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Is transition support a hurdle to getting a job?

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This article investigates the impact of school to work transition support for young disabled adults. We specifically examine the claims of what we have termed the 'hurdle theory' of transition support, which dominates Norwegian disability research. The fundamental assumption of this theory is that there is a negative relationship between transition support and employment outcomes. We use a cross-sectional sample of 245 young disabled Norwegian adults to examine this assumption, and find that transition support in the form of labour market programme (LMP) participation is negatively associated with employment outcomes, even when we control for other significant background variables. However, due to limits in our data and the non-arbitrary nature of transition support, we cannot rule out that there might be other explanatory variables that account for this association. Therefore, we also point to other potential explanations of the negative association and research designs better suited to investigate these claims.

Keywords: disability; employment; transition; transition support; welfare services

Introduction

Data on post-educational outcomes of young adults show that disabled youth are less likely to find a job and more likely to end up on benefits than their non-disabled counterparts (Barnes and Mercer 2005, 533; Burkhauser and Stapleton 2004, 188; Legard 2013, Chapter 3). The period of transition from adolescence to adult life is considered to be critical for later employment outcomes (Båtevik and Myklebust 2006; Stewart et al. 2011; Myklebust 2012; Winn and Hay 2009; Vedeler and Mossige 2010), which has resulted in increased attention among researchers, policy-makers and social workers to develop services that can ease the transition for young disabled adults (OECD 2011; While et al. 2004; Pandey and Agarwal 2013). Some countries have established support services in upper secondary or tertiary institutions that are specifically targeted at preparing or assisting students with impairments and long-term illnesses in getting a job (OECD 2011, 31–33). Other countries, such as Norway, have provided additional funding to pre-existing support schemes for young disabled adults outside the education sector, or attempted to improve public service delivery chains during transitions from school to work (Legard 2013, Chapter 5).

The underlying assumption behind these policies is that support services may help fill a void in the support system between education and employment. When filled with the

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proper type of interventions the gap will be traversed, and the post-educational prospects of young disabled adults will improve. We call this the *bridge theory* of transition support. On the other side of the analytical spectrum, we find the view that transition services are not sufficient for overcoming the difficulties facing young disabled adults entering the labour market. Instead of closing the gap, support programmes may be an obstacle on the pathway to adulthood, and consequently sustain or even worsen the situation of the service recipients. We call this the *hurdle theory* of transition support. The latter perspective pervades the Norwegian research on transitions for young disabled adults (Anvik 2006; Berge 2007; Berge and Lorentsen 2009; Nordrik 2008; Vedeler 2009; Vedeler and Mossige 2010). By contrast, this literature is almost entirely based on qualitative data, and due to its limited scope of data, it risks only voicing certain types of narratives or overlooking crucial variables. The main aim of this article is therefore to use a cross-sectional survey of 245 young disabled Norwegians to examine how well the hurdle theory of transition support explains the relationship between transition support and employment outcomes:

- Is transition support negatively associated with employment outcomes for young disabled adults as predicted by the hurdle theory, or is the predicted negative association spurious and explained by other background variables?
- What are the limits and possibilities in using cross-sectional data to test the hurdle theory of transition support, and are there alternative explanations for the predicted negative association between transition support and employment outcomes that are not being accounted for?

Two theories of transition support

The concept of 'theory' can be understood in a variety of ways. In this article, we use 'theory' as an *explanation* of the relationship between two or more variables. By explanation, we mean not only the identification of a relationship between variables, but also an account of the 'factors', 'conditions' or 'mechanisms' that cause this relationship (Abend 2008, 178). A challenge in the field we are engaging with here is that assumptions about such 'factors', 'conditions' or 'mechanisms' are normally not spelled out as 'theories'. Instead they are implicitly contained in empirical accounts of experiences with transition support, descriptions of success factors, etc. Therefore, what we have done in this article is to construct the bridge and the hurdle theory by joining together common assumptions about the relationship between transition support and employment outcomes found in the literature.

