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# Factors that Promote or Hinder Young Disabled People in Work Participation: A Systematic Review

T. J. Achterberg · H. Wind · A. G. E. M. de Boer ·  
M. H. W. Frings-Dresen

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**Abstract** *Introduction* The aim of this systematic review was to study factors which promote or hinder young disabled people entering the labor market. *Methods* We systematically searched PubMed (by means of MESH and text words), EMBASE, PsycINFO, Web of Science and CINAHL for studies regarding (1) disabled patients diagnosed before the age of 18 years and (2) factors of work participation. *Results* Out of 1,268 retrieved studies and 28 extended studies from references and four from experts, ten articles were included. Promoting factors are male gender, high educational level, age at survey, low depression scores, high dispositional optimism and high psychosocial functioning. Female and low educational level gives high odds of unemployment just like low IQ, inpatient treatment during follow up, epilepsy, motor impairment, wheelchair dependency, functional limitations, co-morbidity, physical disability and chronic health conditions combined with mental retardation. High dose cranial radiotherapy, type of cancer, and age of diagnosis also interfered with employment. *Conclusions* Of the promoting factors, education appeared to be important, and several physical obstructions were found to be hindering factors. The last mentioned factors can be influenced in contrast to for instance age and gender. However, to optimize work participation of this group of young disabled it is important to know the promoting or hindering influence for employment.

**Keywords** Young people · Disabled · Work participation · Factors

## Introduction

The World Health Organization (WHO) estimates that about 10% of the world population experiences some form of physical or mental disability. Of these approximately 650 million disabled people, 200 million are children. The number of disabled children is increasing due to population growth, increases in chronic diseases and medical advances that preserve and prolong life [1].

Disabled children experience barriers when they enter the labor market due to their physical or mental limitations, and many more of these starters are unemployed compared to non-disabled starters [2, 3]. A survey study in the USA found that 32% of people with disabilities were working, versus 81% of people without disabilities [4]. This, in turn, leads to a variety of economic, social and quality of life problems [5–8].

Although some of the disabled starters are unable to work in any way because of their limitations, others can and are willing to work. However, to gain employment when they reach working age, they need to be prepared for the labor market. If we can determine factors that help or hinder young disabled people in finding employment, we may be able to better assess their abilities, and thereby help them to prepare for the labor market.

Factors that influence work participation can be disease-related but also external and personal as notified by the WHO's international classification of functioning, disability and health (ICF) framework [9, 10]. This framework states that the functioning of an individual is not only influenced by factors related to a disease or disorder, and

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that external and personal factors can also have positive, promoting, or negative, hindering, influences [9].

Although there are studies on disability-causing diseases and return-to-work factors among adults [11], young disabled starters at the beginning of their vocational career may face other barriers. The factors found for disabled employed adults may not be the same as those for disabled starters. To find out if there are factors reported in the literature specific to young disabled at the beginning of their vocational career, we systematically reviewed the literature. We searched for factors that generally influence work participation and, therefore, we did not limit our search to specific diseases or disorders. We included all studies among disabled young people who had not yet entered the labor market when diagnosed, and those that explain the differences in work participation among them. In this review we addressed the question: what factors are reported that promote or hinder work participation of young disabled people?

## Method

### Search Strategy

For this review we extensively searched biomedical and psychological databases (PubMed, EMBASE, PsycINFO, Web of Science and CINAHL) through May 2008. We included studies that described factors influencing the work participation of young disabled people, using the keywords young disabled, work/employment and factors and their synonyms. No constraints on disease types were made. In [appendix](#), the synonyms and search strategy are listed. Inclusion criteria were:

1. Written in English, German or Dutch;
2. Abstract and full article available;
3. Description of young disabled persons;
  - a. Young disabled was defined as diagnosed with a disability before the age of 18 years.
  - b. Disabled was defined as persons with physical or mental disabilities that affect or limit their activities of daily living, and that may require special accommodations (Mesh PubMed).
4. Description of work or employment as outcome measure; and
5. Including factors predicting or associated with either employment or unemployment.

The reference lists of selected articles were hand-searched for additional references and experts were asked for relevant articles.

