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Disruptions in Transportation and Medical Care Experienced by Handlers of Assistance Dogs in Australia

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ABSTRACT

Anecdotal reports and limited available empirical evidence indicate that assistance-dog handlers are often denied access to places they are legally entitled to take their assistance dog. However, the frequency and contexts of access denials in Australia have not been established, and the emotional impacts of these denials are not well described. Furthermore, qualitative findings suggest that impromptu interactions with other people and dogs within the community can have both positive and negative impacts on the handler and assistance dog; larger-scale, quantitative research is needed. The aim of this study was to characterize the frequency and contexts, and emotional impacts, of assistance-dog access denials among handlers in Australia, as well as handler interactions with people and dogs. Handlers ($n = 77$) throughout Australia completed an online survey. Commercial passenger vehicles (CPVs, e.g., Uber/taxi) were the most commonly reported context for access denials, reportedly occurring about half the time, followed by hotels, restaurants, and cafés. Bystander support was rare in any setting. Some participants reported avoiding CPVs (52%), restaurants (13%), and medical/dental centers (13%) owing to prior access denials. The emotional impacts of the denials were very negative (e.g., annoyed, excluded, anxious, hurt). Having a visible or invisible disability had no bearing on the frequency of access denials, nor did having a conventional (e.g., Labrador Retriever) versus unconventional (e.g., Pug) breed of assistance dog. Unexpected interactions with people and other dogs were common; participants reported having a positive social interaction as a good outcome, and the dog becoming temporarily distracted as a common negative outcome. Unfortunately, eight participants (10%) had to retire a dog as an outcome of a negative interaction. Some free-text responses indicated that the reporting process for access denials is onerous and ineffective. Future research should seek to understand whether this can be remedied.

KEYWORDS

Disability support; Guide Dog; human–animal interaction; public access; Seeing Eye Dog; service dog

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Assistance Dogs (ADs) help a person with disability and are trained to a standard of hygiene and behavior appropriate to accessing public spaces where most animals are not permitted (Bremhorst et al., 2018; Howell et al., 2022). There is growing evidence of the benefits of ADs in a variety of disability support roles, including for post-traumatic stress disorder (PTSD, O'Haire & Rodriguez, 2018; Rodriguez et al., 2018), autism spectrum disorder (ASD, Fecteau et al., 2017; Leung et al., 2022; Tseng, 2023), and mobility impairments (Lundqvist et al., 2018), along with the well-established ADs for hearing and vision impairments (Guest et al., 2006; Lloyd et al., 2008). In Australia, as in many parts of the world, ADs are considered a crucial disability support. Therefore, their legal public access rights are protected, for example, by the 1992 Disability Discrimination Act (DDA) in Australia and the Equality Act 2010 in the UK. Both laws aim to reduce the discrimination experienced by people with disability and increase inclusion and equal access. Unfortunately, and ironically, handlers often report being denied access to public places *because of* their AD.

Access denials have been reported in the news media (Foden, 2020), and surveys of Guide Dog handlers in the UK found extensive challenges with access denials (Bennett & Desai, 2016; Guide Dogs UK, 2019). This may be due to confusion about the special access rights of ADs compared with pet dogs, but available evidence indicates generally high levels of knowledge about these rights among Australian community members (Howell & Bennett, 2022). Nonetheless, in Australia, AD handlers have described similar experiences with access denials in qualitative research and have also noted that interactions with others in the community can be problematic (e.g., when people pat the AD without permission; Howell et al., 2016; McManus et al., 2021). Inappropriate interactions with ADs have also been observed by members of the general Australian public (Gibson & Oliva, 2022). However, it is not clear how widespread the problem is or whether certain populations are more affected (e.g., people with a visible versus invisible disability, people with a "conventional" breed of AD such as a Labrador Retriever versus a less conventional breed). It is therefore necessary to empirically establish the extent of these access denials in Australia.

It is unclear whether access denials and undesirable interactions with the general public cause a strong negative emotional response in the handler. While it is easy to imagine that these experiences would be very frustrating, their emotional impacts have not, to our knowledge, been explicitly investigated in published research. With a growing number of ADs supporting people with psychosocial disabilities like PTSD and ASD (Walther et al., 2017), it is even more important to understand the emotional responses of vulnerable AD handlers when these access denials occur. The aim of this study was to characterize the frequency and contexts in which access denials and unexpected interactions with other people and dogs occur, as well as the emotional impacts of these experiences.

Methods

This project received approval from the La Trobe University Human Ethics Committee (approval number: HEC21211).

Participants

Handlers of an AD, handlers/raisers of a trainee puppy, and parents/guardians of a child with an AD, were invited to complete an online survey. Participants were required to be at least 18 years old and living in Australia at the time of data collection. Handlers were recruited using the social media pages of the research team, as well as contacting AD provider organizations to request that they let their clients know about the survey. A recruitment advertisement was provided to the organizations via email, which included basic information about the purpose of the survey, inclusion criteria, estimated time to complete the survey, and the link to access the survey.

One hundred and four people began the survey and 77 completed it. Our final sample included 76 AD handlers and one puppy raiser. Of these 77 participants, 61 (79.2%) identified as women; 11 (14.3%) as men. The remaining four (5.2%) were non-binary, and one participant (1.3%) did not answer. Nearly all participants ($n = 68$; 88.3%) were born in Australia; the remaining nine (11.7%) had been in the country for at least 10 years. Of the eight states and territories in Australia, seven had at least some representation in this survey. The location of participants can be seen in Table 1.

