Evolution of models of disability as a basis for further policy changes in accessible tourism

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Abstract

Purpose – *The purpose of this paper is to present the results of a critical analysis of the disability models developed to date and of how they function in practice. Furthermore, it aims to answer the following question: which model of disability (MD) will provide the most suitable foundation for any course of action undertaken in the process of planning accessible tourism development in the future?*

Design/methodology/approach – *In the first stage of the study a critical analysis of the MDs described in the literature as well as in selected reports and expert opinions relating to people with disability (PwD) was performer. These findings then became the basis for the second stage of the study which focuses on identifying attitudes within society towards the types of tourism on offer connected to the analysed MDs. The applied research methods include an analysis of a survey (2013, 2014) carried out face-to-face and on the SurveyMonkey web site. The study group consisted of 619 people (from Poland, Russia, Germany, Portugal, Slovakia, Canada, Tunisia and Great Britain).*

Findings – *The great diversity of disabilities makes finding a universal solution in the creation of accessible tourism supply a complex task. This supports the need for a flexible "mix of various models" aimed at finding optimal solutions and the personalisation of tourism. In this context the greatest potential in the development of accessible tourism are models which are a synthesis of many determiners of disability such as the biopsychosocial or the geographical model of disability. The dynamics of accessible tourism development is likely to be increasingly influenced by the economic model, reflecting current trends for the personalisation of tourism supply.*

Research limitations/implications – *The survey was carried out mainly within the European Community, the exception being respondents from Irkutsk in eastern (Asian) Russia. In order to gain a global view of the development of accessible tourism, research should be performed in countries representing all continents or tourist regions. Additionally, reflecting the definition of accessible tourism its beneficiaries – PwD – should participate in decision-making processes. Tourism service providers who are directly engaged in tourism supply also have a role to play. Their opinions and attitudes towards the development of accessible tourism determine its very nature in reality.*

Practical implications – *The survey on attitudes in society regarding the organisation of tourist trips for PwD confirmed conclusions from the analysis of the practical implications of various disability models in the creation of tourism supply that a single universal, optimal solution does not exist. All of the described MD can be applied in the development of a diverse tourism supply. The proposed model "diversification of supply […]" is the theoretical basis for the conscious development of accessible tourism in practice which in accordance with changes observed in the tourism market is undergoing increasing diversification and personalisation.*

Social implications – *In each of the tourism supply for PwD types the economic model of disability based on the identification of PwD needs and surrounding society is important. The number of PwD and the scope of necessary services, social support (PwD often travel accompanied by one to three people) is determined by income in all the sectors identified in the structure of tourism supply. From the economic point of view, awareness of different types of disability and the diverse models describing it are significant aids in the segmentation of tourism supply and placement of products accessible to PwD on the tourism market.*

Originality/value – *The paper presents a new, critical perspective on the selected MD, the key to which is the search for optimal solutions in the development of accessible tourism. The analysis performed indicated the need for a synthesis of paradigms at the core of the conceptualisation of particular models, including those often regarded as being contrary (medical and social). The results of studies would give tourism providers important data on an increasingly competitive tourism market, and also affect changes in how PwD, the elderly, are viewed, from the category of "relatively poor" to "attractive, using a wide range of services".*

Keywords *Tourism, Accessible tourism, Medical model of disability, Social model of disability, Geographical model of disability, Economic model of disability*

Paper type *Research paper*

Introduction

The evolution of concepts defining disability has been conditioned mainly by socio-economic and legislative changes. This evolution is reflected in numerous models of disability (MD), for example, ethical, medical, social, biopsychosocial, geographical or economic models. Certain MDs illustrate how disability was perceived (in a given time, by a given social group) which influenced what action was undertaken and considered appropriate in terms of eliminating both the causes and effects of disability. Each MD was based on a different paradigm which also determined the action connected to accessibility to public spaces, buildings or tourism services for people with disabilities (PwDs). How disability is perceived in the model (consciously or subconsciously) accepted by tourism services providers shapes the supply structure of the tourism market. Changes in the perspective of disability (models) is the "driving force" of current and future transformation in tourism supply which is undergoing increasing diversification. This is a decisive factor in the development of accessible tourism, defined here as:

> […] a form of tourism involving collaborative processes between stakeholders that enables people with access requirements, including mobility, vision, hearing and cognitive dimensions of access, to function independently and with equity and dignity through the delivery of universally designed tourism products, services and environments. This definition adopts a whole of life approach where people throughout their lifespan benefit from accessible tourism provision. These include people with permanent and temporary disabilities, seniors, obese, families with young children and those working in safer and more socially sustainable designed environments (adapted from Darcy and Dickson, 2009, p. 34; Buhalis and Darcy, 2011, pp. 10-11; Buhalis *et al.*, 2012, p. 3).