The bridge theory is prevalent in policy documents, thus justifying the implementation of transition initiatives. Norwegian policy documents describe the transition from school to work for disabled students as being critical due to the *absence* of bridging measures, and then primarily a lack of cooperation between upper secondary schools/colleges/universities and employment and welfare services. Implicit in this problem description is the assumption that disabled students – at least those with extensive needs for accommodations – require planned and coordinated support from public services to find a job (or Report to the Storting No. 40 2002–2003, Chapter 5, see Report to the Storting No. 9 2006–2007, Chapter 11). One finds similar notions in studies that focus on identifying effective transition services or comparing different interventions (see, for example, Stewart et al. 2011; Stewart et al. 2006; Algozzine et al. 2001; Achterberg et al. 2009; Shandra and Hogan 2008). In a central literature review in the rehabilitation field,

the authors open with the statement that the successful transition of many disabled students depends on a coordinated support from the family and community (including public or private services), both because of the numerous barriers they face on their transition to work and because of the disproportionally scarce and fragmented character of the support system for adults compared to that for disabled students (Stewart et al. 2006, 6). Successful support services are identified as those who teach their recipients skills such as self-advocacy, goal setting and goal attainment, self-awareness, problem-solving and decision-making (Stewart et al. 2006, 14).

The hurdle theory does not contest the notion that certain types of transition support might improve employment outcomes for young disabled adults per se, but it maintains that the *actual practice* of such support tends to be unrewarding for its recipients. Paradoxically, services that are supposed to assist people in their transition to employment are factors that intensify, rather than mitigate, processes of marginalization (Anvik 2006; Berge 2007; Berge and Lorentsen 2009; Nordrik 2008; Vedeler 2009; Vedeler and Mossige 2010). In Nordrik's (2008) study of young disabled adults' departure from the labour market, the interviewees recount how their self-esteem and belief in future career opportunities were weakened in encounters with case officers and social workers. Where the interviewees had experienced insufficient support or accommodation in the workplace, or were pressured to quit by a manager or colleague, their ostracism was further reinforced by insufficient support from public authorities. Berge (2007), who followed a group of young adults with visual impairments after upper secondary school, paints a similar picture of support services as an obstacle. Many of his respondents felt that their case-officers at the employment office had little faith that people with visual impairments could work at all, and that it was more important to sign them into any programme than finding help that could match their interests, goals and preconditions (Berge 2007, 10).

Three characteristics of the support system are singled out as the main reasons for its negative outcomes. The first is stereotypic perceptions of disability and career opportunities among service providers. In Anvik's study (2006), narratives of restrictive notions of what young disabled adults are and not able to do dominate the interviewees' experiences of encounters with the support apparatus. Although many of the interviewees tell that they have experienced similar attitudes from parents, teachers and doctors since early childhood, the strain of having to fight to insist and convince others that they are capable of working is felt most strongly when they meet public agencies that manage both economic benefits and support services (Anvik 2006, 63–64).

The second characteristic is one-size-fits-all support programmes that are not tailored to individual preconditions, needs and desires. The public support apparatus tends to offer standardized solutions – such as group-based employment support programmes – to individuals. Because of their collective nature, these programmes often collide with the individual's preconditions, needs and desires. The result of this is that the young adults get stuck in programmes and 'temporary solutions that do not correspond with the long-term ambition of increasing the chances of the young adults to find a job they are qualified for or wish to qualify for' (Anvik 2006, 59). Hence, the programmes are experienced as 'demoralizing' and 'degrading'.

The third characteristic singled out is the late and insufficient delivery of services, which has the tendency of disproportionally affecting persons with severe impairments or illnesses. As Vedeler and Mossige write, 'persons with severe disabilities tend to rely on more support, such as personal assistance or home care, to be active participants in

society. Consequently, they are more vulnerable, for instance, to the lack of timeliness of services' (2010, 257). Such experiences frequently occur in what Vedeler and Mossige call 'barrier-prone' narratives, in which service providers act as gatekeepers that 'impede and delay the rendering of services to support the interviewees' aspirations of becoming employed' (2010, 268).