Most participants ($n = 51$; 66.3%) had obtained some post-secondary education, and 33 (42.9%) were in part-time or full-time paid work. Another 17 participants (22.1%) were retired, and 10 (13.0%) reported being unable to work. All but one reported being an AD handler, and one (1.3%) noted also being the parent of a child with an AD. Two (3.9%) reported being an AD trainer in addition to being a handler, and one participant (1.3%) was a puppy raiser/trainer.

Measures

We created a survey asking participants about their experiences with access denials in various contexts and the emotional impact of those experiences (see online

Table 1. The location of the 77 assistance-dog handler participants within Australia, including their state/territory and whether they lived in an urban, regional, or rural environment.

Location	*n*	%
State or territory		
Australian Capital Territory	1	1.3
New South Wales	14	18.2
Northern Territory	0	0.0
Queensland	14	18.2
South Australia	12	15.6
Tasmania	2	2.6
Victoria	26	33.8
Western Australia	7	9.1
Urban vs. rural		
Urban (inner city of state/territory capital e.g., Sydney, Melbourne)	9	11.7
Suburban (over 10 km from state/territory capital city)	35	45.5
Regional city (population 50,000 or more)	17	22.1
Country town/island (population less than 50,000)	12	15.6
Rural	4	5.2

Note: One participant did not disclose their state/territory.

supplementary material for the full survey). Seeing Eye Dogs – Vision Australia provided feedback on early survey drafts and piloted the online version of it prior to launch.

The first section comprised demographic items (e.g., gender, location, education level, employment status); the second included items about the respondent's disability and their dog (e.g., age, source, breed, type of disability support provided, whether the disability is visible or invisible).

In the third section, participants were asked to indicate, on a scale of 1 (never) to 7 (more than once per week), how often they visited 25 listed places with their dog (e.g., cafes, beaches, Uber/taxis, airports) When participants indicated that they attended a location more often than never (i.e., selected response option 2–7), they were asked how often someone attempted to deny them access to that place. Responses were given on a scale of 1 (never) to 7 (every time). We also asked participants whether a bystander ever came to their defense on any of these occasions. Responses were given on a scale of 1 (never) to 7 (every time). Finally, we asked participants to indicate whether they intentionally avoided any locations due to previous experience with access denials. One item, commercial kitchens, was excluded from the analysis because AD handlers do not have the legal right to enter those spaces when with their dog.

In the fourth section, participants were asked about how they respond to access denials (e.g., assert my rights, just leave) and whether they had received any disability advocacy training. They were also asked to report the emotions they felt when experiencing an access denial (e.g., annoyed, depressed, confident) using a scale of 1 (not at all) to 7 (extremely).

In the last section, participants were asked about other interactions with people and animals in the community, such as being approached by an adult or child, or another dog, when with their AD. Anecdotally, and in qualitative research (Howell et al., 2016), we have heard reports from AD handlers that unfamiliar people and dogs sometimes interact with them, and this can have both positive and negative outcomes. We asked participants to indicate the outcomes of those experiences, both positive (e.g., "it made me feel happy") and negative (e.g., "the dog was temporarily distracted … "). They then rated the emotional impact of the negative experiences and indicated whether they have ever had to retire a dog from work as an outcome of a negative interaction. The final item was a free-text question asking participants whether there was anything else they would like to tell us about public access or unexpected interactions.

There were 162 items in the full survey, but not all were presented to the participants, based on display logic. For instance, in the access-denial frequency and location section (i.e., section 3), if a participant mentioned that they never went to a certain location, they were not asked how often they were denied access to that location.

Procedure

Prior to launching the survey, staff from Seeing Eye Dogs – Vision Australia reviewed it to ensure that it was accessible for people with a vision impairment. When participants found out about the study via the recruitment methods described in the Participants section above, they navigated to the REDCap survey platform, which hosted the survey. They read the participant information statement and provided informed

consent. They then completed the survey entirely online. Data collection proceeded from August 2022 until June 2023, after all COVID-related restrictions on freedom of movement within the community had been removed from all jurisdictions within Australia. It took an average of 19 min to complete the survey.

Analysis

All analyses were completed using IBM SPSS Statistics Version 29.0.0 (Armonk, New York, USA). Among the final sample of 77 participants, missing data were excluded only for the relevant analysis. Due to the largely exploratory nature of this study, frequencies were first used to investigate patterns in the data. We then performed preliminary analyses investigating whether people with an invisible disability are more likely to experience access denials than those with a visible disability, as well as whether conventional versus unconventional dog breeds differentially experience access denials. To achieve this, we first created a composite variable by calculating the mean access denial scores for all contexts. Then we collapsed the item about whether the participant has a visible or invisible disability into those two categories, combining the response options "visible" and "both visible and invisible" into one response option for "visible." Participants who were unsure or did not say were excluded from this analysis. Finally, we collapsed the item about dog breeds into two categories, combining Labrador Retriever and Labrador Retriever × Golden Retriever into the category "conventional breed" and all other breeds into "unconventional breed." This is because Labradors and Golden Retrievers are traditionally the most common breeds of AD in Australia, preferred by Seeing Eye Dogs – Vision Australia (Seeing Eye Dogs – Vision Australia, 2018) and Guide Dog organizations (Guide Dogs NSW, 2023). Labrador Retriever crosses other than Golden Retrievers were included in "unconventional breed" because it is not possible to understand from the available data whether these dogs look like Labradors. For both the breed and visible/invisible disability collapsed variables, we performed Mann–Whitney *U* tests to determine whether there was a difference between groups on mean total access denials experienced. *U* tests were performed instead of *t*-tests because mean total access denials data were non-parametric. For the Mann–Whitney *U* tests, any missing data were excluded case-wise.