On a global scale, predictions (UNWTO, 2011; World Travel Market, 2014) are that tourism will continue to develop dynamically (in regard to the number of trips undertaken and the diversification of forms). A significant trend in demographic prognosis is the increase in the number of PwD (WHO, 2011). Furthermore, the wide range and degrees of disabilities give rise to the key question: "which model of disability is and will be a good theoretical basis for the creation of a satisfactory accessible tourism offer?" The answer to this question requires an analysis of the MDs thus far developed (including what happens when they are applied in practice) and also the associated types of tourism supply.

Aim

The paper presents the results of a critical analysis of the disability models developed to date and of how they function in practice. Furthermore, it aims to answer the following question: which MD will provide the most suitable foundation for any course of action undertaken in the process of planning accessible tourism development in the future? In order to achieve this, two questions needed to be answered:

1. Which type of supply on the tourism market, accessible to PwD, is suggested by different MD?
2. Are MD, viewed from the perspective of their application in the development of tourism supply, seen as alternatives or rather complementary?

The study was carried out in two stages and applied critical specifications and survey instruments.

Research design

Critical specifications

In the first stage of the study a critical analysis of the MDs described in the literature as well as in selected reports and expert opinions relating to PwD was performed. The results were used to show the evolution of concepts regarding perceptions of disability and their implications in the creation of tourism supply taking the needs of PwD into consideration. These findings then became the basis for the second stage of the study which focuses on identifying attitudes within society towards the types of tourism on offer connected to the analysed MDs.

Survey instrument

The applied research methods include an analysis of a survey carried out face-to-face and on the SurveyMonkey web site between May 2013 and July 2014. The study group consisted of 619 people (from Poland, Russia, Germany, Portugal, Slovakia, Canada, Tunisia and Great Britain). The group of study participants represented people without disabilities. The respondents were asked questions about optimal ways of organising tourist trips for PwD. The first question: "Do you think that trips for disabled people should be organized […]" had several possible answers as well as an "other" option to select from. The second question: "Would you like to spend your free time with disabled people?" was dichotomous, requiring either a "yes" or "no" answer together with a request for further explanation of the response selected. Similarly, the following question: "Do you think that particular facilities or special support are necessary during excursions for disabled people?" had a "yes" or "no" answer and asked for an additional explanation. The survey participants were also asked: "Do you think that disabled people should be employed in tourism services, e.g., in hotels, travel agencies, as tourist guides, excursion guides?" with either a positive or negative answer. The survey was considered international and the questionnaire itself was prepared in three languages: Polish, English and Russian.

Disability and MD

It is difficult define the concept of disability precisely. This is due to the wide range of its conditions, both biopsychosocial as well as those connected to the perception of disability in a cultural context. World Health Organisation (WHO) (2015) states that "disabilities is an umbrella term, covering impairments, activity limitations, and participation restrictions. An impairment is a problem in body or structure; an activity limitation is a difficulty encountered by an individual in executing a task or; while a participation restriction is a problem experienced by an individual in involvement in life situations". In the *International Classification of Functioning*, *Disability and Health* (ICF, 2002, p. 10) disability and functioning are viewed as outcomes of interactions between health conditions (diseases, disorders and injuries) and contextual factors. A similar statement also included in the WHO (2011, pp. 3-4), which noted that "disability is complex, dynamic, multidimensional, and contested. Over recent decades, the disabled people's movement (together with numerous researchers from the social and health sciences) have identified the role of social and physical barriers in disability". Persons with disabilities are recognised as "having long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective in society on an equal basis with others" (Convention on the Rights of Persons with Disabilities, 2006, Art. 1.).

A review of the definitions above indicates that the current trend is towards a systemic recognition of disability taking psycho-somatic and environmental factors (in a social and spatial context) into account. This is the position presented by WHO (2015), which acknowledges that "disability is a complex phenomenon, reflecting the interaction between features of a person's body and features of the society in which he or she lives. Overcoming the difficulties faced by PwD requires interventions to remove environmental and social barriers". Such a complex definition of disability arose from the evolution of many MDs (Table I).