### Study Selection

At first, two authors (TA en HW) independently reviewed the title and the abstracts of the studies that were selected on the basis of the inclusion criteria. If the abstracts met the inclusion criteria we included these for full text selection. If there was any doubt about inclusion of the abstract by one of the authors, the study was included for full text selection. We reviewed the full text articles again, independently. In the case of disagreement on the inclusion of an article, a third reviewer (MF) was consulted.

### Data Extraction

From the included articles the following items were extracted: cause of disability; number participants in the study; age at diagnosis; gender; time since diagnosis or age at study; outcome measure; factors that had a significant influence on work participation; instruments used to measure these factors; and whether the factors had a positive or negative influence on work participation.

## Results

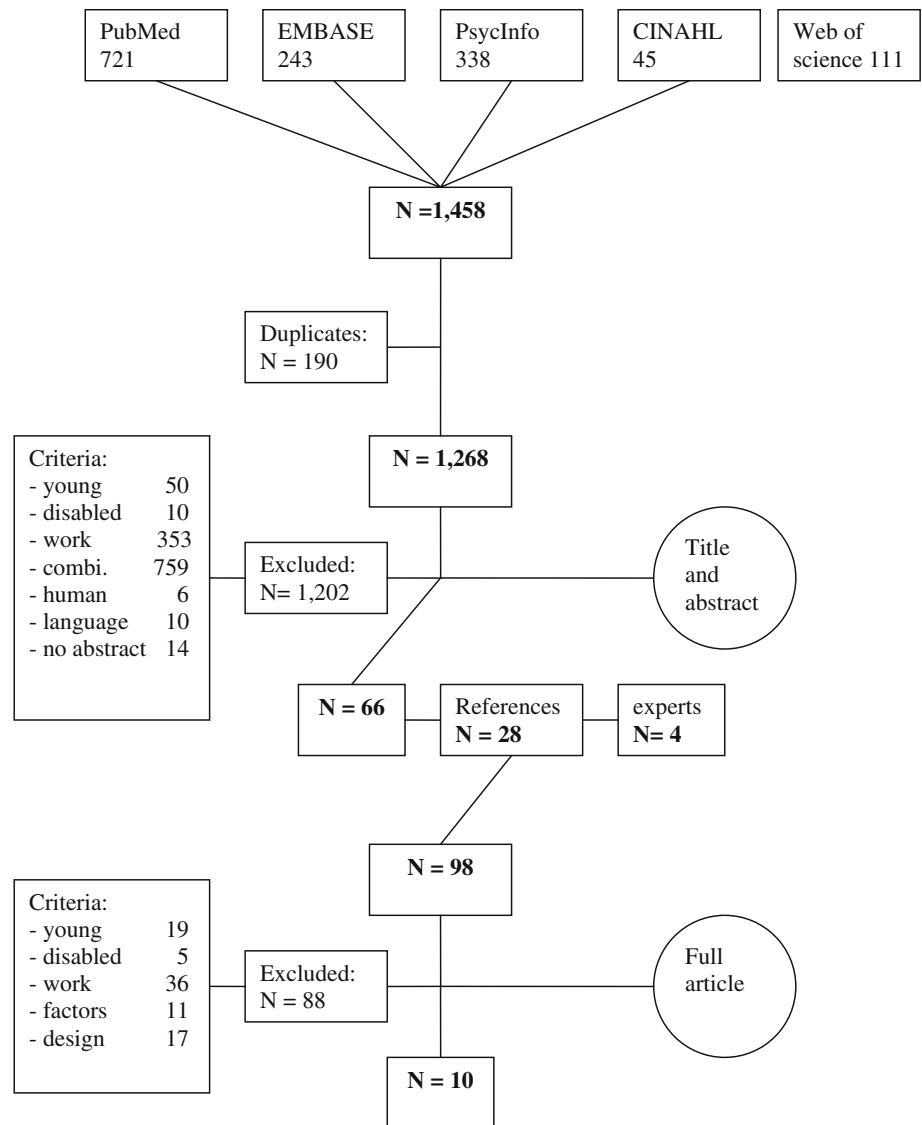
Our search resulted in 1,458 publications: 721 from PubMed, 243 from EMBASE, 338 from PsycINFO, 111 from Web of Science and 45 from CINAHL (see flowchart; [Fig. 1](#)). After removal of duplications, we reviewed 1,268 studies based on the abstract and inclusion criteria. Work as an outcome measurement, factors and study design was not always clearly described in the abstract ([Table 1](#)). Therefore, we first reviewed the abstracts on the criteria language, young, disabled and work. If the abstract met these criteria, we reviewed the full article. Using the criteria, we reviewed 66 full articles. The reference lists of these 66 articles led to an extension of 28 studies for which full texts were reviewed and four selected articles from experts [2, 12–14].

