



Article

# **Employability of Disabled Graduates: Resources for a Sustainable Employment**

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**Abstract:** In the frame of the psychology of sustainability, this research aims at exploring how the related concepts of risk factors, protective factors, and resilience might inform our understanding of the postgraduate outcomes of disabled youth. The number of disabled students is growing steadily, nevertheless, relatively little is known about the employment experiences and skill development of disabled youth. Following the positive primary preventive approach, this explorative research investigates the role of resilience and employability resources both in preventing perceived negative impact of disability on the employment opportunities and promoting the perception of employability. Fifty disabled students responded to an online questionnaire and their responses were compared to those of a nondisabled sample (N = 190). Motivations and meanings associated with entry into the workplace are equivalent in the two groups, but perceived impact of disability is a risk factor that hinders perceived employability. Resilience resources and soft skills show their effectiveness in reducing perceived disability impact and improving perceived employability, but between group comparison shows differences in the set of available resources. Overall, results provide insights for implementing actions to promote sustainable employment in order to foster a positive, sustainable organizational development.

Keywords: sustainable employment; resilience resources; graduate employability; disabled graduates

## 1. Introduction

Coherently with the UN recommendation to ensure that disabled persons are able to access general tertiary education, vocational training, adult education, and lifelong learning without discrimination [1], research highlights a growing ratio of disabled students attending universities [2,3].

In this regard, inclusive education literature reveals that despite inclusion's strong advocacy, delivery remains problematic, as 'beyond the surface of institutional policy, the reality of university life for students with disabilities is one of continued exclusion and barriers to learning' [4].

Research also showed that support provided during study completion was limited and that most students reported problems, leading them to reconsider their continuing study participation [5]. Nevertheless, those who endure, manage to graduate at the same rate as their nondisabled peers, the main difference being that disabled students take additional semesters to do so [6]. The ratio of disabled students over total number of students in Italian universities has been growing steadily since 1999 [3]. According to European data, in 2015, disabled people in Italy had completed tertiary education at a similar rate to nondisabled people (22.7% vs. 29%) [7].

Notwithstanding this, higher education disadvantage persists for many students after they have completed their studies [8]. Employment rate of disabled people in the country in 2015 was only 49.5%, compared to 63.3% of the nondisabled population [7]. Nearly 84% of nondisabled college graduates find employment soon after graduating, compared to 53% of disabled graduates [9]. While

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a university education provides students with knowledge and enhanced skills that will assist them in the workforce, it appears that many educated disabled persons will not obtain the jobs they desire upon graduation [10]. Disabled graduates are more likely to be underemployed than their nondisabled counterparts [11,12].

These disparities highlight the need to examine which factors are supporting employment. Whether or not disadvantaged students are realizing the same benefits from higher education as their peers is of fundamental importance to equity practitioners and policymakers. Despite this, equity policy has focused on access to higher education, while little attention has been paid to graduate outcomes [8]. Graduate employability [13] of disabled young people is still an uncovered research issue.

In the frame of the psychology of sustainability [14] this article seeks to improve our understanding of the transition to work of graduated disabled youth. Coherently to a positive primary preventive approach [15], the paper focuses on the role of resilience and employability resources in passing through the disability-employability bottleneck described by Areheart and Stein [16], which may prevent disabled students from enjoying the full range of opportunities of the labor market.

Very little is known about the skills and the resources which sustain disabled youth in the bumpy passage through educational career (earlier) and toward employment (later); even less is known about specific characteristics of this population as studies frequently lack of contrast with nondisabled people [17]. As it has been recently pointed out by Hill and Rogers [18], limited comparison with nondisabled peers is found in research on placement of disabled students with higher education. The present research wants to contribute to filling these gaps.

# 1.1. Conceptual Framework

The psychology of sustainability and sustainable development [14] extends the domain of sustainability from the ecological and socio-economic environments to the psychological environment, with the aim of improving quality of life for individuals and communities [19].

This perspective seems very important, considering the challenges posed in the 21st century by the rapid pace of change, accelerated by technology and globalization [20]. Particularly, changes in the labor market, such as the rise of global competition and structural unemployment, have led to a greater flexibility, which in turn has caused an increased spreading of nonstandard forms of employment [21,22]. Traditional employment relationships are in decline and are giving way to the rise of alternative work arrangements [23]. Temporary employment contracts [24,25] grew by 25% in the twenty-seven member states of the European Union between 2001–2012 [21] and are still rising [25]. This requires greater levels of self-direction and adaptability on the part of job seekers and employers, as they have to navigate an unstable, unpredictable, and complex labor market [26] that pushes individuals to continuously develop their internal and external occupational chances [27]. In this scenario, personal resources [28,29] play a key function in supporting sustainable development [14,19], sustainable careers [30], as well as employability [31].

