

REVIEW

Employment for persons with intellectual disability in the Nordic countries: A scoping review

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Abstract

Background: Persons with intellectual disability remain largely excluded from the labour market in the Nordic countries. A review of the existing knowledge base may inform policymakers who try to address this challenge.

Method: The study uses a scoping review of 23 articles to summarize three decades of research on employment for persons with intellectual disability in the Nordic countries.

Results: Persons with intellectual disability value employment, but school-related factors may form barriers to labour market participation. Support at the workplace is important but variable. There is a paucity of intervention studies, and few studies focus on supports to bridge the gap between personal capacity and environmental demands.

Conclusions: A better coordination between the educational system and the labour market may facilitate higher levels of employment for persons with intellectual disability. Intervention studies that emphasize individualized supports and follow-up of older employees with intellectual disability are welcomed.

KEYWORDS

employment, inclusion, intellectual disability, labour market, Nordic, school-work transition, scoping review

1 | INTRODUCTION

For most individuals, employment is one of the central arenas for self-realization in adult life, and the role of employee may be said to be a primary life role function (Lysaght & Cobigo, 2014). Employment functions as an important means of structuring everyday life and as a source of pride and satisfaction to individuals with intellectual disability (Lysaght et al., 2009). Research has also shown a positive correlation between employment and quality of life, and between employment and mental health (Dean et al., 2018). A review by Jahoda et al., (2008) points out that employees with intellectual disability may be more likely to have difficulty

dealing with work tasks and that they might be sensitive to failure. Hence, work can also be experienced as stressful by employees with intellectual disability. Nonetheless, Jahoda et al., (2008) report consistent findings of higher quality of life and well-being, greater opportunities for social engagement and positive changes in the level of autonomy enjoyed by individuals with intellectual disability in competitive employment. Yet, the majority of individuals with intellectual disability stands on the periphery of the labour market, which means that they may miss out on the multiple benefits that employment offers, such as greater financial independence, a sense of purpose, increased social networks and increased autonomy (Grant, 2008).

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The Nordic countries ratified the United Nations General Assembly's (2007) Convention on the Rights of Persons with Disabilities (CRPD). Article 27 of the CRPD affirms the right of persons with disabilities to 'work on an equal basis with others; this includes the right to the opportunity to gain a living by work freely chosen or accepted in a labour market and work environment that is open, inclusive and accessible to persons with disabilities'. (United Nations General Assembly, 2007). Because of impairments in cognitive and adaptive functioning, persons with intellectual disability are likely to require individualized supports and accommodations so that workplaces can be experienced as inclusive and accessible. As Member States of the United Nations, the Nordic countries also adopted the sustainable development goals in 2015, where goal number 8 promotes 'full and productive employment and decent work for all' (United Nations, 2012). This goal also mentions persons with disabilities specifically.

Although the Nordic countries are relatively small in size, they are often cited as good examples of developed welfare states (Kuznetsova & Yalcin, 2017). The Nordic countries promote equality as an important value, which entails the inclusion of vulnerable groups in the labour market. Thus, these countries are characterized by an inclusive approach to all individuals, including those with disability who require substantial support. The Nordic welfare model is characterized by comprehensive public revenue transfers and generous regulations that contribute to high-quality services. Furthermore, Nordic welfare states are considered generous with social security and rights-based benefit schemes (Frøyland et al., 2018). In addition, the Nordic approach is associated with the ambition and capacity to maximize participation in paid work (Hvinden, 2004).

Norway and Sweden are typically regarded as countries suited for comparing disability policy (Tøssebro, 2016). The countries' policy regarding persons with disabilities promotes values such as equality, participation, accessibility and non-discrimination. Since the 1970s, both countries' policies can be linked to a relational or socio-ecological model for understanding disability (Tøssebro, 2004). This model suggests that disability occurs when environmental requirements exceed personal capacity, and it emphasizes the need for individualized support, for example when individuals with different types of impairment seek to participate in the work arena. This support can take various forms, such as financial support in the form of wage subsidies to employers or, as is the case in Sweden, activity compensation for individuals who are unable to work full time (Arvidsson et al., 2016).

Despite a similar ideological approach, the Nordic countries have different laws, regulations and applied practices regarding social policy, anti-discrimination, economic incentives and voluntary commitments to increase the employer's responsibilities. These differences in regulations and in the applied practices that are intended to secure employment for persons with intellectual disability seem to result in varying accessibility of the labour market across the nations. Denmark, on the one hand, has been described as a more pluralistic and open society with room for inequality, where it is 'normal to

be different' (Spjelkavik, 2012). This inclusive attitude is reflected in the fact that almost every municipality in Denmark has Employment Services that aim to increase the possibility of securing a permanent job for all disabled people in the open labour market. On the other hand, Finland is cited to have a disability policy that focuses more on passive protection and income support than on active labour market programmes that promote independence and participation in an open labour market (O'Brien & Dempsey, 2004). While persons with intellectual disability in Finland receive a disability pension and an additional small income for working in a sheltered workshop or a supported workplace, it remains hard for them to find competitive employment. A similar situation exists in Iceland, where individuals with disabilities have little connection to the labour market, and sheltered employment is traditionally used (Spjelkavik, 2012). Notwithstanding the inclusive policies that characterize the Nordic countries there remains a large effort to be done to enable more individuals with intellectual disability to participate in competitive employment.

Indeed, the Nordic welfare states are facing increasing difficulties with achieving the UN sustainable development goal of decent work for all (Frøyland et al., 2018), despite their policy of inclusive employment. In general, the Organisation for Economic Co-operation and Development (2009) states that there is decreasing tolerance for employees who do not meet an ideal performance standard or who are not sufficiently productive in a particular job. The benefit system that typifies the Nordic welfare states may even have a disabling effect on persons with partial work capacity, as the system steers them into welfare dependency and away from the labour market (OECD, 2009).