From these 98 articles, we excluded 19 studies in which the population was not diagnosed before the age of 18. In five studies it was not clear whether the population was disabled. In thirty-six studies work was not the outcome measure. In eleven studies there were no factors that explained the differences in outcome for employment. The seventeen studies with a case control design or descriptive design were excluded; the employment status of disabled young people was compared with healthy controls or siblings or the general population.

### Factors

We included ten studies. We found that gender was a promoting factor: males have a higher chance for

**Fig. 1** Flowchart of the number of studies from the different databases



employment [12, 13, 15, 16]. Educational level was a predictive factor for employment: not only a higher educational level reached by the young disabled was positively associated with employment [13, 15, 17, 18] but also a higher parental educational level [2]. A higher level of psychosocial functioning at treatment entry and after follow up was a positive predicting factor for employment [19] among young adults with a mental disorder. A lower age at time of survey was positively associated with employment [16] among survivors of cancer. Lower scores on a depression scale and higher level of dispositional optimism were promoting factors associated with employment in a study among adults with cystic fibrosis [13].

We found also hindering factors. Educational level and gender were found as hindering factors: primary or lower educational level was associated with lower odds of

employment compared with higher secondary or tertiary level [17, 18] and females had a lower chance for being employed compared with males. Inpatient treatment during follow up was a negative predicting factor for employment in the study among mental disordered young adults [19]. An IQ lower than 80 and epilepsy were hindering factors in a study among survivors of brain tumors [20]. Motor impairment, wheelchair use, functional limitations, comorbidity, physical disability and chronic health conditions combined with mental retardation or physical disabilities were hampering factors [2, 14, 17, 20]. The type of cancer, and cranial radiotherapy with more than 30 GY interfered with employment just as age under 3 years at diagnosis among survivors of cancer. Low mental health perception, denial coping strategy and dependent coping strategy were also found as impeding factors for employment [14, 18].

**Table 1** Characteristics of the studies included in terms of disability/disease, population, study design, outcome, instrument, factors and influence on or association with outcome

Author year of publication (reference number)	Disability/disease	Population	Study design	Outcome	Instrument	Factors	Prediction OR: (95% CI) <i>P</i> < 0.05 significant positive: more chance to be employed	Association OR: (95% CI) <i>P</i> < 0.05 significant positive: more chance to be employed
Pelkonen et al. [19]	Mental disorder	<i>n</i> : 55 <i>a</i> : <i>m</i> = 15.5 (12–21) <i>a</i> : <i>f</i> = 15.2 (11–21) <i>g</i> : <i>f</i> = 22 (40%) <i>t</i> : 20.1 (17–22)	Follow up	Being on a disability pension versus being employed	At beginning and end of treatment, and at 7 years of follow up: level of psychosocial functioning: GAS 1–10. At 7 years follow up: semi structured interviews	Inpatient treatment at follow up GAS score at treatment entry and 7 years follow up	Negative: inpatient treatment during follow up: OR 1.5 (:2.8–80) Positive: higher GAS at treatment entry: GAS 3.2 versus 2.5 <i>P</i> = 0.001 (2.64–3.18) higher GAS score at 7 years follow up: GAS 7.3 versus 4.1; <i>P</i> < 0.001 4.86–6.16)	
Macedoni et al. [20]	Brain tumor	<i>n</i> : 61 <i>a</i> : 9 (1–16) <i>g</i> : <i>f</i> = 20 (33%) <i>t</i> : 15 (5–28)	Follow up	Employment: <i>n</i> : 46, only those finished school	IQ: Wechsler Bellevue Intelligence Test: Score < 80 = subnormal intelligence -Motor impairment: physical and neurological examination: non = normal neurological status or mild dysfunction of brains mild = mild hemiparesis or ataxia, palsy or brain nerves moderate = moderate hemiparesis or ataxia. severe = inability to walk due to severe truncal ataxia or severe hemiparesis. -Epilepsy: ongoing seizures and/or anticonvulsant therapy	IQ motor impairment epilepsy	Negative: IQ < 80 ( <i>P</i> = 0.005) motor impairment: mild to severe ( <i>P</i> = 0.024) epilepsy ( <i>P</i> = 0.029)	

