

## Access to fly: A scoping review of travellers with Disabilities' experiences in air travel

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### ABSTRACT

Accessible air travel is recognised as a human right for travelers with disabilities. However, many travellers with disabilities have negative experiences when they fly. While existing research has examined travel constraints faced by travellers with disabilities, we do not know how travellers with disabilities navigate through these challenges. We conducted this scoping review to analyze how the existing literature has studied the air travel experiences of people with disabilities and the environmental factors that impact their experiences. We also seek to identify the gaps for future research. We reviewed published scientific articles indexed in nine electronic databases and published from January 1990 to April 2024. A total of 26 articles met the inclusion criteria. The findings of the included studies were thematically analysed. Five themes were identified that captured the experiences of air travellers with disabilities: (1) issues related to accessing information, (2) concerns related to interaction with personnel, (3) built infrastructure barriers, (4) assistive device problems, and (5) policies and procedure constraints. The review identified gaps pertaining to the underrepresentation of people with hidden disabilities, insufficient training among personnel, limitations to independent travel planning, and variability in policies and procedures across jurisdictions. These represent potential areas for future research that can help promote a more inclusive air travel experience for travelers with disabilities.

### 1. Introduction

Mobility is a crucial factor that impacts the participation of people with disabilities in many meaningful life activities, including air travel (Vine et al., 2012). Access to air travel is essential, as it provides people with disabilities opportunities to engage in employment, recreation, and healthcare (Paralyzed Veterans of America, 2018). Air travel is also a means of realising the freedom of movement. According to Articles 9 and 30 of the United Nations Convention on the Rights of Persons with Disabilities (UN CRPD), people with disabilities have the right to accessible transportation and tourism, including the right to travel by air (Darcy, 2012; United Nations, 2006). International agencies have also increasingly recognised the rights of air travellers with disabilities, highlighting the need for more inclusive designs in air travel (International Air Transport Association, 2024; Oostveen & Lehtonen, 2018).

There has been a strong post-pandemic recovery in air travel, with

global passenger traffic projected to surpass pre-pandemic levels by 2024 (International Civil Aviation Organization, 2024). Although disaggregated data on passengers with disabilities are limited, 2021 airline traffic data from the U.S. Department of Transportation [DOT] (2023) and the Bureau of Transportation, 2022 indicate that approximately 2.7% of passengers have a disability, which is much lower than the 13.9% of people with disabilities living in the U.S. as of 2022 (Houtenville & Bach, 2024). Furthermore, a survey of 1300 travellers with disabilities reported that 84% encountered at least one negative experience during air travel, leading some to forgo flying entirely (Ansley, 2022). The U.S. recognised the right of all travellers with disabilities to fly through the enactment of the Air Carrier Access Act (1986), one of the earliest laws aimed at prohibiting airlines from discriminating against travellers on the basis of disability (Budd and Ison, 2020; U.S. Department of Transportation, 2024).

Travellers with disabilities frequently encounter challenges when travelling by air (Darcy, 2012; Pfeiffer et al., 2023). Literature

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documented various physical and social barriers faced by individuals with disabilities at airports and in aeroplanes, including inaccessible lavatories, broken wheelchairs, and inadequate personnel knowledge and attitude (Bauer, 2018; Darcy et al., 2023; Gotti et al., 2024; Martin-Domingo et al., 2024). Although regulations have facilitated access to assistance for travellers with disabilities, current legislation does not fully ensure equitable access to air travel (Small et al., 2023). Existing research focused on specific aspects of the travel experience or examined travel constraints without exploring the traveller's interaction with the environment, leaving gaps in understanding the lived experiences of people with disabilities in the entirety of air travel (Daniels et al., 2005; Yates, 2007). Therefore, a synthesis of existing literature on how air travel constraints affect travellers with disabilities is essential to meaningfully improve accessible air travel.

We conducted a scoping review of the existing literature to better understand the experiences of people with disabilities in air travel and their interactions with their environment. Specifically, we aimed to understand how their experience has been studied, what environmental factors have been identified as impacting their experiences, and what gaps remain in the literature. By doing so, this review can advance the understanding of scholars and practitioners regarding the air travel experiences of people with disabilities, ultimately contributing to more equitable and inclusive air travel for this population.

For this review, we draw on the social model of disability, a framework that views disability not as an individual impairment but as the result of societal and environmental barriers that restrict full participation and exclude individuals from many facets of life (Oliver, 2013). While the model did not directly guide our analysis, it shapes how we interpret the experiences of travellers with disabilities and the obstacles they encounter. Moreover, the social model of disability informed the UN CRPD (UN, 2006), and consistent with the UN CRPD, this review used person-first language, referring to “persons with disabilities.” Nevertheless, we recognise the ongoing discourse on using identity-first language.

## 2. Methods

For our scoping review, we followed the methodology by Arksey and O'Malley (2005), which consisted of five core steps, and incorporated subsequent enhancements recommended by Peters et al. (2020). These enhancements expanded the framework to nine steps, which we applied in this review: (1) defining and aligning the objectives and questions; (2) developing and aligning the inclusion criteria with the objectives and questions; (3) describing the planned approach to evidence searching, selection, data extraction, and presentation of the evidence; (4) searching the evidence; (5) selecting the evidence; (6) extracting the evidence; (7) analysis of the evidence; (8) presentation of the results; and (9) summarising the evidence concerning the purpose of the review, making conclusions and noting any implications of the findings. We used the PRISMA extension for Scoping Reviews (PRISMA-ScR) to guide the reporting of our methods and results, in accordance with existing reporting standards (Tricco et al., 2018). The protocol of this scoping review is indexed in the Open Science Framework of the Center for Open Science (10.17605/OSF.IO/B4VDS).

### 2.1. Defining and aligning objectives and questions

To better understand the issues encountered by individuals with disabilities, we focused on existing literature that documents the experiences of people with disabilities regarding air travel and the factors that impact their travel. Our search question was, “How does the literature describe the air travel experiences of individuals with disabilities and the factors shaping their experience?”

### 2.2. Developing and aligning the inclusion criteria with the objectives and questions

This scoping review considered published academic articles published from January 1990 to April 2024. We focused on studies from 1990 onwards, the year of the U.S. Air Carrier Access Act enforcement (Budd & Ison, 2020). We considered empirical research and editorials found in peer-reviewed scientific articles or books that (1) investigated the full air travel experiences of passengers with disabilities, from booking a flight until arriving at their destination, and (2) were published in English, the language commonly spoken by the authors. We excluded articles that focused on (1) air travel experience from a medical perspective, (2) expert recommendations on accommodating passengers with disabilities, (3) evaluation of website accessibility, (4) air travel of healthy ageing adults or obese adults, and (5) employment experiences within the aviation sector. We also excluded commentary or empirical studies of air transport policies.

### 2.3. Describing the planned approach to searching the evidence

After consulting with the university librarian to identify relevant databases for air travel literature, we conducted a systematic search in the following databases: Medline, CINAHL, EMBASE, PsycINFO, Business Ultimate Source, TRID, CAB Direct, Academic Search Complete, and Web of Science. We conducted our initial search in August 2022 and updated it in April 2024, following which three articles were added.

### 2.4. Searching the evidence

In consultation with the university librarian, we developed the search strategy based on the guidelines of Aromataris and Riitano (2014). We used Boolean operations to create the search combination and truncations (\*) to include all possible forms of the keyword. In addition, we used quotation marks to yield exact phrases.

We structured our search using the PICO (Aromataris & Riitano, 2014)—Population, Interest, and Context—to ensure a comprehensive capture of relevant literature. For the *Population*, we included terms describing people with disabilities, specifically disability, disabled, blind, deaf, autism, wheelchair, crutch, and mental health. To account for historical variations in terminology and to capture older studies, we also included the outdated terms “handicap” and “disorders.” For the *Interest*, we focused on experiences related to air travel, including terms accessibility, participation, barriers, and discrimination. This enabled us to identify studies that examined both the practical and social aspects of air travel for individuals with disabilities. For the *Context*, we included terms describing the travel environment, including airport, aeroplane, aircraft, aviation, air carrier, and flight, ensuring that studies were relevant to air transportation specifically. Together, these term groups allowed us to systematically capture literature examining the intersection of disability, travel experiences, and environmental factors, while also accommodating variations in terminology over time.

### 2.5. Describing the planned approach to selecting the evidence

We imported the search results into Covidence systematic review software (2023), a web-based collaboration screening and data extraction software platform that automatically identifies and removes search duplicates. The first two authors independently screened titles and abstracts of articles to narrow down potentially relevant articles for further analysis. Whenever disagreement arose, they discussed the rationale for including or excluding an article. If a consensus was not reached, the fourth author resolved the disagreements. Next, the first two authors independently and carefully read the included full-text articles to determine whether to include them in the scoping review. The fourth author mediated and resolved any discrepancies between the first two authors. After selecting the included articles, we reviewed the reference

lists of these articles to identify other relevant sources. Fig. 1 presents the PRISMA flowchart.

2.6. Describing the planned approach to data extraction

The first two authors independently extracted data from the included studies using a form developed for the study. They used the form to systematically record and collate information on study characteristics: authors, year published, geographical location, objective, study population, study method, and key findings relevant to air travel.

2.7. Describing the planned approach to analysing the evidence

We analysed the included articles both inductively and deductively to provide an overview of the key findings on the air travel experiences of people with disabilities and to identify any gaps. For the deductive analysis, we grouped codes according to the stages of the air travel chain, representing a journey from origin to destination (Darcy, 2012). The stages included pre-trip (planning and booking), in-terminal (check-in, security, and boarding), in-plane (on-board and seat allocation), and post-travel (disembarking, equipment retrieval, flight transfer, and leaving the airport). In addition, we organised codes according to broader categories reflecting environmental and contextual factors

commonly identified in the literature, namely: products and technology, the natural environment, and support and relationships. For the inductive analysis, we examined the key findings to capture insights reported in the literature that were not included in the deductive framework. We then organised these findings into themes and subthemes. To ensure consistency and validity, the third and fourth authors reviewed and approved the resulting themes and subthemes.