One's career sustainability and employability are strongly related to the way in which individuals utilize their resources and proactively shape their careers [32]. Results from empirical research on resilience in the workplace [33,34] showed the role played by some key resources in protecting and promoting health, well-being, and performance from an organizational positive psychology perspective [34–38]. Literature about resilience [39] stated how, to be effective, resources must be sufficiently robust, redundant, or rapid to buffer or counteract the effects of stressors [40] resulting, as a whole, in a set of adequate adaptive capacities. Notably, these capacities sustain both dimensions defining resilience processes, i.e. recovery, focused on aspects of healing of wounds, and sustainability, which calls attention to outcomes relevant to preserving valuable engagements in life's tasks at work, in play, and in social relations [41].

Studies of sustainability are rare when compared to the rich literature on stress and recovery [42]. In the field of positive organizational psychology, literature has considered resources with special

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reference to challenges connected to work-domains and organizational processes. Different constructs have been drawn up with reference to the particular domain of work experience [26,43,44].

On the whole, considerable attention has been devoted to those factors that may sustain individual efforts in facing complexity and requests coming from work environments.

This issue is particularly relevant to those disadvantaged categories facing entry into the job market and among those, to disabled graduates.

# 1.2. Disability

Within the Convention on the Rights of Persons with Disabilities, the UN, already in 2006 [1] not only "prohibit discrimination on the basis of disability with regard to all matters concerning all forms of employment, including conditions of recruitment, hiring and employment, continuance of employment, career advancement and safe and healthy working conditions" (art. 27, 1.(a)), but also "promote employment opportunities and career advancement for disabled persons in the labour market . . . "(art. 27, 1.(e)), as well as " . . . opportunities for self-employment, entrepreneurship, the development of cooperatives and starting one's own business" (art. 27, 1.(f)).

Nevertheless, the disability-employability bottleneck—both the accessibility and the discrimination-bottleneck—is still a reality [16]. The authors claim that this situation is linked to "the history of disability and modern administrative law, as well as from the very semantics of the word "disability" [....so that] if you are disabled, you must not be able to work; in contrast, if you are able to work, you must not really be disabled." [16] (p. 882). In the welfare state, disability becomes an administrative category defining a status that exempts a person from the labor market [45]. Effectively, in so doing, disability and employability have long been treated as binary conditions, or at best considered within the frame of the socio-medical employability model [46], focused on disadvantages. Theoretical models of disability evolved over the past 40 years, starting from the Medical Model of Disability and developing up to the Social Model of Disability [47], showing overall a positive progression towards a portrait of disabled people as capable [48]. This different approach fosters a shift from a conception of disability as an unfavorable condition of inability to enhancement of diversity as a resource in work environments, a conception retained by the Disability Management perspective [49].

A significant number of studies have been conducted over the past three decades highlighting the capacity and capability of disabled people to perform complex work tasks, including those with extensive disability [50].

Nevertheless, the overall picture hasn't changed much since the foundational work of Stone and Colella [51]. Recent large-scale surveys indicate that disability is still linked to suboptimal workplace outcomes, such as lower average pay, lower job security, less formal and informal training, lower participation in decisions, and lower workplace inclusion, all of which have important career implications [52,53].

It should be stressed that, to date, almost all disability specific workplace literature has focused on barriers to employment, with little focus on career success [54]. A considerable part of studies has focused on employers' attitudinal barriers [55] considering the influence of stereotypes and stigma on hiring, employment, and access to labor market of young disabled workers [56–59]. Hernandez, Keys, and Balcazar [60] and recently Ju, Roberts, and Zhang [61] have carried out two reviews of the literature on employers' attitudes towards disabled workers. Some of the reviewed studies pointed out that employers report worries and doubts on employability competences of disabled people, among which are worries regarding absence of working abilities, scarce participation, abusive behaviors, refusal to accept instructions, and security [62–64]. In another respect, a study by Kaye, Jans, and Jones [65] has carried out a survey among human resource professionals and supervisors working for employers known or reputed to be resistant to employing disabled workers, finding that the principal barriers are lack of awareness of disability and accommodation issues, concern over costs, and fear of legal liability.

In some countries, legislation promotes equal treatment of disabled people and requires appropriate accommodations to be made to facilitate integration and wellbeing [66].

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Most jobs today are not predicated on physically strenuous activities, and, for those that are, accommodations are often available to help people with physical disabilities to remain active in the labor force. Similarly, there are accommodations today that did not exist in earlier generations, such as telecommuting, which may allow people who have mental disabilities to keep working [16]. A range of factors may influence decision-makers, such as the employers' empathy toward the employee, their attitudes toward people with disabilities, their experience, and their knowledge of disability legislation [67]. The graduates reported more positive experiences, when specialist and generic HR, line managers, colleagues, and they themselves had more experience of disability.

Kulkarni and Gopakumar [68] summarized barriers to career success and outlined that both the person with a disability and organizational members play a role in how careers are shaped.