One can look at these deficiencies in the support system in two ways. From the standpoint of bridge theory, one will look at them as problems that should and could be remedied by better services. On the other hand, from the perspective of hurdle theory, they are expressions of inherent *mechanisms* in the support system itself. First, the release of public resources is dependent on an individual's injuries or deficiencies. While a diagnosis of injuries or deficiencies gives young adults access to transition support, it simultaneously discredits them in the eyes of the case workers who have to define their work capacity as inferior in order to provide them with support. This creates a difficult negotiation situation for young disabled adults, who simultaneously not only have to convince the case workers that they are in need of support, but also able to pursue the career that they desire (Anvik 2006, 56). The second mechanism is tied to the funding of public services. Since states in capitalist societies will typically prioritise investing in people who are most likely to give the highest return to the economy, they tend to invest less in services that might lead to the employment of disabled people. Thus, in comparison to the need for individually tailored and comprehensive support, and swift and seamless service delivery, transition support for young disabled adults is chronically underfunded (Vedeler 2009). Since individually tailored services require much more personnel than group-based programmes, support schemes tend to be collective rather than individual, and since the delivery of adequate services (such as technical aids) at the right moment during transitions is extremely costly, it tends to always be slower and less adequate than necessary.

Narrowing down the analysis

Theoretical perspective

In this article we have chosen to only concentrate on hurdle theory, which is basically related to the type of data we have at hand. First of all, because we are using a cross-sectional data-set, we are not able to test bridge and hurdle theory against each other. Testing the assumptions of bridge theory would require a (preferably longitudinal) data-set with a high number of observations, in which it would be possible to construct both a treatment and control group for the intervention. Second, cross-sectional data is better suited to test for spurious correlations between variables that are thought to be causally related in one of the theories. Since it is logical to assume that recipients of transition support are employed to a lesser degree than other young disabled adults (support recipients are likely to be more in need of assistance in the first place), the most interesting question we can ask with the available data is whether this negative correlation, which is predicted by hurdle theory, is explained by other variables or not.

Type of support

We have also chosen to narrow down the type of transition support we are looking at. In the literature, the term 'transition' is normally either used to describe a long continuum of events from adolescence to adulthood, or a shorter sequence of events from the time (t_1) an individual leaves school/college/university to the time (t_2) he or she earns a living

through paid work or through receiving public benefits (or a combination of the two). In this article, we look at support during the short transition. Furthermore, we distinguish between *indirect* and *direct* transition support. Indirect transition support encompasses the type of support meant to facilitate the employment of either young or disabled people in general, and which could also benefit young disabled adults seeking employment, such as vocational training during education, technical working aids, transportation, medical treatment and rehabilitation, home services, etc. By contrast, direct transition support is the type of support specifically targeted at assisting young people into employment once they finish their education. This includes support from educational institutions, particularly career counselling and to a certain degree networking with employers and support from public or private service providers; this also includes career counselling and networking, alongside vocational training, self-awareness and self-advocacy courses, internships, wage subsidies and more, as well as support from family and friends such as counselling, networking, moral support and more. In this article, we concern ourselves with direct transition support.

It is also important to distinguish between *ordinary* and *special* direct transition support. By ordinary support, we mean direct transition support that is available for most young adults, which includes support from teachers, career counsellors, family and friends. This type of support is provided to everyone regardless of the prospects of finding a job. On the other hand, special support is given to those who are thought to encounter specific challenges related to their mental, physical or cognitive impairment/illness. For example, some educational institutions have counsellors who have been trained in career counselling for students with 'special needs', such as the provision of technical aids, accommodations at work and economic benefits for disabled employees. Special support could also possibly be offered from the local offices of the national labour and welfare administration (NAV). These offices might provide individual career guidance, group-based measures such as self-awareness, vocational and job-seeking courses, practical assistance in the form of vocational training in workshops, internships in public or private enterprises, in addition to employment programmes that involve personal support or wage subsidies to potential employers.

In our analysis, we have chosen to make a further division of the special support category – special support and labour market programmes (LMPs). The reason for this is that special support from NAV in the form of counselling or minor courses may be available for students when they are about to finish their education and are ready to search for a job. Participation in LMPs, i.e. courses of a longer duration, vocational training, internships, personal support and wage subsidies, requires that the individual has gone through extended periods of unemployment or rehabilitation to qualify for support.