Results

Dog Information and Disability Support

About half of the participants ($n = 38$; 49.4%) reported that their current AD was their first, while 22 (28.6%) had previously had one other AD. The remainder ($n = 16$; 20.8%) had previously had two or more ADs. One participant did not answer this item. A variety of breeds were represented among the sample, including the "conventional" breeds such as Labrador Retriever or Labrador Retriever x Golden Retriever. While these were the two most common breeds in the sample, there were also herding breeds, terriers, and poodles, among others. For full results, see Table 2.

Most participants ($n = 60$; 77.9%) obtained their AD from an AD training provider, while nine (11.7%) obtained the dog themselves and then worked with a professional training

Table 2. Assistance dog breeds represented in the current sample of 77 participants.

Breed	*n*	%
Labrador Retriever	29	37.7
Labrador Retriever × Golden Retriever	12	15.6
Herding breed or cross	7	9.1
Poodle or cross	5	6.5
Terrier or cross	5	6.5
Beagle or cross	4	5.2
Labradoodle	4	5.2
Labrador Retriever × other (not Golden)	4	5.2
English Springer Spaniel	1	1.3
Havanese	1	1.3
Lagotto Romagnolo	1	1.3
Pug cross	1	1.3

Note: Three participants (3.9%) did not report their dog's breed.

organization to have them trained and/or certified. The remaining eight participants (10.4%) indicated that their AD was fully owner-trained and certified, with no assistance from a professional training provider. All three are legally recognized under Australian legislation.

When asked to indicate the AD's age, the most common response was 4–7 years old ($n = 39$; 50.6%). Another 21 participants (27.3%) reported that the AD was 1–3 years old, and 13 (16.9%) indicated an age over 8 years. Just four participants (5.2%) reported that their AD was less than a year old. Similarly, most participants ($n = 58$; 75.4%) reported living with AD between 1 and 7 years.

Participants were asked to describe the types of disability support offered by their AD. The responses are shown in Figure 1. We also asked whether they considered themselves to have a visible or invisible disability; the results are shown in Figure 2. Nearly half of

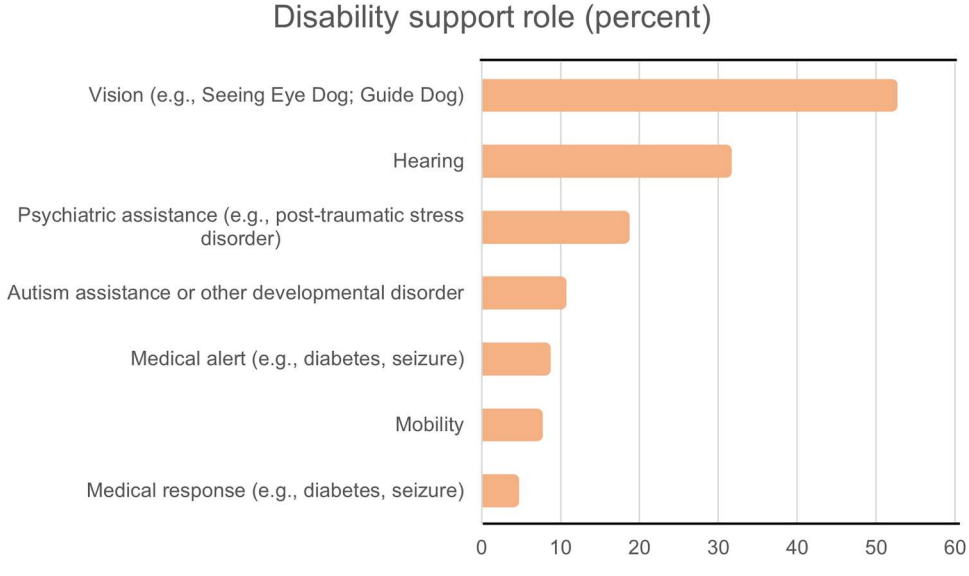

Figure 1. Types of disability support offered by participants' assistance dogs.

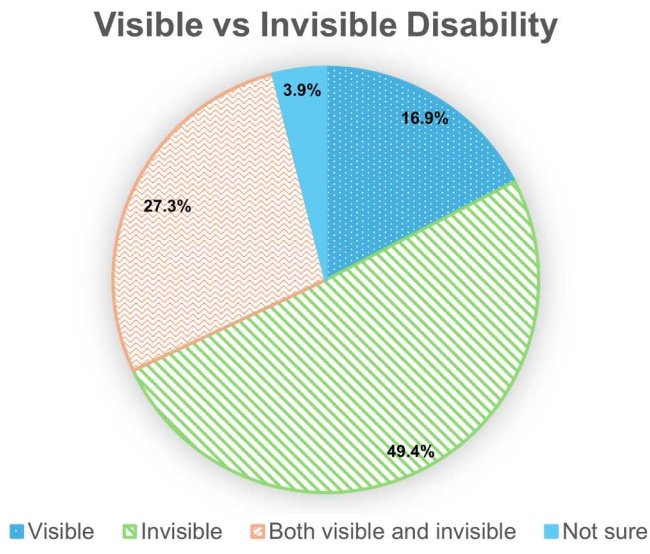

Figure 2. Percentage of participants who indicated that they had a visible or invisible disability.

participants ($n = 38$) indicated that they had an invisible disability, and an additional 27% ($n = 21$) indicated that they had both a visible and an invisible disability.