The Nordic countries' ideology of equality and inclusion may function as an exemplary starting point for inclusive employment. Yet, even in the Nordic countries, equal access to the labour market for persons with intellectual disability seems to remain an ideology rather than a reality. Research on the employment situation for persons with intellectual disability in the Nordic countries may inform policymakers on how this situation can be improved. Thus, the need for a comprehensive knowledge base about employment for persons with intellectual disability in the Nordic countries was the starting point for this scoping review.

1.1 | Aim of the study

The main purpose of this scoping review was to gain more insight in research associated with employment for persons with intellectual disability in the Nordic countries. The research questions that guided the scoping review were the following:

1. What is the aim of the studies included in the scoping review?
2. What is the perspective of the studies, that is whose voice is being heard (employer, employee, educator, job coach, other)?
3. What are the characteristics of the persons with intellectual disability that form the focus of the studies?

4. Which type of work do persons with intellectual disability engage in?
5. What are the main findings of the research studies?

2 | METHOD

This study used a scoping review to provide an overview over the existing research body on employment for persons with intellectual disability in the Nordic countries. Colquhoun et al., (2014, p. 1292) have defined scoping reviews as 'a form of knowledge synthesis that addresses an exploratory research question aimed at mapping key concepts, types of evidence, and gaps in the research related to a defined area or field by systematically searching, selecting, and synthesizing existing knowledge'. Scoping reviews can serve several purposes, and they are frequently used to identify gaps in a body of evidence, to provide recommendations for future research or to identify strengths and limitations (Tricco et al., 2016). Scoping reviews require methodological rigour, and in order to secure a transparent methodological approach in the review process, we used the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) Checklist (Tricco et al., 2018) (see Appendix 1).

2.1 | Search strategy

In order to identify potentially relevant research articles for this review, we searched six databases that were chosen because they make available multidisciplinary research studies. The included databases were the following: ERIC, Web of Science, PubMed, CINAHL, PsycINFO and ORIA (i.e. university research library). Each database was searched with the following keywords in title and/or abstract:

1. *Intellectual disabil** OR *learning disabil** OR *mental retardation*
2. *Employment* OR *labour* OR *labor* OR *work* OR *job*
3. *Scandinavia** OR *Nordic* OR *Norw** OR *Swed** OR *Iceland** OR *Denmark* OR *Danish* OR *Finnish* OR *Finland*.

To be included in the scoping review, articles needed to be peer-reviewed journal articles published in English between 1990 and 2019. This time period indicates the years after substantial reforms in the organization of services for persons with intellectual disability in several of the Nordic countries (Tideman & Tøssebro, 2002). The original search resulted in a total of 496 articles, which were then exported to Endnote X9, where duplicates were removed, leaving a total of 332 articles (see Figure 1).

These articles were then exported to Rayyan QCRI (Ouzzani et al., 2016), a free web and mobile app for systematic reviews, for further screening. Both authors independently screened titles and abstracts for all articles based on four inclusion criteria:

1. Only articles that specifically dealt with persons with *intellectual disability* were included. Articles about persons with disability in general were excluded if intellectual disability was not specifically mentioned in the article.
2. Only empirical articles offering *evidence from quantitative, qualitative or mixed method designs* were considered. This excluded, for example, policy articles and review articles.
3. We only included articles that reported on *employment*, thus excluding articles that for example only dealt with persons with intellectual disability who were not in education, employment or training.
4. We only included articles that reported on research from any of the *Nordic countries*, that is Denmark, Iceland, Finland, Norway or Sweden.

The authors reached an initial 93.7% consensus for the title and abstract screening, and they discussed together each article that presented a conflict until agreement was reached. After screening titles and abstracts based on the inclusion criteria, this left us with 55 articles. A further 37 articles were removed after full-text screening, because they did not meet the inclusion criteria. This left 18 articles that were eligible for inclusion in the scoping review. A citation search was also conducted and involved reviewing the reference lists of the already included articles to identify additional studies. This search yielded another 11 articles that were considered eligible for inclusion, rendering a total of 29 articles. Finally, six of these 29 articles were excluded as they reported on the same studies. Since multiple reports from the same study may introduce substantial bias in a review due to double reporting (Higgins et al., 2020), we opted to retain only the most recent article from each of these studies, resulting in a total of 23 articles to be analysed in our scoping review. The literature search was executed in February 2020.

2.2 | Coding procedure

The 23 articles that met the inclusion criteria for our scoping review were then systematically analysed based on a coding scheme developed for the purpose of the study (see Table 1).

In order to address our first research question, we used a qualitative content analysis to summarize the aim of each article into broader categories. For the second research question, we coded articles based on the perspective that they present. Here, we explored whose voice was being heard in the study: employer, employee, staff, job coach, educator or other. For the third research question, we described characteristics of participants with intellectual disability (i.e. number, gender, age range and level of intellectual disability). For the fourth research question, we coded the studies based on whether they dealt with competitive employment, sheltered workshop or other organized occupation. For the fifth research question of our scoping review, we summarized the main findings of each of the included articles into bullet points. We then defined more general categories based on an abstraction of these findings.

The authors of the review coded first a random sample of 20% of the included studies independently to ensure reliability in the coding process. Inter-rater reliability was calculated using percentage of

agreement, and the authors reached 88.5% agreement on all codes. For the studies where there was disagreement in coding, the authors discussed the respective studies in order to reach consensus.