In terms of sustainable development, emerging adults engaged in the complex transition phase towards adulthood deserve particular attention. Increased challenges and vulnerabilities in transitioning are evident among disabled emerging adults because they face additional challenges related to their disability over and above what others of this developmental stage experience [69]. In meeting developmental tasks of building one's social self, acquiring independence and building stable roles in the social world, those who have disabilities encounter more difficulties as they are often socially marginalized, remain more dependent on their family, and have less options for their future career compared to those typically developed by their peers [70].

The theme of independence and self-determination thus acquires particular importance in relation to the world of disability. The transition into the workforce and the acquisition of a job seem to be perceived by graduated disabled people as means of proving their 'normality': that is, ways to combat societal oppressive norms that fail to recognize compatibility of disability with employment, independent living, sexuality and parenthood [5]. Work is one aspect which allows for reaching and developing independence, other than being a fundamental resource for well-being of disabled people. The latter is confirmed in a study of Bassi and Delle Fave [71] in which work is recognized as an optimal experience by 90% of disabled participants.

Relatively little is known about the first employment experiences and skill development of disabled youth [72]. Research shows that having a disability is a barrier to securing and maintaining employment [73] but little is known about specific factors which contribute to these poor outcomes, and even less is known about factors and processes that might improve them. In the little existing literature, particular space has been dedicated to the study of the influence of self-determination (intended as individual autonomy, self-regulation, and psychological empowerment) and of self-realization [74–76] during transition to adulthood of youth with intellectual disability and specific language disorders. Particularly, the role of this resource was considered in connection to work-related outcomes, highlighting positive correlations with employment rates, income levels, and finance management. Self-advocacy was identified as a predictor of work success after study completion since it proved to be a motivational component which drives towards work-search activities [77]. The role of social skills, self-control, and cooperation also emerges in interacting effectively with others and succeeding in obtaining and maintaining a job [75]. In a recent study, Mannino [69] wants to understand resilience in a select group of disabled emerging adults, who have been recognized for their accomplishments, as they are transitioning to adulthood. This study revealed transitioning goals and values, challenges encountered while transitioning, and key attributes of resilience that have aided in transitioning. Detected goals include: being able to live autonomously, having life goals, shaping one's own career, while detected resources are: acceptance and perseverance, patience, and social support. Resilience generally presents negative correlation with the perceived impact of disability, life satisfaction, and positive perception about the future.

## 1.3. Research Aims and Questions

The present research consists of an exploratory study which broadly aims at improving our understanding of how disabled graduates face entry to the labor market, highlighting specific

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characteristics of this population compared to their nondisabled peers. The reference population is that of young disabled and nondisabled people who have undergone Higher Education paths, being enrolled in or having recently finished university studies.

Moving from a view of disabled people as capable, the present study focuses on their resources, with the final goal of outlining new hypotheses, which can subsequently be tested, regarding resources for sustaining employability of disabled youth with higher education. The research questions we address here, therefore, are the following:

- Q1: What are the characteristics of disabled graduates in terms of expectations and attitudes towards work, perceived employability, and perceived impact of disability on their career, as well as in terms of levels of resilience resources and employability resources?
  - Q2: Does this population differ on any of these aspects from the nondisabled population?
- Q3: What are potential resources for preventing perceived negative impact of disability on employment opportunities and promoting perception of employability?
- Q4: Are the levels and efficacy of potential resources the same in the disabled population and in the nondisabled population?

## 2. Materials and Methods

## 2.1. Participants and Procedures

Participants were included in the study according to the following criteria: (a) being aged between 19 and 35 years (coherently with the age range considered for young adults in Eurostat data); (b) having a diagnosis of disability or specific language disorder (SpLD); (c) being enrolled in university or having recently graduated from university. Participation in the research was voluntary and anonymous and involved completion of an online survey. The survey was distributed mainly on social networks, through pages of national and local associations working for disabled youth and their families and groups of university students. Other channels used for survey distribution were online blogs on disability and inclusion and a website of online job-recruiting dedicated to disabled people. In an attempt to encourage participation, an incentive was developed in the form of a downloadable booklet which participants could use to gain knowledge about their resources.

A total of 79 responses to the questionnaire were collected but 29 of these had to be discarded because they were not in-line with inclusion criteria (N=6) or mostly incomplete (N=23). This led to 50 responses being retained for the final sample. Participants in the finale sample are 26 males (52%) and 24 females (48%) aged 19 to 34 (M=27, SD=3.9). Of these, 66% (N=33) have a diagnosis of disability (30% Physical, 24% Sensory, 8% Multiple, 2% Mental), while 34% (N=17) have a diagnosis of SpLD. The majority of participants (66%, N=33) are enrolled in university, whereas 34% (N=17) have recently graduated from university. Globally, 56% of participants (N=28) pursued humanistic studies and 44% (N=22) scientific studies. Furthermore, 29 participants overall (58%) have had at least one work experience while enrolled in university. Considering 26 years as the regular age for study completion in Italy, mean time since graduation among those who have recently graduated is 3.82 years (SD=2.77). Mean final grade of graduated participants is M=99/110, SD=4.9; additionally, 35% (N=6) are currently employed, 47% (N=8) are looking for their first job, 18% (N=3) are unemployed.

