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EMPLOYMENT POLICY FOR PERSONS WITH DISABILITIES: SYSTEMATIC LITERATURE REVIEW WITH BIBLIOMETRIC ANALYSIS

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Abstract. The study aims to form a conceptual model for researchers engaged in analyzing and further improving current employment policy of specific states concerning persons with special needs, based on a review, analysis and systematization of the main conclusions and trends in the literature. The article pre-

МОДЕЛЬ ПОЛИТИКИ ЗАНЯТОСТИ ЛЮДЕЙ С ИНВАЛИДНОСТЬЮ: РЕЗУЛЬТАТЫ СИСТЕМАТИЧЕСКОГО ОБЗОРА ЛИТЕРАТУРЫ С БИБЛИОМЕТРИЧЕСКИМ АНАЛИЗОМ

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Аннотация. Статья представляет концептуальную модель развития политики занятости людей с инвалидностью, разработанную на основе обзора, анализа и систематизации основных выводов и трендов, существующих в научной литературе. В статье приведены результаты исследования динамики публика-

sents the results of studies of temporal changes in publications over time and by topic, identifies trends in the change of used keywords, and establishes trends in the distribution of articles in the studied areas, which allows describing a conceptual model that reflects the essence and forms the basis of disability employment policy. The conceptual model was the result of studying global trends in the formation of disability employment policy through a review of 1,284 publications obtained from the Scopus database from 1918 to 2021 and their analysis based on various methodological approaches of bibliometric analysis. The results first revealed an increase from 31 articles in 2005 to 101 articles in 2018. Second, we found that 68% of the authors are from the United States. The article also identifies that disability is presented as a global problem and lists the reasons for the philosophical shift in the field of disability employment. The authors substantiate a new paradigm of disability employment policy and explain the growth of publications after adopting the Convention on the Rights of Persons with Disabilities. Finally, the article points out that the role of leadership and participation of persons with disabilities is established in building an inclusive, accessible and sustainable world. Temporal changes in the used keywords of publications showed an expansion of topics related to disability employment policy. Trends in the distribution of publications in the studied areas have shown social sciences and medicine as the main subject areas of policy in the field of disability employment.

Keywords: literature review, conceptual model, well-being of persons with disabilities, employment of persons with disabilities, employment policy, disability, persons with disabilities

ций во времени и по темам, выявлены тренды в изменении используемых ключевых слов, установлены тенденции в распределении статей по предметным областям. Проведенный обзор литературы включает 1 284 публикации из базы данных Scopus с 1918 по 2021 г., изученных с помощью методов библиометрического анализа. Результаты темпорального измерения количества публикаций выявили скачок их роста с 31 статьи в 2005 г. до 101 статьи в 2018 г., а также обнаружили, что 68% от общего числа издателей публикаций на данную тему находятся в США. По результатам анализа публикаций по темам были выявлены пять глобальных тенденций: инвалидность представлена как глобальная проблема; определены причины философского сдвига в области занятости лиц с инвалидностью; обоснована новая парадигма политики занятости лиц с инвалидностью; объяснен рост публикаций после принятия Конвенции о правах лиц с инвалидностью; установлена роль лидерства и участия лиц с инвалидностью в построении инклюзивного, доступного и устойчивого мира. Темпоральные изменения используемых ключевых слов показали расширение тем, связанных с политикой трудоустройства лиц с инвалидностью. Тенденции в распределении публикаций по научным областям свидетельствуют о том, что социальные науки и медицина выступают основными предметными областями, где исследуется политика занятости лиц с особыми потребностями.

Ключевые слова: обзор литературы, концептуальная модель, благополучие лиц с инвалидностью, занятость лиц с инвалидностью, политика занятости, инвалидность, лица с инвалидностью

Introduction

Employment is an important source of socialisation for persons with disabilities. Moreover, employment affords advantages including social integration, improved well-being, financial independence, and societal contribution. Employment also influences the growth rate of a country's GDP through participation in the social production for this group of citizens. Social and economic reasons exist to promote the employment of persons with disabilities in each country, and identifying these reasons for decision-making is a key priority for each government [Regan, Stanley, 2003]. The disability employment policy is aimed not at solving structural problems in the labour market but at removing barriers to the employment of persons with disabilities. Internal and external barriers to the employment of persons with disabilities exist. Internal barriers involve the underdevelopment of professional skills of persons with disabilities, laziness, and weakly expressed subjectivity. Conversely, external barriers include a lack of vacancies for people with disabilities and employers' negative attitudes [Smoleva, 2018]. To overcome these and other barriers, states have developed legislation and applied policy approaches (e.g., quotas, subsidies, and anti-discrimination laws) to promote the employment of persons with disabilities. Each country has its own approach to improving the situation of persons with disabilities in the labour market and selects its own employment policies for this group of citizens. However, despite countries' efforts to improve the situation of persons with disabilities, inequality in the employment of persons with disabilities and persons without disabilities continues to this day [Bruyère, 2000].