Data

The data in this study are taken from a 2009 survey in Norway conducted by the *Work Research Institute* (AFI). The respondents were drawn from TNS Gallup's web panel consisting of approximately 16,000 active members in the age group from 19 to 35. The sample was drawn to ensure gender, age, geographic and socio-demographic representativeness, and panel members with self-reported impairments or long-term illnesses were recruited to participate in the survey. In order to compose the sample of our analysis, we have used a *relational* definition of disability. According to Tøssebro, this relational view defines 'disability as a mismatch between the person's capabilities and the functional demands of the environment' (2004, 4). Our sample therefore consists of individuals who

both report to have one or more chronic mental, physical or cognitive impairment/illness, *and* who have experienced moderate or major limitations in everyday life (work, studies, home and family life, etc.) due to this impairment/illness.

The definition and selection procedure was adopted from the living conditions survey of *Statistics Norway* from 2007 (LCS07). The reason for doing so was to be able to assess the reliability of our data, and compared to the LCS07, we know of a few imbalances in our sample. We have an overrepresentation of students and women, and an underrepresentation of unemployed and young adults on disability benefits (Bjerkan and Veenstra 2008). This difference is probably explained by differences in the recruitment criteria: Because the primary purpose of this study was to assess whether transition support is negatively associated with employment *after* education, we only selected respondents who had completed all or most of their upper secondary education. According to Borg (2008, 88), disabled people who have completed upper secondary education are more likely to wind up in employment than those who have only completed a lower secondary education. The estimated employment probabilities, and even the estimated effects of receiving transition support, could therefore be different if we added young disabled adults with a lower educational level. Moreover, due to the technologies used in creating the Web panel, we also believe that people with severe visual and hearing impairments are underrepresented in our sample. A final source of uncertainty is that we are not accurately able to decide the time of acquired impairment or illness for approximately one-third of our sample, as some might not have been disabled at the point of finishing their education, although we do not know how many.

Variables and method

Dependent variable

Since the aim of this article is to assess how transition support is associated with post-education employment outcomes, our dependent variable is a dichotomous employment vs. non-employment variable. Through the use of the term ordinary employment, we mean full- or part-time competitive work paid by a private or public employer – not employment that is subsidized by the state as part of a support scheme. The non-employment category comprises individuals who are unemployed, on a disability pension, active at a community day centre, in subsidized employment or in a non-defined activity.

In terms of measuring post-education outcomes, our dependent variable is not unproblematic. In general, young adults who are unemployed are more likely to return to work than remain outside the labour market (OECD 2008, 117–118). There are also important differences between those who are employed – salary levels, working hours, type of contract, etc. – which is often correlated with the quality of the transition (Legard 2013, 11). Nevertheless, we believe employment vs. non-employment is a *clear* indicator – albeit not the only one – of 'successful' transitions from school to work. Most of the non-employed in our sample are on disability benefits, which imply a permanent exclusion from work life. Subsidized employment is normally conditioned by previous periods of unemployment and/or sick leave, which also implies a long-term process of marginalization. Disabled youth are also less likely to return to work after periods of unemployment (Bjerkan, Veenstra, and Eriksen 2009). In this case, alternative categorisations such as full- vs. part-time work or average pay vs. low pay would be less precise indicators of successful transitions since young adults generally move in and

out of work, travel, studies and leisure activities. Part-time, insecure and low-paid work for shorter periods do not necessarily lead to long-term non-employment (OECD 2010, Chapter 3).

Independent variables

The independent variables in this analysis are divided into two sets: (1) background variables, and (2) transition support variables, with the variables and their values all listed in Table 1. All are dichotomous, except for age, which is used as a continuous variable in the regression analysis. In the following, we describe the variables, some reliability issues and the reasons why they are included in the analysis as control variables for the predicted negative outcome between transition support and employment outcomes.

Background variables

- Gender: Disabled women are thought to have poorer employment prospects than men (Borg 2008, 90; Båtevik and Myklebust 2006, 45; Achterberg et al. 2009, 131).

Table 1. Percentage of young disabled adults who are in ordinary full-time or part-time employment according to background characteristics and transition support (n = 245).