The most frequently discussed models at the present time, also within the literature on accessible tourism, are the medical and social models, often presented as opposing concepts (see Buhalis and Darcy, 2011, p. 31). However, in the future, considering the increasing numbers of tourist

Table I Review of models of disability (MD)

Model	*Source*	*Basic understanding*
Ethical	Goffman (1963), Imrie (1997), Barnes and Mercer (2004), Best (2010)	Disability as stigma
Medical, Biomedical	Parsons (1951), Hahn (1986), Bickenbach (1993), ICF (2002), Gaines (2004)	Disability as functional loss
Individual (medical)	Priestley (1998)	Disability as functional loss
Minority	Bickenbach (1993), Hahn (1986),	Disability as an oppressed minority
Individual idealist	Priestley (1998)	Disability as a stigma
Social	Oliver (1990, 1996), ICF (2002), Hughes and Paterson (1997), Gaines (2004)	Disability as a product of a disabling environment
Social materialist	Priestley (1998)	Disability as a product of a disabling environment
Social idealist (constructionist)	Priestley (1998)	Disability as cultural representation
Geographical, geospatial	Gaines (2004), Zajadacz (2014), Zajadacz and Śniadek (2014)	Disability as spatial exclusion
Economic	Hahn (1986), Bickenbach (1993)	Disability as a socio-economic issue (work)
Biopsychosocial model	ICF (2002)	The synthesis (medical and social model), a coherent view of different perspectives of health: biological, individual and social

Sources: ICF (2002); Buhalis and Darcy (2011); Forrester and Davis (2011); Zajadacz and Śniadek (2014)

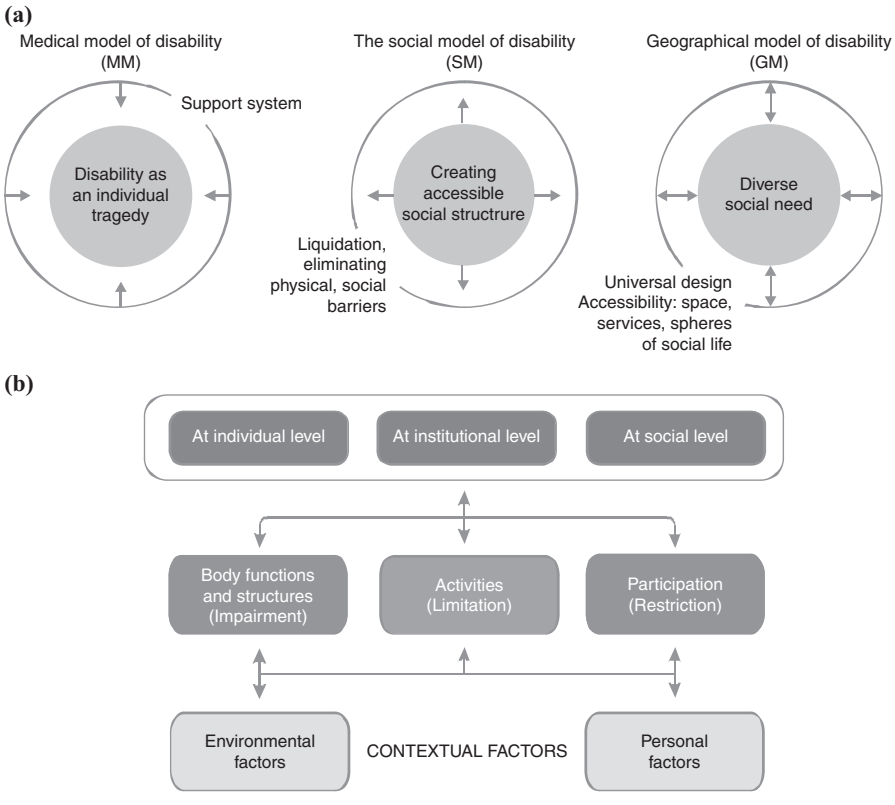
trips and greater diversification of tourism supply, the development of approaches synthesising experiences to date, such as the biopsychosocial and geographical models or the economic model, can be expected. Due to practical implications regarding the development of current and future accessible tourism, the following section of the paper focuses on the analysis of the following selected models: medical, social, geographical, biopsychosocial and economic.

The medical model of disability (Figure 1 MM) was first submitted in 1951 by T. Parsons. It assumes that disability is connected to the individual features of a given person and is above all their own personal tragedy. Any action undertaken (medical treatment, physical rehabilitation) is aimed at maximising the ability of the individual (adaptation to the environment). This model has met with some criticism due to the fact that its central focus is on the causes of disability. A person with disabilities may feel stigmatised and of less value to society in general if seen only from the perspective of their dysfunction. "Disability rights campaigners have long campaigned against viewing disability from the perspective of biologically based personal tragedy, instead looking to a social constructionist view disability, with the concept of disability rooted in discourses of prejudice and exclusion" (Best, 2010, p. 98). "The transition from an individual, medical perspective to a structural, social perspective has been described as the shift from a "medical model" to a "social model" in which people are viewed as being disabled by society rather than by their bodies" (WHO, 2011, p. 4).