Participants also reported whether any indicators (e.g., harness, ID card) were used to identify the dog as an AD. All participants indicated having at least one way to identify the dog as an AD. The most popular response was an ID card ($n = 59$; 76.6%), followed by a harness ($n = 48$; 62.3%), medallion or badge ($n = 45$; 58.4%), or vest or jacket ($n = 43$; 55.8%). All participants reported having either a harness or a vest/jacket, or both, for their AD.

Frequency and Contexts of Denials of Access

Participants were asked to report how often they were denied access to a variety of places and whether a bystander ever supported them after witnessing an attempt to deny access. The results are in Table 3.

Commercial passenger vehicles (CPV; e.g., Uber/taxis) were the most common context for access denials, with a median of 4 (i.e., "about half the time") and a mean of 3.76, falling between "up to a quarter of the time" and "about half the time." They were followed by hotels, restaurants, and cafés, whose means range from "almost never" to "up to a quarter of the time." Regarding bystander support, the means for all contexts were 2.50 (i.e., for museums, airplanes, and public toilets) or lower, meaning that participants received this support less than a quarter of the time that they were asked to leave those spaces. More than half of participants (51.9%, $n = 40$) avoided CPVs based on negative previous experiences, followed by restaurants and medical/dental practices. Less than a quarter of participants (23%, $n = 18$) indicated that they had never avoided any of the listed places when with their AD, even if they had had negative experiences in the past.

We used Mann–Whitney *U* tests to investigate whether having a visible ($n = 34$; 44.2%) versus invisible ($n = 38$; 49%) disability, or a conventional ($n = 41$; 53.2%) versus

Table 3. Participant number (*n*), median (*Mdn*), mean (*M*), standard deviation (*SD*), and range for the frequencies of access denials in various contexts, and how often participants received bystander support when experiencing an access denial. Places intentionally avoided by participants (number, percent) due to previous negative experiences are also noted. Items are reported in descending order of mean for frequency of access denials.

	Access denials					Bystander support					Intentionally avoid*	
Context	*n*	*Mdn*	*M*	*SD*	Range	*n*	*Mdn*	*M*	*SD*	Range	*n*	%
Uber/taxis	59	4	3.76	1.93	1–7	45	1	1.60	1.16	1–6	40	51.9
Hotels	59	2	2.47	1.45	1–7	39	1	1.62	1.35	1–6	8	10.4
Restaurants	70	2	2.33	1.25	1–6	51	1	2.02	1.67	1–6	10	13.0
Cafés	72	2	2.21	1.11	1–6	53	1	2.11	1.76	1–7	5	6.5
Hospitals (not operating room)	67	2	2.06	1.40	1–7	34	1	2.03	1.99	1–7	9	11.7
Shopping centers	72	2	2.01	1.16	1–7	43	1	1.86	1.75	1–6	4	5.2
National parks	53	2	1.89	1.12	1–6	26	1	1.38	1.06	1–6	7	9.1
Medical/dental practices	68	1	1.84	1.17	1–6	30	1	1.73	1.34	1–6	10	13.0
Public transport	63	2	1.83	1.09	1–6	30	1	1.83	1.74	1–7	7	9.1
Clothing/retail	69	2	1.78	0.97	1–6	34	1	1.82	1.45	1–6	4	5.2
Supermarkets	68	2	1.71	0.93	1–6	32	1	2.00	1.85	1–7	3	3.9
Airplanes	38	1	1.63	1.58	1–7	7	1	1.86	1.86	1–6	6	7.8
Beaches	61	1	1.62	1.14	1–6	22	1	2.00	2.07	1–6	5	6.5
Arenas/sporting events/concerts	45	1	1.60	1.16	1–6	14	2	2.50	2.03	1–6	5	6.5
Gyms	34	1	1.56	1.26	1–6	8	1	1.88	1.73	1–6	6	7.8
Local/state parks	58	1	1.52	0.96	1–6	16	1	1.81	1.72	1–6	6	7.8
Aged care facilities	28	1	1.50	1.11	1–6	8	1	2.25	2.31	1–6	2	2.6
Airports	47	1	1.49	1.10	1–6	9	1	1.78	1.64	1–6	4	5.2
Schools	38	1	1.47	0.95	1–6	11	1	1.55	1.51	1–6	2	2.6
Museums	40	1	1.43	0.96	1–6	11	1	1.64	1.57	1–6	3	3.9
University campuses	26	1	1.38	1.06	1–6	4	2	2.50	2.38	1–6	2	2.6
Banks	63	1	1.35	0.92	1–6	10	1	2.00	1.76	1–6	3	3.9
Public libraries	47	1	1.34	0.87	1–6	9	1	2.11	2.20	1–6	2	2.6
Public toilets	66	1	1.23	0.74	1–6	8	1	2.50	2.27	1–6	3	3.9

Note: All items were scored on a scale from 1 (never) to 7 (every time). $n = 77$, *$n = 18$ participants (23%) indicated that they did not avoid any of these places due to previous experiences.

Table 4. Number of participants who received disability access training from various sources, based on the source of the assistance dog (AD).