In order to answer our research questions (Q2 and Q4), data collected on the present sample was confronted with previously collected data on a nondisabled sample of 190 near-graduate students [77,78]. Participants in this sample were recruited online and through the SONA System, an online platform which students can access to participate in studies and experiments. Participants completed the same survey as the disabled sample, excluding questions and variables related to disability/SpLD. The same inclusion criteria as the ones used for the disabled group applied, except for b) having a diagnosis of disability or specific language disorder (SpLD). In the nondisabled sample, 45% of participants (N = 85) are male and 55% (N = 105) are female; mean age is 24 (DS = 1.3, range = 22-28). Among nondisabled participants 56% (N = 106) pursued humanistic studies and 44% (N = 84) scientific studies. Overall,

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77.4% (N = 147) of nondisabled participants have had at least one work experience while enrolled in university. To ensure comparability of the two samples, equivalence was tested on gender and type of studies distributions. No differences emerged between the two samples.

#### 2.2. Measures

The online questionnaire completed by participants included five sections. The first section, assessing Expectations and Attitudes towards Work, included measures originally comprised in the annual survey carried out by the Italian Inter-university Consortium AlmaLaurea. Next, a section assessing Perceived Employability was developed drawing from previous literature and based on the measure previously used by De Vos and Soens [79]. Lastly, in accordance with the latest indications by Bonanno on resilience research [80], Perceived Impact of Disability was assessed, followed by multidimensional sections regarding Resilience Resources and Employability Resources.

## 2.2.1. Expectations and Attitudes towards Work

*Most important working aspects*—One item assessed working aspects considered essential by participants. Several options were reported and participants were asked to choose up to three options, ranked by importance.

*Job-search effective channels*—One item assessed job-search channels considered effective by participants. Several options were reported and participants were asked to choose up to three options, ranked by importance.

## 2.2.2. Perceived Employability

Perceived employability was assessed through 3 items adapted from a previous study by De Vos and Soens [79]. For those who were already employed when completing the questionnaire, the items assessed (1) experienced ease in finding a job, (2) adequacy to their level of education, and (3) job satisfaction; for those who were unemployed when completing the questionnaire, the same items were posed in relation to their future expectations. Participants rated their agreement on a 5 points Likert-type scale (1 = "Totally disagree"; 5 = "Totally agree"). The items proved good internal reliability (Cronbach's Alpha Disabled Group = 0.85; Nondisabled Group = 0.64).

# 2.2.3. Perceived Impact of Disability

Two ad hoc items were used to assess the perceived impact of the disability or SpLD on participants' professional career ("How do you rate the impact of your disability/SpLD on your possibilities of finding a job?") and on pursuing and realizing their goals and aspirations ("How do you rate the impact of your disability/SpLD on the possibilities of pursuing your goals and personal aspirations?") [81]. Participants rated the impact on a 10 points Likert-type scale (1 = "no impact"; 10 = "maximum impact"). The items proved good internal reliability (Cronbach's Alpha = 0.80).

## 2.2.4. Resilience Resources

Cognitive Flexibility—Cognitive flexibility refers to several dynamic processes which allow to reconfigure resources and change perspective, in order to adapt to situational demands and balance competing aspects [82]. This resource was assessed through administration of 8 items derived from the Cognitive Flexibility Scale [83]. Participants rated their agreement with item statements on a 5 points Likert-type scale (1 = "Totally disagree"; 5 = "Totally agree"). Internal consistency of the scale was good (Cronbach's Alpha Disabled Group = 0.77; Nondisabled Group = 0.74).

Goal Pursuit—Goal pursuit regards the ability to pursue one's goals in face of the obstacles (tenacious goal pursuit) and activate revision processes in order to adjust one's goals when they become unreachable (flexible goal adjustment) [84,85]. This resource was assessed through administration of 8 items derived from the Tenacious Goal Pursuit Scale and the Flexible Goal Adjustment Scale [85].

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Participants rated their agreement with item statements on a 5 points Likert-type scale (1 = "Totally disagree"; 5 = "Totally agree"). Internal consistency of the scale was good (Cronbach's Alpha Disabled Group = 0.81; Nondisabled Group = 0.65).

Self-Empowerment—Self-empowerment concerns the degree to which a person feels they have power and possibility to act in specific situations in order to achieve their goals and desires. It was assessed through administration of 9 items of the Self-Empowerment Scale [86]. These items regarded specifically the dimension of Sense of Power which assesses the awareness that in any given situation there are available options and alternatives. Participants rated their agreement with item statements on a 7 points Likert-type scale (1 = "Totally disagree"; 7 = "Totally agree"). Internal consistency of the scale was good (Cronbach's Alpha Disabled Group = 0.87; Nondisabled Group = 0.89).