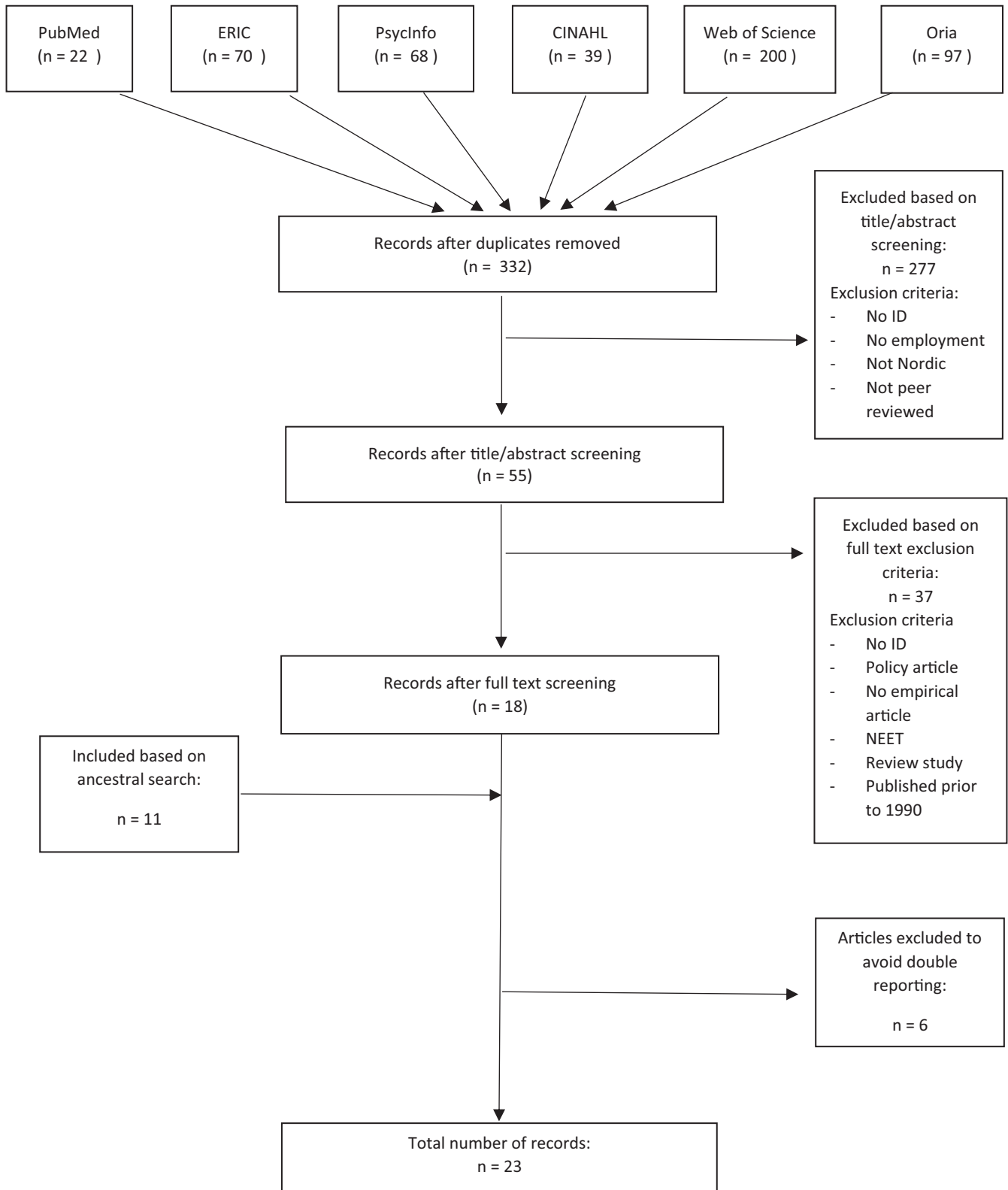


FIGURE 1 Study selection process

TABLE 1 Summary of the studies

Author +country	Purpose of the study	Participants	Research method/ design	Key findings
Arvidsson et al., (2016) SWE	To describe and analyse the entry into and representation in the Swedish labour market for women and men with intellectual disability from a gender perspective	2745 adults with intellectual disability	Quantitative, register data Descriptive study	The majority of the sample had subsidized employment. The most important factor for gainful employment was an educational background in a national programme. The most frequent occupation for women was 'personal care and related work', while men were mostly in 'service work'. Most of the jobs available to persons with intellectual disability are found in small workplaces in the private sector. Women earned 19% less than men.
Beyer et al., (2010) FIN +other European countries	To compare supported employment in the European Union, primarily Finland, Spain and the United Kingdom	184 organizations that offer supported employment	Quantitative, survey Descriptive study	There is significant variation in the provision of key elements of supported employment, particularly workplace support, which may disadvantage persons with intellectual disability.
Bollingmo (1997) NOR	To describe the employment services and quality of work for individuals with intellectual disability in relation to the competence of rehabilitation professionals	74 sheltered workshop staff, 160 day activity centre staff, 62 vocational special education teacher, 83 mentors in competitive work settings	Quantitative, survey Descriptive study	Individuals with intellectual disability have limited opportunities for inclusion and careers in competitive employment. Vocational rehabilitation professionals do not have the necessary qualifications to plan a good job match and transition to work.
Byhlin and Käcker (2018) SWE	To describe how young adults perceive the application process for and transition to sheltered employment/daily activity	14 young adults (aged 21–23) with intellectual disability; 9 with mild intellectual disability, 5 with moderate intellectual disability	Qualitative, interview Descriptive study	Participants expressed a desire to be treated and accepted as adult individuals, and to participate in decisions about their daily activity/sheltered employment.
Garrels and Sigstad (2019) NOR	To explore what motivates Norwegian adults with intellectual disability to participate in the labour market	7 adults (aged 21–58) with mild-to-moderate intellectual disability	Qualitative, photovoice and interview Descriptive study	Employment provides persons with intellectual disability with valued social contacts and a sense of self-efficacy. Little autonomy in the workplace is not automatically perceived as negative.
Gustafsson et al., (2014) SWE	To examine employers' perspectives on the conditions of employment of people with disabilities within a context of wage subsidies	20 employers	Qualitative, interview Descriptive study	Positive earlier experiences of hiring employees with disabilities make employers more likely to hire people with disabilities, but a right person-job match, economic incentives, and accommodations are also important factors.
Ineland (2005) SWE	To describe and analyse the institutional settings and normative environment surrounding a theatre and the manner in which it relates to different institutional roles and expectations	4 supervisors report on 16 persons with intellectual disability	Qualitative, interview and observation Descriptive study	The disability theatre balances between being a normalization project and disability art, which puts emphasis on the celebration of difference.