3. Findings

After screening 1187 studies, we identified 26 relevant articles (see Table 1). Among these, 61.54% (n = 16) were published between 2017 and 2024. The reason may reflect growing academic and societal interest in accessibility and disability-inclusive travel. The included studies were from Australia (n = 2), Brazil (n = 2), China (Hong Kong) (n = 2), Taiwan (n = 2), Ireland (n = 1), Israel (n = 1), Spain (n = 1), the U.K. (n = 6), and the U.S. (n = 7), and one study was a multisite studies conducted across the European Union (Germany and Italy) and Canada. The included studies employed various terminologies to describe their participants, with some categorising them by specific conditions (e.g., air travellers with lower extremity function impairment), diagnosis (e.g., people with spinal cord injury), condition (e.g., passenger with reduced mobility), and use of assistive devices (e.g., wheelchair users).

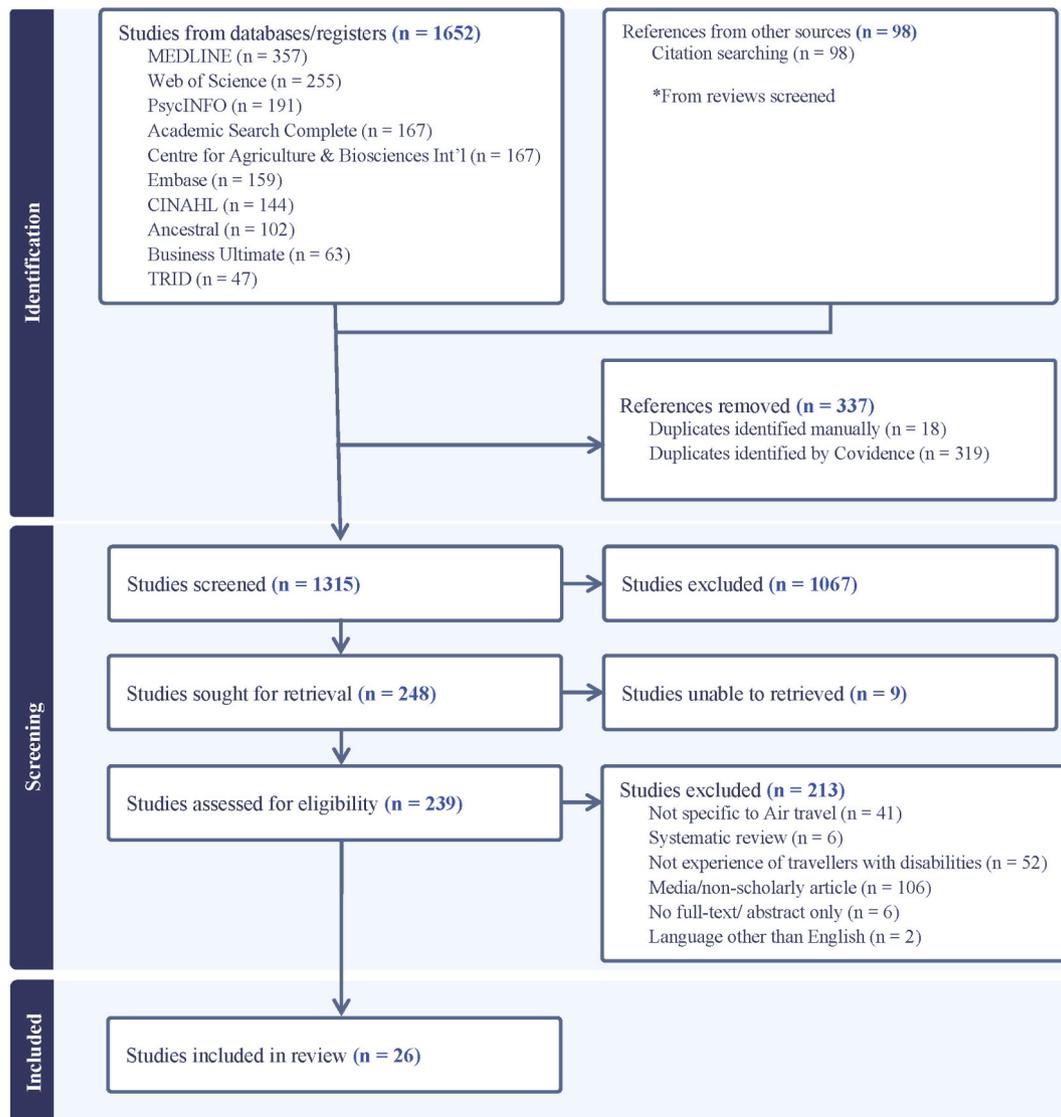


Fig. 1. PRISMA Flowchart.

**Table 1**  
Articles Included in the Scoping Review.

#	Authors and Title	Year	Country	Methods
1	[Cerdan Chiscano] Autism Spectrum Disorder (ASD) and the family inclusive airport design experience	2021	Spain	<ul style="list-style-type: none"> <li>• Focus group discussion</li> <li>• Airport visits</li> <li>• Interview</li> <li>• Survey</li> </ul>
2	[Chang & Chen] Identifying mobility service needs for disabled air passengers	2011	Taiwan	<ul style="list-style-type: none"> <li>• Interview</li> <li>• Survey</li> </ul>
3	[Chang & Chen] Meeting the needs of disabled air passengers: Factors that facilitate help from airlines and airports	2012	Taiwan	<ul style="list-style-type: none"> <li>• Interview</li> <li>• Survey</li> </ul>
4	[Cole et al.] Multi-stakeholder perspectives of environmental barriers to participation in travel-related activities after spinal cord injury	2022	U.S.	<ul style="list-style-type: none"> <li>• Interview</li> </ul>
5	[Darcy] (Dis)embodied air travel experiences: Disability, discrimination and the affect of a discontinuous air travel chain	2012	Australia	<ul style="list-style-type: none"> <li>• Survey</li> <li>• Interview</li> <li>• Complaint cases</li> <li>• Newspaper article review</li> <li>• Interview</li> </ul>
6	[da Silva et al.] Passengers with disabilities in the Brazilian air transport: Different actors similar perspectives	2017	Brazil	<ul style="list-style-type: none"> <li>• Survey</li> <li>• Interview</li> <li>• Observation</li> </ul>
7	[da Silva et al.] Passengers with disabilities, elderly and obese in Brazilian air transportation: Contradictions in the activity systems	2019	Brazil	<ul style="list-style-type: none"> <li>• Survey</li> <li>• Interview</li> <li>• Observation</li> </ul>
8	[Davies & Christie] An exploratory study of the experiences of wheelchair users as aircraft passengers – Implications for policy and practice	2017	U.K.	<ul style="list-style-type: none"> <li>• Interview</li> </ul>
9	[Davies & Christie] The experiences of parents with children with disabilities travelling on planes: An exploratory study	2018	U.K.	<ul style="list-style-type: none"> <li>• Interview</li> </ul>
10	[Dempsey et al.] Air travel experiences of autistic children/young people	2021	Ireland	<ul style="list-style-type: none"> <li>• Survey</li> </ul>
11	[Krause] Airport accessibility barriers and practices and DOT’s oversight of airlines’ disability-related training	2021	U.S.	<ul style="list-style-type: none"> <li>• Interview</li> <li>• Document Review</li> </ul>
12	[Major & Hubbard] An examination of disability-related complaints in the United States commercial aviation sector	2019	U.S.	<ul style="list-style-type: none"> <li>• Complaint data</li> <li>• Survey</li> </ul>
13	[Oostveen & Lehtnen] The requirement of accessibility: European automated border control systems for persons with disabilities	2018	Europe-wide (Multisite)	<ul style="list-style-type: none"> <li>• Survey</li> <li>• Interview</li> </ul>
14	[Packer et al.] Understanding the complex interplay between tourism, disability and environmental contexts	2007	Hong Kong	<ul style="list-style-type: none"> <li>• Interview</li> <li>• Focus group discussion</li> </ul>
15	[Pardeck] Flying the unfriendly skies with a disability	2005	U.S.	<ul style="list-style-type: none"> <li>• Personal Narrative</li> </ul>

