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EXPLORING AIRPORT NAVIGATION CHALLENGES FACED BY AIRLINE TRAVELERS WITH HIDDEN DISABILITIES

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The United Nations World Tourism Organization (UNTWO, 2020) recognizes that travellers with all disabilities face access barriers to transport facilities and services, including navigation within and around terminal buildings and interaction with self-service ticket machines. Travelling through airports can be a relatively rare experience for many travellers with disabilities, who may find interactions with airport personnel and the environment unusual (Jain et al., 2019). The World Health Organization (WHO, 2021) has projected that by 2050, nearly 2.5 billion people will likely have some form of disability. Within the general population, travellers with a hidden disability (HD) are more likely to encounter difficulties at airports. These difficulties include wayfinding (Harding, 2019), airport noise and spaces (Cerdan, 2021), terminal space (Orakani et al., 2021), and interaction with security personnel (Peterson et al., 2022; Railey, 2020).

McIntosh (2020) reported that coincidental with the general rise in the popularity of air travel; there is an increase in the number of travellers with a form of HD (Brewer, 2019). This may be due to the rising rate of HDs in the general population (WHO, 2021). For example, while one out of six people in Australia (18%) has a form of disability, one in four people with a disability (23%) reported an HD (AIHW, 2020). For this reason, many airports have implemented a Hidden Disability Assistance Program (HDAP), which aims to provide extra assistance and support to those who need help. Through physical items, such as the sunflower lanyard, staff may be able to recognize and respond to the additional support needs of travellers at airports.

Unless airport operators know the challenges travellers with HDs may face within the terminal space, it is challenging to provide proper support that meets their needs. Limited research related to the airport's physical environment has explicitly addressed either the challenges or the experiences of travellers with HDs in the airport context. Considering this, the purpose of this paper was to apply the Servicescape concept to address the question: What problems do passengers (and carers of passengers) with an HD encounter whilst transiting airports? The following section explains the term HD.

Hidden Disability Definition

The WHO (2021) defines the term "hidden disability" (HD) as the interaction between people with a health condition and attitudinal and environmental barriers which reduce their active participation in society. The Australian Institute of Health and Welfare (AIHW, 2020) defines HD as an umbrella term referring to conditions which restrict individuals from performing daily activities. An HD is a condition that is not immediately obvious to other people (Cook & Clement, 2019). HDs are unobservable disorders limiting a person from performing routine work activities and may refer to a condition affecting sensory functioning. According to Wolf (2001), HDs are medical conditions

comprising major and minor invisible disorders that hinder a person from performing desired activities.

Examples of HDs include heart problems, learning disabilities, dementia, epilepsy, deafness, chronic fatigue syndrome, hearing loss, diabetes, celiac disease, fibromyalgia, asthma, dyslexia, traumatic brain injury, motor impairments, and sclerosis (Fleischer & Zames, 2012; Roman, 2009). This paper defines HDs as any short-term or long-term condition that cannot be seen physically and may negatively affect a person's navigation within an airport environment. The following section discusses the conceptual framework of this paper.

Theoretical Framework

The term 'Servicescape' refers to the physical surroundings where services are offered to customers (Bitner, 1992). According to Bitner (1992), the Servicescape model has three main environmental dimensions:

- (1) Ambient conditions such as music and noise;
- (2) Spatial layout and functionality such as equipment; and
- (3) Signs, symbols, and artefacts, such as signage and decor.

The Servicescape concept is one of the most important theories for understanding the navigational challenges experienced by employees and customers within an environment (Fodness & Murray, 2007) is concerned. The Servicescape concept describes the impact of physical conditions surrounding a service company on its service customers (Reimer et al., 2005). The Servicescape model informs this research by providing authors with an understanding of the experiences of travellers with an HD navigating airports and accessing airport passenger services where they interact with airport and airline customer service staff.

Jeon and Kim (2012) further explained the compound word of Servicescape as a portmanteau of the words 'service' and 'scape'. The theoretical foundation of the Servicescape model is traced back to the study of atmosphere in marketing (Kotler, 1973) and the role of the environment in marketing services (Baker, 1986). According to Bitner (1992), the Servicescape can be divided into the *lean* and the *elaborate*. The *lean* refers to fewer interactions with the building or administrative staff, while *elaborate* refers to many exchanges. Although, prior scholars have noted that the model concentrates too much on the environment's physical impact and suggests that it pays little attention to the social aspect and its implications for service consumers (Ardley et al., 2012; Line et al., 2018).

It is also noticed that little theory related to the airport's physical environment has explicitly addressed either the challenges or the experiences of travellers with an HD in the airport context. In light of this, this paper aims to use the Servicescape concept to explore several challenges faced by airline travellers whilst transiting through airports.

Literature Review

This section reviews the literature on airport passenger experiences. It discusses the impact of Servicescape on passengers with an HD navigating through airports. The section discusses challenges faced by passengers with an HD at the airport. These articles were drawn from sources within databases such as IBIS World, Google Scholar, Scopus, Standard, Web of Science and airport websites.