Currently, enough studies have been published with literature reviews on certain topics of employment for persons with disabilities. Reviews included topics such as entrepreneurship of persons with disabilities, barriers to employment, factors contributing to the improvement of employment of persons with disabilities, and active policies for the development of the labour market for persons with disabilities. Thus, according to the results of a literature review on the study of barriers to hiring people with disabilities at the macro and meso levels, we identified the following: mesobarriers (negative attitudes of society, colleagues, and employers; lack of knowledge among employers about the abilities of persons with disabilities and their insufficient awareness of disability when hiring and retaining employees) and macrobarriers arising in the absence of integration of services [Shaw et al., 2014].

According to the results of a literature review of the active policies of countries in the labour market, for persons with disabilities receiving state benefits, regardless of the social security regime, no state provides the full package of measures promised by politicians, leading to long-term success in the employment of persons with disabilities [Lahey et al., 2019].

Results of a literature review on the employment of persons with intellectual and developmental disabilities have highlighted the need to improve the employment of this group of persons by expanding the use of supported employment [Almalky, 2019].

Simultaneously, in the process of analysing the literature, we found that no literature review has been published covering the field of disability employment policy. This literature gap incited us to combine qualitative and quantitative methods to analyse

and provides a roadmap for future researchers in this field. Our study is the first systematic literature review with a bibliometric analysis of disability employment policy for subsequent holistic studies of this area.

This study attempts to form, based on the systematisation of global trends and main conclusions provided in the literature related to the disability employment policy, a model of a conceptual framework for researchers engaged in analysing the current policies of specific states and its further improvement by answering the following research questions:

RQ1: What are the current trends in publications on disability employment policy in various research areas in temporal changes, changes in topics, and keywords used in the publications?

RQ2: What is the intellectual structure of disability employment policy research?

Methodology

We collected data from Scopus database in November 2021 to obtain information on disability employment. Scopus covers a large number of journals and occupies a prominent place in the formation of potential research areas in science [Aghaei Chadegani et al., 2013]. In this study, we applied a combination of systematic literature review and bibliometric analysis, which have been used by many authors, particularly in the research by Goyal and Kumar [2021].

A systematic literature review is a key technique in academic research that can significantly improve the quality, reproducibility, and reliability of reviews [Xiao, Watson, 2019]. The bibliometric analysis reflects the utility of scientific data processing, has a high research impact, and helps decipher and map scientific knowledge through careful comprehension of large volumes of unstructured information data. Bibliometric analysis helps scientists cover a universal literature review and can form a solid basis for the development of the field using the latest and most important methods [Donthu et al., 2021].

The search for literature sources was conducted by name, abstract, and keywords such as “Employment of people with disab*” OR “disability employment*” OR “employment of disab” OR “disab* policy*” and not limited by years. Hence, we obtained 1,425 initial sources. We refined the search further by filtering for documents in English only and obtained 1,348 results. Further, after reading abstracts of the selected articles, assessing the quality and compliance of publications with the requirements, for further in-depth and detailed study and analysis of sources, we selected 1,284 publications. Studying their content and data in the context of thematic clusters led us to decide on further in-depth analysis of publications according to the plan outlined above.

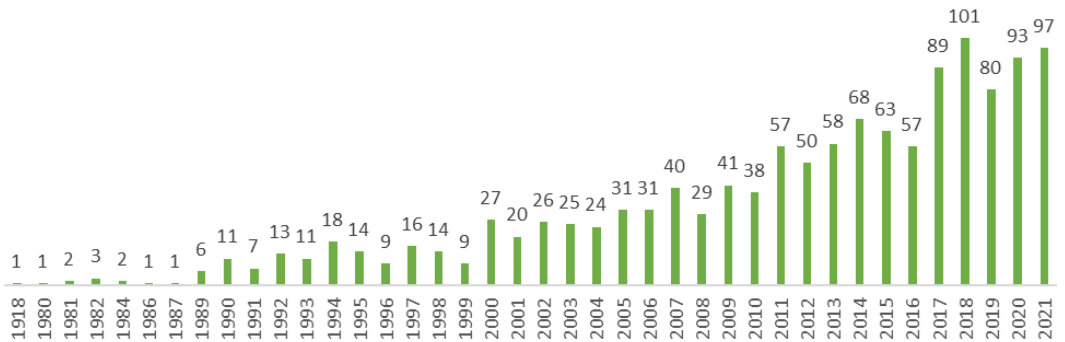
Following the plan, in the next stage, we will determine the temporal changes in publications over time and analyse the geography of research on this topic. Next, using bibliometric network analysis, we determine temporal changes in the use of keywords in publications and then identify publication trends in subject areas. Finally, with the help of content analysis of the selected literature, we present a holistic picture of the issues of disability employment policy through a conceptual model.

Research results

Temporal changes in publications in time

We examined literature sources available in Scopus database on disability employment policy from 1918 to 2021. Figure 1 shows the trend of publishing 1,284 articles over time.

Fig. 1. Trend of annual publications of 1,284 articles obtained from Scopus database (1918–2021)



According to the “time” criterion (Figure 1), an unstable (strange) publication trend can be observed. The first publication was published in 1918. However, we see a continuation of the list of publications in 1980. Meanwhile, in Scopus database, we found articles on our topic relating to the period from 1952 to 1964. However, their analysis was not possible because the authors and full-text articles were missing from Scopus and had to be skipped.