(Continues)

TABLE 1 (Continued)

Author +country	Purpose of the study	Participants	Research method/ design	Key findings
Jacobson et al., (2019) SWE	To describe social outcomes for young adults with cerebral palsy	61 young adults (aged 20–22) with cerebral palsy, of whom 28 with intellectual disability	Quantitative, survey Descriptive study	At age 20–22, most young adults with CP were still in the parental home. Many were still dependent on their parents, both financially, and for daily living support. Intellectual disability and communication function were important determinants for their social situation.
Knüppel et al., (2019) DEN	To explore daytime activities of young adults with ASD	Parents of young adults with ASD aged 18–26 (N = 202)	Quantitative, interview Descriptive study	The presence of intellectual disability is not consistently a factor of importance for having a regular daytime activity or not. Inadequate or lacking supports and services are associated with no engagement in regular daytime activities.
Kuznetsova and Yalcin (2017) NOR +SWE	To explore how large companies respond to public policy measures to ensure the inclusion of persons with disabilities in mainstream employment	Company managers of four companies, and government representatives	Qualitative case study, interview Descriptive study	Anti-discrimination legislation has little direct impact on the companies' practices or on managerial decisions to increase the employment of persons with disabilities. Advisory support, proactive corporate social responsibility, and value choices of the management are more important factors.
Kåhlin and Haglund (2009) SWE	To describe the psychosocial strengths and challenges related to work amongst people with intellectual disability	30 adults (Mean age = 39) with mild-to-moderate intellectual disability	Quantitative, survey Descriptive study	Participants generally have positive thoughts and feelings about their work; they feel commitment and responsibility. Participants experience supportive physical and social environments. They generally have work that is adapted to their situation.
Lövgren (2015) SWE	To describe and discuss middle-aged adulthood in relation to work as experienced by people with intellectual disability in Sweden in 2010	13 middle-aged adults (Mean age = 52) with intellectual disability	Qualitative, interview Descriptive study	Work was the hub around which participants' lives were organized and given meaning. Three main values of work: 1) structuring everyday life, 2) an opportunity to engage in social values, and 3) work as contributing monetary value.
Lundahl et al., (2017) SWE	To explore the trajectories through school and into adulthood of people who did not attain valued qualifications from upper secondary school	100 young adults (Mean age = 21.5), of whom 19 with mild cognitive disability	Qualitative, interview Descriptive study	Many of the former special school students experience considerable difficulty to get other than publicly subsidized jobs. They experience fewer choices, sparser resources, and less stable career trajectories than their peers.

(Continues)

TABLE 1 (Continued)

Author +country	Purpose of the study	Participants	Research method/ design	Key findings
Myklebust and Båtevik (2014) NOR	To examine how young adults with former special educational needs succeed in finding full-time employment and economic independence in their late twenties and mid-thirties	216 adults in their late twenties–early thirties with former special educational needs	Quantitative, survey and structured interview Descriptive study	Men are to a much greater degree economically independent than women. Educational attainment was important for the employment of women, but not for men. The influence of school-related covariates seems to wane over time. Owning a driver's licence was crucial for men, but relatively unimportant for women's employment. Having children increased the likelihood of economic independence for men, but not for women.
Ringsby Jansson and Olsson (2006) SWE	To describe the living conditions and life situations of young adults with mild or moderate intellectual disability	Proxy reports on 60 young adults, aged 19–30, with mild-to-moderate intellectual disability; observation of 23	Qualitative, interview and observation Descriptive study	Large differences exist between young people with intellectual disability. Three groups may be identified: 1) the cared for and represented, mostly in organized daily occupation, 2) the commuters that shift between being inside and outside of social services, and 3) the outsiders who receive no assistance.
Rosenqvist (1990) SWE	To make an inventory of problems concerning the transition to work for persons with intellectual disability and to advise educators based on these findings	12 ordinary teachers, 11 vocational guidance teachers, 10 instructors from supervised work training places, and two parents	Qualitative, interview Descriptive study	Interviewees expressed a passive acceptance of the prevailing work situation for persons with intellectual disability. Teachers express low expectations for the students, and vocational education may be outdated.
Saloviita and Pirttimaa (2007) FIN	To examine the longitudinal status of supported employment in Finland	Proxy reports from job coaches on 52 adults (Mean age = 37) with intellectual disability	Quantitative, survey Descriptive study	Comparison of data over a 6-year period show a decline in the provision of intensive employment supports. Supported employment agencies in Finland were found to have progressively barred persons with significant disabilities from being their customers.
Saur and Johansen (2013) NOR	To describe employers' experiences with hiring employees with intellectual disability in theatre	15 employers	Qualitative, interview Descriptive study	Inclusion based on difference, not on normalization standards.
Skedinger and Widerstedt (2007) SWE	To analyse recruitment to sheltered employment for the disabled, and to investigate whether the most able candidates are selected by programme organizers	10,000 unemployed individuals	Quantitative, register data Descriptive study	Findings regarding cream skimming are mixed; some disability groups are more likely to be hired than others.
Taanila et al., (2005) FIN	To study the life situation of a cohort of adults with intellectual disability in terms of employment, education, and morbidity	129 34-year-olds with intellectual disability, 63 with mild ID (IQ 50–70) and 66 with severe ID (IQ 50)	Quantitative, register data Descriptive study	110 of 129 participants were drawing a disability pension. 19 individuals with mild intellectual disability did not receive a pension, but were instead employed in low-level trades in the open labour market.

