The World Health Organization (WHO, 2001) views disability as a dynamic interaction between the person and their environment. Environmental factors include the physical world and its features, the human-made physical world, other people in different relationships and roles, attitudes and values, social systems and services, and policies, rules, and laws" (WHO, 2001, p. 213). Negative environmental factors (barriers) hinder the participation of individuals with aphasia, while positive environmental factors (facilitators) support their participation.

This study, aims to identify the environmental factors (barriers and facilitators) that influence the community participation of adults with aphasia, from the perspective of service industry workers in shopping centres.

Method

Multiple focus groups were conducted in two different settings: 1) a suburban shopping centre which had 106 specialty shops, 4 major retailers, a range of banks, a library, and health services, and 2) through personal contacts of the researchers.

Twenty-four participants were recruited for this study. The inclusion criteria for participants were 1) currently employed in a part-time or full-time position in one of the service industries defined by the Australian and New Zealand Industrial Classification (Australian Bureau of Statistics, 2004), 2) at least six months experience in their current position, 3) aged between 18 and 65 years and 4) an English proficiency level adequate enough for focus group discussions, as judged by the investigators. Table 1 shows that the participants consisted of 17 females and 7 males with a mean age of 38.5 years. Participants had an average 5.7 years of work experience in their respective service industry.

Table 1 about here.

Participants were first shown a video about aphasia.. The key questions asked in the focus group discussion were 1) What barriers do you think a person with aphasia might face in your shopping centre? 2) What facilitators are there in your shopping centre that might make it easier for a person with aphasia to shop? 3) What barriers do you think a person with aphasia might face in your specific shop? 4) What facilitators are there in your specific shop that might make it easier for a person with aphasia? 5) Within your workplace, what other facilitators could be introduced to make it easier for a person with aphasia? All focus group interviews were audiotaped and transcribed verbatim. Data was analysed using the qualitative content analysis procedures as described by Graneheim and Lundman (2004).

Results

Analysis of the focus group transcripts revealed three categories of barriers and facilitators: 1) people environmental factors, 2) physical environmental factors, and 3) business/organisational environmental factors (see Tables 2 and 3). Barriers identified within these categories and the facilitators suggested by participants to overcome these barriers are reported below.

Table 2 about here

Table 3 about here

1) People Environmental Factors

The most common barriers identified by all groups were factors relating to other people, including a lack of awareness about aphasia, misassumptions about the cause of the communication difficulties experienced by individuals with aphasia, and other people's attitudes and actions.

Lack of awareness

Almost every group cited a lack of awareness about aphasia as a significant barrier.
As one participant said, "I'd never heard of that word 'aphasia' until I came here today". In addition to a general lack of awareness about aphasia, some participants also referred to the lack of physical symptoms associated with the disorder as an added barrier.

Misassumptions

The most common misconception cited by shopping centre personnel was the presumption that the individual suffered from an intellectual disability. Several participants made comments such as:

"They (employees) may think they have mental problems, if someone speaks like that, they may think they are not all there."

Negative attitudes

Negative attitudes towards disabilities was also a commonly identified barrier:
"The only problem that I see for these people, are other people's attitudes." Attitudes included prejudice, lack of tolerance, empathy and understanding, and impatience. Conversely, positive attitudes were listed by a large number of participants as a major facilitator to communication for people with aphasia. Positive attitudes included receptiveness, friendliness, tolerance, understanding, and maturity.

Strategies used by individuals

A number of focus group participants identified the barrier of strategies taken by personnel interacting with individuals with aphasia. The most commonly mentioned strategy was people attempting to guess what the individual with aphasia was saying or

finishing their sentences for them. Strategies involving an individual staff member adapting their communication style and providing more time were seen as facilitators.

2) Physical Environmental Factors

A number of factors relating to the physical environment were also identified as potential barriers. These included the use of written information (especially forms), the use of technology interfaces, auditory factors, and shop layout.

Written information and forms

The most notable barrier identified by participants relating to the physical environment was the reliance on written material to disseminate information to customers within shopping centres.

Use of technology

Specific barriers included the use of voice recognition in accessing automated telephone services, the dependence on online access for services such as banking, and the lack of user-friendly interfaces on automated service machines.

Auditory factors and shop layout

Other physical environment barriers referred to included auditory factors such as noise and interruptions, and factors relating to shop layout/organisation.

3) Business/Organisational factors

The final category of barriers to participation related to factors associated with the nature of an organisation or business and the way in which it is managed.

Communicative demands of business transactions

It was reported by a number of participants that accessing services requiring more communicatively intensive interaction than others, would act as a barrier.

Business attitudes

Another barrier highlighted by a number of groups was the potential attitudes/ethos of the organisations or businesses providing services to individuals with aphasia. Barriers identified related to both perceived industry attitudes (e.g.,"I think in retail you're more geared to sell") and to more specific business conventions entrenched in staff training: (e.g., "With banks…in the training for

the branch staff… it is 'get them in, get them out' as quickly as possible. It's make money. As much as banks say 'we give personal service,' we don't. It's 'get them in, get them out'").

Shop size and staff numbers

The size of a business or shopping centre, numbers of staff, and workload levels were also cited as potential barriers. It was suggested that larger shopping centres or businesses would offer less personalised services, making it more difficult to provide "one-on-one" service and for staff to become familiar with regular customer's needs. Also contributing to a lack of personalised service was inadequate staff numbers and workload levels.