Neo and Flaherty (2018) studied the challenges affecting a young group of people with ASD during an international trip. Their study found that travellers with ASD find it challenging to navigate airport environments; the crowd and space in airport terminals affect their smooth journey. The study indicates that standing in a long queue to accomplish passenger activities such as check-in and security screening which require body searches, increases the anxiety of young passengers with ASD. They concluded the need for awareness of these issues by the airport and airline industry to make air travel less stressful for people with ASD and their families. The findings of Neo and Flaherty (2018) are an essential element that could be used to improve the travel experiences of passengers with an HD. However, it heavily relies on secondary information and ignores an investigation of people with other disabilities.

Felkai and Kurimay (2017) studied issues affecting international travellers with various HDs. They mentioned that travellers diagnosed with an HD—such as paranoid disorder, affective disorder, adjustment disorder, somatoform disorder, and substance use disorder—are likely to feel defenceless when travelling through airports. Furthermore, they developed a stress factors framework affecting air travellers with an HD, including physical strain, environmental strain, and travel fatigue. They mentioned that travellers in this category often face greater difficulties when travelling to international destinations; for example, a passenger who travels from Australia to Europe without a carer or family member may suffer more complex problems and be unable to communicate with airport medical practitioners to receive help. However, Felkai and Kurimay (2017) failed to analyze how international air travellers with hidden travel stress interact with the airport environment and service personnel. Their findings are an essential guideline for airport service providers to prepare for unforeseen circumstances that could affect travellers with hidden travel-related diseases at the airport.

Nilson (2020) investigated the challenges young travellers with hearing impairment encountered. Nilson (2020) used a qualitative approach and documented that this category of travellers may continue to face problems while interfacing with airport service providers; they experience a lack of information and communication about the journey. Nilson (2020) reported that participants find it difficult to relax during the trip at the airport. Similarly, Richards et al. (2010) used a qualitative approach. They documented that airline travellers with low invisible vision impairments who travel for tourism purposes experience fear and anxiety

due to the Lack of suitable lighting and clear signage whilst navigating the tourism environment, including airport space. For this reason, understanding their difficulties is key to ensuring their smooth journey (Daniels et al., 2005). Models that discussed the impact of physical surroundings on travellers' experiences include Cutler and Carmicheal (2010). One recent study that shed lighter on the material impact of terminal design is that of Wattanacharoensil et al. (2017), who analyzed the effect of the airport's physical setting, which influences the overall experiences of travellers based on their perspectives, as cited in Cutler and Carmicheal (2010). They emphasized that the functional physical Servicescape influences future experiences.

A recent study by Dempsey et al. (2021) investigated the air travel experiences of young children with ASD and their parents while navigating airports. They used quantitative techniques to measure the extent of air travel challenges and found issues such as long waiting and crowds to be significant. They further suggested a deep investigation of travel challenges faced by airline travellers with an HD. Comparing the findings of Dempsey (2021), the same year, Cerdan (2021) focused on family inclusion in the airport design experiences of travellers with ASD. Most airport activities require passengers to wait in queues for car parking, trolley collection, lifts, check-in, baggage drop-off, security, or boarding documentation, and even airport facilities such as toilets, ATMs, or restaurants. Furthermore, Cerdan (2021) reported problems encountered by travellers with ASD and their families, including long waiting in the airport departure area.

Cooper (2006) examined issues and supports required by older air travellers with diabetes, asthma, and hearing impairments. The author found that a lack of appropriate support implementation negatively affected this group of older passengers, especially in terms of experiencing long walks and carrying their luggage from the curb to the boarding gates. Cooper (2006) suggested that airport operators should provide first aid kits around the airport and trained personnel to support such travellers in navigating the airport. Cooper (2006) also noted that air travellers with an HD should consult their physicians before they are scheduled to travel.

Similarly, Nassar et al. (2012) found that passengers with diabetes are more likely to face challenges at airports due to unfamiliar airport environments and a Lack of assurance of the availability of appropriate food. For example, a passenger may travel abroad and not find non-starchy food at airport terminal restaurants. This study urged that it is important for airport operators' to understand unique needs of their passengers to support them appropriately. Sadlon et al. (2021) found that airline passengers with an HD of dementia usually have communication problems with airport security officers.

Peterson et al. (2022) surveyed 48 travellers with dementia and their 176 companions who travelled through U.S. airports. They found passengers

experienced frustrations and anxiety during the security screening process. Furthermore, they said that passengers with dementia recommended that airports provide training to airport ground staff to handle their special needs better. An interview with some passengers showed a need to offer HD awareness badges to the ground staff so that passengers may recognize staff who have been trained and could help provide additional assistance. Finally, the findings recommended the need to reduce airport noise to make passengers with dementia more comfortable in the public spaces of the terminal. However, the results by Peterson et al. (2022) are limited to the experiences of passengers in U.S. airports.