From 1980 to 1987, the number of articles related to our topic ranged from one to a maximum of three per year. Since 1989, the number of publications associated with the declaration by the United Nations (UN) of the Decade of Persons with Disabilities (1983–1992) has increased. The reason for the growth was also the more active implementation of activities recommended by the World Program of Action by governments and organisations and the adoption of the UN General Assembly of the Tallinn Guidelines for the Development of Human Resources in the Field of Disability, which equalised opportunities for persons with disabilities to participate in the development of national policies (in 1989) at all levels.

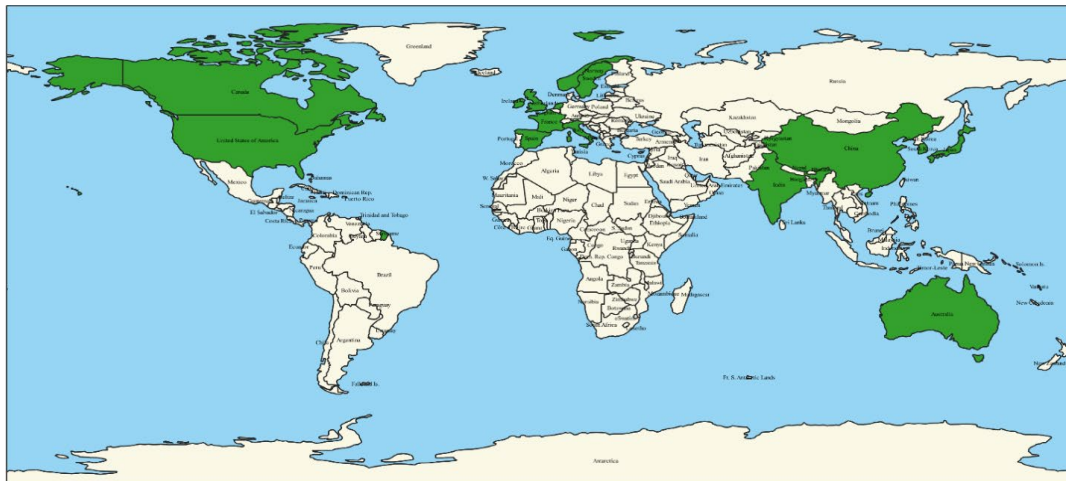
The next increase in the growth of publications occurred in 2005, which we associated with the preparation and adoption by the UN General Assembly of the Convention on the Rights of Persons with Disabilities, adopted in 2006, and with an increase in the total number of publications and publications that began being indexed in the constantly updated Scopus database. Scopus database was introduced in November 2004. By 2006, this database covered more than 14,000 publishers, of which 4,000 publishers had offered access to publications dating back to the mid-1960s [Boyle, Sherman, 2006]. For example, journals such as *Disability and Rehabilitation*, *Assistive Technology*, *Alter*, *Intellectual, and Developmental Disabilities*, which published articles on this topic, have been indexed in Scopus database since 2007.

The highest number of publications was observed in 2018 (101 documents), the year the United Nations presented the UN Flagship Report on Disability and Development. This report provides a basic methodological framework that helps in formulating, implementing, monitoring, and evaluating a comprehensive, accessible, sustainable global development agenda that considers the interests of persons with disabilities.

Moreover, the interest of researchers in the problem of “Disability Employment Policy” has remained stable over the past 5 years, as evidenced by the availability of fairly large volume of publications (at least 80 in 2018 and a maximum of 101 in 2019).

Guided by the criterion of “geography,” we have compiled the top 15 leading countries that have made significant contributions to the research activities of disability employment policy. Figure 2 shows the total number of publications in each country and the percentage of total publications.

Fig. 2. Top 15 countries in the field of disability employment policy research



Rate	Country	Total publications	%
1	United States of America	873	67.9%
2	Australia	307	23.9%
3	United Kingdom	228	17.7%
4	Canada	169	13.1%
5	Sweden	68	5.3%
6	Netherlands	53	4.1%
7	Norway	51	3.9%
8	Italy	45	3.5%
9	Spain	44	3.4%
10	China	41	3.1%
11	South Korea	38	2.9%
12	France	31	2.4%
13	India	29	2.2%
14	Ireland	28	2.1%
15	Japan	27	2.1%

Figure 2 shows that the USA makes a major contribution to the development of the field of disability employment policy research and is rightfully recognised as the leading country in this aspect of research. The volume of its publications is 68% of the global production of publications. After the USA, Australia, Great Britain, and Canada occupy second, third, and fourth places, respectively. The list is continued by European coun-

tries, such as Sweden, the Netherlands, Norway, Italy, and Spain, with a small number of publications on this topic. The list concludes with China, South Korea, France, India, Ireland, and Japan. These data indicate growing interest in disability employment policies in leading countries.