**Table 1** continued

Author year of publication (reference number)	Disability/disease	Population	Study design	Outcome	Instrument	Factors	Prediction OR: (95% CI) <i>P</i> < 0.05 significant positive: more chance to be employed	Association OR: (95% CI) <i>P</i> < 0.05 significant positive: more chance to be employed
Nagarajan et al. [15]	Lower extremity bone tumors	<i>n</i> : 694 <i>a</i> : 13.5 (3–20) <i>g</i> : <i>f</i> = 341 (49%) <i>t</i> > 5 years (client at least 18 years)	Follow up	Employment: worked last year	Questionnaire	Gender, educational status: high school versus no high school college versus no college	Positive: male: OR: 2.1 (1.39–3.26) <i>P</i> < 0.001 high school OR: 5.2 (95% CI 2.57–0.58) <sup>a</sup> <i>P</i> < 0.005 college graduate OR: 3.9 (2.30–6.55) <i>P</i> < 0.005	
Valtonen et al. [17]	Meningo-myelocoele	<i>n</i> : 48 <i>a</i> : 0 <i>g</i> : <i>f</i> = 23 (48%) <i>a</i> <sup>2</sup> : 30.2 (19.6–50.5)	Cross sectional	Current employment (including wage supplements from government and studying), or unemployed (including sheltered work)	Questionnaire, self reported functional measure (SRFM)	Use of wheelchair, SRFM, education level reached	Negative: wheelchair <i>n</i> = 30 (63%) versus non-wheelchair <i>n</i> = 18(37%) OR: 9.14 (1.01–82.44) SFRM ≤ 46 <i>n</i> = 21(46%) versus, SFRM > 46 <i>n</i> = 25 (54%) OR: 10.50 (2.58–42.68) education level: primary level <i>n</i> = 6 (13%) versus secondary level <i>n</i> = 32 (68%) or tertiary level <i>n</i> = 9 (19%). OR: 40 (2.01–749.27)	