## 2.2.5. Employability Resources

Ambition—Ambition was measured through administration of the Ambition Scale [87]. The scale comprises 6 items and participants rate their agreement with item statements on a 5 points Likert-type scale (1 = "Totally disagree"; 5 = "Totally agree"). Internal consistency of the scale was good (Cronbach's Alpha Disabled Group = 0.70; Nondisabled Group = 0.50).

Soft Skills—An ad hoc item was developed for each of three soft-skills which literature has highlighted as the most functional for employment. These include communication, team work, and time management [88,89]. For each skill, participants rated their agreement with item statements on a 5 points Likert-type scale (1 = "Totally disagree"; 5 = "Totally agree"). Internal consistency of the scale was good (Cronbach's Alpha Disabled Group = 0.77; Nondisabled Group = 0.68).

#### 3. Results

As a first step, data within the disabled sample was analyzed through descriptive statistics, analysis of variance (ANOVA) and Pearson's *r* correlations to explore characteristics of the sample and account for relations with socio-anagraphic variables. As a second step, the disabled sample was compared with the nondisabled sample through between group analyses of variance (ANOVA). Lastly, relationships between variables within the two samples were analyzed using Pearson's *r* correlations. All analyses were carried out using SPSS software (version 23.0; IBM Corp., Armonk, NY, USA).

## 3.1. Characteristics of the Disabled Sample

The most important working aspects for participants are reported in Table 1, along with their percentages. It can be noted how the most cited aspects regard personal growth and self-realization, whereas appropriateness to one's disability comes only in sixth place, cited by 26% of participants.

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	Personal Growth	60%
	Self-Realization	56%
	Stability/Security	42%
	Independence/Autonomy	40%
	Coherence with one's Interests	36%
	Appropriateness to one's Disability	26%
	High Income	16%

**Table 1.** Most important working aspects in Disabled sample.

Job-search channels considered effective by participants are presented in Table 2, along with their percentages. Since 1968, the Italian legislation provides a quota system and the 1999 reform introduced targeted placement that is: "a number of technical and supportive tools which allow for appropriate evaluation of working abilities of people with disabilities and appropriate placement, through job analysis, forms of support, positive actions and solutions of problems connected to environments, instruments and interpersonal relationships in daily work and relational environments"

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(art 2, law 68/99). It can be noted how only 18% of the sample refers to targeted placement as an effective job-search channel, while most participants prefer relying on job-placement services offered by universities, social-media, or web-sites.

<b>Table 2.</b> Job-search channels considered effective in Disable	oled sample.
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University Job Placement	43%
Social Media (Facebook, Linkedin )	39%
Recruiting Web-Sites	36%
Independently/Active Research	34%
Public Competition	32%
<b>Employment Agencies</b>	25%
Targeted Placement	18%
Starting an Activity/Taking on Family Business	9%

Descriptive statistics for perceived employability and perceived impact of disability or SpLD are presented in Table 3. Participants globally perceive their employability as just below average (on a scale from 1 to 5) and the impact of disability or SpLD on their career as medium-low (on a scale from 1 to 10). Relationships with socio-anagraphic variables were analyzed. Perceived employability showed no relationship with socio-anagraphic variables, with the exception of type of disability ( $F_{(1,47)} = 4.86$ ; p < 0.05). Participants with a SpLD reveal higher perceived employability (M = 3.02; SD = 0.82) than other participants with a disability (M = 2.50; SD = 0.76). Perceived impact of disability shows no relationship with socio-anagraphic variables, with the exception of work experience ( $F_{(1,48)} = 29.58$ ; p < 0.05, partial  $\eta^2 = 0.12$ ). Participants who had at least one work experience while enrolled in university, perceive a lower impact of disability on their chances of pursuing their goals and aspirations (M = 5.52; SD = 2.20) compared to those who had no such experience (M = 3.97; SD = 2.00).

**Table 3.** Descriptive statistics of perceived employability and perceived impact of disability in Disabled sample.

	Perceived Employability				Perceived In	npact of Disability
	Ease in Finding a Job	Adequacy to Education Level	Job Satisfaction	Total	on Finding a Job	on Pursuing Goals and Aspirations
M	2.68	2.71	2.65	2.68	4.90	4.62
SD	1.00	0.84	0.93	0.81	2.30	2.23

Table 4 presents descriptive statistics for resources in the disabled sample. Participants' resilience and employability resources are globally average, with low variability within the sample. Relationships with socio-anagraphic variables were analyzed and no significant relationships were found involving resilience resources. As for employability resources, soft skills show a significant relationship with work experience ( $F_{(1,48)} = 6.62$ ; p < 0.05, partial  $\eta^2 = 0.15$ ): those who had at least one working experience while enrolled in university report higher mean levels of soft skills (M = 3.36; SD = 0.63) compared to participants who had no such experience (M = 2.93; SD = 0.48).