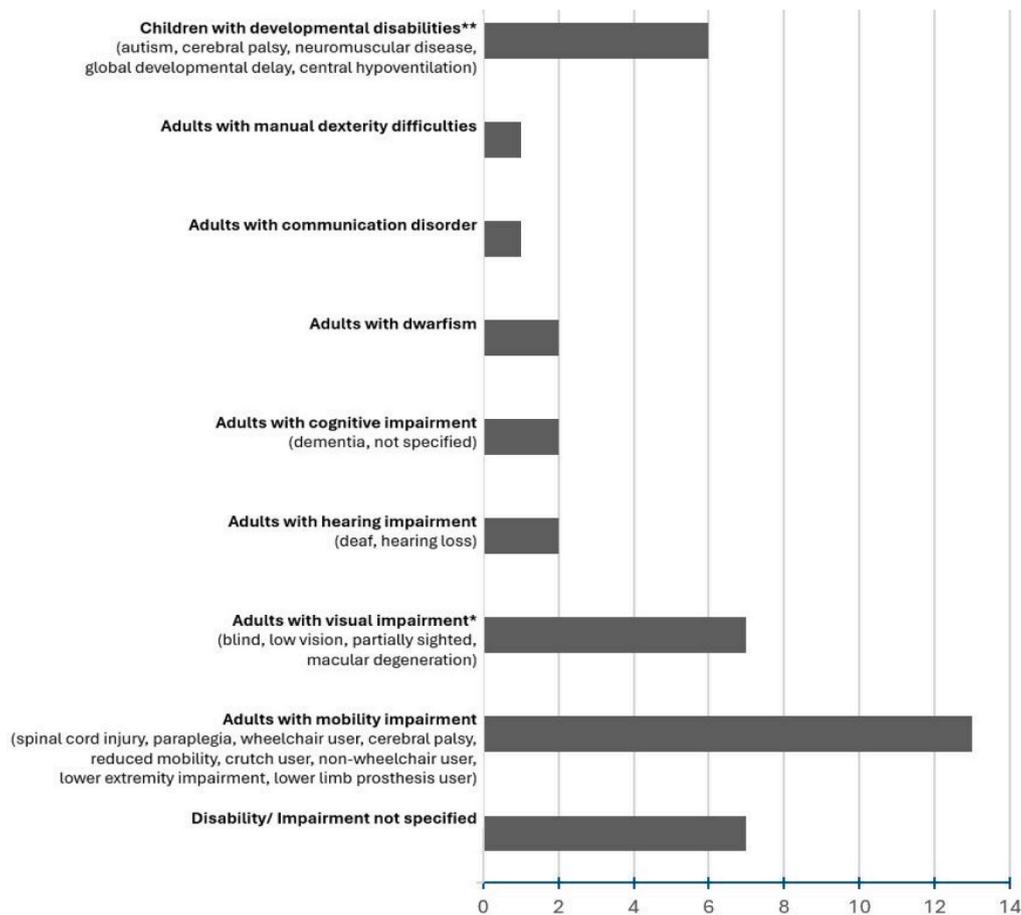
**Table 1 (continued)**

#	Authors and Title	Year	Country	Methods
16	[Peterson et al.] ‘Sick with stress’: Perspectives on airport travel from persons living with dementia and their travel companions	2024	U.S.	<ul style="list-style-type: none"> <li>• Survey</li> </ul>
17	[Pirelli] Usability in public services and border control: New technologies and challenges for people with disability	2009	Germany, Canada, & Italy (Multisite)	<ul style="list-style-type: none"> <li>• Discussion</li> </ul>
18	[Poria et al.] The flight experiences of people with disabilities: An exploratory study	2010	Israel	<ul style="list-style-type: none"> <li>• Interview</li> </ul>
19	[Richards et al.] (Re) Envisioning tourism and visual impairment	2010	U.K.	<ul style="list-style-type: none"> <li>• Focus group discussion</li> </ul>
20	[Riley et al.] ‘It gives me more freedom’: Family perspectives on travelling with children on nocturnal ventilation	2024	U.K.	<ul style="list-style-type: none"> <li>• Interview</li> </ul>
21	[Sedgley et al.] Tourism and autism: Journeys of mixed emotions	2017	U.K.	<ul style="list-style-type: none"> <li>• Interview</li> </ul>
22	[Small et al.] Flying into uncertainty: Part 2- Flying with non-mobility disability	2023	Australia	<ul style="list-style-type: none"> <li>• Interview</li> </ul>
23	[Van Horn et al.] Innovative solutions to facilitate accessibility for airport travellers with disabilities	2020	U.S.	<ul style="list-style-type: none"> <li>• Document review</li> <li>• Survey</li> <li>• Focus group discussion</li> </ul>
24	[Von Ah] Aviation consumer protection: Few U. S. aircraft have lavatories designed to accommodate passengers with reduced mobility	2020	U.S.	<ul style="list-style-type: none"> <li>• Document review</li> <li>• Interview</li> <li>• Complaint cases</li> </ul>
25	[Yates] Understanding the experience of mobility-disabled tourists	2007	U.K.	<ul style="list-style-type: none"> <li>• Interview</li> <li>• Survey</li> </ul>
26	[Yau et al.] Traveling with a disability: More than an access issue	2004	Hong Kong	<ul style="list-style-type: none"> <li>• Interview</li> <li>• Focus group discussion</li> </ul>

We grouped the participants under broader categories of impairment to report the population in the included studies. Most articles focused on adults with mobility (n = 13) and visual impairment (n = 7). An overview of the population studied is provided in Fig. 2, wherein articles are counted multiple times if they address more than one category. The included studies primarily employed qualitative methods, including interviews (n = 18) and group discussions (n = 6). They also included quantitative methods, mostly surveys (n = 10), to gain insights into the experiences of travellers with disabilities. Three authors — Darcy (2012), Pardeck (2005), and Yates (2007) — disclosed their disabilities and shared their personal experiences as travellers with disabilities.

### 3.1. Experience of air travellers with disabilities

We identified five (5) themes that captured the air travel experiences of travellers with disabilities and the factors that affect them: (1) issues with accessing information, (2) concerns related to interaction with personnel, (3) built infrastructure barriers, (4) assistive device problems, and (5) policies and procedure constraints. These themes and subthemes are presented in Table 2, along with the list of papers that covered them. The scoping review findings are presented following the air travel chain (Darcy, 2012) within each theme.



\*Two studies reported having participants with visual impairments who have hearing loss or deafness

\*\*One study reported having participants with Complex Care Needs in addition to their primary diagnosis

Fig. 2. Categories of impairment examined within the relevant articles. \*Two studies reported having participants with visual impairments who have hearing loss or deafness. \*\*One study reported having participants with Complex Care Needs in addition to their primary diagnosis.

### 3.1.1. Issues with accessing information

Access to information necessary for air travel is a substantial element that shapes the experience of travellers with disabilities. Cavinato and Cuckovich (1992) identified communication gaps as a factor that can pose challenges for travellers with disabilities. From the 11 articles addressing this theme, we identified two sub-themes: (1) unclear booking information and (2) unclear flight information.

**3.1.1.1. Unclear booking information.** During *pre-trip*, travellers rely on clear and accessible travel information, such as the accessibility features offered by airlines (e.g., onboard aisle chairs) and disability accommodation options (e.g., relief areas for service animals and sensory-friendly lounges), particularly when travelling with medical needs or equipment, such as a ventilator (Riley et al., 2024). Van Horn et al. (2020) argued that planning is crucial to a successful travel experience as it allows travellers to prepare for any hurdles they expect to face. This includes considering how early to arrive at the airport, which terminal their airline uses, the distance from security to the gate, and what disability services may be available. However, studies from Taiwan and Spain have found that many airlines' websites do not support screen readers and use formats or languages that are difficult to understand, thereby limiting access to essential information (Chang & Chen, 2011; Cerdan Chiscano, 2021). Airlines' websites may also lack accessibility-related information, such as the presence of accessible lavatories (Chang & Chen, 2012; Von Ah, 2020). To address these gaps, Buhler et al. (2009) emphasised the importance of mainstreaming accessibility issues and raising stakeholders' awareness to make booking information more

accessible.

**3.1.1.2. Unclear flight information.** *In-terminal* on the day of travel, individuals rely on public announcements to make it to their flights. Given the noise within the terminals (da Silva et al., 2019; Krause, 2021) and the possible language barriers (Poria et al., 2010; Small et al., 2023), travellers with disabilities may struggle to hear and understand these announcements (da Silva et al., 2017). Thus, da Silva et al. (2017, 2019) argued for increasing visual signage and having a quiet space where travellers with visual impairments could listen to the announcements. Additionally, Yates (2007) identified a lack of information concerning long layovers. This information is essential for travellers with disabilities, particularly wheelchair users, who often book connecting flights rather than long flights to compensate for the inaccessible aeroplane lavatories (Von Ah, 2020). Missing information also continues to be a problem *in-plane*. Most notably, studies from Brazil and Taiwan identified concerns about the lack of safety and emergency-related information for travellers with disabilities, noting that pre-flight briefings often omit relevant information and protocols for these passengers (Chang & Chen, 2012; da Silva et al., 2019). Challenges in accessing information can increase the anxiety of travellers (da Silva et al., 2019). Poria et al. (2010) emphasised the prompt dissemination of reliable and accurate information, as any changes in the flight schedule have substantial implications, especially for wheelchair users who fast or dehydrate themselves, as well as those who need to time their health and medical routines (e.g., restroom use, catheter tube replacements).

Finally, during *post-travel*, Van Horn et al. (2020) found that signage

**Table 2**  
Themes and Articles.

Theme	Subtheme	Phases	Articles
<b>Issues with access to information</b>	Unclear booking information	Pre-trip	2–3, 11, 20, 22, 24
		In-terminal	6–7, 11, 18,
	Unclear flight information	In-plane	22–23, 25
		Post-travel	3, 23
<b>Concerns related to interaction with personnel</b>	Lack of knowledge	Pre-trip	3, 14, 20, 26
		In-terminal	3, 5–9, 15,
		In-plane	18–19, 23
		Post-travel	3, 18, 23
	Inappropriate attitude	Pre-trip	5, 25
		In-terminal	1, 2*, 5, 6*,
		In-plane	7–8, 11–12,
		Post-travel	15, 26* 2*, 18, 23
<b>Built infrastructure barriers</b>	Airport accessibility and navigation challenges	In-terminal	1, 3–7,
		Post-travel	10–11, 16, 21–25, 3, 23
	Inaccessible aeroplane design	In-plane	3–10, 18, 22, 25
		Post-travel	4–9, 12, 25–26
<b>Assistive device problems</b>	Damaged or loss of personal assistive devices	In-terminal	5–6, 11, 16,
		In-plane	18, 20, 4–5
	Insufficient and uncomfortable operator-provided devices	In-terminal	1, 3–5, 11–12, 15–18, 21–23
		Post-travel	5, 8*, 13, 19
<b>Policies and procedure constraints</b>	Non-standardised protocols	In-terminal	3, 5–7, 11–12, 15, 23
		Post-travel	3, 5–7, 11–12, 15, 23
	Unfair disability accommodation strategies	In-terminal	5, 8*, 13, 19
		Post-travel	3, 5–7, 11–12, 15, 23

\*Generally positive experiences.

and directions to the baggage carousel area are often inadequate. With many flights arriving simultaneously, travellers may need to identify their baggage carousel on their own, relying solely on the small text displayed on the screens. Moreover, signs may be obstructed from the view of wheelchair users as they have a lower vantage point.

### 3.1.2. Concerns related to interaction with personnel

Travellers interact with numerous employees throughout their journey, including booking staff, airport security personnel, airline ground crews, cabin crew members, and passenger assistance staff. How these personnel interact with travellers with disabilities can shape the air travel experience. Unfortunately, airlines and airport personnel often lack professional training to adequately address the needs of travellers with disabilities (Darcy, 2012). From the 18 articles that covered this theme, we identified two subthemes: (1) lack of knowledge and (2) inappropriate attitude related to interaction with personnel.