The social model of disability (Figure 1 SM) is founded on contrasting assumptions. The central theory is that disability is not due to individual characteristics but is rather the result of existing restrictive factors in the environment (including social and mental barriers) which multiply a given individual's dysfunction and hinder or prevent his/her participation in the full scope of life in society (Oliver, 1996; Darcy *et al.*, 2010; Darcy and Pegg, 2011). The removal of barriers limiting people with specific types and degrees of disability increases the quality of life and creates equal opportunities in relation to the non-disabled section of society. The strength of the social model of disability is the assumption that it is not the person with a disability who needs to adapt to the environment but that social conditions should change making it possible for this person to participate fully in society.

There are both advantages and disadvantages to the SM. A positive aspect is that it clearly highlights the necessity to introduce changes increasing accessibility, services and participation in society for PwD (if a certain dysfunction cannot be changed, then external conditions must be adapted). Furthermore, legislation stipulating "equal opportunities" for PwD also exists. On the other hand, the passive treatment of PwD as "victims" of an in accessible environment and social

Figure 1 Models of disability: (a) medical, social, geographical; (b) biopsychosocial



Notes: (a) The arrows indicate the main directions of activities connected to: wish to make PwD less disabled (MM); elimination of barriers and limitations occurring in the physical and social environment (SM); exploitation of each person's individual potential and development of a universal design respecting the needs of as much of society as possible, including PwD, without acknowledging any of these groups as special needs (GM); (b) biopsychosocial Model of Disability (MB)
Sources: (a) Zajadacz and Śniadek (2014); (b) ICF (2014)

neglect is regarded as a weakness of this model and often as an insufficient response to their needs. Additionally, researchers have shown that the social interpretation of disability ignores the fact that not everything is a question of social perspective – "people have bodies and bodies matter" (Best, 2010, p. 98). For this reason, many PwD experience physical or mental problems which would exist even if society provided all the necessary conditions enabling their full participation in society. "The medical model and the social model are often presented as dichotomous, but disability should be viewed neither as purely medical nor as purely social: persons with disabilities can often experience problems arising from their health condition. A balanced approach is needed, giving appropriate weight to the different aspects of disability" (WHO, 2011, p. 4). Disability in this context is understood "as a dynamic interaction between health conditions and contextual factors, both personal and environmental. Promoted as a "bio-psycho-social model", it represents a workable compromise between medical and social models WHO, 2011, p. 4).

The biopsychosocial model of disability (Figure 1 BM) assumes that "disability is a complex phenomena that is both a problem at the level of a person's body, and a complex and primarily social phenomena. Disability is always the interaction between features of the person and features of the overall context in which the person lives, but some aspects of disability are almost entirely internal to the person, while another aspect is almost entirely external. In other words, both medical and social

responses are appropriate to the problems associated with disability; we cannot wholly reject either kind of intervention" (ICF, 2002, p. 9). The BM "synthesizes what is true in the medical and social models, without making the mistake each makes in reducing the whole, complex notion of disability to one of its aspects" (ICF, 2002, p. 9). Similar assumptions form the basis for the geographical or geospatial model (GM). In the GM concept however, alongside the medical and social determinants of disability, issues of spatial relations – PwD v tourism space – are also visible.

The geographical (geospatial) model of disability (Figure 1 GM) was created during research in the field of the geography of disability. "In recent years, geographers have made significant strides towards understanding the spatiality of disability. This research has presented disability as a characteristic of the population that inevitably leads to marginalisation and spatial exclusion from otherwise normal social arenas and spaces within the built environment (Butler and Bowlby, 1997; Gaines, 2004, p. 80). The GM concept applies experience gathered to date (connected to the MM and SM models) and focuses mainly on the interrelation between PwD and geographical space (Chouinard *et al.*, 2010; Zajadacz and Śniadek, 2014). Geographers connect the nature of factors causing disability (disabling nature) both with social and spatial aspects of the human environment, they promote solutions which are more "inclusive" and which provide access to sites and the full scope of life within society taking different degrees and types of disability into consideration. The GM also aims to remove social "tensions" related to the SM which treats disability as a process of social exclusion (Chouinard *et al.*, 2010). It assumes that limited ability is caused by both individual conditions (connected to a specific dysfunction) and those of the surrounding physical and social environment creating the restrictions which occur in the PwD – environment (social, physical) relation. The GM has accepted a significant paradigm in that it treats needs connected to various types and degrees of disability not as "special" but as one of many which occur in contemporary society. Universal design should therefore consider the nature of these needs in universal design, in the creation of maximally accessible buildings, sites and public services (Imrie, 2012; Zajadacz, 2014). The central postulate is not to concentrate on "disabilities", but to focus on various social needs and adapt the geographical environment (social, as well as physical) accordingly.