Zahabi et al. (2022) and Hara et al. (2015) are two examples of studies that support the findings of Peterson et al. (2022) on the issue of the physical space of the modern airport being challenging for people with an HD. In addition to the need for physical space, passengers also experience problems with standing in queues, a lack of adequate services and facilities (Devile & Kastenholz, 2018), and a lack of staff awareness about their disabilities (Loi & Kong, 2017). In this regard, airport operators need to ensure they address issues related to the act of navigation (Peterson et al., 2022).

Hunter (2004) conducted an exploratory study on young people with cancer travelling on holiday. Hunter (2004) described a lack of confidence as one of the issues affecting these travellers during their journey. Furthermore, the author found that travellers with cancer face difficulties when exposed to the sun and hot temperatures. Hunter (2004) concluded that more research was needed to understand people's experiences with HDs and ways to support them. Finally, Hunter (2004) suggests that air traveller operators such as airports and travel agents provide a conducive atmosphere to make airport navigation convenient for travellers with cancer. Figure 1 summarizes the findings of prior studies regarding airport challenges faced by passengers with HD.

Figure 1

Review of Challenges Faced by Airline Travellers with Hidden Disabilities at the Airport

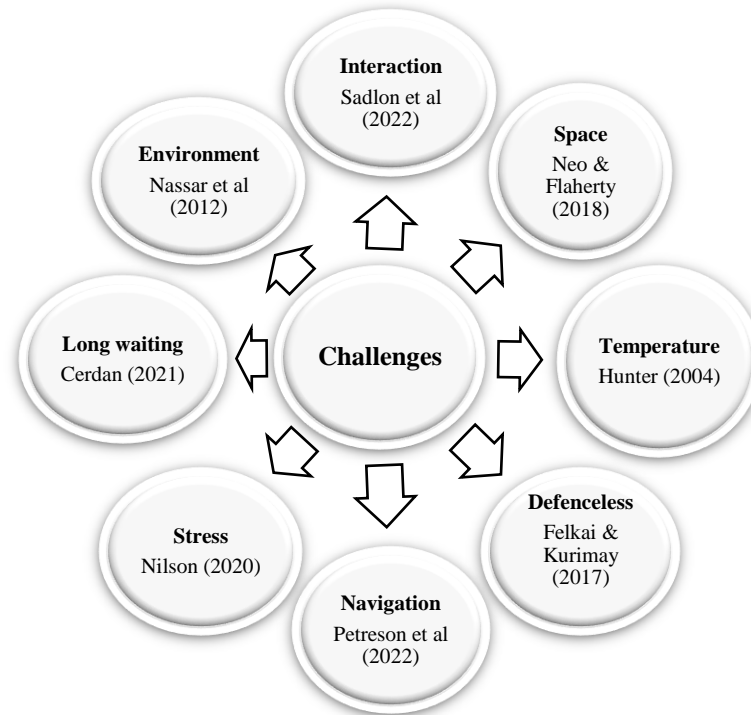


Figure 1 describes a range of challenges passengers with an HD face while navigating through the physical surroundings of an airport. The findings of the authors highlighted above are significant implications for airport operators. However, due to the modernization of the terminal environment and enhanced passenger services using various technologies, an application of the Servicescape model developed by Bitner (1992) may lead to modifying the model to incorporate critical social dimensions. Again, limited studies have applied the Servicescape model and explored airport passengers' navigational experiences (Taheri et al., 2020; Moon et al., 2016). The following section discusses the methodologies of this paper.

Methodologies

Online Reviews on TripAdvisor.com

In this paper, the authors applied the Netnography method to address the proposed question using the popular travel review website TripAdvisor. Previous scholars have completed studies using the TripAdvisor website and addressed their respective research questions (Bornarel et al., 2021; Cassar et al., 2020; Diaz et al., 2018; Duffy, 2016; Fitchett et al., 2018; Fillerie, 2016; Kladou & Mavragani, 2015; Mary et al., 2022; Minkwitz, 2018; O'Connor, 2010; Xiang et al., 2018).

Netnography is a qualitative research approach that adapts ethnography techniques to study a population using an internet platform. It is based on the principles of grounded theory (Glaser & Strauss, 2017), which inductively derives an explanation from the research phenomenon (Saunders et al., 2019).