**3.1.2.1. Lack of knowledge.** Airline and airport employees generally lack knowledge and training regarding disability and relevant laws, creating barriers for travellers with disabilities throughout the entire air travel chain (Chang & Chen, 2011, 2012; Darcy, 2012; da Silva et al., 2017, 2019; Packer et al., 2007; Pardeck, 2005; Poria et al., 2010; Richards et al., 2010; Van Horn et al., 2020; Yau et al., 2004). During the *pre-trip*, studies have shown that prices tend to be higher when travellers book by phone (Lazar et al., 2010, 2012). Airline personnel can waive the extra fees to accommodate the needs of travellers with disabilities; however, studies in Taiwan, Hong Kong, and the U.S. found that airline personnel and travel agents are often unfamiliar with the policies mandating such fee waivers (Chang & Chen, 2012; Packer et al., 2007; Pardeck, 2005). So, travellers with disabilities may have to request an

equitable fee, which can be a challenging experience (Lazar et al., 2010, 2012). Studies also noted that personnel do not have the necessary knowledge of disability and that misconceptions about disability exist among air travel personnel. Hence, travellers with disabilities may face “questions outside the scope of the booking procedure to matters of medical privacy,” when booking their tickets (Darcy, 2012, p. 95). Despite the lack of knowledge, airline personnel and travel agents are given the power to ascertain a traveller’s level of self-sufficiency and safety. This leads some travellers with disabilities to conceal their impairment when booking (Yau et al., 2004) and to spend time asserting their rights and access needs (Lazar et al., 2010, 2012).

*In-terminal*, travellers with disabilities often face scrutiny regarding their disability and their capacity to travel at various checkpoints (Van Horn et al., 2020). The airline personnel’s perception of the traveller’s independence can serve as a basis for refusing a traveller with a disability from boarding the plane (Darcy, 2012). Moreover, many travellers with disabilities may have to explain their disability to different airline personnel repeatedly and may even be asked to provide a medical certificate before flying (Chang & Chen, 2012). Alongside the lack of knowledge, airline personnel often lack the necessary skills and expertise when assisting travellers with disabilities (Davies & Christie, 2017, 2018; Poria et al., 2010; Richards et al., 2010). This can present a stressful and dangerous situation, as personnel may be unfamiliar with operating specific assistive devices, accommodating guide dogs or support animals, and communicating via sign language (da Silva et al., 2019; Van Horn et al., 2020).

*In-plane*, the lack of knowledge can translate into personal care issues (e.g., transfer and toileting assistance). Poria et al. (2010) reported that in-plane transfers pose a high risk of injury for wheelchair users, including pressure sores—damage to the skin and underlying tissues caused by prolonged pressure—because ground personnel are often unfamiliar with proper transfer techniques. Travellers, at times, rely on cabin crew assistance to use the lavatory when aisle chairs are unavailable. The trip to the lavatory can result in a humiliating experience for travellers with disabilities, as they may be inappropriately transported to the lavatory when carried by a cabin crew or may have bowel/bladder accidents due to receiving inappropriate assistance (Chang & Chen, 2012; Poria et al., 2010).

*Post-travel*, the lack of awareness concerning the needs of travellers with disabilities can result in insufficient personnel to assist them with luggage retrieval and exiting the airport. (Van Horn et al., 2020). Van Horn et al. (2020) noted that U.S. airport assistance typically extends only to the terminal door, leaving travellers with disabilities to manage their luggage and reach their vehicles or other forms of transportation on their own.

Due to a lack of knowledge among personnel, travellers with disabilities typically have to advocate for themselves when they fly (Pardeck, 2005; Riley et al., 2024). Moreover, they occasionally gather information from external sources as they have low confidence in the personnel’s knowledge concerning accessibility (Packer et al., 2007). The lack of information from official airline sources is one reason why disability organisations have become instrumental sources of information (Blichfeldt & Nicolaisen, 2011).

**3.1.2.2. Inappropriate attitude.** In conjunction with the lack of knowledge, the literature also highlighted inappropriate attitudes when interacting with travellers with disabilities throughout the travel chain. Personnel can ask invasive questions and behave in ways that travellers with disabilities perceive to be unprofessional, diminishing, and ableist—that is, discriminatory against people with disabilities (Darcy, 2012; da Silva et al., 2019; Oostveen & Lehtonen, 2018; Pardeck, 2005; Peterson et al., 2024; Poria et al., 2010; Yates, 2007). This includes personnel ignoring the traveller (Oostveen & Lehtonen, 2018; Pardeck, 2005), conversing using slow, loud, or basic words (Poria et al., 2010), offering poor services to travellers with disabilities (Van Horn et al.,

2020), and acting in disrespectful ways (Darcy, 2012; da Silva et al., 2019; Peterson et al., 2024). At worst, some travellers with disabilities even experience having responsibilities concerning their access needs deflected back at them (Yates, 2007).

Darcy (2012) noted that expertise and training can vary tremendously across countries, airports, and airlines. Some travellers with disabilities have positive experiences interacting with personnel. Despite the lack of knowledge, passengers with disabilities appreciated the personnel's willingness to assist them (Chang & Chen, 2011; Davies & Christie, 2017; Small et al., 2023). Personnel may sometimes assist travellers in going through security checks more quickly and help carry luggage (Richards et al., 2010; Yau et al., 2004). In fact, an interviewee of da Silva et al. (2017) argued that poorly maintained equipment places the responsibility of assisting passengers with disabilities on airline employees, who often help because they want to, rather than because it is their job.

### 3.1.3. Built infrastructure barriers

The accessibility of airports and aeroplanes plays a crucial role in shaping the travel experience, affecting travellers with disabilities during terminal navigation, in-flight travel, and post-travel activities. Two subthemes emerged from the 16 studies that covered this theme: (1) airport accessibility and navigation issues, and (2) inaccessible aeroplane design.

**3.1.3.1. Airport accessibility and navigation challenges.** The airport represents the final opportunity for travellers with disabilities to prepare for their flight before boarding, such as purchasing snacks, water, or souvenirs, and using restroom facilities. However, navigating through the airport can be particularly challenging as accessible features may be lacking. *In-terminal*, travellers with disabilities may struggle with navigating the airport due to its size (Peterson et al., 2024; Van Horn et al., 2020). Airports often have complex layouts and considerable distances between key areas, such as boarding gates (Krause, 2021). The service counters are inaccessible at times (da Silva et al., 2017), and reserved seating for travellers with disabilities near the boarding gate may be lacking (Van Horn et al., 2020). The lack of accessibility features can manifest as safety hazards, such as the lack of slip-resistant floors (Chang & Chen, 2012). Some airports may not have any relief areas for service dogs (Cole et al., 2022). Additionally, the volume of travellers contributes to high noise levels, which can be particularly stressful for some passengers, especially those with autism (Dempsey et al., 2021; Sedgley et al., 2017). This also makes access to information challenging, as discussed in the previous theme on issues with accessing information.

Wayfinding presents another challenge in airports, where signage is often unclear or difficult to follow (Peterson et al., 2024). Not all airports provide wayfinding cues for travellers with visual impairments, such as tactile flooring and braille signage (Small et al., 2023). Accessible restaurants, shopping areas, restrooms, and waiting areas may not always exist (Chang & Chen, 2012; Peterson et al., 2024; Yates, 2007). When accessible features existed, travellers with disabilities may find it challenging to locate them as signage may be unintuitive or obstructed (Krause, 2021). To address the barriers within the airport, Burke and Welbes (2018) stressed the importance of an advisory committee consisting of people with diverse disabilities.

At *post-travel*, Van Horn et al. (2020) argued that locating luggage can be difficult for travellers with visual impairment. Moreover, manoeuvring luggage through the conveyor can be challenging for travellers with physical limitations due to its design and the likelihood of bags piling on top of one another. Travellers with disabilities also faced problems regarding the distance and accessibility of the parking area (Chang & Chen, 2012; Cole et al., 2022). Travellers with disabilities who drive often need to manage their belongings from the terminal to the parking space without any help.

**3.1.3.2. Inaccessible aeroplane design.** The aeroplane design also presents several accessibility issues. Numerous studies found that many travellers with disabilities perceive the plane lavatories as a major concern (Chang & Chen, 2011, 2012; Cole et al., 2022; Darcy, 2012; da Silva et al., 2019; Davies & Christie, 2017, 2018; Dempsey et al., 2021; Poria et al., 2010; Yates, 2007). Travellers with disabilities described using the plane lavatories as an unpleasant, painful, and humiliating experience (Chang & Chen, 2012; Poria et al., 2010). Darcy (2012) argued, "Access to toilets is nonexistent... It is so far below the required access standards" (p. 97). Von Ah (2020) found that few U.S. airlines provide wheelchair-accessible lavatories, with only 4.5% of the combined single-aisle fleet offering some measure of access for wheelchair users.

In addition to the lavatory, literature identified plane cabin seating as another area of concern (Cole et al., 2022; Darcy, 2012; da Silva et al., 2017, 2019; Davies & Christie, 2017, 2018). Airlines allocate a limited number of seats for travellers with disabilities (Cole et al., 2022). These seats are often narrow, which could lead to cramps and other types of pain during flights (da Silva et al., 2019). The seats may be equipped with non-movable armrests, making it difficult for individuals to get in and out of the seats (Cole et al., 2022; Darcy, 2012). In addition, seatbelts often fail to support the posture of travellers with disabilities, especially during turbulence and landing (Davies & Christie, 2017, 2018). Narrow aisles and limited space can also pose accessibility challenges, increasing the risk of falls or stumbles for travellers with disabilities (Poria et al., 2010; Yates, 2007). The narrow seats, small tray tables, and the cabin's restrictive space frequently made in-flight dining difficult for travellers with disabilities (Small et al., 2023). In addition, a study from Ireland highlighted that the limited selection of in-plane food and drinks can be a source of stress for passengers with autism (Dempsey et al., 2021). The in-plane controls and entertainment systems may also have limited accessibility features, such as awkward control placement, absence of voice command, audio description, sign language, and subtitles in some applications (da Silva et al., 2019; Small et al., 2023).

The inaccessible travel conditions frequently led travellers with disabilities to engage in health-compromising and risky behaviours, such as dehydrating and starving themselves before flying to avoid using the inaccessible lavatories or other features (Darcy, 2012; Von Ah, 2020; Yau et al., 2004). To avoid prolonged discomfort, travellers with disabilities and their companions may opt to take connecting flights, which can be more expensive than a direct, long-haul flight (Von Ah, 2020). Davies and Christie (2017) argued that business-class seating offers a better option for many travellers with disabilities. However, affordability remains a major barrier and may still be unsuitable for children with disabilities (Davies & Christie, 2018).