The economic model of disability (Figure 1 EM), is also based on conclusions emerging from the functioning of the MM and SM. This concept presents disability in the light of diverse needs generating demand on the tourism market: "An economic model of demand driver. The economic model will change that focus by changing how access is looked upon. Once any industry appreciates that the disabled and their friends are a large market they will start to research their interests (Forrester and Davis, 2011, p. 6). The development of the EM is determined by a growing competitive market and the increase in the numbers of people affected by disability (according to WHO, 2011, PwD make up approximately 15 per cent of the world's population). In many areas, it is now being noted that PwD, together with their families and friends constitute a large client group, the result of which is the need to identify the demand they express and the creation of suitable products, likewise within the tourism services industry. "The economic model suggests that the market already exists and is growing rapidly with the retiring baby boomers. The real issue is attracting them by providing the facilities and services that they need. This group will not identify with the disability sector but will simply want to keep doing those things that they have always done and even relive their youth in their retirement. Their abilities will not be what they were in their 20s but they will still expect be able to fulfil their aspirations "(Forrester and Davis, 2011, p. 6). The EM in the tourism services sector has developed from the "roots up". This means it has been created by the tourism sector itself, and this is a determining factor regarding its huge potential in the future development of accessible tourism. "This impetus of new demand for more accessible facilities and service will change the paradigm for the disability sector. The business case is about making the industry aware of the market size and redefining disability away from the concept that it is an homogenous group to regarding it as a significant group of people with differing levels of ability desires and needs (Forrester and Davis, 2011, p. 6).

MD in the creation of tourism supply – the implications

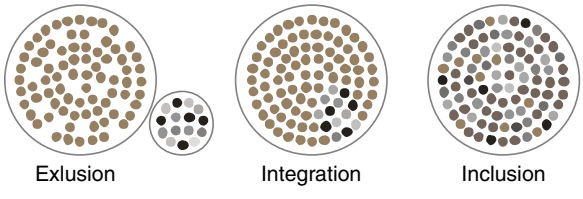
The presented disability models (Table II) are connected to the various types of social relations PwD have with society: from exclusion through integration to inclusion. They also determine various approaches to the creation of the tourism supply aimed at and accessible to PwD (Figure 2).

Table II Select models of disability

Medical	*Social*	*Biopsychosocial*	*Geographical*	*Economic*
Personal problem	Social issues	Somatic and social issue	Spaces issue	Demand issue
Medical care	Social integration	Medical care and social integration	Spatial integration	Economic integration
Individual treatment	Social action	Individual treatment and social action	Accessibility of places and spaces	Product development
Professional help	Individual and collective responsibility	Personal help and individual collective responsibility	Exploitation of geographical information system to evaluate the accessibility of space regarding individual needs	Innovation in design and function
Personal adjustment	Environmental manipulation	Personal adjustment and environmental manipulation	Universal design	Universal design
Behaviour	Attitude	Attitude	Person as an integral part of a geographical environment	Culture
Care	Human rights	Human rights and care	Human rights	Competitive advantage
Health care policy	Politics	Health care policy and politics	Politics, market forces	Market forces
Individual adaptation	Social change	Social change, exclusion, integration, inclusion	Inclusion	Inclusion

Sources: Forrester and Davis (2011); Zajadacz and Śniadek (2014)

Figure 2 Models of social exclusion, integration and inclusion of people with disabilities



Source: Schrader (2012)

The medical model of disability determines the creation of what tourism offers mainly in the field of health tourism, focused on improving a given person's disability. By offering services "focused on" a given dysfunction, it is connected to social exclusion, the creation of a separate offer for people with a given type and degree of disability (this would include short-stays at residential treatment centres). Despite the general criticism of the MM, in certain cases, depending on the degree and type of disability, better results, e.g., in the transfer of information or quality of rest can be gained in homogeneous groups both in terms of declared needs and types of limitations or difficulties connected to travelling. It is not without significance that many people find it easier to relax when in the company of others with similar characteristics. When social groups are being formed the factors which affect mutual attraction, such as similarity, are the most important. However, as familiarity grows, external similarity ceases to be as important and shared beliefs, attitudes and accepted values and experiences become more significant (Oyster, 2002). An example of practices connected to the MM in addition to treatment at residential centres, are tourism trips aimed at a selected section of PwD (organised by specialist tour operators such as Accessible Poland Tours based in Warsaw).