	Values	Employed (%)	N
Background variables			
Gender	0. Man	71	97
	1. Woman	78	148
Age	0. 19–24	72	50
	1. 25–35	74	195
Educational level***	0. Not higher education	65	140
	1. Higher education	86	105
Mental illness*	0. No mental problems/illness	81	94
	1. Mental problems/illness	69	151
Physical impairment**	0. No physical/functional difficulties	81	162
	1. Physical/functional difficulties	60	83
Everyday limitations***	0. Moderate everyday limitations	85	168
	1. Major everyday limitations	49	77
Sickness during transition***	0. No sickness/medical treatment period during transition	91	174
	1. Sickness/medical treatment period during transition	32	71
Transition support variables			
Ordinary transition support	0. No ordinary support (teachers, parents, etc.)	71	140
	1. Ordinary support (teachers, parents, etc.)	77	105
Special transition support	0. No special support (NAV, etc.)	76	216
	1. Special support (NAV, etc.)	62	29
LMP participation during transition***	0. No LMP participation during transition	83	201
	1. LMP participation during transition	34	44

*Significant at least at 0.05; **Significant at least at 0.01; ***Significant at least at 0.001.

Including this variable in the analysis could help explain some of the predicted correlation between transition support and employment outcomes if women more often receive transition support than men.

- Age: The youngest disabled adults are less employed than those who are older (Achterberg et al. 2009, 131). Age might explain some of the predicted correlation if younger adults receive support and older adults do not.
- Educational level: Measures whether respondents have completed at least three years of higher education or not. Education is often singled out as the variable that most consistently predicts employment outcomes among disabled people (Aakvik 2003; Borg 2008; Krokstad, Johnsen, and Westin 2002, 1187; Achterberg et al. 2009, 131), and if it is those mostly without higher education who receive transition support, the level of education might help explain the predicted correlation.
- Mental illness: This variable measures whether respondents have long-term depression or 'other' forms of mental illness or not. Since mental illness is considered to be a major source of disability in the transition to employment (Achterberg et al. 2009, 131), this could help explain some of the predicted correlation if many young adults with such an illness receive transition support.
- Physical impairment: This variable measures whether respondents have difficulties with hearing, seeing, moving or not. Since physical impairment is also a negative predictor of employment outcomes (Achterberg et al. 2009, 131), it could also explain some of the predicted correlation if many young adults with such impairments receive transition support.
- Everyday limitations: This variable measures the severity of the disability, and distinguishes between those who experience 'moderate' vs. 'major' restrictions in their daily life due to their illness or impairment. The advantage of this variable is that it gives an indication of the degree of disability felt by the individual vis-à-vis his or her environment. We know from previous research that the severity of disability is a very important predictor of employment outcomes (Krokstad, Johnsen, and Westin 2002, 1185; Bjerkan and Veenstra 2008, 176–177; Achterberg et al. 2009, 131), and it is likely that those with more severe disabilities more often receive transition support than those who do not. A reliability problem is that this variable is somewhat tautological. Those who are excluded from the labour market are probably more prone to respond that they experience 'major restrictions' in their daily life than others. However, since as many as 49% of those who experience major restrictions are employed (Table 1), there is no perfect correlation between experienced disability and employment outcomes.
- Sickness during transition: This variable distinguishes between respondents who report having undergone periods of sickness and/or medical treatment after they finished their education and those who do not. The rationale for including this variable is that having an impairment/illness associated with absenteeism makes it particularly difficult to be employed. Those who have such an impairment/illness are therefore more likely to receive transition support than others. Hence, this variable should explain much of the predicted negative correlation between transition support and employment outcomes.

Other background variables such as ethnicity, parents' education, chronic pain and cognitive difficulties are not included in our analysis since they are not significantly

correlated with our dependent variable, and our sample size does not allow for a large number of independent variables.

Transition support variables

The set of transition support variables includes what we have previously described as direct transition support in Norway.

- Ordinary transition support: This variable measures whether or not respondents received support from teachers, ordinary career counsellors at school/university/college, parents or friends during transition. Hurdle theory does not predict negative employment outcomes for this kind of support.
- Special transition support: This variable distinguishes between students who did and did not receive support from a counsellor for disabled students or the labour and welfare administration (NAV) when they were leaving school/university/college. Very few received support from special counsellors, and it is also important to note that such counsellors are less dealt with in hurdle theory. However, it is reasonable to assume that the negative predictions in transition support and employment outcomes would also be valid for this type of support.
- LMP participation during transition: This variable distinguishes between those who received support through a LMP from NAV after completing their education and those who did not. The LMP variable measures support from NAV in a prolonged transitional period, and because it is normally provided after a longer period of rehabilitation or unemployment, it does not measure the same type of support as the special transition support variable. In particular, hurdle theory predicts a negative relation between this type of support and employment outcomes.