Table 4. Descriptive statistics of resources in Disabled sample.

	R	Employabil	ity Resources		
	Cognitive Flexibility	ive Flexibility Goal Pursuit Self-Empowermen		Ambition	Soft Skills
M	3.43	3.34	4.13	3.51	3.20
SD	0.49	0.54	0.85	0.59	0.60

## 3.2. Between Groups Comparison

In order to answer our second research question, the disabled sample was compared with the nondisabled sample. Before proceeding with this analysis, the two samples were compared on Sustainability **2019**, 11, 1542 9 of 17

available demographic variables. No differences emerged for gender and type of studies distributions. A significant difference emerged for age, with the nondisabled group being significantly younger (M = 24; SD = 1.3) than the disabled group (M = 27; SD = 3.9; F = 61.149, p < 0.001). In order to compare the two groups, it was thus verified that age had no significant relationship with any of the considered variables. As a first step, expectations and attitudes towards work in the two samples were compared. Table 5 reports the most important working aspects for participants in both samples, along with their percentages. As for the disabled group, also in the nondisabled sample, the most cited aspects regard personal growth and self-realization, while less emphasized are the aspects regarding independence and stability.

	Disabled Group	Nondisabled Group
Personal Growth	60%	42%
Self-Realization	56%	47%
Stability/Security	42%	24%
Independence/Autonomy	40%	21%
Coherence with one's Interests	36%	29%
Appropriateness to one's Disability	26%	-
High Income	16%	26%

**Table 5.** Most important working aspects in Disabled and Nondisabled samples.

Job-search channels considered effective by participants in both groups are presented in Table 6, along with their percentages. It can be noted how in the nondisabled group, most participants rely on active job research, job-placement services offered by universities, and recruiting web-sites. Whereas reliance on university services and recruiting web-sites is quite similar in the two groups, not as many nondisabled participants rely on social media or public competitions.

Disabled Group	Nondisabled Group
420/	
43%	50.5%
39%	13%
36%	30.5%
34%	63%
32%	9%
25%	23%
18%	-
9%	14%
	36% 34% 32% 25% 18%

As a second step, the two samples were compared on perceived employability and resources through between group ANOVA. Table 7 presents descriptive statistics for perceived employability for both the disabled and nondisabled groups. Although no significant difference with the nondisabled group emerges on total perceived employability, a between group ANOVA reveals that on perceived/anticipated job satisfaction the nondisabled group exhibits a significantly higher mean score compared to the disabled group ( $F_{(1,226)} = 19.7$ ; p < 0.01).

**Table 7.** Descriptive statistics of components of Perceived Employability in the Disabled and Nondisabled groups.

		Disabled Group		Nondisabled Group	
		M	SD	M	SD
	Ease in finding a job	2.68	1	2.72	0.95
Perceived	Adequacy to education level	2.71	0.84	2.61	0.96
Employability	Job satisfaction	2.65	0.93	3.37	0.88
	Total	2.68	0.81	2.90	0.71

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Table 8 presents descriptive statistics for resilience resources and employability resources both in the disabled and the nondisabled groups. From a between groups ANOVA, significant differences emerged in the levels of Self-Empowerment ( $F_{(1,231)} = 4.55$ ; p < 0.05), Ambition ( $F_{(1,237)} = 9.62$ ; p < 0.01), and Soft Skills ( $F_{(1,235)} = 12.6$ ; p < 0.01). Mean levels of all three variables are significantly higher in the nondisabled sample, revealing lower levels of both resilience resources and of employability resources in the disabled sample.

**Table 8.** Descriptive statistics of Resilience Resources and Employability Resources in the Disabled and Nondisabled groups.

		Disabled Group		Nondisabled Group	
		M	SD	M	SD
Resilience Resources	Cognitive Flexibility Goal Pursuit Self-Empowerment	3.43 3.34 4.13	0.49 0.54 0.85	3.58 3.46 4.47	0.57 0.48 1
Employability Resources	Ambition Soft Skills	3.51 3.20	0.59 0.60	3.79 3.49	0.55 0.54

## 3.3. Variables Relationships within Samples

## 3.3.1. Perceived Impact of Disability, Perceived Employability, and Resources

Perceived impact of disability on the chances of finding a job shows a negative correlation with total perceived employability (r = -47, p < 0.01). Table 9 shows Pearson's r correlations between perceived impact of disability and resources. All resources except for Ambition show a significant negative relationship with perceived impact of disability of pursuing one's goals and aspirations, while no significant relationships are found with perceived impact of disability on finding a job.

Table 9. Correlations between resources and perceived impact of disability.