(Continues)

TABLE 1 (Continued)

Author +country	Purpose of the study	Participants	Research method/ design	Key findings
Tideman and Tøssebro (2002) NOR + SWE	To describe and compare living conditions for intellectually disabled persons in Norway and Sweden	Proxy reports from staff and parents on 1183 adults (Mean age = 43–45) with intellectual disability	Quantitative, survey and structured interview Descriptive study	No significant difference in level of employment for persons with intellectual disability in Sweden and Norway
Tholen et al., (2017) SWE	To examine the effectiveness of a supported employment-inspired programme during and after transition to employment	Intervention group: 66 young adults with intellectual disability (Mean age = 21.5) Control group: 49 young adults with intellectual disability (Mean age = 23.6)	Quantitative quasi-experimental design, register data Intervention study	Despite the high costs of the intervention programme, it could lead to reduced expenditure for the municipality as a whole. A better coordination between the educational system and the labour market could increase employment participation for persons with intellectual disability.
Umb-Carlsson and Sonnander (2006) SWE	To compare the living conditions of women and men with intellectual disability and to relate the results to the living conditions of the general population	Proxy reports from staff and relatives on 110 adults (Mean age = 35) with intellectual disability	Quantitative, survey Descriptive study	The choice of work for persons with intellectual disability seems to follow traditional gender roles. The majority of the persons had not chosen occupational tasks themselves, and those who decided for them may have stereotyped them into traditional female and male occupational roles.

	Research method			Research design	
	Quantitative	Qualitative	Mixed method	Descriptive study	Intervention study
Year					
1990–1999	1	1	-	2	-
2000–2009	5	3	-	8	-
2010–2019	5	8	-	12	1
Nation					
Denmark	1	-	-	1	-
Finland	3	-	-	3	-
Iceland	-	-	-	-	-
Norway	1	5	-	6	-
Sweden	7	8	-	14	1

TABLE 2 Characteristics of studies by method, design, year and nation. Numbers indicate number of studies.

After inter-rater reliability was established, the authors divided the remainder of the included studies equally amongst them for further coding.

2.3 | Description of the included articles

Of the 23 articles that met the inclusion criteria, two of them were published between 1990 and 1999, eight between 2000 and 2009

and 13 between 2010 and 2019. Thirteen of the studies used a quantitative research method, and 10 used a qualitative method. None of the studies reported use of mixed methods. Nine of the studies used surveys or structured interviews as their means of data collection, 10 studies used semi-structured interviews, four used register data, two used observation, and one study used photovoice. Five studies used multiple data collection modes.

Twenty-two of the studies presented a descriptive study, and only one of them reported an intervention study. Related to the

country of origin, 15 of the studies reported on research conducted in Sweden, six in Norway, one in Denmark, none in Iceland and three in Finland (of which one in collaboration with other European countries). Two of the studies were based on collaborative research between Sweden and Norway. These study characteristics are visualized in Table 2.

3 | RESULTS

3.1 | RQ 1: Aim of the studies

In order to answer our first research question, namely 'What is the aim of the studies included in this scoping review?', the purpose of each article was first summarized and then categorized using a qualitative content analysis (Schreier, 2012). Qualitative content analysis is a systematic method for describing the meaning of qualitative material. The method assumes translating of all material of interest into categories in a coding frame, and then classifying successive parts of the material according to those categories. This analysis showed that the purposes of most of the studies could be categorized into one of four themes:

1. *Transition*: The most common purpose presented in the studies was to describe the transition from secondary school to employment for persons with (intellectual) disabilities (eight articles).
2. *General living conditions*: Five of the studies had an aim to describe the general living conditions of persons with intellectual disability, and their participation in the labour market was then one of the areas included in this larger context.
3. *Employers' experiences*: Another common purpose of the studies was to explore employers' experiences with hiring employees with intellectual disability and to map their need for follow-up and support in the workplace (three articles).
4. *Personal experience of participating in the labour market*: Finally, two of the articles aimed to highlight the personal experiences of participating in the labour market for persons with intellectual disability.

The remainder of the articles ($n = 5$) in this scoping review presented diverse aims, such as surveying job coaches' competence or exploring key elements of supported employment.

3.2 | RQ 2: Perspective of the studies

The second research question in this scoping review deals with the perspective that was presented in the studies from 1990 to 2019. The majority of the studies ($n = 15$) focused on the employee's perspective, either directly or via proxy reports. Three of the studies focused on employers' experiences, three studies took the perspective of job coaches, and two studies concerned educators. Furthermore,

three studies had another perspective, such as agencies offering supported employment, and two studies sought to gather the perspective of parents of persons with intellectual disability. Three of the studies explored multiple perspectives.

3.3 | RQ3: Characteristics of participants with intellectual disability

All the studies in this scoping review directly or indirectly concerned adults with intellectual disability and their employment situation. Twelve of the articles included in this review reported a sample that consisted solely of persons with intellectual disability, and five of the studies reported on a broader sample of participants with different types of disabilities, such as cerebral palsy, autism spectrum disorder or general learning difficulties. The remaining seven articles presented the perspective of employers, job coaches, educators or supported employment agencies who worked with persons with intellectual and other disabilities, without further specifying any characteristics. The terminology used in several of the articles was not diagnosis-specific, applying concepts such as 'different levels of functionality', 'severe work disabilities' or 'mild-to-severe functional limitations'.