Analytical model

To assess whether the predicted negative association between transition support and employment outcomes is spurious or not, we utilize a binary logistic regression analysis. In the analysis, we estimate the co-variation between transition support and employment, while simultaneously controlling for the influence of the background variables. We deviate from the 'rule of thumb' for logistic regression of using a maximum of one independent variable per 10 events in the smallest category for the dependent variable. It has recently been argued by Vittinghoff and McCulloch (2007) that this 'rule' can be relaxed, and we have chosen to follow this advice. We have run several tests with different numbers of variables that show the same result as the final regression model we have included in this article.

Results

From the 245 individuals included in our sample, a total of 74% are in full- or part-time ordinary employment. As initially assumed and predicted by hurdle theory, transition support in the form of LMP participation is negatively associated with employment outcomes. Only 34% of those who received this kind of support have a job, as opposed to 83% of those who did not participate in such programmes. On the other hand, special transition support is not significantly associated with employment outcomes, nor is ordinary transition support. Of the background variables, educational level, mental

illness, physical impairment, everyday limitations and sickness during transition are all significantly associated with employment outcomes. The most disadvantaged are those with major everyday limitations, and who have had periods of sickness/medical treatment during their transition, with only 49% and 32%, respectively, being employed. These findings are in line with previous research (Aakvik 2003; Achterberg et al. 2009; Bjerkan and Veenstra 2008, 176–177; Krokstad, Johnsen, and Westin 2002), though in contrast to earlier findings (Achterberg et al. 2009, 131; Borg 2008, 90; Båtevik and Myklebust 2005, 45), gender and age are not significantly associated with employment outcomes in our sample.

In the regression model, we have tested whether the bivariate correlation between LMP participation and negative employment outcomes is still observable when we control for the other background variables. As Table 2 shows, participation in LMP during transition remains negatively associated with employment outcomes, even when other significant background variables are controlled for. Individuals who have participated in such programmes are less likely to be employed than those who did not (OR 0.156), and the odds ratios also show that major everyday limitations (OR 0.223) and sickness during transition (OR 0.053) remain significantly associated with negative employment outcomes when other variables are controlled for.

To help visualize these results, we have estimated the employment probabilities for disabled individuals who have and have not participated in an LMP. Figure 1 shows three black and hatched bars. The black bars demonstrate employment probabilities for individuals *who have not* participated in an LMP during transition, while the hatched bars demonstrate employment probabilities for individuals with equal characteristics *who have* participated in an LMP during transition. In all examples, the probability of being employed is reduced when adding LMP participation. Probabilities are predicted for individuals, with the following features being kept as constant: women, no higher

Table 2. Logistic regression: how ordinary employment of young disabled adults co-varies with background and transition support variables (n = 245).

	Logit	Standard error	Odds ratio	95% CI
Background variables				
Women	−0.232	0.470	0.793	0.316–1.991
Age (continuous)	0.055	0.053	1.057	0.953–1.172
Higher education	0.651	0.497	1.917	0.724–5.079
Mental illness	−0.792	0.481	0.453	0.177–1.163
Physical impairment	−0.916	0.479	0.400	0.156–1.023
Major everyday limitations**	−1.500	0.452	0.223	0.092–0.541
Sickness during transition***	−2.945	0.457	0.053	0.021–0.129
Transition support variables				
Ordinary transition support	0.058	0.448	1.06	0.440–2.550
Special transition support	−0.804	0.608	0.447	0.136–1.474
LMP participation during transition**	−1.855	0.550	0.156	0.053–0.460
Constant	2.61			

**Significant at least at 0.01; ***Significant at least at 0.001.
Note: The regression model is checked for multicollinearity. The highest correlation in-between two independent variables is at Pearson's R 0.311 (LMP participation/sickness during transition). This is considered a weak correlation, and therefore does not constitute a problem for the model. A Nagelkerke's R^2 of 0.613 indicates a moderately strong relationship in-between prediction and grouping, and the model has a good fit according to a Hosmer–Lemeshow test of 0.369.