Table 1 continued

Author year of publication (reference number)	Disability/disease	Population	Study design	Outcome	Instrument	Factors	Prediction OR: (95% CI) $P < 0.05$ significant positive: more chance to be employed	Association OR: (95% CI) $P < 0.05$ significant positive: more chance to be employed
Pang et al. [16]	Childhood cancer	$n$ : 10,399 $a$ : 10.0 (0–21.0) $g$ : $f = 4,536$ (44%) $a^2$ : 26.0 (18–48)	Cross sectional	Employed within the previous 12 months, having been employed ever or never having been employed	Self reported questionnaires, medical records	Age, gender, age at diagnosis, cranial radiotherapy dose, type of cancer	Never been employed versus employed positive: age at survey OR: 0.89/year (0.87–0.91) negative: female gender OR: 1.4 (1.1–1.7), age at diagnosis 0–3 years versus $\geq 4$ years OR: 1.4 (1.1–1.8) type of cancer: CNS versus all others: OR: 1.5 (1.1–2.1), bone versus all others: OR: 1.5 (1.0–2.1), cranial radiotherapy doses $\geq 30$ Gy: versus 0–29 Gy: cranial radiotherapy OR: 4.0 (2.9–4.5)	Association OR: (95% CI) $P < 0.05$ significant positive: more chance to be employed
Groothoff et al. [14]	End-stage renal disease	$n$ : 144 $a$ : 10.9 ( $\pm 2.8$ ) $g$ : $f = 68$ (45%) $a^2$ : 29.3 (20.7–41.8)	Cross sectional	Unemployment: $< 20\%$ of time spending on paid work and not attending a full scholarship; homemaking defined as employment	Medical charts RAND-36 survey, questionnaire	Co-morbidity, mental health perception	Negative; co-morbidity: OR: 2.3 (1.0–5.3) low mental health perception OR: 4.1 (1.5–11.1)	Association OR: (95% CI) $P < 0.05$ significant positive: more chance to be employed
Broyer et al. [12]	Kidney transplantation in childhood	$n$ : 233 $a$ : 9.9 ( $\pm 6.0$ ) $g$ : $f = 89$ (38%) $a^2$ : 31.7 ( $\pm 4.0$ )	Cross sectional	Present activity: fulltime employed, part time employed, pensioned or other	Questionnaire height	Gender, height (mean height male = 156 $\pm 9.4$ cm ( $= -3$ SD) female = 147.7 $\pm 8.7$ cm ( $= -2.5$ SD) compared with height of the national population)	Full time versus part time employed: negative: female $n = 89$ versus male $n = 144$ less full time activity: $P = 0.04$ height: $-2.5$ SD compared with mean population. $P = 0.02$	Association OR: (95% CI) $P < 0.05$ significant positive: more chance to be employed

**Table 1** continued

Author year of publication (reference number)	Disability/disease	Population	Study design	Outcome	Instrument	Factors	Prediction OR: (95% CI) <i>P</i> < 0.05 significant positive: more chance to be employed	Association OR: (95% CI) <i>P</i> < 0.05 significant positive: more chance to be employed
Burker et al. [13]	Adults with cystic fibrosis	<i>n</i> : 183 <i>a</i> : – <i>g</i> : <i>f</i> = 91 (50%) <i>a</i> <sup>2</sup> : working 28.6 (SD 7.3) not working 27.7 (SD 8.1)	Cross sectional	Currently work, work in- or outside home, Hours worked per week	Questionnaires, Spielberg state trait anxiety Inventory (STAI): higher scores = higher levels of anxiety Beck depression inventory (BDI): higher scores = more depressive symptoms Life orientation test (LOT) measuring dispositional optimism: higher scores = higher dispositional optimism	Working versus not working: BDI, education level Hours worked per week: BDI, educational level, gender	<i>P</i> < 0.05 significant positive: more chance to be employed	Currently working versus not working: positive: lower BDI, <i>P</i> < 0.001 higher educational level, <i>P</i> < 0.03 hours worked per week: negative: higher BDI, <i>P</i> = 0.001 positive: higher level dispositional optimism, <i>P</i> = 0.009, higher educational level, <i>P</i> = 0.0099, gender: male (20.65 hours per week) versus female (10.9 hours per week), <i>P</i> = 0.002
Packham et al. [18]	Juvenile arthritis	<i>n</i> : 246 <i>a</i> : 7.1 (0.8–15.9) <i>g</i> : <i>f</i> = 176 (72%) <i>a</i> <sup>2</sup> : 35.4 (18–71)	Cross sectional	Employment	Interview, health assessment questionnaire (HAQ), London coping with rheumatoid arthritis scale	Educational level, physical ability, denial coping strategy, dependent denial coping strategy	<i>P</i> < 0.05 significant positive: more chance to be employed	Negative; lower educational level, <i>P</i> < 0.001 physical disability, <i>P</i> < 0.001, denial coping strategy <i>P</i> < 0.001, dependent coping strategy <i>P</i> < 0.001