The idea of employment of persons with disabilities comes from the USA, which arose here when considering the employment of soldiers with disabilities after their return to their homeland [Keough, 1918]. Subsequently, this idea emerged in the UK, where we considered opportunities for the employment of persons with disabilities [Curtis, 1981] and the attitude of employers toward the employment of persons with disabilities. Researchers have attempted to identify the reasons employers are unwilling to employ persons with disabilities in Israel [Florian, 1981] and in the UK [Espir, Semence, Floyd, 1987]. Researchers in Switzerland have studied new approaches and concepts aimed at creating employment opportunities for persons with disabilities [Cooper, 1984].

Next, we will consider temporal changes in publications by topic.

Temporal changes in publications by topic

Initially, disability was an object of charity and was considered, as a rule, within the framework of “medical model,” wherein persons with disabilities are assigned the role of dependent and inferior persons. Disability was also considered in “model of tragedies,” wherein persons with disabilities were assigned the role of persons deserving pity and care from people without disabilities. Unfortunately, governments have been building their policies by exclusively relying on these two models [Goss, Goss, Adam-Smith, 2000]. The medical model was established between 1900 and 1970. Since 1970, disability has been viewed from a new perspective as a social phenomenon and as a socially constructed model for categories of people dependent on society [Holler, 2017]. The new model differs from the medical model in many ways. The articles began raising questions about the inability of the social environment to adapt to the existing needs of persons with disabilities. Moreover, work ethics began to be considered as a condition for the economic survival of persons with disabilities [Jongbloed, Crichton, 1990].

We carefully studied and analysed 1,284 published documents to identify temporal changes. We have identified five publication time intervals for a more thorough analysis: (1) 1980–1989, (2) 1990–1999, (3) 2000–2006, (4) 2007–2017, and (5) 2018–2021. Each of these time intervals has its own theme. The division of these publications into several time intervals allowed us to determine how the trends of the keywords used changed over time and the trends in the distribution of publications by the studied areas. We also analysed and drew a parallel between publications and historical events that preceded the surge in publication activity.

Next, we consider events in the time intervals indicated in more detail.

Disability as a global problem (1980–1989)

Having studied published articles for the period 1980–1989, we found that the reason for the relevance of this topic for this period was unfavourable difficulties for the economy, such as an increase in the number of people receiving income from the state

for disability, a significantly high unemployment rate, and the deterioration of labour market conditions in many countries since 1980. Owing to these difficulties, countries have begun searching for various reactions to such economic pressures. The UN legally declared 1981 as the International Year of Persons with Disabilities. Thus, disability is ranked as a global problem. Individual countries are responsible for taking effective measures to ensure full participation in the rehabilitation of people with disabilities.

The scope and direction of changes in disability programs in the United States in the 1970s and the 1980s were considered by the authors in the context of European experience. We assessed the success of the disability policy under the pressure of the growing unemployment rate in achieving the stated goals in three countries: the USA, Sweden, and West Germany. Economic pressure in these countries has led to different policies toward workers with disabilities, including those with temporary or partial disabilities. Hence, the Swedish program was aimed at providing rehabilitation or subsidising jobs. West Germans relied on income support, early retirement, and work quotas, providing social benefits, and encouraging the return of persons with disabilities to the labour market [Burkhauser, Hirvonen, 1989].

Philosophical shift in the field of employment of persons with disabilities (1990–1999)

Globalisation of economic markets, growth of healthcare costs, and increased attention to human rights have prompted all countries to take measures to preserve jobs and, among other things, develop comprehensive employment programs for persons with disabilities. Publications written during this period were mainly devoted to the analysis of state policies regarding disabilities. In the two decades from 1970 to 1990, remarkable progress and significant changes in the field of disability employment opportunities were found. Authors of the publications of this period note that a significant philosophical shift in the field of employment happened. This manifested in the shift of attention of state policy, social professionals, and persons with special needs themselves to the high unemployment rate among persons with disabilities [Brooke et al., 1998]. This is not accidental because in 1989, serious social transformations occurred in the states of Central, Eastern, and Western Europe. They have led to changes in both the existing social policy in general and, accordingly, in the field of policy regarding persons with disabilities and their social status. The changed political and social situation in these countries has caused high unemployment, unfavourable demographic trends towards the elderly, poverty, and growing demand for social and medical services. Therefore, a social policy crisis was found in these countries [Uršič, 1996].

In 1990, the Americans with Disabilities Act was passed. This law served as an incentive not only for the United States but also for many other countries, prompting them to create anti-discrimination laws. Scientists have explored prospects for the implementation of the American Disabilities Act and, based on comparisons with other legislative acts, made a forecast in publication form regarding the future implementation of the American Disabilities Act [Watson, 1994].

The disability employment policy of the 20th century generated scientific interest in many countries. Since then, there have been major changes in the policies of states in the field of disability. Particularly, there has been a shift in the disability employment

policy toward creating equal opportunities for the traditional group of citizens and category of citizens with special needs.

New paradigm of disability employment policy (2000–2006)

Since 2000, the range of issues related to disability has expanded significantly. Many studies have analysed politicians' perspectives, the experience of employers and other stakeholders, results of the adoption and implementation of laws, opportunities for psychologists to promote disability policy, and population ageing in developed countries as a source of disability [Cook, Burke, 2002]. Owing to the complexities in the indicated issues, a sufficiently effective approach to solving the problems of persons with disabilities has developed — a “new paradigm” in the field of economics, public policy, and healthcare about persons with disabilities.