In the present paper, the authors chose TripAdvisor because it is assumed that the website could provide relevant data addressing the present research questions and serves as an advisory platform for airline travellers representing the global aviation network (O'Connor, 2010). Since its establishment in 2000, the platform has contributed immensely by providing valid information, especially regarding travel and tourism experiences on the part of its registered members (Amaral et al., 2014). Scholars have widely utilized TripAdvisor to explore the reviews posted by airline travellers (O'Connor et al., 2010). These reviews provide researchers with an understanding of travellers' subjective experiences on various issues. One advantage of using TripAdvisor is that research is no longer limited to conventional in-depth qualitative interview methods (Amaral et al., 2014; Ayeh et al., 2013). The motivation for passengers to write reviews on the platform is to share their experiences, inform fellow travellers about their journey, and ask airports and airlines to address their concerns. Passengers who travel by air transport upload their reviews to the platform to express their satisfaction and dissatisfaction with services and facilities offered to them by airports. Airline passengers often use TripAdvisor to voice their decision to use air transport services during their next trip; for example, some passengers who experience seamless journeys through an airport could choose to use an airport in the future.

Sample Size and Exclusion Criteria

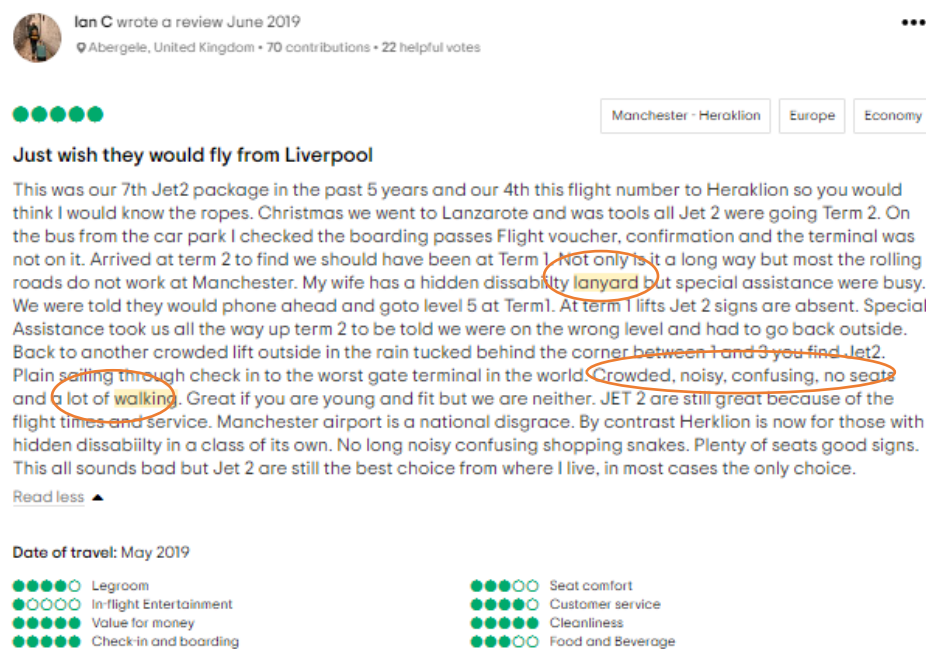
In this paper, the authors used a purposive sampling technique to explore the airport experiences of airline travellers with an HD. A total of 203 qualitative reviews were found available based on the comments posted by various airline passengers. The authors excluded travellers who identify as having visible disabilities such as broken legs, visual blindness etc. Travellers who have mentioned their experiences using hotel services were also excluded from the sample. Authors set inclusion and exclusion criteria considered the narrative comments of travellers from airlines' websites on the TripAdvisor website rather than the total or average star rating of the airport or airline service quality, as other studies have (Fitchett et al., 2018; O'Connor, 2010). The data was collected online. Therefore, in this paper, some limitations still restrict the generalizations of participants' perspectives regarding the challenges they experienced at airports. Travellers who did not mention their experience at TripAdvisor are part of the limitation of the present study. Thus, a higher number of travellers' firsthand responses or the use of a qualitative approach may lead to more accurate results and generalizations for understanding airport challenges faced by travellers with an HD.

Data Collection Procedures

This paper is exploratory and collected data based on participants' electronic word of mouth (e-WOM). It is a modern way of extracting textual information, opinion, reviews, and comments on products and services posted on corporate websites by consumers (Cheung & Lee, 2012). Authors used terms in the search strategy such as 'hidden disability' and 'lanyards' to identify challenges faced by travellers with HDs. The authors extracted 203 self-declared textual reviews of passengers between June 2019 and February 2020. Airlines were selected randomly; most of them are located in the UK. This could not be separated from the fact that the HDAP was first implemented in the UK by London Gatwick Airport, as stated in the previous section. The personal reviews of passengers were drawn in the following format (see Figure 2).

Figure 2

Screenshot Displaying the Content of the Passenger Reviews



As seen in Figure 2, the authors used the term 'lanyard' to explore passengers' experiences randomly; for example, the experience of a passenger with HD related to crowd and noise was found in this search. The authors followed the approach of Xiang et al. (2018) and Laksona et al. (2019) in processing the data; for example, some passengers' reviews were uploaded unstructured, meaning lower and upper case were used in a single word until the authors sensitize it without

changing the actual reviews posted on the TripAdvisor website. However, the authors noticed the importance of retrieval of online reviews using data crawling by the WebHarvy tool utilized by recent scholars (Laksona et al., 2019). At the same time, the online reviews could be retrieved and processed manually to give the same meaning and address the researchers' questions. After completing this process, the authors performed a thematic analysis, as illustrated in Figure 3.