### 3.1.4. Assistive device problems

Assistive devices, such as wheelchairs and canes, are an extension of the bodies of people with disabilities (Darcy et al., 2023; Small et al., 2023). However, aeroplanes may have no designated storage space in the cabin and only limited space in the cargo for assistive devices (da Silva et al., 2017). When the assistive device does not fit the aeroplane, a passenger might be refused entry (Darcy, 2012). Darcy (2012) exemplified this by sharing a case of a married couple, both of whom used power wheelchairs, who were forced to take separate flights to reach the same destination. In this theme, we identified two assistive device worries for travellers with disabilities reported in 13 articles: (1) damage or loss of personal assistive devices and (2) insufficient and uncomfortable provided devices.

**3.1.4.1. Damage or loss of personal assistive devices.** Travellers with disabilities are often required to check their large personal assistive devices along with their luggage and compelled to use airport or airline-provided assistive devices (Darcy, 2012; Von Ah, 2020). However, many travellers with disabilities, particularly those wheelchair users,

expressed issues and worries with the handling and storage of their personal assistive devices (da Silva et al., 2017, 2019; Darcy, 2012; Davies & Christie, 2017, 2018; Major & Hubbard, 2019; Yates, 2007; Yau et al., 2004). Major and Hubbard (2019) identified the loss of and damage to wheelchairs and other personal assistive devices as one of the top complaints made by travellers with disabilities. Some wheelchairs arrived with missing parts (e.g., batteries) or were reassembled improperly (Davies & Christie, 2018; Yates, 2007; Yau et al., 2004). This can severely affect their travel plans and may abruptly end a trip before it truly begins (Darcy, 2012). Moreover, travellers' personal property claims may be complicated by insurance and airline liability policies, such as maximum liability limits set well below the cost of an electric wheelchair (Cole et al., 2022; Darcy, 2012).

**3.1.4.2. Insufficient and uncomfortable operator-provided devices.** When going through the check-in procedure *in-terminal*, personnel may ask travellers with disabilities to use operator-provided wheelchairs while waiting for their flight. However, Pardeck (2005) noted that staff often fail to provide wheelchairs promptly. Additionally, airlines may fail to provide specific medical equipment that requires advance procurement, such as supplemental oxygen. For instance, Riley et al. (2024) described how airlines have at times informed passengers that oxygen would be provided, only to prevent them from flying at the last minute—after check-in or at the gate—because of insufficient oxygen on board. *In-plane*, travellers with disabilities may need to transfer to and from aisle chairs to use the lavatory. However, Poria reported that travellers with disabilities often describe aisle chairs as small and uncomfortable (Poria et al., 2010). The aisle chairs also lack any means of self-propulsion, which hampers the independence of travellers with disabilities (Darcy, 2012). Aisle chairs may not be available during flights (Cole et al., 2022; Darcy, 2012), forcing cabin crews to carry travellers with disabilities—a practice that can be unsafe and dehumanising, as discussed in the theme on concerns related to interaction with personnel.

### 3.1.5. Policies and procedure constraints

The final theme examined the policies and procedures that impact one's air travel experience throughout the travel chain, including security checks, airplane boarding, and deplaning. Procedures can be burdensome to travellers when they are inefficient. As covered in 18 studies, (1) non-standardised protocols and (2) unfair disability accommodation strategies could constrain travellers with disabilities' ability to enjoy their travel.

**3.1.5.1. Non-standardised protocols.** The lack of standardised protocols that address the needs of air travellers with disabilities across the travel chain and between jurisdictions can create an inconsistent and often inequitable travel experience. (Pardeck, 2005). This situation may lead travellers with disabilities to experience prolonged waiting times *in-terminal* (Chang & Chen, 2012; Major & Hubbard, 2019; Van Horn et al., 2020), which can be stressful and painful, especially for children with autism and travellers who use crutches (Dempsey et al., 2021; Poria et al., 2010). Conversely, some travellers with disabilities, such as those in the U.K., may experience being fast-tracked through airport procedures (Richards et al., 2010), exemplifying the unevenness of accessibility practices across settings. Non-standardised protocols extend beyond waiting times to include procedural and communication lapses within organisations. For instance, Darcy (2012) noted that lapses in managing extra equipment—such as portable ramps, hoists, and commodes—can result in travellers being separated from their devices, further increasing anxiety during air travel.

Non-standardised security check procedures also concern travellers with disabilities. While some travellers experienced faster processing, others found security checks stressful, invasive, and degrading (Cole et al., 2022; Dempsey et al., 2021; Pardeck, 2005). Pirelli (2009) also described scenarios in which modern security measures can pose

dangers to travellers using pacemakers and cochlear implants. Travellers with certain types of disabilities, such as wheelchair users, often require manual, more time-consuming patdowns (Van Horn et al., 2020). However, these patdowns can involve contact with sensitive areas, including the groin, which may sometimes be perceived as inappropriate (Cole et al., 2022; Pardeck, 2005). The strict conduct and measures often demanded during security checks could also be anxiety-inducing and stressful for children with autism (Dempsey et al., 2021; Sedgley et al., 2017). Moreover, long security checks can also cause travellers with disabilities to worry about their belongings because they cannot keep an eye on them while they are subjected to manual pat-downs (Van Horn et al., 2020). Even when policies exist, personnel unfamiliar with them often fail to enact them, thereby contributing to a non-standardised and inconsistent travel experience for travellers with disabilities. For example, the U.S. Transportation Security Administration (n.d.) guidelines stipulate that companions of travellers with disabilities should not be separated during security checks. However, Peterson et al. (2024) reported that participants were “ignored, separated from their companion, and given no accommodations” (p. 241) despite informing the agents of their situation. Thus, travellers with disabilities may be separated from their travel companions, as their companions are also subjected to security checks, which prevents them from attending to the needs of the traveller with a disability (Peterson et al., 2024).

**3.1.5.2. Unfair disability accommodation strategies.** Some airline strategies enacted to accommodate travellers with disabilities could erode the dignity of travellers with disabilities. *In-terminal*, airlines tend to place travellers with disabilities in waiting rooms, isolating them from other passengers (Oostveen & Lehtonen, 2018). Additionally, some travellers with disabilities may be required to use a specific device to receive assistance. For example, in the U.K., airlines have sometimes forced travellers with visual impairments to use a wheelchair to access ground crew support, even if they do not need it (Richards et al., 2010). As a result, some travellers with visual impairments may choose to use and identify with their white cane, even if they do not typically rely on it in daily life (Richards et al., 2010; Small et al., 2023).

A common disability accommodation strategy employed by airlines during the boarding and disembarking process is the first-on, last-off strategy (Darcy, 2012). This means that travellers with disabilities can board the plane before other passengers, maintaining their privacy and dignity (Darcy, 2012; Davies & Christie, 2017). However, studies showed that the “last-off” strategy is problematic (Darcy, 2012; Major & Hubbard, 2019). For individuals who frequently need to take connecting flights to avoid in-flight toileting, the long wait times may increase the likelihood of missed connecting flights and ground transportation.

Upon arriving at their destination, travellers with disabilities may face long wait times due to the “last off” strategy, which can be further compounded by delays in delivering their personal wheelchairs to the jet bridge (the movable structure connecting the airport gate to the aeroplane) or vertical lifts. These delays can raise concerns that their luggage might be taken by mistake, as they often reach the baggage claim area long after their checked luggage has arrived (Chang & Chen, 2012; Major & Hubbard, 2019; Van Horn et al., 2020). In some instances, jet bridges or vertical lifts are unavailable, necessitating passengers to be carried down the plane, as reported in a Brazilian study (da Silva et al., 2017). During connecting flights with long layovers, travellers with disabilities may be unable to access personal assistive devices stowed with their luggage (da Silva et al., 2019). This restriction limits their independence, preventing them from moving freely around the airport or exploring the city during transit (da Silva et al., 2019).

Even after exiting the airport terminal, travellers with disabilities may continue to encounter challenges. For instance, in narrating his experience as a wheelchair user, Pardeck (2005) shared that a U.S. airport charged him at a rate higher than the long-term parking rate because the “handicapped” parking is only located in a short-term

parking lot.

#### 4. Discussion

In this scoping review, we examined the literature on the air travel experiences of people with disabilities, highlighting the salient issues in their experiences and their interaction with the environment across the air travel chain. We highlighted elements of the experiences of people with disabilities that have been reported for many years. However, we also demonstrated that these issues remain relevant, as numerous studies have been conducted over the last decade. We identified and will discuss four critical gaps in the literature that should be addressed in future research: 1) the type of population revealed an underrepresentation of travellers with invisible disabilities; 2) the complexity of the interaction with the physical environment of people with disabilities creating cumulative barriers along the entire travel chain; 3) the issues with interacting with personnel highlighting the strong need for training; and 4) the policies and accommodation strategies across jurisdictions creating systemic issues.

##### 4.1. Type of population revealed an underrepresentation of travellers with invisible disabilities

Based on our scoping review, certain groups of people with disabilities were more represented than others in the studies. Our findings indicate that 19 out of the 26 included studies on the air travel experiences of people with disabilities focused on individuals with visual impairment and mobility impairment, such as wheelchair users. This focus may be due to the visibility of their disability, which often draws societal attention (Barnett, 2018). While it was encouraging to see that these populations were receiving the attention they needed to be better accommodated by society, this emphasis left other groups to remain underrepresented. People with invisible disabilities—such as hearing impairment, autism, or dementia—were included only in eight of the included studies. People with invisible disabilities can have different experiences and challenges during air travel. Barnett (2018) argued that, contrary to those with visible disabilities, people with invisible disabilities were prone to being misunderstood. They often face communication difficulties, which can create stress and conflict (Small et al., 2023). In fact, a study by Orczyk and Młodystach (2022) found that difficulties in communicating with drivers and understanding voice messages were major problems experienced by people with hearing impairment when using any kind of public transportation.