Since 2001, according to the International Classification of Functioning published by the World Health Organization (WHO), disability has been considered a set of factors related to individual conditions and health status and contextual factors. This made it possible to present disability through an interactive model consisting of structural parts, including (1) body functions and structure, (2) activity and participation, and (3) contextual factors. Contextual factors are understood as a combination of two factors: environmental factors (physical, social, and behavioural environment of the population, wherein the lives of persons with disabilities are easier or more difficult) and personal factors (not dependent on individual human health conditions but affect lives of persons with disabilities, including gender, age, education, and other factors)¹. Legal factors include norms and regulations governing the employment of persons with disabilities through legislation [Burkhauser, Daly, 1994].

In 2004, the International Labor Organization (ILO) changed its recommendations for human resource development. The recommendations call for increasing the role of employers in providing employment and increasing attention to the role of local authorities and other stakeholders in the implementation of programs that include persons with disabilities. These recommendations call for recognising the role of social partners in professional development. Since 2004, the employment of persons with disabilities has been considered an important key issue in many countries, which is characterised by strategies and action plans aimed at citizens with special needs.

Publications after the adoption

of the Convention on the Rights of Persons with Disabilities (2007–2017)

In 2006, the Convention on the Rights of Persons with Disabilities was adopted, which included 50 articles containing the right to promote and protect all persons with disabilities, including children with disabilities. After countries ratified the Convention on the Rights of Persons with Disabilities, the interest of scientists in this topic has increased, as there have been significant developments in the policies of countries regarding persons with disabilities, requiring study and generalisation. Hence, there has been a shift towards respect for human rights in all countries. Politicians have

¹ World Health Organization. (2011) World Report on Disability 2011. December 14. URL: <https://www.who.int/teams/noncommunicable-diseases/sensory-functions-disability-and-rehabilitation/world-report-on-disability#:~:text=World%20Report%20on%20Disability%202011,a%20figure%20of%20around%2010%25> (accessed: 25.08.2022).

begun prioritising the socioeconomic integration of persons with disabilities, and measures are being taken in states to increase the level of employment of persons with disabilities. In this connection, during 2007–2017, a huge number of publications from 62 countries appeared in Scopus database, whose disability policies were actively researched and analysed by scientists. Research by scientists in developed countries has focused on the introduction of evidence-based employment support for solving the problem of improving the socioeconomic situation of persons with disabilities, establishing a reasonable partnership between various stakeholders in the field of employment of persons with disabilities and defining the role of municipalities as institutions that solve issues of support and organisation of services for persons with disabilities. Special attention is paid to the socioeconomic integration of people with mental illnesses, disorders, and learning disabilities.

Scientists who have studied policies of developing countries have systematised barriers to improving the socioeconomic situation of persons with disabilities and their integration into society, including the lack of basic and vocational education for persons with disabilities; incorrect perception in society of persons with disabilities; difficulties with transport and insufficient funding of social and sports facilities; lack of legal remedies and clear concrete steps and solutions to promote political statements; low level of rehabilitation services; stigmatisation; insufficiently correct formulation of the basic administrative principles; and complexity of the state system of organisation and accessibility of employment services for persons with disabilities.

In the mentioned group of countries, there has been a shift in the field of human rights. Politicians are prioritising the socioeconomic integration of persons with disabilities and are considering the issues of increasing their employment level.

In 2011, the first World Health Organization (WHO) World Report on Disability was published. It provides a statistical overview of the actual data on persons with disabilities. Most importantly, there is a tendency to globalise the prevalence of disability in the world in comparison with previous data from 1970. Reasons for the increase in disability were an increase in chronic diseases and population aging².

Studies establishing and disclosing the factors affecting the provision of persons with disabilities are interesting to researchers. Contextual factors include insufficient education, excessive guardianship of family members, and discrepancies between the available and required skills of persons with disabilities [Bualar, 2015].

Therapeutic and preventive factors reflect the level of inpatient and outpatient services, medical care, and state of rehabilitation [Gettens, Henry, 2015].

Social security factors include curriculum counselling, career guidance, forms of provision of educational services, and the development of infrastructure for the mobility of consumers of educational services [Agovino, Rapposelli, 2016].

Researchers have especially prioritised the stimulation of employers to increase the employment of persons with disabilities. In this regard, the importance and effectiveness of allocating subsidies and tax incentives to encourage employers to hire and retain persons with disabilities in the workplace is emphasised [Samoy, Waterplas, 2012].

² World Health Organization. (2011) World Report on Disability 2011. December 14. URL: <https://www.who.int/teams/noncommunicable-diseases/sensory-functions-disability-and-rehabilitation/world-report-on-disability#:~:text=World%20Report%20on%20Disability%202011,a%20figure%20of%20around%2010%25> (accessed: 25.08.2022).