	Dog source		
Disability access training received?	AD provider	Acquired myself, trained through provider	Fully owner-trained/ certified
Yes, from AD provider	30 (39.0%)	4 (5.2%)	1 (1.3%)
Yes, from another source	8 (10.4%)	1 (1.3%)	1 (1.3%)
No	19 (24.7%)	4 (5.2%)	5 (6.5%)
Not sure	1 (1.3%)	0	0

unconventional ($n = 33$; 42.9%) breed of AD, impacted total denials of access ($Mdn = 1.64$; $M = 1.94$; $SD = 1.01$). We found no impact of whether the disability was visible or invisible on total access denials ($n = 70$, $U = 590.5$, $p > 0.05$) or whether the AD was a conventional breed or not ($n = 72$, $U = 524.0$, $p > 0.05$).

We asked participants whether they had received any disability advocacy training to learn how to stand up for themselves when being denied access. Most ($n = 45$; 58.5%) indicated that they had received this sort of training, and nearly half ($n = 35$; 45.5%) had received it from their AD training provider. Another 28 participants (36.4%) had not received any training, and one participant (1.3%) was unsure. Table 4 shows the number of participants that received training, based on where they sourced their AD.

Participants also reported the way(s) in which they handle attempted denials of access. The results are reported in Table 5. Most participants (85.7%, $n = 66$) indicated that they stood up for themselves when experiencing access denials, although some participants ($n = 17$, 22.1%) reported that, in at least some occurrences, they just left. Other reactions included asking to speak to the manager ($n = 38$, 49.4%) and reporting them to an appropriate authority ($n = 33$, 42.9%), such as company management, the Human Rights Commission, or their assistance-dog training provider.

Emotional Responses to Access Denials

We asked participants to describe their emotional responses when someone attempted to deny them access to a public place. The results are in Table 6. The highest means

Table 5. Reactions to attempted access denials among assistance-dog handlers, and the authority notified (where applicable).

Reaction to access denial	*n*	%
Assert my rights	66	85.7
Ask to speak to the manager	38	49.4
Report them to an appropriate authority*	33	42.9
Leave a bad review on social media (e.g., Google, Facebook, TripAdvisor)	21	27.3
Just leave	17	22.1
Contact the news media	13	16.9
**Authority notified (all free-text responses)*		
Company management	15	19.5
Human Rights Commission or other advocacy group	10	13.0
Taxi directorate/authority	9	11.7
Assistance dog training provider	8	10.4
Government (e.g., state/local, or MP)	4	5.2
Police	3	3.9

Table 6. Participant numbers (*n*), median (*Mdn*), mean (*M*), and standard deviations (*SD*) for participants' emotional responses after experiencing an attempted access denial, in descending order from highest to lowest mean, as well as their response to negative interactions with people or dogs in the community.

	During access denial				During negative interactions			
Emotional response	*n*	*Mdn*	*M*	*SD*	*n*	*Mdn*	*M*	*SD*
Annoyed	71	6	5.56	1.63	56	6	5.46	1.48
Excluded	70	6	5.49	1.94	53	3	3.45	2.36
Anxious	71	6	5.45	1.88	56	6	5.21	2.01
Hurt	67	6	5.00	2.10	54	4	3.93	2.55
Distressed	67	6	4.87	2.30	54	5	4.74	2.12
Exhausted	68	6	4.82	2.27	56	5	4.52	2.18
Discouraged	69	6	4.77	2.15	56	5	4.39	2.25
Embarrassed	67	5	4.31	2.51	52	3	3.21	2.16
Depressed	67	4	3.88	2.21	55	3	3.45	2.28
Confused	66	3	3.15	2.17	52	3	3.15	2.03
Confident	67	2	2.37	1.72	52	1	1.90	1.47

Note: Response options ranged from 1 (not at all) to 7 (extremely). The observed range for all items was 1–7.

were for the emotional responses of "annoyed," "excluded," "anxious," and "hurt." This indicates that participants felt those emotions "quite a bit" or "very much." In fact, the means for just three items fell below the midpoint of 4, or "somewhat," indicating that participants reported substantial negative feelings when these denials occurred.

Participants were also invited to write free-text responses for any other feelings they experienced during access denials. Four participants (5.2%) indicated feeling frustration, and one person each (1.3%) indicated feeling "bloody furious!" anger at lack of education, humiliated, dehumanized, inconvenienced/discriminated against, vulnerable and unsafe, and "like I'm not a person I'm just a problem and it feels really unfair."

Other Unexpected Interactions in the Community and Associated Emotional Impacts

We asked participants to describe whether they regularly had interactions with other people or dogs in the community, as well as the nature (i.e., positive or negative) of these interactions. The types and frequency of various interactions are reported in Table 7.

In free-text responses, participants listed a variety of other types of unexpected interactions with other people and animals in the community. Many of these were characterized by inappropriate behavior ($n = 6$; 7.8%) or comments ($n = 4$; 5.2%) by other people. Inappropriate behaviors included aggression toward the AD and/or handler and taking photos without consent. Inappropriate comments included intrusive questions about the handler's disability or questioning the presence of the AD in that space.

We asked participants to indicate the sorts of positive and negative outcomes that had occurred during these interactions. These are shown in Figure 3. For positive impacts, the most common outcome was to have a positive social interaction. The most common negative outcome was that the dog was temporarily distracted while trying to concentrate. The free-text responses to negative outcomes provide more nuance about the harmful extent of these experiences. For instance, one participant wrote,

Table 7. Descriptive statistics for various types of interactions that assistance-dog handlers have in their community, including sample size (*n*), median (*Mdn*), mean (*M*), standard deviation (*SD*), and reported range.