Figure 3
Data Analysis Procedures

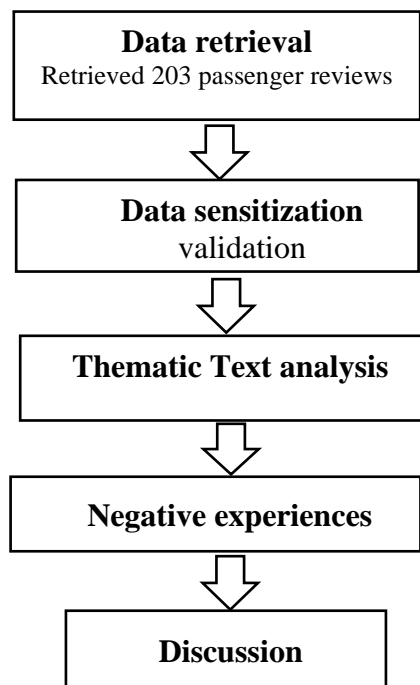


Figure 3 illustrates the sequential order followed throughout the data collection and analysis; the authors removed punctuation that did not add meaning and reduced the value of the passengers' comments, such as “uh”, “hmm”, “ok”, etc. After that, a thematic text analysis (TTA) was performed, and reviews were analyzed and discussed among the research team in line with TTA procedures.

Data Analysis

As mentioned previously, this research performed TTA to determine what themes existed in participants' comments and which themes appeared more frequently that could explain the nature and pattern of challenges faced by

participants at airports based on their previous travel experiences. The TTA was developed initially by Braun and Clarke (2006). They defined it as a qualitative methodology for identifying, analyzing, and documenting identifiable patterns in a data set. They also described it as a flexible method for the interpretation of data. The TTA involves six stages: (1) familiarisation with the data, (2) generating the initial codes, 3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and 6) producing the report. Other studies have followed these stages to analyze online reviews (Bardach et al., 2016). In addition, the authors examined the data verbatim in line with Braun and Clerk (2006).

The first stage of TTA is familiarisation with the data; the authors of the present study copied and pasted passengers' online reviews from the TripAdvisor websites and saved them as a Microsoft word file. It allowed the authors to become familiar with the data by reading it multiple times. The second stage is generating the initial code. Astride-Stirling (2001) described developing the initial code as a way of reducing the less essential parts of the data. One of the authors, who is experienced in qualitative methodology, reviewed the initial code generated by the corresponding author to ensure the rigor of the analysis.

The authors embedded the data and the research questions in one table with the keywords or phrases labelled in yellow. The yellow highlighted text helped the authors identify vital passengers' experiences relevant to the research question—for example, passengers who encountered problems at the airport. The third stage of TTA is searching for themes: in this stage, two authors group the identified codes into clusters to make a single theme representing specified codes based on the passengers' e-WOM. In the fourth stage, the authors met and reviewed the initial codes and articles to ensure that themes were relevant and reflected the purpose of this study. In the fifth stage, to avoid naming unclear themes, the researchers follow the approach of Auerbach et al. (2003), who emphasized that researchers should avoid naming themes that are unclear and will confuse the readers. Therefore, the authors met and rephrased the draft themes to ensure that the themes' names reflected academic terminology. In the final stage, the authors correlated the findings with available literature supporting the results and produced the results for publication.