The number of participants with intellectual disability included in the studies ranged from $n = 7$ to $n = 2745$, and the total number of persons with intellectual disability across the studies was 4939. Six of the studies reported that participants had a diagnosis of mild-to-severe intellectual disability, and eleven studies did not report a specific level of intellectual disability for the research participants. Concerning the age of the participants with intellectual disability, nine of the studies focused on young adults aged 20–34. Seven of the articles studied middle-aged adults, and one study included both young- and middle-aged adults.

3.4 | RQ 4: Type of work

For our research question on which type of work persons with intellectual disability engage in, we summarized findings from the studies into the following categories: competitive employment (with or without support, and with or without government subsidies), sheltered workshop and organized occupation/ supported daily activities that include productive activities (see Table 1). Seventeen of the studies in this review reported on employees in competitive employment. Most of the employees received some form of support in their workplace, but some studies also reported on competitive employment without support. However, the studies that mentioned competitive employment without support dealt with diverse samples, and it could happen that those employees who did not require support had other disabilities than intellectual disability. Three of the studies in the scoping review reported on persons with intellectual disability that were in sheltered workshops, where they received some sort of work training. Three of the studies reported on organized

occupation or supported daily activities that involved production of services or goods.

3.5 | RQ 5: Main findings of the studies

An analysis of the main findings from each of the included studies in this scoping review suggests the following results: (i) persons with intellectual disability hold positive attitudes towards employment; (ii) school-related factors may form barriers to the employment of young adults with intellectual disability; (iii) support in the workplace is important yet highly variable; and (iv) gender differences occur in the employment situation of persons with intellectual disability. Each of these results will now be explained and exemplified further.

(i) Persons with intellectual disability hold positive attitudes towards employment

Findings from three of the studies included in this scoping review suggest that having a job to go to is highly valued by persons with intellectual disability. Amongst others, employment provides them with important social contacts, everyday structure and valued social roles (Garrels & Sigstad, 2019; Kåhlin & Haglund, 2009; Lövgren, 2015). Yet, three studies in this review indicate that persons with intellectual disability continue to have low levels of employment and that they experience less stable career trajectories (Arvidsson et al., 2016; Bollingmo, 1997; Lundahl et al., 2017).

(ii) School-related factors may form barriers to the employment of young adults with intellectual disability

At least four studies suggest that it is not necessarily the presence of intellectual disability in itself that leads to low participation in the labour market. Instead, other factors may have greater impact, and four school-related variables that may influence employment for persons with intellectual disability were identified in the studies. These school-related factors are class placement, choice of educational programme, coordination between the educational system and the labour market and teachers' expectations towards students with intellectual disability.

Myklebust and Båtevik (2014) found that class placement, that is being educated in special or regular classes, has a decisive effect on chances of employment, even after controlling for the functional level of the students. Students with special educational needs who were schooled in regular classes were more likely to attain vocational or academic competence, while students in special classes had poorer chances of attaining competence, and their vocational prospects were less promising. However, according to this longitudinal study that followed participants into their thirties, the influence of school-related covariables seemed to wane over time (Myklebust & Båtevik, 2014).

Choice of educational programme also seemed to predict whether persons with intellectual disability were likely to gain access to the labour market or not (Arvidsson et al., 2016). In Sweden, students with intellectual disability can choose between four types of educational programmes: (i) a national programme that focuses on vocational occupation within hotels and restaurants, social and

healthcare, vehicles and transportation, etc., (ii) a specially designed programme that targets students who are in need of more individually tailored education, (iii) individual programmes with vocational training and (iv) individual programmes with training activities. The latter two programmes are designed especially for students with more severe impairments. Arvidsson et al., (2016) found that students who were in the national programme were most likely to gain employment. However, this study did not control for level of intellectual disability.

A better coordination between the educational system and the labour market may also have a positive effect on the employment situation for persons with intellectual disability (Tholen et al., 2017). Here, Tholen et al., (2017) highlight the provision of internships at regular workplaces during upper secondary school as an important transition support, as this may help educators to teach abilities and knowledge that will be useful at specific workplaces. Additionally, if students are given the possibility to proceed to employment at the same workplace as they did their internship, they will be less likely to register as unemployed or to become daily-activity clients after graduating from upper secondary school, thereby avoiding pathways that reduce the likelihood of gaining employment at regular workplaces (Tholen et al., 2017).

Furthermore, Rosenqvist (1990) suggests that teachers who hold low expectations towards their students with intellectual disability may impact negatively on students' employment opportunities (Rosenqvist, 1990). Instead of passively accepting the prevailing employment situation for persons with intellectual disability, teachers in special education should work closer together with workplaces, Rosenqvist (1990) argues.

(iii) Support in the workplace is important yet highly variable

Six of the studies identified a number of workplace-related factors that may affect the employment situation for persons with intellectual disability. One recurring element seems to be the varying supports that employers experience when hiring persons with intellectual disability. Employers highlight the need for advisory support (Kuznetsova & Yalcin, 2017), but at least three studies suggest that this support is not always adequate (Beyer et al., 2010; Knüppel et al., 2019; Saloviita & Pirttimaa, 2007). Supported employment programmes may be an effective intervention to address employers' experienced need for support to accommodate the workplace for employees with intellectual disability (Tholen et al., 2017). However, three of the included studies indicate that there is considerable variation in the content of supported employment programmes, and certain programmes may even bar persons with significant disabilities, which may disadvantage persons with intellectual disability (Beyer et al., 2010; Saloviita & Pirttimaa, 2007; Skedinger & Widerstedt, 2007).

Another important factor for successful employment participation for persons with intellectual disability may be the qualifications and competence of job coaches or vocational rehabilitation professionals to enable an appropriate person-job match, as suggested by two of the studies included in this review (Bollingmo, 1997; Gustafsson et al., 2014).