Table 1 continued

Author year of publication (reference number)	Disability/disease	Population	Study design	Outcome	Instrument	Factors	Prediction OR: (95% CI) $P < 0.05$ significant positive: more chance to be employed	Association OR: (95% CI) $P < 0.05$ significant positive: more chance to be employed
Ireys et al. [2]	Youth with chronic diseases learning disability, physical disability, and mental retardation.	$n$ : 421 at: – $g$ : $f = 213$ (51%) $a^2$ : 21.9 (SD = 1.4)	Cross sectional	Employment, idleness: not being at school, not married, not living in a household with family members <6 years	Telephone interview	Parental educational level, chronic health condition and mental retardation, chronic health condition and physical disabilities	Positive: more chance to be employed $P < 0.05$ significant positive: more chance to be employed	Positive: more chance to be employed $P < 0.05$ significant positive: more chance to be employed
						chronic health condition and physical disabilities $n = 89$ versus chronic health condition alone $n = 257$ : OR: 0.18, $P \leq 0.001$  chronic health condition and physical disabilities $n = 89$ versus chronic health condition alone $n = 257$ : OR: 0.26, $P \leq 0.001$ .  chronic health condition and physical disabilities $n = 89$ versus chronic health condition alone $n = 257$ : OR: 0.18, $P \leq 0.001$  Idleness: negative: chronic health condition and mental retardation $n = 75$ versus chronic health condition alone $n = 257$ , OR: 4.23, $P \leq 0.001$  chronic health condition and physical disabilities $n = 89$ versus chronic health conditions alone $n = 257$ OR: 3.28, $P \leq 0.001$		

$n$  number of patients under study

$a$  mean age at diagnose/onset (range)

$g$  gender,  $m$  male,  $f$  female (% female)

$t$  time of follow up in years (range)

$a^2$  age at time of study (range)

GrAS global assessment scale

<sup>a</sup> Is incorrect reproduced in the original article

## Discussion

Our extensive literature study shows that there is little written about factors influencing the work participation of young disabled starters entering the labor market. We found that gender, education, high psychosocial level of functioning, low depression and high dispositional optimism were promoting factors in relation to employment. Some of these factors, like gender, education and psychosocial functioning have more impact since they were found in longitudinal studies. On the other hand, we also found several hindering factors in relation to employment among this group of young disabled. For instance, motor impairment, physical ability, co-morbidity, epilepsy, IQ lower than 80, inpatient treatment during follow up, depending and denial coping strategy and age at diagnosis and radiation grade in cancer survivors appeared to be related to negative employment outcome. Of these factors motor impairment, epilepsy, low IQ and inpatient treatment during follow up were found in longitudinal studies and therefore deserve more attention.

Although we preformed a broad-based search, the number of included studies was limited. Our search, however, was performed with a lot of synonyms and without constraints on type of disease. From the abstracts found, it was often not clear whether the study had work participation as outcome measure and/or the study design was not clear. Therefore, a great number of full articles were reviewed. However, even with this broad-based search, we only found a few articles that met all of our inclusion criteria.

There are a number of explanations that could be responsible for the low number of found studies. In clinical studies among young people work was not included as outcome measure. More often, the focus of research was on the results of medical treatment, tests to diagnose a disease, mortality or morbidity. Studies beyond treatment focused more on physical impairment, rehabilitation or educational achievement [21–23]. The fact that the patients have often not yet entered the labor market could be responsible for this lack of studies with work as a measurement outcome. However, these starters are at the very beginning of their vocational career, and if they do not enter the labor market at this point, their entire working lives could be lost. By identifying the factors that influence their work participation, a better match between work ability and work demand can be found and, if necessary, supporting interventions can be developed.

Another reason for the scarcity of included studies could be that in some studies, which used work participation as an outcome, factors were lacking that explained the differences in outcome among disabled young people [22, 23]. These studies concluded that there was more unemployment among disabled compared with healthy controls

or general population without further elucidation. However, such a conclusion does only partly contribute to a better insight on what factors among young disabled people determine work participation.

In a number of studies [7, 23], there were discussions about whether or not disability was still present. In these studies, there had been a serious disease during childhood but the patients survived and recovered, and were declared physically fit/healthy. The focus of our search was on factors among disabled young people, and survivors in these studies were excluded if there was no description of disability anymore. Therefore, the survivors could not be seen as disabled in the way that we defined disabled: persons with physical or mental disabilities that affect or limit the activities of daily living and that may require special accommodations. Still, it seems that having a serious disease during childhood leads to a greater risk of unemployment, compared to healthy young people [7, 22, 23]. In other studies the focus was more on the disease instead of the limitations in work participation as result of the disease although work participation was an outcome measure. These studies were not found with our search but via references and experts.