Type of interaction	*n*	*Mdn*	*M*	*SD*	Range
An adult					
Approaches us	66	5	4.82	1.45	2–7
Speaks to the dog without my permission	68	5	4.94	1.53	2–7
Interacts with (e.g., pats) the dog without my permission	68	5	4.49	1.56	1–7
Asks for permission to speak to the dog	66	3	3.64	1.87	1–7
Asks for permission to interact with (e.g., pat) the dog	67	4	4.24	1.68	1–7
A child					
Approaches us	65	4	4.31	1.59	2–7
Speaks to the dog without my permission	66	4	3.89	1.91	1–7
Interacts with (e.g., pats) the dog without my permission	65	3	3.75	1.70	2–7
Asks for permission to speak to the dog	66	3	3.12	1.73	1–7
Asks for permission to interact with (e.g., pat) the dog	65	3	3.43	1.63	1–7
A dog					
Calmly approaches us	65	3	3.22	1.43	1–7
Boisterously approaches us	66	3	3.79	1.42	2–7
Jumps on my dog	66	2	2.62	1.45	1–6
Attempts to play with my dog	66	3	3.24	1.52	1–7
Growls at my dog	67	3	3.01	1.46	1–6
Barks at my dog	65	3	3.46	1.43	1–6
Bites my dog	67	1	1.63	1.07	1–7
Attacks my dog	67	2	1.78	1.14	1–7

Note: Items were scored on a scale from 1 (never) to 7 (every time).

> After multiple dog attacks, my [AD] needed additional support from [AD provider] and became dog distracted, after an attack where a small dog bit my AD's tail while the owners laughed. I was enraged. My dog needed veterinary care each time. I was also bitten on one occasion while protecting my dog.

Another participant indicated the knock-on effects that they experienced: "I can become very scared and panic and have autism meltdowns and I can be very scared of men." In fact, eight participants (10.4%) indicated that they had had to retire an AD from work because of these interactions.

For negative experiences, we asked participants to describe their emotional responses (see Table 6). The highest means were observed for feeling "annoyed" and "anxious," followed by "distressed," "discouraged," and "exhausted."

Final Free-Text Comments

The final free-text comments mostly consisted of further detail about the types of access denials and interactions with community members that the respondents had experienced. Regarding access-denial contexts, one participant noted that healthcare settings can be bad:

> I find the worst is ambulance and hospitals … because they don't seem to understand or care about how much we need and rely on our autism and PTSD assistance dogs. Just because they don't understand a disability doesn't give them the right to treat people like me so horribly.

Another participant elaborated on her experience with Uber and taxi refusals:

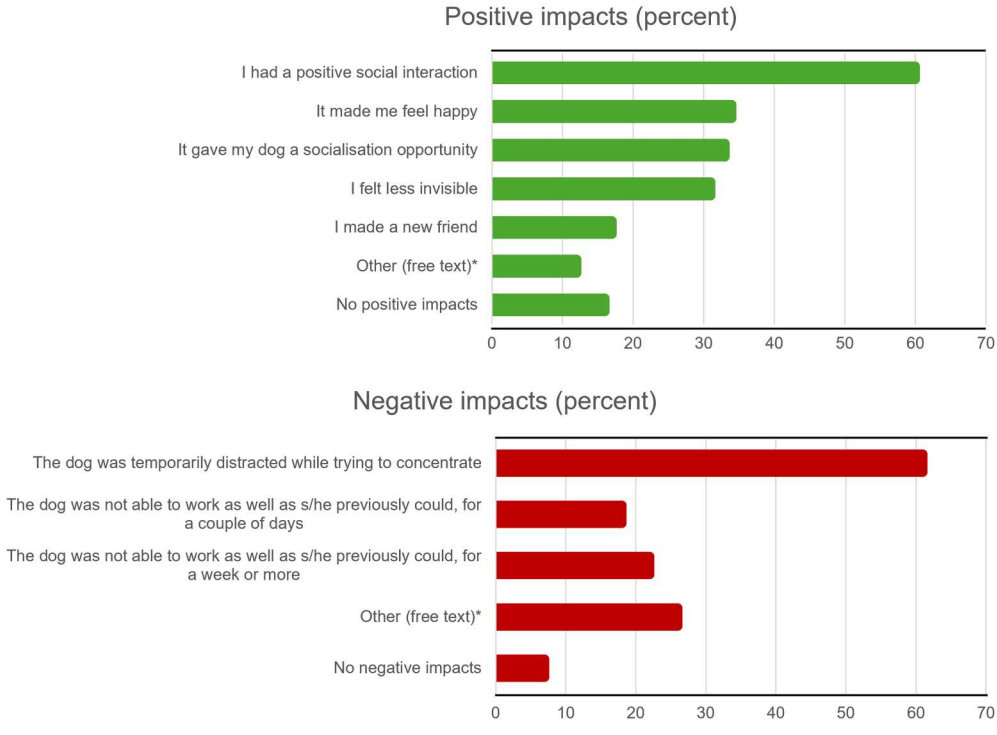

Figure 3. Percentage of participants who indicated various positive and negative outcomes of unexpected interactions with people and other dogs in the community. *Free text options for positive outcomes included opportunities to educate people about ADs and distraction training for the dog; negative outcomes included the dog and/or participant becoming more anxious and/or requiring veterinary or hospital care after a dog attack.

> I have been left stranded as a hearing and vision impaired woman alone with my dog in unsafe situations unable to return to my accommodation or get to a venue on time for a ticketed event. It has severely damaged my confidence and my ability to do things autonomously …

Another participant unfortunately experienced an extremely negative emotional response to these ongoing access denials: "I am a disabled veteran with an assistance dog. My interactions with the public & with Uber & taxi drivers have left me feeling rejected by the country that I served. Consequently, I left Australia permanently this week." All these quotes are in line with the quantitative data provided in the frequency and contexts of access denials: CPVs were listed as the most common context of access denials, and healthcare settings were also listed highly. Both contexts are also avoided by some participants due to previous negative experiences, and these quotes provide further information about what it means in practice for people with disability when they experience these denials.