	Resilience Resources			Employability Resources	
	Cognitive Flexibility	Goal Pursuit	Self-Empowerment	Ambition	Soft Skills
Perceived impact of disability on finding a job.	-0.124	0.066	-0.230	-0.270	-0.190
Perceived impact of disability on pursuing goals and aspirations	-0.496 **	-0.355 **	-0.324 *	-0.217	-0.491 **

<sup>\*</sup> *p* < 0.05. \*\* *p* < 0.01.

## 3.3.2. Perceived Employability and Resources

Table 10 shows Pearson's r correlations between resources and perceived employability for both the disabled and the nondisabled groups. As can be observed from the table, while in the disabled group, only Self-Empowerment shows a significant relationship with perceived employability. In the nondisabled group, all resources except Ambition are significantly related to perceived employability.

 Table 10. Correlations between resilience and employability resources and perceived employability.

	Resilience Resources			Employabil	<b>Employability Resources</b>	
	Cognitive Flexibility	<b>Goal Pursuit</b>	Self-Empowerment	Ambition	Soft Skills	
Perceived Employability Disabled Group	0.207	0.281	0.503 **	0.203	-0.064	
Perceived Employability Nondisabled Group	0.194 *	0.114	0.563 ***	0.301 ***	0.164 *	

<sup>\*</sup> p < 0.05. \*\* p < 0.01. \*\*\* p < 0.001.

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#### 4. Discussion

The present study aimed at improving understanding of how young disabled graduates face entry in the labor market from a positive primary preventive approach [26]. Nowadays, graduate employability is often considered a yardstick of the effectiveness of educational institutions, highlighting the issue of whether or not disadvantaged students are realizing the same benefits from Higher Education as their peers [8]. Given that employment rates for disabled people [90], including disabled graduates [9], are consistently lower than those for nondisabled people and given that people with disabilities continue to face multiple barriers in finding and keeping jobs, to investigate the resources which may sustain and promote their transition to work is all the more relevant.

Participants in this research have managed to progress successfully through all educational levels. They face entry in the labor market with attitudes and expectations similar to the nondisabled population. Most participants look at their future jobs valuing aspects of growth and self-realization, as do young graduates without disabilities. This also confirms data coming from other research. In the qualitative study of Vlachou and Papananou [5], participants claim that their need to achieve their earning potential through succeeding in Higher Education was perceived not only as an economic necessity but is as much about participation, identity, and psycho-emotional well-being. Generally speaking, work is important for flourishing, and for reasons independent from remuneration. In the present study, disabled participants value Personal Growth related to work (60%) much more than nondisabled participants do (42%).

Although disabled participants value aspects of stability and independence more than the nondisabled group, appropriateness to one's disability is not a highly valued feature in participants' future job. In a similar fashion, targeted placement comes only in sixth place as a job-search channel, cited by only 18% of disabled participants. For their quest for a future job, participants in the disabled group rely mostly on social media, job-placement services offered by universities, and recruiting web-sites. The two latter channels are among those considered the most effective by nondisabled participants as well, even though this group anticipates more reliance on independent job-search.

It sounds as if, in our sample, disability has been left in the background, and disabled participants feel ready to approach the labor market on the same basis and at the same conditions of nondisabled graduates. In this light, normative advantages are probably considered an unsuitable way of getting a proper job. Even if quota systems may help to increase the participation of disabled people in the labor market, at the same time, it fosters the underlying assumption that disabled people are unable to compete on equal terms [91]. As noticed by Corby, William, and Richard [92], quota systems focus on the number of disabled people employed, rather than on their skills and position in the organization's hierarchy. That is probably why disabled graduates don't rely primarily on the available legal provisions. A control group of nongraduate disabled people could help in deepening this hypothesis.

Overall, these results highlight the importance of themes of independence and self-determination in relation to work expectations in our sample.

Employment presents an opportunity to develop important abilities and skills that are critical for subsequent opportunities [53]. Jobs are many things at once, maintains Fishkin [93] "... a large part of many people's identities, an engine of equality or inequality, a site of freedom or dependency" (p. 220). Employment is therefore a critical point for disabled youth facing transition to adulthood, it can be a site of equitable treatment and integration into society, and it can result in greater independence [16].

Perceived impact of disability in the disabled sample is medium on a scale from 1 to 10 and participants globally perceive their employability as just below average. Perceived employability is negatively related to perceived impact of disability. Participants with a SpLD, compared to the other participants in the disabled sample, report higher perceived employability. Compared to nondisabled graduates, all participants in the disabled sample anticipate significantly lower job satisfaction. Previous work experiences prove to be a potentially protective factor in these relationships, being negatively related to perceived impact of disability both directly and indirectly, through development

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of soft skills. This points out the psychological benefits of a first-hand experience in the labor market, which can decrease negative expectations that one will not find a job due to their disability and, through skills development, decrease negative expectations that one's disability will prevent them from reaching their goals and aspirations. This can, in turn, have beneficial effects on one's perceived employability, also in line with literature on graduate employability [89,94], which has highlighted how this kind of experiences make young graduates more employable according to recruiters. This result is in line with Pitman et al. [8] who found that undertaking paid work in the final year of study was the single most important factor in predicting whether a graduate, especially disabled graduate, would be working between four and six months after graduation.