(iv) *Gender differences occur in the employment situation of persons with intellectual disability*

Three studies suggest gender differences when it comes to employment opportunities for persons with intellectual disability. The choice of work for persons with intellectual disability seems to follow traditional gender roles, even when they do not choose occupational tasks themselves. This suggests that those who decide for them may have stereotyped them into gender-traditional occupational roles (Arvidsson et al., 2016; Myklebust & Båtevik, 2014; Umb-Carlsson & Sonnander, 2006).

4 | DISCUSSION

This scoping review documents that, since the 1990s, there has been a steady increase in research studies that explore employment for persons with intellectual disability. The research body consists of both quantitative and qualitative studies, and almost all of these are descriptive in nature. Most often, the studies investigate topics such as transition, general living conditions, employers' experiences and the personal experience of participating in the labour market. The employees' own perspective is most frequently explored, and most studies deal with young adults in competitive employment. Several of the studies included in this scoping review use mixed samples that also include persons with disabilities other than intellectual disability. The terminology used to denote the condition of intellectual disability is not consistent across the studies. The main findings of the studies that were included in this scoping review may be summarized as follows: persons with intellectual disability hold positive attitudes towards employment; school-related factors may form barriers to the employment of young adults with intellectual disability; support in the workplace is important yet highly variable; and gender differences occur in the employment situation of persons with intellectual disability.

Based on the findings from this scoping review, several issues are worthy of discussion. These issues concern: (i) the paucity of intervention studies; (ii) the need to focus not only on helping persons with intellectual disability to gain employment, but also to maintain it; (iii) methodological challenges with research studies that use mixed samples; and (iv) the question as to how well the Nordic countries manage to adopt a socio-ecological understanding of intellectual disability in school and in the workplace. Each of these issues will now be discussed underneath.

First, of the 23 articles included in this scoping review, only one of them presented an intervention study (Tholen et al., 2017), and 22 of them reported on descriptive studies. Thus, most of the studies are descriptive, with the purpose of describing and exploring rather than facilitating or enhancing the employment situation for persons with intellectual disability. While descriptive studies provide an important contribution in mapping the terrain, the paucity of intervention studies raises questions. It could be questioned whether this gap in the research base reflects a passive acceptance of the fact that persons with intellectual disability find themselves mostly

outside the labour market. The Nordic welfare model emphasizes generous social welfare benefits (Dahl, 2010), so that being unemployed not necessarily results in economic hardship for persons with intellectual disability. Without a clear economic need, it may be easier for researchers, practitioners and policymakers alike to accept an employment situation that is all but fulfilling for persons with intellectual disability. In that case, it may be important to emphasize the non-financial benefits that employment offers, as reflected in the findings from this scoping review.

Second, this scoping review shows that the most common aim of the included studies was to describe the transition from secondary school to working life for persons with (intellectual) disabilities. This explains why most of the studies comprise samples of young adults. For most people, getting a job is associated with entering adult life, and gaining employment forms an important part of developing an identity as an adult (Lysaght & Cobigo, 2014). Therefore, knowledge about how we can prepare young adults with intellectual disability for effective school-employment transitions is pivotal. However, for persons with intellectual disability the ability to maintain employment over time may be just as challenging as the ability to gain employment. Therefore, research studies on how middle-aged adults with intellectual disability can be supported in the labour market may be as important as studies that investigate how young adults can enter the labour market.

Third, approximately one third of the articles included in this scoping review report findings from diverse samples, that is samples of persons with general or specific disabilities, where persons with intellectual disability form a subsample. Due to the specific cognitive and adaptive challenges that characterize persons with intellectual disability, a more detailed description of study samples is encouraged. For studies with samples that consist solely of persons with intellectual disability, the level of intellectual disability of the participants, whether it is mild, moderate, severe or profound, is often not reported. Since persons with severe intellectual disability will require different support levels than those with mild intellectual disability, more transparency in describing the research sample may contribute to a more effective research-to-practice translation.

Fourth, findings from the articles included in this scoping review raise questions as to how well the Nordic researchers manage to adopt a socio-ecological understanding of intellectual disability. The socio-ecological understanding of intellectual disability explains disability as a mismatch between a person's capacity and the environmental demands (Tøssebro, 2004). Yet, few studies in this review focus on how the environment may be adapted to increase individual functioning. Individual factors that may challenge labour market participation seem to receive more research attention than support mechanisms. The studies by Gustafsson et al., (2014), Kuznetsova and Yalcin (2017) and Knüppel et al., (2019) highlight the importance of adequate accommodations at the workplace, a right person-job match, and the need for advisory support to employers in order to make ordinary employment accessible for persons with intellectual disability. More research on how to bridge the gap between the individual

capacity of the employee with intellectual disability and the demands of the workplace could provide valuable information about how persons with intellectual disability can function optimally in their work environment. For this purpose, researchers may look towards international studies that seek to identify how support systems can collaborate with employees and employers to obtain a proper person–environment fit in the workplace, such as the work by Nevala et al., (2019), or Cheng et al., (2018). These studies, with their emphasis on effective rehabilitation interventions and effective support, may form a useful basis for Nordic researchers and practitioners to build on further.

4.1 | Limitations

This scoping review has three main limitations that need to be acknowledged. First, despite our efforts to identify all relevant research studies, it is possible that some publications may have been overlooked. This may be a consequence of the search terms and inclusion/ exclusion criteria that were used in this study. Second, the authors are aware that a number of peer-reviewed studies on employment for persons with (intellectual) disabilities have been published in Scandinavian languages. As our search excluded articles that were not written in English, these studies were not included in this scoping review. Hence, the body of evidence may be more substantial and nuanced than what is presented here. Third, the quality of the studies in this scoping review was not assessed. Only peer-reviewed articles were included in the review, but the rigour of the research methodology and design in the studies was not evaluated. This may have implications for the validity of the findings that each of the studies in this scoping review presented.

