manag.* 2016 Aug 5;27(14):1662–1679.
49. Lindstrom L, Doren B, Miesch J. Waging a Living: Career Development and Long-Term Employment Outcomes for Young Adults with Disabilities. *Except Child.* 2011 Jul;77(4):423–434.
50. Villanueva-Flores M, Valle-Cabrera R, Bornay-Barrachina M. Career development and individuals with physical disabilities. *Career Dev Int.* 2014 May 6;19(2):222–243.

51. Dean EE, Burke KM, Shogren KA, Wehmeyer ML. Promoting Self-Determination and Integrated Employment Through the Self-Determined Career Development Model. *Adv Neurodev Disord*. 2017 Jun;1(2):55–62.
52. Baldrige DC, Kulkarni M. The shaping of sustainable careers post hearing loss: Toward greater understanding of adult onset disability, disability identity, and career transitions. *Hum Relat*. 2017 Oct;70(10):1217–1236.
53. Yanchak KV, Lease SH, Strauser DR. Relation of Disability Type and Career Thoughts to Vocational Identity. *Rehabil Couns Bull*. 2005 Apr;48(3):130–138.
54. Santilli S, Nota L, Ginevra MC, Soresi S. Career adaptability, hope and life satisfaction in workers with intellectual disability. *J Vocat Behav*. 2014 Aug;85(1):67–74.
55. Alexander J, Ford J, Raghavendra P, Clark J. Nature and extent of on-the-job training for employees with an intellectual disability: a pilot study. *Res Pract Intellect Dev Disabil*. 2018 Jul 3;5(2):138–148.
56. Lindstrom L, Hirano KA, McCarthy C, Alverson CY. “Just Having a Job”: Career Advancement for Low-Wage Workers With Intellectual and Developmental Disabilities. *Career Dev Transit Except Individ*. 2014 May;37(1):40–49.
57. Vijayasingham L, Jogulu U, Allotey P. Chronic illness and sustainable careers: How individuals with multiple sclerosis negotiate work transitions in a middle-income country. *Soc Sci Med*. 2020 Jan;245:112699.
58. Meacham H, Cavanagh J, Shaw A, Bartram T. Innovation programs at the workplace for workers with an intellectual disability: Two case studies in large Australian organisations. *Pers Rev*. 2017 Oct 16;46(7):1381–1396.
59. World Health Organization. Mental health: strengthening our response [Internet]. 2018. Available from: <https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response>
60. Jahoda A, Kemp J, Riddell S, Banks P. Feelings About Work: A Review of the Socio-emotional Impact of Supported Employment on People with Intellectual Disabilities. *J Appl Res Intellect Disabil*. 2008;21:1–18.
61. Lysaght RM, Cobigo V. Enhancing the quality of life of marginalized populations through employment. *Int Public Health J*. 2014;6:301.
62. Szymanski EM, Hershenson DB. An Ecological Approach to Vocational Behavior and Career Development of People with Disabilities. *Rehabil Couns Basics* 4th Ed. 2005;225–280.
63. Ball P, Monaco G, Schmeling J, Scharz H, Blanck P. Disability as Diversity in Fortune 100 Companies. *Behav Sci Law*. 2005;23(1):97–121.
64. Yap M, Konrad AM. Gender and Racial Differentials in Promotions: Is There a Sticky Floor, a Mid-Level Bottleneck, or a Glass Ceiling? *Relat Ind*. 2010 Jan 14;64(4):593–619.
65. Barney J. Firm Resources and Sustained Competitive Advantage. *J Manag*. 1991 Mar;17(1):99–120.
66. Alessio F, Piccioli M, Bondanini G, Finstad GL, Tempesta S, Izzo M, et al. Disability Management nei contesti HR: una prospettiva professionale. *Counseling*. 2020 Feb;13(1):62–78.



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