The social model of disability places greater emphasis on social integration (cohesion). Integration is understood as "community-based action founded on dialogue, mutuality and equality" (Ministerstwo Gospodarki, Pracy i Polityki Społecznej, 2003, p. 24). Direct, everyday social interaction of PwD is fundamental. Proper life adaptation and social integration of PwD are possible thanks to action at the "grass roots" level, such as participation in groups: friends,

neighbours, social and community projects, etc. In the context of creating tourism for all this approach requires tourism services providers to focus on creating the conditions to make participation of PwD in tourism trips possible. For this type of action to be successful the acceptance of the other participants of the trip is necessary, e.g., all should agree to a slower pace of sightseeing. This is especially important in the case of families or social, informal groups travelling with a disabled member, Furthermore, it is of significance outdoors where improvements related to universal design cannot be introduced so easily.

Models based on a synthesis of experience connected to the functioning of the MM and SM, i.e., the biopsychosocial and geographical models are mainly focused on developing social inclusion. Social inclusion is a process where PwD have the opportunity and resources necessary to participate fully in economic, social and cultural life and to maintain a standard of living which is acknowledged as normal in a given society. At the same time, it is important to guarantee PwD greater participation in the deciding processes which affect their lives and access to basic rights. In accordance with this approach, features connected to disability are not treated as "special" but rather as one of many occurring in society. For people who have various physical or sensory restrictions, a universally prepared product ensures easy and independent access. This approach is in accordance with all the assumptions of the accessible tourism concept to the highest degree (Darcy and Dickson, 2009, p. 34; Buhalis and Darcy, 2011, pp. 10-11; Buhalis *et al.*, 2012, p. 3).

Accepting the economic model of disability as a basis for action in tourism services means focusing on the heterogenic environment of PwD as a section of the tourism market. "Estimates of the potential tourism demand that persons with disabilities may constitute are usually only partial (most of those consulted refer to Europe) and vary greatly in terms of number of potential tourists.

There is widespread consensus that this demand can be characterised as follows:

- it is constantly increasing, due to the incorporation of improvements in infrastructures, information, facilities granted or other determining factors;
- it is multi-customer; it seems that for every person with a disability, an average of 1.5 people travel alongside;
- it can boost the image of the destination;
- it has a significant impact on reducing the seasonality of certain destinations, especially in the case of beach tourism; and
- it generates more than the average revenue resulting from conventional tourism" (ACS Fundacion, UNWTO, 2001, p. 4).

Action founded on the EM is based on identifying the diverse needs and expectations of PwD and their families/friends, with whom they often travel for purposes of tourism. Hence all the variations of social relations: exclusion, integration and inclusion are taken into account as the grounds on which to create a diverse tourism supply.

Through the analysis of the selected MD and the related types of tourism supply it is possible to state that these models based on various paradigms, taking into account their significance in the development of tourism supply, should not be treated as alternative concepts but as complementary to each other. The wide range of the individual needs of a potential tourist means those models should often be "mixed", exploiting the important elements of each in order to satisfy tourism needs and guarantee PwD a high sense of satisfaction with tourism. The creation of such diverse types of tourism connected with changes in the processes of social integration and inclusion taking place requires commitment not only from the tourism sector but also from society in general. It is therefore particularly important to identify social attitudes towards accessible tourism.

Survey findings

The aim of the study was to identify social attitudes towards the issue of how tourist trips for PwD are organised, and as a result determine which of the presented MD is currently considered by society to be optimal in regard to the creation of what is offered by accessible tourism. Primary data were gathered via a questionnaire-based survey in which 619 people took part (Table III).

Table III Respondent characteristics

Characteristic	*Respondents (%)*
Sex	
Female	69.6
Male	30.4
Age	
19-24	60.1
25-44	21.2
45-64	17.1
65 and over	1.6
Education	
Basic	0.6
Vocational	1.3
Secondary	37.3
Diploma	33.3
Higher	27.5

Note: $n = 619$
Source: Survey results (2013-2014)

The majority of participants were from Poland (82.5 per cent), then Russia (10 per cent), Portugal (3.2 per cent), Germany (3.1 per cent) and Slovakia (0.5 per cent), Canada (0.5 per cent), Tunisia (0.1 per cent) and Great Britain (0.1 per cent).