Despite these limitations, this scoping review has used a rigorous methodology following the guidelines from the PRISMA-ScR checklist (Tricco et al., 2018). We adopted clear criteria for which articles to include in the review, and the analysis of the included studies was guided by systematically addressing our research questions.

5 | CONCLUSION

This scoping review investigated the characteristics of three decades of Nordic peer-reviewed research on employment for persons with intellectual disability. Main findings from the studies included in this review indicate that persons with intellectual disability value employment, but different school-related factors may hamper access to the labour market. Individualized support in the workplace is important but highly variable, and the choice of work for persons with intellectual disability seems to be influenced by traditional gender role patterns.

A paucity of intervention studies was identified, and given the life-long nature of intellectual disability, there is a need to explore further how middle-aged and senior adults with intellectual disability can be supported to stay active in the labour market. Future studies

may also benefit from a clearer description of the study sample, so that research findings can be generalized more easily. Relatively few studies investigate support systems that may help bridge the gap between the capacity of employees with intellectual disability and the demands that the workplace poses on them, and a more socio-ecological approach is encouraged.

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APPENDIX 1

Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) checklist

SECTION	ITEM	PRISMA-ScR CHECKLIST ITEM	REPORTED ON PAGE #
TITLE			
Title	1	Identify the report as a scoping review.	1
ABSTRACT			
Structured summary	2	Provide a structured summary that includes (as applicable): background, objectives, eligibility criteria, sources of evidence, charting methods, results and conclusions that relate to the review questions and objectives.	2
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of what is already known. Explain why the review questions/objectives lend themselves to a scoping review approach.	2–4
Objectives	4	Provide an explicit statement of the questions and objectives being addressed with reference to their key elements (e.g. population or participants, concepts, and context) or other relevant key elements used to conceptualize the review questions and/or objectives.	5
METHODS			
Protocol and registration	5	Indicate whether a review protocol exists; state if and where it can be accessed (e.g. a Web address); and if available, provide registration information, including the registration number.	No protocol available
Eligibility criteria	6	Specify characteristics of the sources of evidence used as eligibility criteria (e.g. years considered, language and publication status), and provide a rationale.	6
Information sources*	7	Describe all information sources in the search (e.g. databases with dates of coverage and contact with authors to identify additional sources), as well as the date the most recent search was executed.	5–6
Search	8	Present the full electronic search strategy for at least 1 database, including any limits used, such that it could be repeated.	5–6
Selection of sources of evidence†	9	State the process for selecting sources of evidence (i.e. screening and eligibility) included in the scoping review.	6
Data charting process‡	10	Describe the methods of charting data from the included sources of evidence (e.g. calibrated forms or forms that have been tested by the team before their use, and whether data charting was done independently or in duplicate) and any processes for obtaining and confirming data from investigators.	6–7
Data items	11	List and define all variables for which data were sought and any assumptions and simplifications made.	7
Critical appraisal of individual sources of evidence§	12	If done, provide a rationale for conducting a critical appraisal of included sources of evidence; describe the methods used and how this information was used in any data synthesis (if appropriate).	No critical appraisal of included sources of evidence was conducted. However, all included studies were published in peer-reviewed journals.

SECTION	ITEM	PRISMA-ScR CHECKLIST ITEM	REPORTED ON PAGE #
Synthesis of results	13	Describe the methods of handling and summarizing the data that were charted.	7-8
RESULTS			
Selection of sources of evidence	14	Give numbers of sources of evidence screened, assessed for eligibility and included in the review, with reasons for exclusions at each stage, ideally using a flow diagram.	Figure
Characteristics of sources of evidence	15	For each source of evidence, present characteristics for which data were charted and provide the citations.	Table 1
Critical appraisal within sources of evidence	16	If done, present data on critical appraisal of included sources of evidence (see item 12).	No critical appraisal of included sources of evidence was conducted
Results of individual sources of evidence	17	For each included source of evidence, present the relevant data that were charted that relate to the review questions and objectives.	Table 1
Synthesis of results	18	Summarize and/or present the charting results as they relate to the review questions and objectives.	7-12
DISCUSSION			
Summary of evidence	19	Summarize the main results (including an overview of concepts, themes and types of evidence available), link to the review questions and objectives, and consider the relevance to key groups.	12-14
Limitations	20	Discuss the limitations of the scoping review process.	14
Conclusions	21	Provide a general interpretation of the results with respect to the review questions and objectives, as well as potential implications and/or next steps.	14-15
FUNDING			
Funding	22	Describe sources of funding for the included sources of evidence, as well as sources of funding for the scoping review. Describe the role of the funders of the scoping review.	15

JBI, Joanna Briggs Institute; PRISMA-ScR, Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews.

*Where *sources of evidence* (see second footnote) are compiled from, such as bibliographic databases, social media platforms and Web sites.

†A more inclusive/heterogeneous term used to account for the different types of evidence or data sources (e.g. quantitative and/or qualitative research, expert opinion and policy documents) that may be eligible in a scoping review as opposed to only studies. This is not to be confused with *information sources* (see first footnote).

‡The frameworks by Arksey and O'Malley (6) and Levac et al. (7) and the JBI guidance (4, 5) refer to the process of data extraction in a scoping review as data charting.

[§]The process of systematically examining research evidence to assess its validity, results and relevance before using it to inform a decision. This term is used for items 12 and 19 instead of 'risk of bias' (which is more applicable to systematic reviews of interventions) to include and acknowledge the various sources of evidence that may be used in a scoping review (e.g. quantitative and/or qualitative research, expert opinion and policy document).

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