Resilience and employability resources of disabled participants are average but compared with nondisabled graduates, they are significantly lower, particularly Self-Empowerment, Ambition, and Soft Skills. All these resources, except for Ambition, might play a role in preventing negative expectations that one's disability will prevent them from reaching goals and aspirations but not in preventing negative expectations that one's disability will prevent them from finding a job. Moreover, while in the nondisabled group all resilience and employability resources are positively related to perceived employability, in the disabled group this is true only for Self-Empowerment. Disabled participants thus seem to have access to a limited set of resources compared to nondisabled participants.

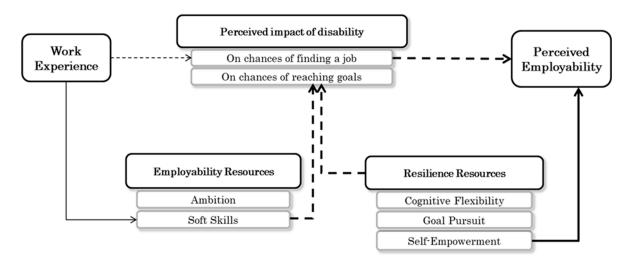
Following Hobfoll [28,29], the cumulative nature of resources in the form of resource caravans implies that individuals with (many) resources are better able to gain additional ones, that is to say, initial resource gain begets further gain, inducing a gain spiral [95]. This also implies that those who end up in a resource loss cycle will find it increasingly difficult to satisfy needs, thereby creating a situation in which "the weak get weaker and the strong get stronger" [27]. Thus, it is crucial for all stakeholders involved to monitor people's resources and the needs they fulfill as core foundations of their employability as well as of their career sustainability.

The final goal of the present study was to outline new hypotheses regarding potential resources for sustaining employability of the target population. Figure 1 sums up directional hypotheses derived from presented results, outlining paths to be tested in further research. Previous work experience would reduce the perceived impact of disability on chances of finding a job, thus protecting from its negative impact on perceived employability. At the same time, work experiences could foster the development of soft skills, which in turn would reduce perceived impact of disability on the chances of reaching one's goals. The latter would be reduced by resilience resources as well, thus having an indirect effect on perceived employability. Lastly, fostering Self-Empowerment in particular would directly promote perception of employability. Figure 1 does not aim to be thorough, since other factors could impact on perception of employability. Only some potential resources have been considered in the study, based on previous literature [13,82,83,87] which however focused on nondisabled students. This leaves an open question on whether investigated resources are adequate in relation to the considered population. Other resources could in fact intervene in sustaining perception of employability. At the same time, favorable material circumstances and life conditions could add up to work experiences in promoting employability resources and reducing perceived impact of disability. The same applies to other personal experiences, such as participation in community activities, sports or volunteering, which could sustain motivation and self-determination while fostering development of skills and competences.

The present research is not free from limitations, starting from the low number of participants in the disabled sample. Despite the high number and specificity of channels targeted for survey distribution, participation rate was sensibly low. Another critical point for data collection was a scarce disposition to cooperate by disability services of universities. Reflection on these matters seems necessary in order to understand reasons for scarce participation and cooperation and consequently improve research questions and proposals. Having a larger sample would allow for testing of directional relationships hypothesized, but would also allow comparison of participants with different types and severity of disabilities. The present work moved a first step in exploring characteristics of

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disabled graduates by highlighting peculiar aspects compared to nondisabled peers; further research should also dig deeper into distinctive aspects of this population itself. Difficulties in recruitment of participants have also prevented from distinguishing between those who were still enrolled in university and those who already had some postgraduate experience. Future studies could thus take into account the role of postgraduate experience, which, along with previous work experience, could help in explaining variance in perceived employability. Due to the correlational nature of this study, caution is needed in drawing causal inferences; this constitutes a first research experience which lays foundation for implementing actions and interventions to be evaluated for effectiveness in supporting a sustainable and satisfactory employment. Elements that appear to be key in this process are first-hand working experiences, sustaining personal empowerment and skills development, and supporting a proactive attitude, which seems to be already present.



**Figure 1.** Hypotheses of directional relationships derived from results. Dashed lines indicate negative relationships; thicker lines indicate stronger relationships.

## 5. Conclusions

The UN's 17 sustainable development goals [96] stress the need for increasing employment opportunities and promoting the development of individuals, families, and communities to ensure sustainable development and growth. Postgraduate employment of disabled youth represents an unresolved question in the international agenda.

Contributions coming from the psychology of sustainability help our understanding of those critical resources which may be enhanced by focused primary preventive interventions [19,26].

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