Regarding how tourism trips for PwD are organised, the majority of the survey's respondents are of the opinion that they should be organised both together with non-disabled people and separately, one third of those questioned felt that the type of disability determines how trips are organised (together or separately). A small group of the survey's participants are of the opinion that PwD should travel separately (4.5 per cent). By comparison, just over 16 per cent of those questioned can be regarded as being in favour of inclusive tourism (Table IV).

The majority of people (73 per cent) declared they were open to spending their free time with PwD, whereas 27 per cent of those questioned said they did not wish to do so and provided various reasons (Table V).

Nearly all those questioned were of the opinion that tourism for PwD requires support, above all technical improvements in terms of the accessibility of buildings and services (Table VI). The respondents believe that society and tourism services personnel must be more open to the needs of PwD. It is also necessary to increase the accessibility to information and provide financial assistance for PwD in relation to tourism.

In response to the question "Do you think that disabled people should be employed in tourism services, e.g., in hotels, travel agencies, as tourist guides, excursion guides?",

Table IV Opinions of survey participants on the organisation of trips for PwD

Responses to the following question: "Do you think that trips for disabled people should be organized:"	*Respondents (%)*
Both together and separately	50.6
It depends on the type of disability	32.8
Together with non-disabled people	16.3
Separately	4.6
I do not have an opinion	1.5
No answer	4.2

Note: $n = 619$
Source: Own research

Table V Reasons for not wishing to spend free time with PwD

Type of response	*Respondents (%)*
I feel uncomfortable; I do not know how to behave	16.8
In my free time I prefer relaxing, I am not interested in other people's problems	5
Disabled people slow down sightseeing and make it more difficult	4
I feel insecure when I see a disabled person, I am afraid that this could happen to me or my relatives	3.1
I do not like disabled people, they are very demanding	0.8
Other	0.5

Note: $n = 619$
Source: Own research

Table VI Types of support for tourism of PwD according to respondents (in per cent)

Responses to the question: "Do you think that particular facilities or special support are needed during excursions for disabled people?"	*Respondents (%)*
Technical issues (e.g. lifts, vehicle, accessible means of transport, accessible toilets)	83.8
Openness of society and staff who serve disabled tourists according to their individual needs	51.9
Clear information (inc. about accessible entrances, transport stops, accommodation)	41.4
Financial support due to the low incomes of disabled people	39.1

Notes: $n = 619$. More than one answer was possible
Source: Own research

the majority (75.8 per cent) gave a positive answer, whereas almost a quarter did not declare such support.

Studies carried out within the community indicate a high awareness of the complexity of problems connected to accessible tourism. On one hand there is greater openness and acceptance of action directed towards integration, social inclusion, universal design applied to tourism space, buildings and tourism services and the appropriate attitudes of service providers, and of society as a whole, to the needs of PwD. On the other hand, the great diversity of disabilities makes finding a universal solution in the creation of accessible tourism supply a complex task. This supports the need for a flexible "mix of various models" aimed at finding optimal solutions and the personalisation of tourism. In this context the greatest potential in the development of accessible tourism are models which are a synthesis of many determiners of disability such as the BM or the GM. The dynamics of accessible tourism development is likely to be increasingly influenced by the EM, reflecting current trends for the personalisation of tourism supply (World Travel Market, 2014).

Research limitations

The survey was carried out mainly within the European Community, the exception being respondents from Irkutsk in eastern (Asian) Russia. In order to gain a global view of the development of accessible tourism, research should be performed in countries representing all continents or tourist regions (according to the UNWTO). Additionally, reflecting the definition of accessible tourism its beneficiaries – PwD – should participate in decision-making processes. Therefore, it is especially important to present the point of view of PwD themselves regarding accessibility in tourism. Tourism service providers who are directly engaged in tourism supply also have a role to play. Their opinions and attitudes towards the development of accessible tourism determine its very nature in reality. The presented survey results should not be treated as an exhaustive study but rather as a stimulus to deepen the identification of widespread factors and possible directions in the development of accessible tourism in the future.

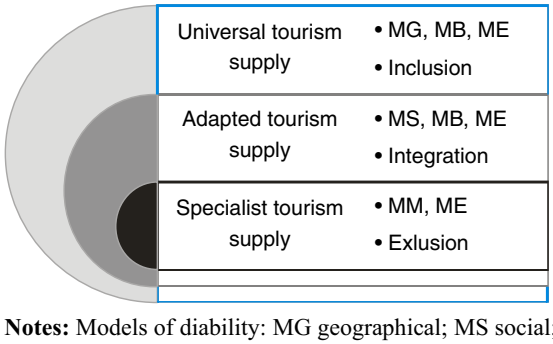
Practical and social implications

The survey on attitudes in society regarding the organisation of tourist trips for PwD confirmed conclusions from the analysis of the practical implications of various disability models in the creation of tourism supply that a single universal, optimal solution does not exist. It is possible therefore to state that all of the described MD can be applied in the development of a diverse tourism supply. It should however be highlighted that significant trends visible both in the evolution of different MD and in the responses of the survey's participants, include widening action to enable the integration and social inclusion of PwD during tourism trips. This does not rule out the need to create specialist offers targeted at people with a given type of disability. The model below presents this approach (Figure 3).