Other tools for stimulating employers were also provided. These include compensation for adaptation to work, financial support for employment coaches, monetary compensation, support from all competent parties, encouraging employers to hire persons with disabilities [Holler, 2017; Bualar, 2015], supported employment, flexible workplaces, and accessibility of infrastructure [Bualar, 2015].

*Leadership and participation of persons with disabilities
in building an inclusive, accessible, and sustainable world (2018–2021).*

On 3 December 1992 Resolution 47/3 of the United Nations General Assembly proclaimed the International Day of Persons with Disabilities. The theme “Leadership and participation of persons with disabilities in creating an inclusive, accessible and sustainable world after COVID-19” was named for the consideration of the International Day of Persons with Disabilities in 2021. This topic linked publications from 2018 to 2021 into common content for the study. In publications of this period, scientists can observe the problem of integrating persons with disabilities into society as a key factor in sustainable development.

The disability employment policy is based on two legal approaches: anti-discrimination legislation (social model) and a system of employment quotas (medical model). In many countries, employment policy uses both approaches. However, in other countries, anti-discrimination legislation often does not make significant changes to disability employment policy owing to the lack of definitions of “disability” and “discrimination” in the legal framework. Therefore, we do not find effective mechanisms for their enforcement [Hao, Li, 2020].

The result of the disability employment policy is a reduction in direct, indirect, and additional costs. Direct expenses include private expenses for the care of these citizens and health care costs. Indirect costs include those related to taxes and reduced productivity. Additional costs include costs for persons with disabilities and their families to maintain a decent standard of living, and costs associated with the disability itself [Ipek, 2020].

Access to information and communication technologies (ICTs) and their use by persons with disabilities has attracted the attention of politicians since the 1970s. For example, China’s transformative disability policy focuses on inclusive education, rehabilitation, and e-commerce plus disability policies. China has moved towards inclusive growth aimed at benefiting persons with disabilities. Disability is central to social integration policies in Australia and China. The government’s role is important in the development and subsequent implementation of the digital disability policy. Agencies and support groups for people with disabilities also play key roles [Goggin et al., 2019].

The consequences of the COVID-19 pandemic directly affect persons with disabilities, as there is a significant risk of its occurrence and negative consequences. In this regard, scientists emphasise the need for integrated, systemic, and joint medical care systems [Okyere et al., 2021] and the need for coherence and purposefulness of efforts on the part of services and the need to develop broader public policies and programs for further inclusion of persons with disabilities in the labour market [Olney et al., 2022]. Services of rehabilitation consultants need to be doubled, and service providers for persons with disabilities need to be organised to establish contact with

employers [Chan et al., 2021], and, also as the importance of creating inclusive employment opportunities for persons with disabilities [Gignac et al., 2021].

One of the positive consequences of the COVID-19 pandemic for people with disabilities has been working at home with the help of new technologies. Beginning with remote work, people with disabilities in middle class and poor countries can benefit by reducing the number of barriers [Morris, 2021].

The COVID-19 pandemic has created an unfavourable trend not only for persons with disabilities but also for all people in the world. During this period, awareness of the importance of remote work for persons with disabilities increased, which has its advantages. However, governments still face a huge challenge in improving the conditions for the continued well-being of people with disabilities.

Trends in the use of keywords in publications

Keyword networks help researchers understand research trends, and visual and structured analyses help determine the evolution of keywords [Duvvuru et al., 2013]. To establish trends in temporal changes in the use of keywords in publications on the topic “Disability Employment Policy,” we will use the same five time periods (see Figure 2) and the VOSviewer software tool.

From 1980 to 1989, most publications lacked keywords. The most popular interrelated topics are organisational management and humans. The organisational management network diagram includes keywords such as “disability,” and “human” includes vocational rehabilitation, employment, therapy, persons with disabilities and others as keywords.

In 1990–1999, research topics comparing with the previously reviewed period expanded. Research has gained new focus owing to keywords such as “supported employment” and “assistive technologies.” Three interrelated main topics are viewed here, such as “human”, “disability” and “health insurance.” In the network diagram, “human” is closely associated with the following keywords: persons with disabilities, rehabilitation, vocational training, legal aspects, adults, and others. The chart “disability” is associated with the keywords law, policy, supported employment, disability policy, social security, and assistive technologies. We explain the presence of these keywords in publications by adopting the Civil Rights Law prohibiting discrimination against persons with disabilities in many countries.

In 2000–2006, the following three important areas were observed: “employment” (related keywords: disability policy, ability to work, employee, labour productivity, employer, health policy and others), “adult” (related keywords: quality of life, economic aspect, men, women, comparative research, and others) and “disability” (related keywords: social security, education, public policy, social aspect, law, mental health, policy development, and others). This diagram confirms our earlier statement about the birth of a new paradigm of disability policy during this period.

In 2007–2017, there was a period when researchers analysed the processes of respect for human rights and employment. The most significant areas included four different topics: “human resources,” “employment,” “organisation and management,” and “professional rehabilitation.” Therefore, during this period, the analysis of disability employment policies conducted in many countries was aimed at, from a legal perspective, identifying obstacles to the socioeconomic integration of persons with disabilities.