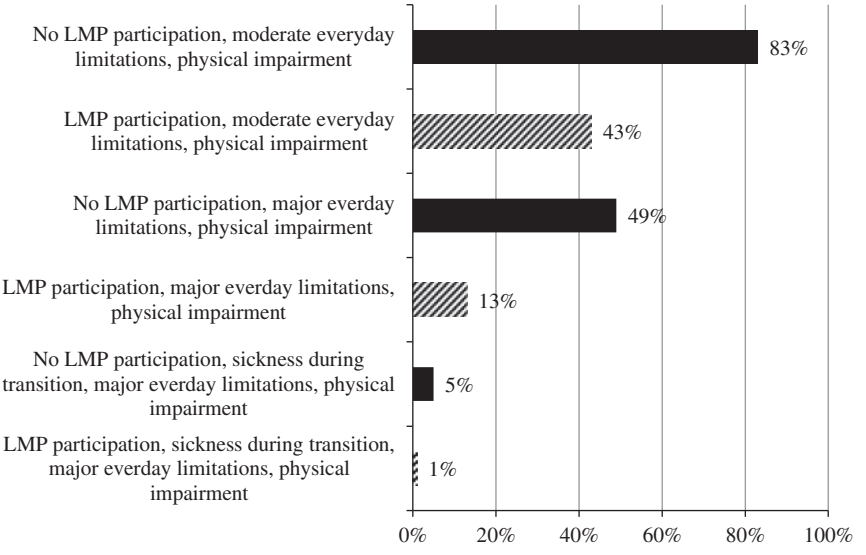

Figure 1. Predicted probability: how employment probabilities co-vary with participation in the LMP during transition from school to work (n = 245). Probabilities are predicted for individuals with the following features being kept as constant: Women, no higher education, no mental illness, and neither special nor ordinary transition support.

education, no mental illness, as well as no special or ordinary transition support. Thus, the top bar shows that a woman with an upper secondary education, who has not received ordinary or special transition support, is physically impaired, but has no mental illness and only moderate limitations, has an employment probability of 83%. The second bar from the top shows that the employment probabilities for a woman with a similar set of characteristics, *but* who has participated in an LMP, are only 43%. The employment probability is reduced in a similar way until it dwindles down to only 1% for a woman with only an upper secondary education, no ordinary or special transition support, physical impairment, no mental illness, major everyday limitations, sickness during transition and LMP participation.

To summarize, the main result of this analysis is that transition support in the form of LMP participation is negatively associated with employment outcomes, even when we control for significant background variables such as educational level, type of impairment/illness, everyday limitations and sickness during transition. In this model, the negative association between transition support and employment is not found to be spurious, i.e. caused by other background variables.

Discussion

In our analysis, neither ordinary nor special transition support has any significant impact – whether positive or negative – on achieving work after education. On the other side, participation in LMPs considerably reduces the chances of engaging with competitive employment at a later stage in life, which supports the claim of hurdle theory. When we compare the probability of being employed among individuals with similar (self-reported) impairments and level of limitations, LMP participation reduces this probability in every case.

But does this result signify that hurdle theory is right about the negative relationship between transition support and employment outcomes? There are several problems to jumping to this conclusion: First of all, our data are restricted and cross-sectional; consequently, we lack 'objective' data on past events in the lives of the respondents. It only consists of 245 respondents, hence putting limits on how many variables we can include in the regression analysis. Nor is the questionnaire inexhaustible, which means that we lack important data on many aspects of the lives of these individuals. There might therefore be variables that explain the co-variation we find between transition support and employment outcomes that we are not able to include in our analysis. Such variables could be school grades or the quality of vocational or academic skills, the lack of work experience or ties with potential employers, personality issues such as negative self-image, social isolation, indecisiveness or the particularity of the illness or impairment.