The proposed "model of the diversification of supply structure in the tourism market" (Figure 3) is determined by various MDs. At its core is the medical model of disability and the need to create a "specialist tourism supply" (e.g. short stays in residential treatment centres, workshops for PwD and for accompanying family members, assistants). Another type is "adapted supply" reflecting the social model of disability and incorporates a wider range of trips during which what is on offer is adapted to the needs of PwD if so required. Here, support from society (e.g. other travellers on the trip agree to a slower pace of sightseeing due to difficulties encountered by wheelchair users, the need for a sign-language interpreter, placing an additional mattress on the bed to make the transfer from chair to bed easier for wheelchair users, etc.) is necessary. "Universal tourism supply" reflects the biopsychosocial and geographical models of disability and is connected above all with the guarantee of easy access to tourism space, buildings and tourism services for the greater independence of PwD. This type of supply makes social inclusion – where the needs of PwD are not treated as special but rather as one of many occurring in society which should be reflected in the universal design of tourism spaces, buildings and tourism services – possible. In contrast to "adapted tourism supply" it does not have to be altered when PwD needs arise for these have already been taken into account, universal accessibility is already in place.

In each of the tourism supply for PwD types the economic model of disability based on the identification of PwD needs and surrounding society is important. The number of PwD and the scope of necessary services, social support (PwD often travel accompanied by one to three people) is determined by income in all the sectors identified in the structure of tourism supply (from specialist to universal). From the economic point of view, awareness of different types, degrees of disability and the diverse models describing it are significant aids in the segmentation of tourism supply and placement of products accessible to PwD on the tourism market. The "diversification of supply structure […]" is the theoretical

Figure 3 Model of diversification of tourism market supply structure available for PwD



Notes: Models of diability: MG geographical; MS social; MB biopsychosocial; MM medical; ME economic

basis for the conscious development of accessible tourism in practice which in accordance with changes observed in the tourism market is undergoing increasing diversification and personalisation.

Originality, value

The paper presents a new, critical perspective on the selected MD, the key to which is the search for optimal solutions in the development of accessible tourism. The analysis performed indicated the need for a synthesis of paradigms at the core of the conceptualisation of particular models, including those often regarded as being contrary, such as the medical and social models. Disability is currently seen as a complex phenomenon reflecting interaction between a person's physical features and the features of the environment in which she/he lives. In the evolution of the presented disability models there is a visible tendency towards guaranteeing PwD the greatest possible levels of independence and self-reliance both through improving the body and in changes in the social and physical environment resulting in the elimination of barriers. Social attitudes currently support this objective, as the results of the survey on the organisation of tourism trips for PwD reveal. This is also reflected in the active inclusion of PwD in the creation of the tourism supply through their employment in the tourism services sector.

Taking the diverse needs connected to different degrees and types of disability into consideration, each of the presented MD is helpful in the development of accessible tourism for PwD supply. The models should therefore be treated as complementary. If applied to the tourism sector they can form the foundations of the conscious creation of tourism supply adapted to diverse demands (emerging from personal preferences, needs and limitations of individual tourists). The development and extension of this consciousness requires:

- education of employees in the tourism sector and affiliated sectors (the whole tourism chain involved in the delivery of the tourism product);
- wider consideration in tourism and recreation study programmes of issues relating to social inclusion in tourism and universal design; this topic should also be part of the teaching curriculum in architecture and design courses; and
- a new marketing approach and new way of dividing the market taking the principles of social inclusion in tourism and universal design into account.

A significant factor determining transformation in the supply structure of accessible tourism for PwD in the future would most certainly be the results of studies revealing income for the tourism industry from this diverse and "growing" (due to an ageing population, amongst other reasons) market sector. The results of such studies would give tourism providers important data on an increasingly competitive tourism market, and also affect changes in how PwD, the elderly, are viewed, from the category of "relatively poor and demanding" to "attractive, using a wide range of services" not restricted to the high season. The gap in knowledge about such an important and increasingly significant sector of the tourism market, marks further courses for investigation which could have great implications in their application.

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