Trends in the distribution of publications by research areas

We examined temporal changes in the subject areas of publications by time intervals, considering publication trends for 1980–1989, 1990–1999, 2000–2006, 2007–2017, and 2018–2021.

Publications for 1980–1989 were mainly written in five subject areas wherein medicine (61.9%) had more advantages compared to other subject areas. Only 14% of publications were written on social sciences. During this period, the topic of disability employment policy was considered in a narrow context in such subject areas as medicine, social sciences, psychology, health professions, economics, econometrics, and finance.

In the period 1990–1999, social sciences (34.4%) had better advantages than medicine (23.6%). Social sciences, medicine, and health professions were also included in the top three areas of research on the topic under consideration.

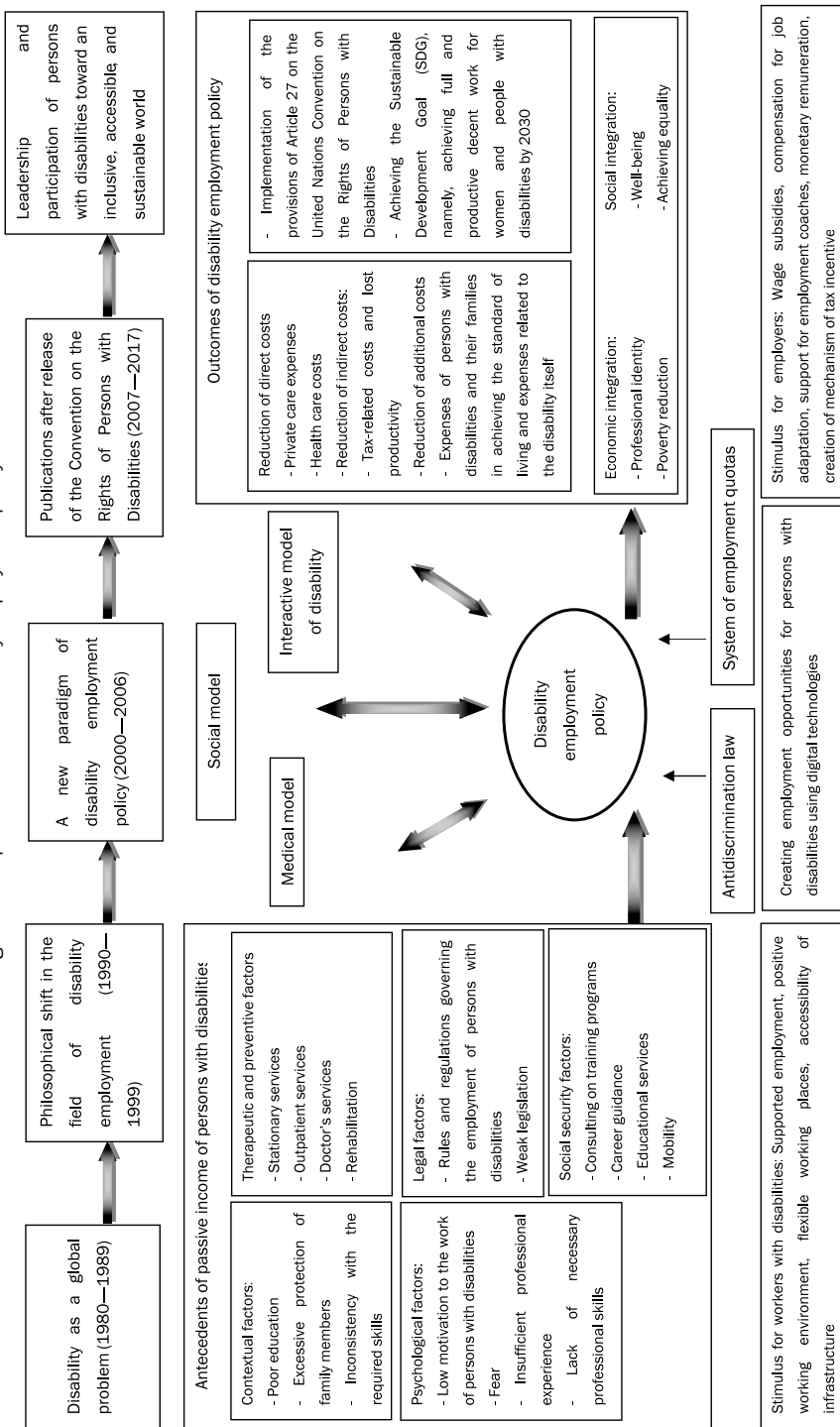
In the period 2000–2006, the top five subject areas were social sciences, medicine, health professions, business, management and accounting, and psychology.

An interdisciplinary subject area was added to the publications for the period 2007–2017. An increase in the number of thematic areas of publications from 1980 to 2021 (40 years). If publications for the period 1990–1999 were written in 15 subject areas, then publications for the period 2000–2006 were considered in 18 subject areas. Publications for the period 2007–2017 and publications for the period 2018–2021 were expanded in 19 subject areas. Analysis by year shows that social sciences increased their share of publications from 14.2% to 37% with a small difference in the periods 2007–2017 and 2018–2021, while medicine steadily declined with a small difference in the period 2007–2017 (38.7% reduction in publications). In fact, psychology increased its share from 4.7% to 6.6% between 1980 and 2017. The trend in the distribution of publications by subject area indicates a high interest of scientists from different subject areas on this topic.