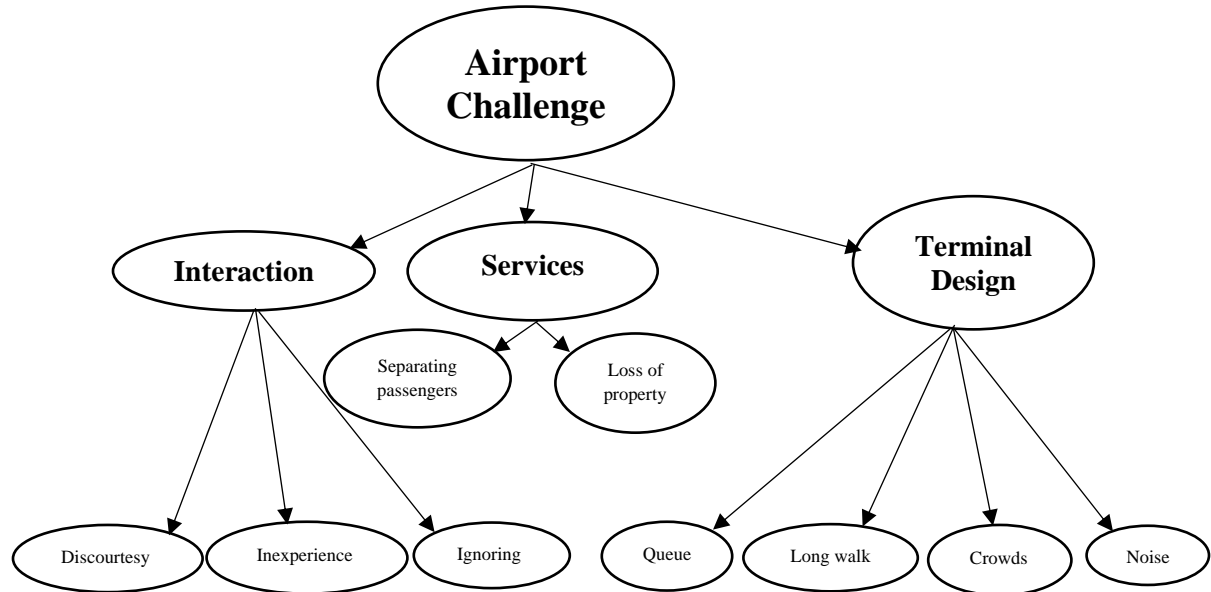
Results and Conclusions

This section describes the results of this study with 203 passengers' comments obtained from the TripAdvisor website. These comments aimed to understand issues arising from their airport navigation experience. The results and discussion were based on passengers' opinions and recommendations of prior studies. This is followed by a discussion of each theme's challenges.

Airport Navigation Challenges Faced by Travellers with Hidden Disabilities

Figure 4

Airport Navigation Challenges



In this section, drawing on the data collected from TripAdvisor based on travellers' e-WOM, the authors of the present study followed the approach of Fodness and Murray (2007) to present the challenges faced by travellers with an HD. The results presented in Figure 4 show the thematic categories of passengers' experiences with an HD at airports.

Figure 4 shows the three main themes of factors affecting passengers at the airport: (1) Human interaction, (2) Services, and (3) Terminal design. Each dimension has sub-dimensions that correlate with the environmental and social aspects of the original Servicescape of Bitner (1992). The first dimension in the figure highlights the impact of “human interaction” in influencing passengers’ experiences as self-declared by passengers with HDs. The second dimension found from the analysis is “services.” In the cause of providing services to passengers with HD, a sub-dimension was found, which includes separating passengers from their families; passengers commented on the Lack of facilities to aid passengers’ movement and loss of their mobility aid. The figure illustrates the issue with “terminal design” as a final dimension of the findings in this research which shows that the current airport's physical environment can stress passengers with an HD; four sub-dimensions were found from the terminal design. They are Noise, Long walk, Crowd and, Queue.

Interaction with Airport Personnel

Social interaction refers to the physical contact between customers and service providers (Bardach et al., 2016). Popovic et al. (2010) and Kirk (2014) proposed four necessary activities at the airport for which passengers must interact with airport and airline employees: check-in, security, boarding, and customs. Examples of these activities include:

(1) Upon arrival at the terminal, the passenger may purchase or present a pre-purchased ticket and boarding pass, which requires them to communicate with service desk personnel. Baggage drop-off requires the passenger to answer routine security and health questions from desk service officers; for example, "did you pack your bag by yourself? Do you have any liquid, aerosol, gel?" etc.

(2) The next stage of interaction is the security screening; at this stage, the screening activities may require security to touch the passenger's body. During this activity, passengers must interact with security personnel for body and baggage searching.

(3) Visa documentation requires airport personnel to ascertain passengers' appropriate visa and travel documents.

(4) During customs, airline staff members interact with passengers to ensure they have the correct boarding pass.

In this study, the authors note that passenger interaction with people at the airport extends beyond the four stages proposed by Popovic et al. (2010) and Kirk (2014). Firstly, during navigation, some passengers may interact with uniformed and un-uniformed airport employees to find their route to check-in counters, toilets, restaurants, baggage weighing, currency exchange ATMs, etc. Secondly, following boarding gate documentation, airline staff must interact with passengers at the boarding gate to ensure they have a valid boarding pass and direct them to their assigned seats. Passengers with an HD may find these interactions challenging. As a result of the TTA, the authors found the following important themes.

Perceived Discourtesy

This theme refers to the perceived Lack of staff member courtesy while interacting with passengers and the failure to understand their unique needs. One traveller reported:

“Our child has Autism and other associated conditions also over tactile, as such with being forced to queue and being bumped especially from behind the central nervous system perceives this as a threat, which can lead to a severe meltdown which can include biting, kicking, lashing out, fight or flight and refusal to walk, to name but a few examples, it's also distressing for the child and other family members, All was going to plan until we reached security at Manchester my child was pulled to one side and told to get in the " scanner box and view instructions for standing correctly,

I needed to assist with this much to the dismay of the staff, outrageous! When I showed the lanyard, the female attendant said she didn't recognize it and knew nothing other than, you cannot be fast-tracked unless you pay, NIGHTMARE". (Traveller)

Other studies have found such discourtesy by airport personnel toward passengers with HDs. For example, Chang et al. (2013) found inappropriate airline staff attitudes toward passengers with disabilities on aircraft.