Second, transition support is *non-arbitrary*. It is not awarded by chance, but rather through a process based on an assessment of the needs of the individual. In order to participate in an LMP, the individual first has to be out of work or studies for more than six months to be eligible for a public benefit, then go through a work capacity assessment procedure conducted by a caseworker in NAV and normally also provide a medical certificate to diagnose the problem. Additionally, LMP participation is not voluntary. If an individual remains inactive for a certain period of time and applies public benefits, the public authorities will almost always inscribe it in an LMP in order to find out whether he or she is in fact able to work. Because of the non-arbitrary nature of transition support, there are most likely certain characteristics that set disabled young adults who participate in LMPs apart from young disabled adults in general. This makes it extremely difficult to design a perfect 'test' of hurdle theory that includes all relevant variables that might explain the correlation between transition support and employment outcomes. Even if we had a longitudinal data-set with a very large sample that combined both 'objective' public register data and 'subjective' survey data, we would not be able to construct a control group who did not participate in an LMP that would be *equal* to the one who did participate in an LMP. Even so, we think that we would be better equipped to distinguish between spurious and 'real' correlations of transition support with employment outcomes – although not being able to find the 'true' causal relationship between the two variables – if we had longer, bigger and better data. If such data also show a negative relationship between the two variables, that would further strengthen the predictions of hurdle theory.

Nonetheless, this does not automatically mean that explanations of hurdle theory are correct, i.e. that it is caused by the mechanisms we identified in the research literature (stereotypic perceptions, one-size-fits-all programmes and the late and insufficient delivery of services). Critical qualitative narratives may easily lead to such a framing of the problem, as it is more obvious for people who are disappointed by the effect of the support to criticize aspects of services that might be altered, instead of aspects that are outside of political/administrative control. There are at least two more explanations that could account for a negative relationship between LMP participation and employment outcomes for those not accounted for in the literature. First, there might be a certain stigma connected to receiving support from public services in the transition, rather than being able to get a job strictly on one's own. Potential employers could possibly view individuals who receive assistance as volatile labour power, and therefore prefer to employ others with even lower qualifications in order to avert risk. Second, there might be a time issue in relation to LMP participation, since it normally involves some time in waiting to be enrolled into a programme and then the actual programme participation

(which may last from some months to up to a year). For potential employers, this period of time will appear as a hole in the job seeker's CV, which in turn is associated with a higher insecurity and risk connected to employing that person.

Lastly, the broad generalizations of hurdle theory – as we have described it here – might also overlook the possibility that the problems connected to transition support could be caused by the particular makeup of the Norwegian support services, or that the majority of LMPs are ineffective and only a minority are effective. This in turn would imply that there are potentialities for implementing support services that enhance the employment chances of its recipients – even within a sector where the release of public resources is dependent on the individuals' injuries or deficiencies, and where funding is scarcer than the needs. Bigger and better data would be able to respond more appropriately to this challenge by distinguishing between different LMPs.

Conclusion

In this article, we have investigated the claims of the hurdle theory of transition support. This theory – which dominates Norwegian disability research – predicts a negative relationship between transition support and employment outcomes. Existing literature primarily explains this by stereotypic perceptions of disability and career opportunities among service providers, one-size-fits-all support programmes not tailored to individual preconditions, needs and desires and late and insufficient delivery of services. We have used a cross-sectional sample of 245 young disabled Norwegian adults to examine the impact of various types of transition support on employment. We find that that transition support in the form of LMP participation is negatively associated with employment outcomes, even when we introduce significant control variables such as educational level, type of impairment/illness, everyday limitations and sickness during transition. Thus, these findings support the prediction of the hurdle theory.

But even though the negative association between transition support and employment is found not to be spurious in our model, it does not mean that this association cannot be caused by other background variables. Transition support is non-arbitrary and our data are limited. Therefore, we cannot rule out that there could be other variables that explain this correlation. A larger sample, longitudinal data and a combination of 'objective' public register data and 'subjective' survey data would probably be more ample at distinguishing between spurious and 'real' correlations. However, even if a non-spurious, negative correlation was found in such a case, it would not necessarily mean that the *explanation* of hurdle theory is correct. The negative relationship might be caused by other mechanisms than what is currently found in the research literature, such as the stigma connected to receiving transition support or the time lag caused by receiving such support. Hurdle theory has a strong standing in Norwegian qualitative disability research, and it deserves further examination. But in order to discern whether hurdles stem from bad services or inadequate programmes, or if LMPs regardless of approach and quality are hurdles in themselves, better data and improved research designs are required.

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