Conceptual model

In summary, we present a conceptual model for developers of government programs (Figure 4). A conceptual model contains descriptions of an event, object, or process, and is its logical conclusion [Meredith, 1993], provides support for research components, and clarifies research context for the reader [Crawford, 2019]. The conceptual model illustrates publication trends divided into five time intervals, from 1980 to 2021. The model also illustrates the causes of the passive income of persons with disabilities and summarises the results of the disability employment policies. The reasons for the passive income of persons with disabilities include contextual (therapeutic and preventive), psychological, and social security factors. Results of the disability employment policy are expressed as the reduction of direct, indirect, and additional costs. The model includes the provisions of article 27 “work and employment” of the United Nations Convention on the Rights of Persons with Disabilities; the achievement of the Sustainable Development Goals (SDGs), namely, ensuring productive decent work for women and persons with disabilities by 2030 and socioeconomic integration of persons with disabilities.

Fig. 4. Conceptual model of disability employment policy



Understanding the significance of disability in the planned and implemented aspects of disability employment policy is very important. Therefore, we identified three disability models. Historically, disability was considered in the “medical model,” and then, due to content filling, disability began to be considered in the structure of the “social model.” Since 2001, disability has been considered as a set of factors related to individual conditions and health status and contextual factors. The disability employment policy is based on two legal approaches: anti-discrimination legislation (social model) and a system of employment quotas (medical model). However, in some countries, anti-discrimination legislation often does not make significant changes to disability employment policy. In many countries, the quota system does not produce fruitful results as employers prefer paying fines rather than hiring persons with disabilities [Liao, 2020: 329]. In this regard, in the management of this process, creating a regulatory mechanism for monitoring the implementation of quotas by the public and private sectors is important.

The existence of such a mechanism will contribute to the effective application of laws and regulations [ibidem]. Governments in all countries face difficult tasks, which, with the right approach, can increase the employment rate of persons with disabilities. After analysing the number of publications in Scopus database, we identified three approaches that scientists have determined to increase the level of employment of these citizens. These approaches include stimulating employees with disabilities and employers and creating employment opportunities for persons with disabilities using digital technologies. To motivate persons with disabilities, maintaining employment, a favourable working environment, flexible workplaces, and accessibility to infrastructure are necessary. Digital technologies are an effective tool for overcoming barriers (e.g., accessible environment, negative attitude of employers, accessibility of the labour market, creation of virtual jobs) and in the development of an electronic labour exchange. In this regard, training persons with disabilities in digital competence as well as social and political support from governments are necessary.

Discussion and conclusion

Considering that persons with disabilities negatively assess their life in general compared with people without disabilities [Korzuk, 2016], this systematic scientific review of global trends in disability employment policy, supplemented by bibliometric analysis, attempts to create a general picture of changes in the nuances of disability employment policy. Since 1980, the number of publications in this field have increased, and this area of research is expanding, including in a geographical sense. The number of countries implementing policies to improve the lives and working conditions of people with disabilities is increasing. Simultaneously, the USA made the greatest contribution to the total number of publications in the field of disability employment policy research, accounting for 68% of the total number of publications.

According to the results, the following publication trends were determined by the time intervals: disability as a global problem (1980–1989), philosophical shift in the field of employment of persons with disabilities (1990–1999), a new paradigm of disability employment policy (2000–2006), publications after the Convention on the Rights of Persons with Disabilities (2007–2017), and leadership and participation of

persons with disabilities in building an inclusive, accessible, and sustainable world (2018–2021). Keywords used in publications over the past 40 years show the expansion of topics were related to disability employment policy and confirm the trends of publications examined in five publication time intervals for 1980–2021 in the Scopus database. The study of trends in the distribution of articles by subject area allowed us to establish that social sciences and medicine are the main subject areas of disability employment policy.

Summarising the main conclusions of the publications, we presented a conceptual model for developers of state programs, revealing the content of the identified trends in publications in five time intervals. The analysis of publications helped identify approaches to increase the level of disability employment, stimulate employees with disabilities and their employers, and create employment opportunities for persons with disabilities based on the use of digital technologies.

Our study contains the following limitations. First, the authors attempted to cover all publications in this field, but some studies could not be covered due to the lack of keywords and terms in the search engine. Second, this study was limited by the inclusion of publications in Scopus database. Researchers interested in this problem could use other databases in the future to obtain additional results. Third, this study analyses the general picture of disability employment policy; we did not consider specific aspects (a certain type of disability, certain employment policy tools, etc.). Therefore, scientists interested in this topic could supplement and refine the conceptual model.

This study can help policymakers, regulators, and academic researchers understand the intricacies of disability employment policy and identify areas and aspects for further study. The disability employment policy aims to solve the problems of vulnerable groups of the population, involving society in solving the employment problems existing in this area. Therefore, the policy is designed to help persons with disabilities contribute to the development of the country's economy and improve the well-being of their families.

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