This theme refers to the perception that airport staff lack the knowledge to understand the ways to support travellers with an HD. For example, Poria et al. (2010) mentioned that an attitude on the part of airport employees is one of the social hurdles disabled travellers face while boarding or disembarking planes. For example, in the present study, one passenger perceived, "Poorly trained staff gave no additional support when they could see autistic children going to melt down" (Traveller). Previous research on airline passengers has stressed the importance of adequate training to meet the needs of disabled passengers (CAA, 2018; Darcy, 2007). Stumbo and Pegg (2005) believed staff attitude towards interaction with airline passengers, including tourists with disabilities, could be addressed through staff training. To address this issue, the IATA (2022a, 2022b) noted an urgent need to ensure airline and airport personnel receive appropriate training and awareness to support passengers with disabilities. Similarly, the UN World Tourism Organization recommended training personnel on interacting with travellers with all disabilities (UNTWO, 2020).

Perception of Being Ignored

On this issue, McKercher and Darcy (2018) developed a four-tier framework on barriers affecting travellers with all disabilities. They mentioned that the perception of being ignored is one of the significant issues faced by passengers with HD at the airport. This research found that many travellers with HDs have experienced being ignored by the airport and airline personnel several times. One example by a passenger states: "My husband has a hidden disability and uses a disability lanyard which is not of any use if the staff ignores it" (Traveller). This attitude can easily upset passengers. Other scholars have previously examined the perspective of service providers as a critical dimension of their findings (Bitner, 1992; Brady et al., 2001). Darawulla and Darcy (2005) explored the role of staff awareness training in handling people with disabilities in the tourism sector and found that most of the issues encountered by tourists during their trips are related to being ignored by service employees. Service organizations must take note of this issue to devise special training to address the perceived staff attitude in the airport context. Air travel can be a stressful experience, especially for travellers with an HD, which may reduce their active participation while navigating the airport's physical environment or boarding aircraft.

Services

Through the TTA, the researchers found four themes related to the services offered by airports and airline personnel to passengers who experience a variety of passengers with an HDs transiting through airports.

Passengers' Separation

Travellers self-documented that airline staff separated them from check-in as a group, which led them to become confused at the counter. For example:

We had contacted the airline at booking, and they assured us that we would get special assistance. ... outbound from Stansted, we went to special assistance desk where they gave us wheelchairs, wrist bands for the boys and then sent us back to the airline check-in desks. Our check-in was all over the place; they split the group up over several check-in desks and checked us in separately, which was confusing. (Traveller)

The issue of separating passengers is a common experience for passengers with disabilities. The literature discusses how separating passengers with HD from their families could affect disabled passengers (Darcy, 2007). Recently, Peterson et al. (2022) found that passengers with dementia were separated from their families by airport security personnel during passenger screening in US airports.

Facilities

As Kirk (2014) identified, the Lack of facilities at the airport to carry out necessary passenger activities such as boarding has been a concern to both passengers with HDs and their families. Chang and Chen (2012) applied a performance analysis that surveyed 130 passengers' perceptions of their unique needs when air travel. Their results found that the need for sufficient facilities by passengers is critical. They recommended air operators fill this gap by providing adequate facilities for passengers to use comfortably. The finding is important but lacks sufficient information regarding from which airport they drew their samples. This issue could make passengers with an HD experience a stressful journey. For example, a passenger self-declared that "The airline tries but [we] had to wait nearly half an hour to disembark at the airport as they hadn't got a big enough ambulant even though the airline knew how many passengers needed to use it." This issue is also evident in several studies that found inadequate physical accessibility to transport units such as wheelchairs for boarding and disembarking (Penfold et al., 2008; Small et al., 2007).

Passengers reported a loss of mobility several times during their journey. This issue can undermine their travel experience, as documented by one passenger who said, "They treat people with disability badly. My wheelchair was lost" (Traveller). This traveller may require the use of a wheelchair if they are unable to walk long distances due to an HD. Likewise, findings of other studies identified loss of mobility aids among the challenges faced by travellers with physical disabilities (Darcy, 2007). Passengers with an HD requiring mobility support due

to their disabilities could find it difficult to pass through the airport without personal mobility aids.

Terminal Design

Crowds

It was found from TripAdvisor data that most travellers with an HD have trouble in noisy areas. The airport is one of the most crowded environments (Kirk, 2014); therefore, travellers with an HD will likely experience challenges when interacting with the airport's physical environments. Crowds and their effect on customers in busy areas such as airport terminals have been documented as an essential dimension in other studies (Popovic et al., 2010; Dempsey et al., 2021). One traveller mentioned, "Airport crowds is something my son struggles with massively" (Traveller). Guerreiro et al. (2019) investigated the challenges affecting passengers with an HD, including those with sight issues at Pittsburgh International Airport. They used two focus groups of passengers through real-life scenarios to examine their experiences accessing airport buildings and facilities. The results showed that crowds of airport users standing in a queue affect passengers with HDs who experience sight problems.