Several airports around the globe introduced initiatives aimed at improving the travel experience for people with invisible disabilities. For instance, airports in Australia, the U.K., and Canada have started using sunflower lanyards to help airline personnel identify passengers who may need assistance (Hidden Disabilities Sunflower, 2024; Tata et al., 2024). However, this approach has limitations. It can reinforce paternalistic discourses and individual pathology (Liasidou & Liasidou, 2023). For people who do not wish to disclose their disability, the need to share their disabilities to receive equitable assistance and accommodation could threaten their right to privacy because disclosing one's disability should be a voluntary and personal choice (Praslova, 2024). While the initiative can increase the ability to identify those who may need assistance, it remains insufficient when personnel are not adequately trained on how to best support the needs of travellers with disabilities. Therefore, more research is needed to examine the impact of such initiatives and whether their implementation (and associated training) is actually meeting travellers' needs.

The challenges faced by many travellers with invisible disabilities may be underreported due to methodological limitations, as studies in this review often relied on interviews, surveys, and focus groups that were not always accessible to individuals who are non-verbal or have communication difficulties. Research using inclusively designed methods, such as arts-based or arts-informed methods that offer

alternative means of communication beyond the spoken word (e.g., photovoice, photo elicitation, draw-and-write, painting, poetic inquiry, letter writing), could help capture these experiences more effectively.

##### 4.2. Complexity of the interaction with the physical environment of people with disabilities created cumulative barriers along the entire travel chain

Our scoping review also revealed that the interaction between travellers with disabilities and the physical environment created cumulative barriers, making air travel experiences more challenging. Accessibility challenges starts at the stage of planning, continue through airport navigation and boarding, and persist during and after the flight. A central consequence of these cumulative environmental barriers is the pressure placed on travellers with disabilities to engage in extensive pre-planning to secure a safe and predictable journey. This level of preparation—researching aircraft layouts, confirming aisle chair availability, getting connecting flights, and securing disability assistance—is not an expression of personal preference but a compensatory response to systemic inaccessibility. In some cases, travellers with disabilities engaged in health-compromising behaviours, such as limiting food and fluid intake, to mitigate the need to use inaccessible facilities (Poria et al., 2010). The lack of accessible design sometimes forces passengers with disabilities to anticipate challenges that travellers without disabilities do not need to consider, reflecting how ableist norms underpinned the aviation and tourism industries (Hua et al., 2025).

Accessible and comprehensive pre-travel information is also crucial for mitigating these cumulative barriers and facilitating independent travel for people with disabilities (Blichfeldt & Nicolaisen, 2011; Van Horn et al., 2020). Although the Americans with Disabilities Act mandated accessible websites in the U.S. (U.S. Department of Justice, 2022), Smith et al. (2013) found that booking websites failed to provide some critical accessibility-related information, such as the presence of aisle chairs on flights and the location of relief areas for service animals. Future research should collaborate with travellers with disabilities to co-create innovative booking platforms and travel systems that embed accessibility as a central principle. In combination with physical and procedural accessibility improvements, such efforts can meaningfully reduce the cumulative barriers experienced by travellers with disabilities. Moreover, emerging in-aircraft redesigns, such as securement systems that allow travellers to remain in their wheelchairs during flight, show potential to alleviate these burdens (see Jette et al., 2021; Wichter, 2024; Wilson, 2022). The success of accessibility initiatives relies on the close collaboration between air travel operators and individuals with disabilities to create inclusive design solutions and interventions that meet their specific needs (Buhler et al., 2009; Burke & Welbes, 2018).

##### 4.3. Issues with interacting with personnel highlighted the strong need for training

In this scoping review, we highlighted that airline personnel often lack knowledge about disabilities and related policies, as well as the skills and attitudes necessary to support travellers with disabilities. This knowledge gap contributes to practices and creates significant barriers throughout the air travel chain. Such practices are reinforced by the normalisation of ableist attitudes within the aviation industry, as evidenced by structural limitations and organizational norms that often treat disability as an exception requiring special assistance rather than an expected part of diversity (Harkness, 2025). Moreover, the knowledge gap contributes to the mishandling of assistive devices and the non-standardised enactment of policies. When personnel are unfamiliar with their own policies, travellers may be denied service. For example, a news report from October 2024 described a woman with hearing impairment being expelled from her flight because the staff was unaware of their own policies (Marchitelli & Blair, 2024).

The lack of knowledge and skill underscores a strong need for

training for air travel personnel along the travel chain. Research indicates that disability training can enhance employee confidence and equip personnel with the skills to reduce discrimination, fear, and misrepresentation (Hardy, 2019; Harkness, 2025). However, in the only study examining training effectiveness in air travel, McCarthy (2011) found that while most personnel received some training, all reported a need for improvement. Staff can recognise gaps in their knowledge and training needs to interact with travellers with disabilities effectively (Swaine et al., 2014). Therefore, it is equally important to engage all stakeholders, including travellers with disabilities and air travel personnel, in the development of training, ensuring that all voices and needs are included. Co-developing training modules and accessibility strategies with both airline personnel and people with disabilities can ensure a safe and positive travel experience (Lipp, 2015).

#### 4.4. Policies and accommodation strategies across jurisdictions created systemic issues

Our scoping review highlighted that the non-standardised nature of air travel policies across jurisdictions contributed to creating an inconsistent travel experience for people with disabilities. The emergency and safety protocols for travellers with disabilities illustrate this variability. Only two studies briefly addressed the existence of safety and evacuation information for travellers with disabilities (Chang & Chen, 2012; da Silva et al., 2019), revealing that procedures, if available, are subjected to differences in interpretation and implementation. Although aviation is considered the safest mode of transportation (National Safety Council, n.d.), inconsistent procedures for safety and evacuation could disproportionately affect travellers with disabilities, creating uncertainty, potentially unsafe conditions, and inequitable experiences for travellers with disabilities. Ensuring that safety and evacuation protocols are both disability-specific and standardised across jurisdictions is essential to safeguard travellers and reduce confusion during emergencies.

Another issue illustrating the variability of policies is the uncertainty around who is responsible – for instance, the airlines or the airport – for providing support to travelers with disabilities and what support must be available (Budd & Ison, 2020). For example, in Europe, airport management is responsible for providing wheelchairs (European Parliament, 2006), whereas in the U.S., airlines assume this responsibility (U.S. Department of Transportation, 2022). Such inconsistencies can complicate travel planning, especially for individuals taking international flights or connecting across regions. Harmonising international policies could provide greater clarity and predictability for all stakeholders (Budd & Ison, 2020). In an effort to create a unified approach to inclusive air travel, the International Air Transport Association, the International Civil Aviation Organization, and Airports Council International collectively hosted a symposium in December 2024 to establish a platform where governments, industry leaders, and disability advocacy groups could discuss and address barriers to air travel for people with disabilities (International Civil Aviation Organization, 2024). While this is a first step toward streamlining policies, future research should systematically review air travel policies across regions to identify inconsistencies, gaps, and best practices. Such a policy-focused approach can inform efforts to harmonise regulations, improve traveller experiences, and ensure that disability-specific needs are reliably met across all stages of the air travel chain. There are also inconsistencies across the implementation of the national and international policies and guidelines by the airline companies themselves. Analyzing those policies could also highlight these discrepancies and point to changes that could be made in those international recommendations.

#### 4.5. Limitations

A limitation of this review is that the search was restricted to studies written in English, which may have led to the exclusion of research

published in other languages. Additionally, there was a paucity of research originating from the Global South, where air travel policies, practices, and experiences may differ. We also did not specifically seek out studies focusing on travellers with chronic medical conditions (e.g., diabetes and sleep disorders). These individuals may have specific access needs related to the use of medical devices, such as continuous positive airway pressure (CPAP) machines and insulin pumps, which are not covered in studies focusing on other types of impairments. A systematic review of diabetes management during air travel revealed that much of the existing literature relied on expert opinions rather than on the experiences of travellers themselves (Pavela et al., 2018). A future scoping review could focus on these individuals to identify environmental factors that are affecting their air travel experiences.

## 5. Conclusion

Our scoping review identified the experiences of individuals with disabilities during air travel, as well as the environmental factors that affect these experiences, ranging from physical accessibility issues to policy constraints. Our analysis also highlighted significant gaps in the literature, such as the experiences of individuals with hidden disabilities, the need for training programs for airline personnel, the cumulative effects of encountering physical barriers for travelers with disabilities, and the need for standardising policies across jurisdictions. Addressing these gaps through research and collaboration with people with disabilities is crucial to creating a more inclusive air travel experience. As air transportation is essential for social inclusion, the aviation sector must tackle the factors that can diminish the confidence and opportunities to travel of individuals with disabilities.

### Author contributions

Delphine Labbé and William C. Miller were involved in the conceptualization, funding acquisition, methodology design, project administration, and supervision of the study. Daryl Patrick Gamboa Yao and Himani Prajapati were involved in data curation, formal analysis, interpretation, and writing the original draft of the manuscript, with input from all authors. Daryl Patrick Gamboa Yao and Delphine Labbé edited and revised the manuscript. All authors reviewed the final version of the manuscript and approved it for submission.

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### CRediT authorship contribution statement

**Daryl Patrick Gamboa Yao:** Writing – review & editing, Writing – original draft, Formal analysis, Data curation. **Delphine Labbé:** Writing – review & editing, Supervision, Project administration, Methodology, Funding acquisition, Conceptualization. **Himani Prajapati:** Writing – review & editing, Writing – original draft, Formal analysis, Data curation. **William C. Miller:** Writing – review & editing, Supervision, Project administration, Methodology, Funding acquisition, Conceptualization.

### Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## References

References marked with an asterisk (\*) indicate studies included in the scoping review.