Other participants explained some of the ways that others in the community have helped or hindered them when they were with their AD. A couple of these were good news stories. For example, one participant wrote:

> The people who come to my defense [when a member of the public wants to engage with the AD] more than anyone are always 15–21ish year-old shelf-stocking staff in supermarkets. They take over the conversation with a disgruntled person and tell me to go on with my day.

Another one mentioned that community dogs can be helpful: "At my local cafe, which is very dog friendly, OTHER DOGS [emphasis in original] have gone above and beyond to accommodate and assist me. It is extremely refreshing." Despite the evidence from the current study indicating that participants are often experiencing access denials, these positive experiences show that some members of the public do support the presence of assistance dogs and their handlers in public spaces.

There were also mentions of negative experiences, such as one participant who explained, "I had one old man carry treats; every time he saw us, he wanted to give my dog treats [and] got very ticked [off] when I said, 'No sorry she is working.'" Another participant described inappropriate comments by other people in the community: "I hate people saying that it's awesome I get to bring my dog to work. It's hard work having an assistance dog some days and I would like to be able to manage on my own sometimes too."

In addition to the details about access denials and interactions with the public, a few people wrote about their experiences with the reporting process for dealing with access denials. One participant wrote:

> The current reporting processes place a great deal of onus on the handler. In many cases, such as public transport, several reports are required, to the business themselves, then to their peak body … In 15 years of handling, I cannot recall one person who denied me access being fined or otherwise penalized for their actions … I know several very experienced handlers, including myself, who are seriously evaluating the benefits of dog mobility in an environment where discrimination is so prevalent … The cumulative weight of advocacy in this regard is exhausting.

To our knowledge, this is the first time that onerous requirements for reporting access denials have been mentioned in the existing assistance-dog literature.

Discussion

The aim of this study was to identify the frequency and contexts of access denials and their associated emotional impacts for Australian AD handlers, as well as other unexpected interactions with the community. Among 77 participants representing most states and territories in Australia, CPVs (e.g., Uber, taxis) were reported as the most common context for access denials, occurring about half the time. This was followed by hotels, restaurants, and cafés. Bystander support was rare in all settings. Furthermore, over half of participants reported intentionally avoiding commercial passenger vehicles because of prior experiences with access denials, while a lower but still substantial number avoided restaurants and medical/dental practices.

While any access denial is unacceptable, it is particularly concerning that people with a disability may actively avoid medical/dental practices; this should be addressed immediately through education campaigns targeting these settings. The fact that even one person with a disability might intentionally avoid receiving necessary medical care due to previous AD access denials warrants an immediate resolution, but in our study, 13% of AD handlers reported avoiding medical centers. It is possible that this eventually

results in a larger burden of care and cost to the public purse due to a lack of preventive treatment, but this cannot be confirmed with the available data. Future research should investigate the financial costs of access denials to individuals, groups, and governments.

The Australian 1992 Disability Discrimination Act (DDA) is designed to protect AD handlers from being denied access to spaces where people are typically permitted to go but which are off-limits to animals (e.g., banks, restaurants, cafés, CPVs). The exceptions to this general rule are if the dog is visibly injured or unwell, or if the dog is behaving inappropriately. Places where AD handlers are not automatically permitted, but where most members of the general public are, include airplanes and some parts of zoos (Australian Human Rights Commission, 2016). It is clear from the results of our survey that, despite having the weight of federal law behind them, AD handlers are unfortunately experiencing discrimination on a regular basis. Furthermore, owing to the frequency of these access denials, combined with the difficulties that handlers have in making formal complaints after the fact, the simplest solution for many handlers appears to be to avoid the situation altogether. This unsatisfactory outcome is the exact opposite of what the DDA is intended to achieve – removing barriers to access for people with a disability.

There is limited empirical evidence on assistance-dog access denials, so it is unclear the extent to which these findings represent assistance-dog handlers in other countries. Nonetheless, the results correspond to two studies on access denials reported in the UK (Bennett & Desai, 2016; Guide Dogs UK, 2019). For instance, in 2019, 76% of Guide Dog handlers reported having experienced at least one refusal, and 42% indicated having experienced an access refusal in the previous 12 months (Guide Dogs UK, 2019). Furthermore, 20% of those participants reported experiencing an access denial at least once per month. Our survey did not request how often participants experienced access denials in general, instead focusing on the frequency of denials in specific contexts. The Guide Dogs UK study found that CPVs were the most common context of access denials in the UK, similar to Australia (Guide Dogs UK, 2019). Restaurants were listed second, while they were ranked third in our study, after hotels. In the UK, hotels were ranked 7th in access-denial contexts (Guide Dogs UK, 2019).

The access denials occurring with CPVs appear to be getting worse in the UK: a 2016 study found that 44% of Guide Dog handlers had been denied access to a CPV (Bennett & Desai, 2016), which increased to 73% in 2019 (Guide Dogs UK, 2019). In Australia, it is illegal for a CPV driver to deny access to an AD handler, unless the dog is clearly injured or ill or behaving inappropriately. Despite this, according to our results, it happens frequently. Unfortunately, while handlers can complain to the CPV company or another authority after the fact, they have no immediate recourse to resolve the issue at that moment. As mentioned in one of the free-text responses, this can lead to the AD handler being stranded, alone, and unsafe – a plainly unacceptable outcome.