Because we found only a few studies with prognostic factors, we did not apply quality criteria. The predicting factors found in our review were also found in other studies focussing on the predicting factors of work participation of patient groups, not specially diagnosed before the age of 18. For instance, use of hospital cure during follow-up as well as gender and education were found to be predicting employment in studies among adults [24, 25]. Also several cross-sectional studies among adults showed similar results as we found in studies among young disabled influencing work participation, like psychosocial factors such as passive coping style [11, 26, 27], severe mental illness [27] and disabilities in general [11]. It is an indication that these factors might be negatively influencing employment not only among young disabled, but also among adults. Whether there is a causal relation between these factors and employment would be interesting to know. The results show personal factors and disease related factors that decrease activities and that impair and restrict the young disabled in work participation such as age, gender, education and coping style as personal and treatment, physical ability and co-morbidity as disease related factors. In our study among young disabled we did not find external factors, such as support of management and colleagues and adequate work conditions that were found in studies among adult employees [28]. However, it can be imagined that these factors are of great importance in keeping the young disabled employed.

Some of the factors found in this study are not changeable, such as age or IQ, but other factors can be influenced. When for instance education is found to be an

important promoting factor for employment, attention can be given to the opportunities for education for disabled young persons. On the other hand, by knowing what hindering factors exist for employment of young disabled effort can be put in avoiding these factors. Adapting workplaces might be a solution to overcome obstacles for employment due to motor impairments, wheelchair use, and other physical disabilities. Knowing the promoting and hindering factors can lead to appropriate support or intervention for the disabled starter, which could result in higher work participation and lower the barriers they experience. It is worthwhile to create adequate work places for young people with disabilities in order to give them a fulfilling life and this starts by knowing what the promoting and/or hindering factors are in relation to work participation for this population.

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## Appendix

See Table 2.

**Table 2** Search history

Search history Pubmed

1. “Young adult”
2. Student
3. Adolescent
4. “Young person”
5. “Young people”
6. Youngst\*
7. 1 or 2 or 3 or 4 or 5 or 6
8. Disabled
9. Handicap\*
10. Impair\*
11. Retard\*
12. Pervasive
13. Disorder
14. 8 or 9 or 10 or 11 or 12 or 13
15. 7 and 14
16. Employment
17. Employ\*
18. Unemploy\*
19. Participation
20. Work

**Table 2** continued

21. Occupation\*
22. “Return to work”
23. “School to work”
24. Vocation\*
25. Career
26. Trade
27. Profession\*
28. Labor or labour
29. Job
30. 16 or 17 or 18 or ..... or 26 or 27 or 29
31. 30 and 15
32. Factor
33. Factors
34. Hinder\*
35. Imped\*
36. Hamper\*
37. Promot\*
38. Stimula\*
39. Encourag\*
40. Motivation\*
41. Prognos\*
42. 32 or 33
43. 34 or 35 or 36 or .....or 39 or 40 or 41
44. 42 and 43
45. 44 and 31

Search history EMBASE

1. Adolescent
2. Young
3. “Young person”
4. “Young people”
5. Youngs\$
6. “Young person”
7. “Young persons”
8. 1 or 2 or 3 or .....or 5 or 6 or 7
9. Disabled
10. Disab\$
11. Handicap\$
12. Impair\$
13. Retard\$
14. Pervasive\$
15. Disorder
16. 9 or 10 or 11 or .....or 13 or 14 or 15
17. 8 and 16
18. Employ\$
19. Unemployment
20. Participation
21. Work
22. Occupation\$
23. “Return to work”

**Table 2** continued

- 27. Career
- 28. Trade
- 29. Profession\*
- 30. Labor
- 31. Labour
- 32. Job
- 33. 19 or 20 or 21 or.....or 30 or 31 or 32
- 34. 33 and 18
- 35. Factor\*
- 36. Hinder\*
- 37. Imped\*
- 38. Hamper\*
- 39. Promot\*
- 40. Stimula\*
- 41. Encourage\*
- 42. Motivation\*
- 43. Prognostic\*
- 44. 36 or 37 or 38 or.....or 41 or 42 or 43
- 45. 44 and 35
- 46. 45 and 34

Search history CINAHL

Limits: keywords in title and abstract.