- Air Carrier Access Act (ACAA), 49 U.S.C. § 41705 (1986).
- Ansley, H., 2022. June). Flight Plan. *Paraplegia News* 76 (6), 24–28.
- Arksey, H., O'Malley, L., 2005. Scoping studies: Towards a methodological framework. *International Journal of Social Science Research Methodology* 8 (1), 19–32. <https://doi.org/10.1080/1364557032000119616>.
- Aromataris, E., Riitano, D., 2014. Constructing a search strategy and searching for evidence: a guide to the literature search for a systematic review. *Am. J. Nurs.* 114 (5), 49–56. <https://doi.org/10.1097/01.NAJ.0000446779.99522.f6>.
- Barnett, J., 2018. Setting the stage for bridging disability and trauma studies: Reclaiming narrative in Amy and the Orphans. *Word and Text: A Journal of Literary Studies and Linguistics* 8 (1), 129–148.
- Bauer, I., 2018. When travel is a challenge: Travel medicine and the 'dis-abled' traveller. *Travel Med. Infect. Dis.* 22, 66–72. <https://doi.org/10.1016/j.tmaid.2018.02.001>.
- Blichfeldt, B.S., Nicolaisen, J., 2011. Disabled travel: not easy, but doable. *Curr. Issue Tour.* 14 (1), 79–102. <https://doi.org/10.1080/13683500903370159>.
- Budd, L., Ison, S., 2020. Supporting the needs of special assistance (including PRM) passengers: an international survey of disabled air passenger rights legislation. *J. Air Transp. Manag.* 87, 11851. <https://doi.org/10.1016/j.jairtraman.2020.101851>.
- Buhler, C., Schmitz, W., Hubert, M., 2009. "The accessibility agency" – Promoting the development of inclusive environments by mainstreaming accessibility issues. In: Emiliani, P.L., Burzagli, L., Como, A., Gabbanini, F., Salminen, A.-L. (Eds.), *Assistive Technology from Adapted Equipment to Inclusive Environments*. IOS Press, pp. 697–702. <https://doi.org/10.3233/978-1-60750-042-1-697>.
- Bureau of Transportation, 2022. March 10). Full-year 2021 and December 2021 U.S. airline traffic data Statistics. <https://www.bts.gov/newsroom/full-year-2021-and-december-2021-us-airline-traffic-data>.
- Burke, P., Welbes, J., 2018. Minneapolis-St. Paul International Airport: Instilling a culture of accessibility for people with disabilities that goes above and beyond requirements. *Journal of Airport Management* 12 (2), 198–206.
- Cavinato, J.L., Cuckovich, M.L., 1992. Transportation and tourism for the disabled: an assessment. *Transp. J.* 31 (3), 46–53.
- Cerdan Chiscano, M., 2021. Autism Spectrum Disorder (ASD) and \*the Family Inclusive Airport Design Experience. *Int. J. Environ. Res. Public Health* 18 (13), 7206. <https://doi.org/10.3390/ijerph18137206>.
- Chang, Y.-C., Chen, C.-F., 2011. Identifying mobility service needs for disabled air passengers. *Tour. Manag.* 32 (5), 1214–1217. <https://doi.org/10.1016/j.tourman.2010.11.001>.
- Chang, Y.-C., Chen, C.-F., 2012. Meeting the needs of disabled air passengers: Factors that facilitate help from airlines and airports. *Tour. Manag.* 33 (3), 529–536. <https://doi.org/10.1016/j.tourman.2011.06.002>.
- Cole, S., Whiteneck, G., Kilictepe, S., Wang, W., Hoback, N., Zhao, H., 2022. Multi-stakeholder perspectives of environmental barriers to participation in travel-related activities after spinal cord injury. *Disabil. Rehabil.* 44, 1–12. <https://doi.org/10.1080/09638288.2020.1774669>.
- Daniels, M.J., Drogin Rodgers, E.B., Wiggins, B.P., 2005. "Travel Tales": an interpretive analysis of constraints and negotiations to pleasure travel as experienced by persons with physical disabilities. *Tour. Manag.* 26 (6), 919–930. <https://doi.org/10.1016/j.tourman.2004.06.010>.
- Darcy, S., 2012. (Dis)embodied air travel experiences: Disability, discrimination and the affect of a discontinuous air travel chain. *J. Hosp. Tour. Manag.* 19 (1), 91–101. <https://doi.org/10.1017/jht.2012.9>.
- Covidence systematic review software (2023). Veritas Health Innovation, Melbourne, Australia. Available at [www.covidence.org](http://www.covidence.org).
- Darcy, S., Small, J., & Almond, B. (2023). Flying into uncertainty: Part 1- Flying with mobility disability. In J. Small (Ed.), *The passenger experience of air travel: A critical approach* (pp. 118-138). Channel View Publications. Doi: 10.21832/9781845419035-006.
- da Silva, T. N. R., de Souza Guarda, J. B., Camarotto, J. A., & Menegon, N. L. (2019). Passengers with Disabilities, Elderly and Obese in Brazilian Air Transportation: Contradictions in the Activity Systems. *Proceedings of the 20th Congress of the International Ergonomics Association (IEA 2018)*, 1747–1756. Doi: 10.1007/978-3-319-96071-5\_179.
- da Silva, T.N.R., de Souza Guarda, J.B., da Silva, L.L., Figueiredo, J.P., Menegon, N.L., 2017. Passengers with disabilities in the Brazilian air transport: different actors similar perspectives. *Gestão & Produção* 24 (1). <https://doi.org/10.1590/0104-530X1681-15>.
- Davies, A., Christie, N., 2017. An exploratory study of the experiences of wheelchair users as aircraft passengers – Implications for policy and practice. *IATSS Res.* 41 (2), 89–93. <https://doi.org/10.1016/j.iatssr.2017.05.003>.
- Davies, A., Christie, N., 2018. The experiences of parents with children with disabilities travelling on planes: an exploratory study. *J. Transp. Health* 11, 122–129. <https://doi.org/10.1016/j.jth.2018.10.002>.
- Dempsey, R., Healy, O., Lundy, E., Banks, J., Lawler, M., 2021. Air travel experiences of autistic children/young people. *Annals of Tourism Research Empirical Insights* 2 (2), 100026. <https://doi.org/10.1016/j.annale.2021.100026>.
- Gotti, D., Morales, E., Routhier, F., Riendeau, J., Hassen, A.H., 2024. Dehumanizing air travel: a scoping review on accessibility and inclusion of people with disabilities in international airports. *Frontiers in Rehabilitation Sciences* 5. <https://doi.org/10.3389/fresc.2024.1305191>.
- European Parliament. Regulation (EC) no 1107/2006 of the European parliament and the council of 5 July 2006 concerning the rights of disabled persons and persons with reduced mobility when travelling by air 2006 <http://data.europa.eu/eli/reg/2006/1107/2006-08-15>.
- Hardy, E. (2019, May 17). *Disability awareness training benefits* [blog]. Celebrating Disability. <https://celebratingdisability.co.uk/disability-awareness-training-benefits/>.
- Harkness, W. (2025). *Perceived instances of ableism within the airline industry: Airline operators' perspectives on the air travel experiences of customers with disabilities* (Order No. 322805517) [Doctoral dissertation, Capella University]. ProQuest Dissertations & Thesis Global. <https://www.proquest.com/docview/3268285466/fulltextPDF/91B7ED326FF4CC9PQ/1?accountid=14552&source=type=Dissertations&Theses>.
- Hidden Disabilities Sunflower Airports around the world 2024 <https://hdsunflower.com/us/insights/post/airports-around-the-world>.
- Houtenville, A., Bach, S., 2024. *Annual report on people with disabilities in America: 2024*. University of New Hampshire Institute on Disability. <https://www.researchondisability.org/sites/default/files/media/2024-03/2024-annual-report-a11y-1.pdf>.
- Hua, C., Jordan, E.J., Rutkowski, L., 2025. Conceptualizing ableism in tourism and hospitality: Health and inclusion implications for travelers with disabilities. *Journal of Travel Research*. <https://doi.org/10.1177/00472875251370387>.
- International Air Transport Association, 2024. June). Air Travel Accessibility for Passengers with Disabilities. <https://www.iata.org/en/iata-repository/pressroom/fact-sheets/fact-sheet-accessibility/>.
- International Civil Aviation Organization. (2024). Wings of prosperity: Economic growth through air transport. <https://www.icao.int/sites/default/files/prosperity/sustainability/Documents/Wings-of-Prospersity-August-2024-2.pdf>.
- Jette, A.M., Armenta, N., Axelson, P.W., Cooper, R.A., Erazo, K.J., Heming Jr., F.S., Hiatt, K.L., Hunter-Zaworski, K.M., Lesieutre, G.A., Manary, M.A., Oster Jr., C.V., Weissel, G.M., 2021. *Technical feasibility of a wheelchair securement concept for airline travel: a preliminary assessment*. The National Academies Press. <https://www.access-board.gov/files/research/trb-final-report-sept2021.pdf>.
- Krause, H., 2021. *Airport accessibility barriers and practices and DOT's oversight of airlines' disability-related training*. U.S. Government Accountability Office <https://www.gao.gov/products/gao-21-354>.
- Lazar, J., Jaeger, P.T., Adams, A., Angelozzi, A., Mahonar, J., Marciniak, J., Murphy, J., Norasteh, P., Olsen, C., Ponerer, E., Scott, T., Vaidya, N., Walsh, J., 2010. Up in the air: are airlines following the new DOT rules on equal pricing for people with disabilities when websites are inaccessible? *Government Information Quarterly* 27 (4), 329–336. <https://doi.org/10.1016/j.giq.2010.04.005>.
- Lazar, J., Jaeger, P., Olalere, A., Algarne, M., Augustine, Z., Brown, C., D'Erasmus, F., Dotson, B., Endiaper, G., Govender, L., Hagos, N., Hunt, G., Lawrence, W., Plummer, R., Richardson, A., Saval, J., Schickling, C., Schley, C., Szoka, D., Torrie, R., & Walton, M. (2012). Still up in the air: Government regulation of airline websites and continuing price inequality for persons with disabilities online. *Proceedings of the 13th Annual International Conference on Digital Government Research*, 240-245. Doi: 10.1145/2307729.2307768.
- Liasidou, A., Liasidou, S., 2023. Sunflowers, hidden disabilities and power inequities in higher education: some critical considerations and implications for disability-inclusive education policy reforms. *Power and Education*. <https://doi.org/10.1177/17577438231225140>.
- Lipp, E., 2015. What creates access and inclusion at airports? *Journal of Airport Management* 9 (4), 390–397.
- Major, W.L., Hubbard, S.M., 2019. An examination of disability-related complaints in the United States commercial aviation sector. *Journal of Air Transport Management* 78, 43–53. <https://doi.org/10.1016/j.jairtraman.2019.04.006>.
- Marchitelli, R., Blair, R., 2024. October 18). *Porter breaks its own rules by kicking deaf woman and her service dog off a flight*. CBC News, edmonton/porter-airlines-deaf-service-dog-1.7363838. <https://www.cbc.ca/news/canada/>.
- Martin-Domingo, K., Adiloglu-Yalcinkaya, L., Erturk, M., Farkic, J., 2024. Existing barriers and suggested solutions for dealing with air passengers with specific access requirements: a systematic literature review. *Research in Transportation Business & Management* 53, 101104. <https://doi.org/10.1016/j.rtbm.2024.101104>.
- McCarthy, M.J., 2011. Improving the United States airline industry's capacity to provide safe and dignified services to travelers with disabilities: Focus group findings. *Disability and Rehabilitation* 33 (25–26), 2612–2619. <https://doi.org/10.3109/09638281003729540>.
- National Safety Council. (n.d.). *Airplane crashes*. Injury Facts. <https://injuryfacts.nsc.org/home-and-community/safety-topics/airplane-crashes/>.
- Oliver, M., 2013. The social model of disability: Thirty years on. *Disability & Society* 28 (7), 1024–1026. <https://doi.org/10.1080/09687599.2013.818773>.
- Oostveen, A.-M., Lehtonen, P., 2018. The requirement of accessibility: European automated border control systems for persons with disabilities. *Technology in Society* 52, 60–69. <https://doi.org/10.1016/j.techsoc.2017.07.009>.
- Orczyk, M., Młodystach, L., 2022. Analysis of problems faced by the deaf while using public transport in a big city. *Transport Problems* 17 (3), 137–147. <https://doi.org/10.20858/tp.2022.17.3.12>.
- Packer, T.L., Mckercher, B., Yau, M.K., 2007. Understanding the complex interplay between tourism, disability and environmental contexts. *Disability and Rehabilitation* 29 (4), 281–292. <https://doi.org/10.1080/09638280600756331>.
- Paralyzed Veterans of America, 2018. December 3). *Improvements in Air Travel Improvements for People with Disabilities*. <https://pva.org/blog/improvements-in-air-travel-are-on-the-horizon-for-people-with-disabilities/>.
- Pardeck, J.T., 2005. Flying the unfriendly skies with a disability. *Journal of Social Work in Disability & Rehabilitation* 4 (3), 3–4. [https://doi.org/10.1300/J198v04n03\\_02](https://doi.org/10.1300/J198v04n03_02).
- Pavela, J., Suresh, R., Blue, R.S., Mathers, C.H., Belalcazar, L.M., 2018. Management of diabetes during air travel: a systematic literature review of current recommendations