There was no significant impact of breed type (i.e., conventional vs. unconventional) or disability type (i.e., invisible vs. visible) on access-denial frequency observed among our sample. It is reasonable to assume that a person with an unconventional breed of AD, or who is not immediately identifiable as a person with a disability, may experience access denials more frequently than someone with a visible disability and a conventional breed. For instance, a person with ASD with a Havanese AD might be more likely to experience an access denial than a person in a wheelchair with a Golden Retriever ×

Labrador Retriever AD because gatekeepers (i.e., people who are in a position to approve or deny access to a particular place; Elliott & Hogle, 2013) may suspect that the Havanese is a pet that the person is trying to bring into the venue with them. Our results indicate that this assumption is not accurate, however, and that people experience access denials regardless of disability type or AD breed type. This may be because all participants reported that their AD wore a harness or a jacket/vest, which are well-established, conventional indicators of AD status; indeed, the purpose of the jacket/vest is to provide a clear, visual indicator that the animal is a working dog. Nonetheless, any educational campaigns aiming to improve access for AD handlers should focus on general access rights for all AD breed types and handler disabilities.

This is one of the few studies that has investigated the emotional effects of access denials among AD handlers using quantitative methods. In 2019, 70% of UK Guide Dog handlers reported that access denials negatively impacted their wellbeing, and 55% felt that the denials had reduced their quality of life (Guide Dogs UK, 2019). The handlers in our study reported that the emotional impacts of access denials can be very negative, with high mean levels of feeling annoyed, excluded, anxious, and hurt, similar to the results of the UK study (Guide Dogs UK, 2019). It is critical that gatekeepers learn the laws around AD access rights and apply them correctly.

A novel aspect of this study is that we asked participants to indicate what sorts of interactions they regularly have with other people and animals in their community, using quantitative methods. This follows a previous qualitative study from New Zealand (McManus et al., 2021) that was specifically focused on the same topic, as well as other qualitative research from Australia investigating the pros and cons of having an AD (Hellings et al., 2022; Howell et al., 2016). Participants in the current study indicated a high frequency of being approached by adults, and adults speaking to or patting their AD without permission. Children were reported to do these things less often than adults. Interactions with other dogs were generally less frequent, according to our sample. Dogs reportedly do sometimes approach the AD, either calmly or boisterously, and bark/growl at or try to play with them. Less frequent behaviors by other dogs include jumping on the AD or attacking or biting the AD. The findings from previous qualitative studies were similar, with participants reporting benefits such as increased social interactions, but also experiencing access denials, unwanted interactions with others in the community, and invasive questions (Hellings et al., 2022; Howell et al., 2016; McManus et al., 2021).

The most commonly reported positive outcome of these experiences was that the participant had a positive social interaction, while the most common negative outcome was that the dog was temporarily distracted while trying to work. In 10% of cases, participants reported being forced to retire their AD from work after a negative interaction in the community. Given the time and expense involved in training an AD (Seeing Eye Dogs – Vision Australia, n.d.), as well as the necessary disability support that they provide for their handlers, extending their working life is an important goal. It is therefore necessary for people in the community to understand that working ADs are not to be bothered and that they should ensure that their pet dogs are under effective control. Being forced to retire an AD from work due to negative interactions within the community is unacceptable.

The final comments were a mix of good and bad experiences. Some participants highlighted the people, and dogs, who were most supportive of them, while others provided

further detail about how challenging public ignorance of ADs can be for them. Although we did not specifically request detailed information about the reporting process for AD access denials, some participants mentioned that it can be onerous and ineffective. Further research should investigate how complex these reporting processes typically are and determine whether they eventually result in positive change.

Strengths, Limitations, and Future Directions

This study is the first, to our knowledge, to establish the frequency and contexts of AD access denials in Australia. It also characterizes the emotional impacts of these denials and identifies the frequency and outcomes of other types of unexpected interactions that AD handlers may have with those in their community. This study should be replicated in other parts of the world to determine whether the patterns observed in this study are generalizable to other jurisdictions or whether some of these problems are specific to Australia. It should also be repeated in Australia over time to determine whether these challenges are being resolved or getting worse as ADs become more common and educational campaigns are launched.

Although the sample in this study represented most parts of Australia, it was still small for a quantitative study. Therefore, future research could aim to obtain data from a larger number of AD handlers to determine whether these results are representative of most AD handlers in Australia. Additionally, although we recruited widely, we relied on a convenience sample of handlers, so we cannot be certain that these results are representative of AD handlers more generally. Furthermore, while data collection proceeded after COVID-19 social restrictions were relaxed, it is possible that some people were moving within their community less than they had prior to COVID-19. This behavior was reported by Australian pet owners following the COVID-19 lockdowns (Oliva & Lau, 2022) and might be especially true of people with an underlying health condition putting them at risk of contracting the illness.

Conclusion

This study reported the results of a survey investigating Australian assistance-dog handlers' experiences with access denials and interactions with other people and dogs in their community. The results indicate that CPVs are a common context for access denials. The emotional impacts of these access denials are very negative for handlers. People with an invisible disability or an unconventional breed of assistance dog are no more likely to experience access denials than those with a visible disability and conventional breed. Unexpected interactions with other people and dogs were also common; in a few cases, assistance dogs were forced to retire due to such interactions. Future research should examine the reporting process for access denials to determine if they can be streamlined or made more effective.

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