Discussion

The present study identified a number of environmental factors that influence the community participation of adults with aphasia from the perspective of service industry workers. The findings suggest that the lack of awareness about aphasia is a major barrier to community participation for people with aphasia. Genuine willingness on the part of service industry workers to accommodate people with aphasia is clearly present. However, service industry workers and organisations need education and training about how to make their environments more aphasia-friendly.

This research highlights the need for speech pathologists to broaden their scope of practice to include education and training about aphasia to the general public.

It is imperative that speech pathologists demonstrate strong leadership in supporting organisations and people with aphasia to identify and remove the barriers that impede the rights of people with aphasia to participate in the community.

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Table 1 *Demographic Information According to Industrial Classification*

Industrial Classification	Age	Gender	Length of time in current employment	Self-reported contact with people with aphasia
Retail Trade	49	Male	19 years	Some
	37	Male	2 ½ years	None
	58	Female	4 years	None
	39	Female	1 year	None
	24	Female	1 year	None
	21	Female	5 ½ years	Little
	20	Female	2 years	None
	19	Female	½ year	None
Accommodation, Cafes & Restaurants	24	Female	1 year	None
	24	Female	7 years	Little
Transport & Storage	36	Female	½ year	None
	35	Female	8 years	Little
Finance & Insurance	26	Male	1 ½ years	None
	47	Female	6 years	None
Property & Business Services	65	Male	20 years	None
	62	Male	10 years	None
	26	Female	1 year	Some
Health & Community Services	62	Female	1 ½ years	None
	38	Female	½ year	Little

Cultural & Recreational Services	52	Female	15 years	Little
Personal & Other Services	30	Male	8 years	Little
	26	Male	4 ½ years	None
	55	Female	6 years	Some
	48	Female	10 years	None

Table 2 *Barriers to Community Participation*

Category	Sub-Category	Examples
People Environmental Factors	Lack of Awareness	"I guess another barrier would be awareness"
	Misassumptions about Cause/Nature of Communication Difficulties	"They're drunk" / "Just from another country" "I think there is more of a disposition to think there is an intellectual impairment"

	Negative Attitudes
	     General (group not specified)
	     Societal
	     Employees
	     Other Customers
		
		 "Prejudice"
		 "Society as such is running out of patience"
		 "Some staff can be fairly closed-minded about disabilities"
		 "They'll (other customers) actually gawk at them. They have no tolerance"

	Ineffective Actions/Strategies of Others	"Finishing a sentence for them or something when they're talking to you"
Physical Environmental Factors	Written Information and Paperwork	"Everything in our shop is written. If you can't read, you've got a major problem" "It (healthcare specialist consent form) is shockingly worded"
	Use of technology	"I can't imagine that's (automated service machine) very user-friendly as far as aphasia is concerned" / "It's either internet or phone banking"
	Auditory factors	"It's very noisy"
	Shop layout	"We'd have to show them where they are"
Business/Organisational Environmental Factors	Communicative Demands of Business Transactions	"Most of what we do relies on getting information from people… that requires some fairly intensive communication."
	Business Attitudes and Conventions	"With banks…in the training for the branch staff… it is 'get them in, get them out' as quickly as possible. It's make money"
	Economic Factors preventing Change	"Unless they put a hell of a lot of money into this…"
	Shop size and staff numbers	"I'm single-handedly running that clinic, that's where… biggest difficulty is going to be"
	Time pressure	"Time constraints are really, really quite severe"

Table 3 *Facilitators to Community Participation*

Category	Sub-Category	Examples

People Environmental Factors	Creating Awareness
	     Community awareness campaigns
	     Staff Training
	     Self Advocacy for Person with
		
		 "Creating an awareness (in the general public)"
		 "If your staff are trained properly… they should be accustomed to being more tolerant"

	Aphasia	"That would have to be the most important thing… that card that says 'I have aphasia.' These are my specific difficulties, these are my specific abilities."
	Positive Attitudes	
	Employees	"Understanding" / "Patience" / "Give them the time and the respect and the dignity"
	Accommodating Actions/Strategies of Others	"Offering them choices" / "Come back to a question and answer situation" / "Slow down"
	Presence of a Carer	"If you had a carer…who could actually come along and help out"
Physical Environmental Factors	Use of Visual Information	"More visuals…like on menus…pictures of the meals" / "The symbol as well as the word"
	Improve Comprehensibility of Written Information	"It (healthcare specialist consent form) actually does need rewording so it is a lot clearer"
	Use of Technology	"Touch-screen menu system" / "They can do their banking online"
	Accessible Shop Layout	"They can just get it themselves without having to worry about asking anyone"
	Staff Uniforms	"Uniforms as well" / "So they know who to ask… for help"
Business/Organisational Environmental Factors	Additional Business Services	"An information desk in the middle of the shopping centre" / "Customer relations role"
	Industry Wide Changes	"From an industry point of view… there's so much competition…if we can make that point of difference…cut out points of competition…dealing with a unique area…people would be quick to pick it up"
	Smaller Shopping Centre Size	"Well it's a smaller shopping centre…personal sort of service" / "one-on-one service"
	Increased staff numbers	"Always people around…always that network of people that would help each other"