- and their supporting evidence. *Endocrine Practice* 24 (2), 205–219. <https://doi.org/10.4158/EPI171954.RA>.
- Peters, M. D. J., Godfrey, C., McNerney, P., Munn, Z., Tricco, A. C., & Khalil, H. (2020). Scoping Reviews. In E. Aromataris & Z. Munn (Eds.), *JBI manual for evidence synthesis* (pp. 406–451). JBI. Doi: 10.46658/JBIMES-20-12.
- Peterson, C.M., Birkeland, R.W., Barsel, S., Statz, T.L., Gaugler, J.E., Finlay, J.M., 2024. 'Sick with stress': Perspectives on airport travel from persons living with dementia and their travel companions. *Disability & Society* 39 (1), 234–254. <https://doi.org/10.1080/09687599.2022.2070060>.
- Pfeiffer, J.L., Bower, W., Rumrill, P., 2023. The current state of air travel for Americans with disabilities: Considerations for policy, enforcement, implementation, and advocacy. *37th Annual Pacific Rim. Conference Proceedings* 18 (3).
- Pirelli, G. (2009). Usability in public services and border control: New technologies and challenges for people with disability. In A. Holzinger & K. Miesenberger (Eds.), *Lecture Notes in Computer Science* (pp. 532–552). Springer. Doi: 10.1007/978-3-642-10308-7\_40.
- Poria, Y., Reichel, A., Brandt, Y., 2010. The flight experiences of people with disabilities: an exploratory study. *Journal of Travel Research* 49 (2), 216–227. <https://doi.org/10.1177/0047287509336477>.
- Praslova, L.N., 2024. May 7). How to weigh the risks of disclosing a disability, *Harvard Business Review* <https://hbr.org/2024/05/how-to-weigh-the-risks-of-disclosing-a-disability>.
- Richards, V., Pritchard, A., Morgan, N., 2010. (Re)Envisioning tourism and visual impairment. *Annals of Tourism Research* 37 (4), 1097–1116. <https://doi.org/10.1016/j.annals.2010.04.011>.
- Riley, M., Brotherston, S., Samuels, M., Pike, K.C., Kelly, P., 2024. 'It gives me more freedom': Family perspectives on travelling with children on nocturnal ventilation. *Child: Care, Health and Development* 50 (1), e13188. <https://doi.org/10.1111/cch.13188>.
- Sedgley, D., Pritchard, A., Morgan, N., Hanna, P., 2017. Tourism and autism: Journeys of mixed emotions. *Annals of Tourism Research* 66, 14–25. <https://doi.org/10.1016/j.annals.2017.05.009>.
- Small, J., McIntosh, A., Almond, B., & Darcy, S. (2023). Flying into uncertainty: Part 2- Flying with non-mobility disability. In J. Small (Ed.), *The passenger experience of air travel: A critical approach* (pp. 139–161). Channel View Publications. Doi: 10.21832/9781845419035-007.
- Smith, M.L., Amorim, E., Umbelino, J., 2013. Accessible tourism and disability service information provided on leading airline websites: a content analysis. *International Journal for Responsible Tourism* 2 (4), 7–23.
- Swaine, B., Labbé, D., Poldma, T., Barile, M., Fichten, C., Havel, A., Kehayia, E., Mazer, B., McKinley, P., Rochette, A., 2014. Exploring the facilitators and barriers to shopping mall use by persons with disabilities and strategies for improvements: Perspectives from persons with disabilities, rehabilitation professionals and shopkeepers. *ALTER-European Journal of Disability Research* 8 (3), 217–229. <https://doi.org/10.1016/j.alter.2014.04.003>.
- Tata, A. M., Ebbatson, M., & Fluoke, C. (2024). Exploring the implementations of hidden disabilities assistance program in Australian airports. *International Journal of Aviation, Aeronautics, and Aerospace*, 11(2), Article 1904. Doi: 10.58940/2374-6793.1904.
- Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K.K., Colquhoun, H., Levac, D., Moher, D., Peters, M.D.J., Horsley, T., Weeks, L., Hempel, S., Akl, E.A., Chang, C., McGowan, J., Stewart, L., Hartling, L., Aldcroft, A., Wilson, M.G., Garrity, C., Lewin, S., Godfrey, C.M., Macdonald, M.T., Langlois, E.V., Soares-Weiser, K., Moriarty, J., Clifford, T., Tunçalp, O., Straus, S.E., 2018. PRISMA extension for scoping reviews (PRISMA-ScR): Checklist and explanation. *Annals of Internal Medicine* 169 (7), 467–473. <https://doi.org/10.7326/M18-0850>.
- U.S. Department of Justice. (2022, March 18). *Guidance on web accessibility and the ADA*. <https://www.ada.gov/resources/web-guidance/>.
- U.S. Department of Transportation (DOT). (2022, July). *Airline passengers with disabilities bill of rights*. <https://www.transportation.gov/airconsumer/disabilitybillofrights>.
- U.S. Department of Transportation (DOT). (2023). *Annual report on disability-related air travel complaints received during calendar year 2021*. [https://www.transportation.gov/sites/dot.gov/files/2023-10/Summary Report 2021.pdf](https://www.transportation.gov/sites/dot.gov/files/2023-10/Summary%20Report%202021.pdf).
- U.S. Transportation Security Administration. (n.d.). *Disabilities and medical condition*. <https://www.tsa.gov/travel/tsa-cares/disabilities-and-medical-conditions>.
- United Nations (2006, December 13). Convention on the Rights of Persons with Disabilities. <https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-persons-disabilities>.
- U.S. Department of Transportation (DOT). February 28). *About the Air Carrier Access Act*. <https://www.transportation.gov/airconsumer/passengers-disabilities>.
- Van Horn, L., Lipp, E., O'Reilly, K., Pound, P., Vange, J., Wirth, S., Shevrin, J., Cole, S., 2020. *Innovative solutions to facilitate accessibility for airport travelers with disabilities*. Transportation Research Board. <https://doi.org/10.17226/25728>.
- Vine, D., Buys, L., Aird, R., 2012. The use of amenities in high density neighbourhoods by older urban Australian residents. *Landscape and Urban Planning* 107 (2), 159–171. <https://doi.org/10.1016/j.landurbplan.2012.05.013>.
- Von, Ah., A., 2020. *Aviation consumer protection: few U.S. aircraft have lavatories designed to accommodate passengers with reduced mobility*. U.S. Government Accountability Office. <https://www.gao.gov/products/gao-20-258>.
- Wichter, Z., 2024. October 29). Delta Air Lines, DOT update plans for adaptive wheelchair seats on future flights. *USA Today*. <https://www.usatoday.com/story/travel/airline-news/2024/10/29/delta-air-lines-dot-faa-wheelchair-seat/75914127007/>.
- Wilson, M., 2022. September 15). *Planes are ableist. Air4All brings equity to air travel*. Fast Company. <https://www.fastcompany.com/90767295/planes-are-ableist-air4all-brings-equity-to-air-travel>.
- Yates, K., 2007. Understanding the experiences of mobility-disabled tourists. *International Journal of Tourism Policy* 1 (2), 153. <https://doi.org/10.1504/ijtp.2007.015525>.
- Yau, M.-K.-S., Mc Kercher, B., Packer, T.L., 2004. Traveling with a disability: more than an access issue. *Annals of Tourism Research* 31 (4), 946–960. <https://doi.org/10.1016/j.annals.2004.03.007>.