Every passenger travelling by air must perform the necessary passenger activities that Kirk (2014) proposed. These activities necessitate passengers standing in a queue and interacting with fellow passengers. Passengers with an HD may need more space (or time) to perform these activities unless they are flying through an airport that has implemented an HDAP and provided particular lanes for travellers with an HD. Otherwise, this issue may continue to affect passengers on their journey.

Airport Noise

The sub-theme of noise from the current research is one of the dimensions of the Servicescape model (Bitner, 1992). Because the airport is busy, noise can affect passengers and other airport users, especially those who experience HDs. Consistent with a previous study, Poria et al. (2010) found airport noise as one of the physical issues affecting passengers with disabilities, stating that airport noise, sounds, and boarding announcements may affect travellers with sensory issues. For this reason, most airports implementing an HDAP provide sensory areas to reduce the impact of noise on travellers with ASD; for example, London Gatwick Airport designed a sensory room for passengers in terminal four, as shown in Figure 5. Figure 5 illustrates passengers utilizing the airport sensory facilities to escape airport noise and sensory issues before boarding the flight.

Figure 5

London Gatwick Airport's Hidden Disability Sensory Room



Note. Source: <https://www.businesstraveller.com/business-travel/2018/10/01/gatwick-opens-sensory-room/>

Long Walk

Walking distance within a unique environment like an airport can be a stressful event for passengers with or without an HD. Mogaji et al. (2022) interviewed travellers with an HD, including those with hearing problems. They found that lacking appropriate mobility facilities meant walking long distances to access their transport services. One passenger said, "The plane had serious problems that the airline couldn't solve. After waiting a long time, we were told we had to change to another aircraft. We had to take a long walk to the other side of the terminal" (Traveller). The next themes established from the e-WOM accounts relate to queues.

Queues

This issue may affect travellers with an HD due to a large traffic volume of passengers at airports. It is a critical challenge in the airport service quality model developed by Fodness and Murray (2007). For example, one passenger stated, "Well done, BA and Heathrow. It also worked so well at Lamarca as we avoided long queues, which can upset my son" (Traveller). Other studies consistently found the issue of long queues at airports to be an essential dimension affecting travellers with HDs (Darcy, 2007; Popovic et al., 2010). There is substantial evidence that participants of the present study self-declared their negative experiences whilst transiting through airports. In addition to the thematic categories, authors found other negative experiences self-declared by passengers.

Practical Implications

The present study demonstrates documentation of passenger experiences with an HD navigating airport physical surroundings. Many researchers have

attempted to investigate the negative experiences of passengers with physical disabilities, such as passengers using wheelchairs. At the same time, this research concentrated on investigating the wide range of negative experiences faced by passengers with an HD. Therefore, the findings of this research can bridge the existing knowledge gap by providing information to airport operators seeking to enhance their passengers' experiences navigating the airport environment. This paper identifies important areas where airport management may need to improve interpersonal interaction between passengers and customer service personnel. The findings imply that airport operators to provide appropriate facilities and terminal space that allow passengers smooth movement.

Future Study

In this study, the authors attempted to explore all lived airport experiences affecting air travellers with an HD and review available facilities to support them. The results present several opportunities for further studies. Firstly, researchers need to understand the broad challenges affecting all people with an HD beyond those in the current study. Secondly, researchers must review more airport facilities for supporting programs beyond those identified in this paper. Thirdly, there is a need to investigate the level of airport staff training experience qualitatively to explore what is needed to improve their skills and knowledge to support passengers with an HD at the airport. Fourthly, researchers can use a qualitative approach to explore passengers' experiences directly from the mouth of airport customer experience managers. The result could be compared with the passengers' e-WOM retrieved from the TripAdvisor websites, which may benefit the airport decision-makers. Finally, the authors recommended researchers should use software such as Leximancer to investigate the onboard experiences of passengers to explore a comprehensive experience across their journey.

Conclusions

This study informs on a range of challenges passengers face with an HD while navigating the physical environment of modern airports. The environmental dimension of the Servicescape and social interactions with airport and airline personnel can influence the experiences of passengers with an HD. The analysis revealed that international air travel is stressful, especially for passengers with HDs. This study's findings provide a starting point for understanding the negative experiences of airline passengers with an HD across airports. Some TripAdvisor reviews indicated that airport personnel interacting with these passengers at the airport may not have received appropriate training to recognize passengers wearing sunflower lanyards. The authors noticed limited empirical studies on the challenges of passengers with HDs. This study provides awareness of the range of hidden disabilities affecting travellers. This paper has identified the perceived lack of appropriate terminal design as an important problem reported by passengers with an HD.

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