- 1. Student
- 2. Adolescent
- 3. Young person\*
- 4. “Young people”
- 5. Youngs\*
- 6. “Young person”
- 7. 1 or 2 or 3 or 4 or 5 or 6
- 8. Disabled
- 9. Handicap\*
- 10. Disab\*
- 11. Impair\*
- 12. Retard\*
- 13. Pervasive\*
- 14. Disorder
- 15. 8 or 9 or 10 or.....or 12 or 13 or 14
- 16. 7 and 15
- 17. Employ\*
- 18. Unemploy\*
- 19. Participation
- 20. Work
- 21. Occupation\*
- 22. “Return to work”
- 23. “School to work”
- 24. Vocation\*
- 25. Career
- 26. Trade
- 27. Profession\*

**Table 2** continued

- 24. “School to work”
- 25. Vocation\$
- 26. Career
- 27. Trade
- 28. Profession\$
- 29. Labor
- 30. Labour
- 31. Job
- 32. 18 or 19 or 20 or.....or 29 or 30 or 31
- 33. 32 and 17
- 34. Factor\$
- 35. Hinder\$
- 36. Imped\$
- 37. Hamper\$
- 38. Promot\$
- 39. Stimulat\$
- 40. Encourage\$
- 41. Motivation\$
- 42. Prognostic\$
- 43. 35 or 36 or 37 .....or 40 or 41 or 42
- 44. 43 and 34
- 45. 44 and 33

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- 1. Student\*
- 2. Adolescent\*
- 3. “Young person”
- 4. “Young people”
- 5. Youngs\*
- 6. “Young adult”
- 7. “Young adults”
- 8. “Young person”
- 9. “Young persons”
- 10. 1 or 2 or 3 or.....or 7 or 8 or 9
- 11. Disab\*
- 12. Handicap\*
- 13. Impair\*
- 14. Retard\*
- 15. Pervasive\*
- 16. Disorder
- 17. 11 or 12 or 13 or 14 or 15 or 16
- 18. 10 and 17
- 19. Employ\*
- 20. Unemploy\*
- 21. Participation
- 22. Work
- 23. Occupation\*
- 24. “Return to work”
- 25. “School to work”
- 26. Vocation\*

**Table 2** continued

28. Labor
29. Labour
30. Job
31. 17 or 18 or 19 or..... or 28 or 29 or 30
32. 31 and 16
33. Factor*
34. Hinder*
35. Imped*
36. Hamper*
37. Promot*
38. Stimula*
39. Encourag*
40. Motivation*
41. Prognos*
42. 34 or 35 or 36 or.....or 39 or 40 or 41
43. 42 and 33
44. 43 and 32

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1. Student
2. Adolescent
3. Young person*
4. “Young people
5. youngs*
6. “Young person”
7. “young adult”
8. 1 or 2 or 3 or .....or 5 or 6 or 7
9. Handicap*
10. Disab*
11. Impair*
12. Retard*
13. Pervasive*
14. Disorder
15. 9 or 10 or 11 or 12 or 13 or 14
16. 8 and 15
17. Employ*
18. Unemploy*
19. Participation
20. Work
21. Occupation*
22. “Return to work”
23. “School to work”
24. Vocation*
25. Career
26. Trade
27. Profession*
28. Labor
29. Labour
30. Job
31. 17 or 18 or 19 or.....or 28 or 29 or 30

**Table 2** continued

32. 31 and 16
33. Factor*
34. Hinder*
35. Imped*
36. Hamper*
37. Promot*
38. Stimula*
39. Encourage*
40. Motivation*
41. Prognostic*
42. 34 or 35 or 36 or.....or 39 or 40 or 41
43. 42 and 33
44. 43 and 32

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