Systematic Review

Communication Challenges for People with Chronic Aphasia: A Systematic Qualitative Review of Barriers and Facilitators in Local Services

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Abstract: Aphasia is an acquired communication disorder caused by a cerebral lesion, such as a stroke. People with aphasia can experience various difficulties that may involve speaking, listening, reading, or writing. These difficulties have multiple impacts on their expression of their needs, interests, and opinions. Accordingly, people with aphasia often encounter barriers and facilitators when using local services, which reduces their participation. For instance, grocery shopping or going to a coffee house can be challenging for them. Hence, this systematic review was conducted to synthetize the barriers and facilitators for people with aphasia when using local services. Following the Enhancing Transparency in Reporting the Synthesis of Qualitative Research guidelines, five databases and Google Scholar were searched for the literature published through April 2024. A total of nine studies were included in the present work. The results highlight that most of the barriers to communicational access to local services are environmental ones related to other people or society. A few environmental facilitators were mentioned, but these were mainly a reflection of the barriers. Personal facilitators were noted, but people with aphasia said that they were insufficient for counterbalancing environmental barriers. The results highlight the need to raise awareness of aphasia.

Keywords: aphasia; participation; local services; barriers and facilitators

1. Introduction

Approximately one-third of stroke survivors experience aphasia, an acquired communication disorder resulting from a cerebral lesion [1]. People with aphasia may experience a range of communication deficits that affect their ability to speak; understand; write; read; and, often, recognize and name numbers [2]. Hence, people with aphasia's difficulties are heterogenous, varying from word-finding issues or pronunciation problems to an inability to clearly recount an event. The severity of these deficits can differ significantly from one person to another. Such challenges can make it difficult for people with aphasia to effectively express their needs, opinions, or preferences. Similarly, aphasia can hinder their comprehension of questions, instructions, or stories told by others.

The International Classification of Functioning, Disability and Health (ICF) framework is useful for illustrating the interrelations between an individual's health condition and contextual factors [3]. The ICF considers the impact of impairment on participation (i.e., "involvement of people in all areas of life") and activities (i.e., "execution of a task or action by an individual"). In the present study, the activities of focus are related to "local services", referring to businesses (e.g., grocery store, bank, hairstylist) and transportation

(e.g., bus, train, taxi) in the area where the people with aphasia must engage in face-to-face interactions in their neighbourhood. The ICF includes barriers and facilitators at both the personal and environmental levels. Personal factors encompass the intrinsic characteristics of an individual, such as their age, gender, and experiences. In contrast, environmental factors are extrinsic and include physical elements (e.g., noisy environments), attitudinal aspects (e.g., interlocuters who speak too quickly), and societal components (e.g., a lack of adapted services) [3]. From a biopsychosocial perspective, the diminution in participation for people with aphasia does not rely solely upon disability, but rather on the presence of various factors that act as barriers or facilitators to participation [3].

A longitudinal study conducted in the United States revealed that approximately two-thirds of strokes occurred in individuals aged 65 years and older [4]. This population is often already retired or nearing retirement. Concerning working-age stroke survivors (18–65 years old), a study found that only 28.4% of those with aphasia were able to return to work, compared to 44.7% of all working-age stroke survivors [5]. Consequently, when people with aphasia return home after a stroke, the activities they engage in to regain autonomy are often related to local services [6]. For instance, people with aphasia visit grocery stores, pharmacies, banks, and restaurants. These activities are part of their participation and are at the centre of everyday life [7]. Since communication is essential for these activities, the impact of aphasia on communication skills can significantly affect participation [3,8]. Thus, for people with aphasia, tasks such as ordering coffee, opening a bank account, and using other local services can become major challenges, contributing to their social exclusion [7]. For instance, people with aphasia who cannot verbally express an order at a coffee shop may compensate for this limitation by using the menu (a facilitator) to point to their choice; however, if the menu is placed high on a wall (a barrier), this compensation strategy becomes unfeasible, increasing the participation restrictions for people with aphasia. This example highlights how multiple barriers can hinder participation, limiting or preventing people with aphasia from using local services. Thus, having a disability can entail various barriers to participation, whether environmental or personal. Conversely, numerous facilitators support participation, encouraging engagement in specific activities or behaviours (e.g., having access to menus with pictures at the restaurant or coffee shop's entry point). In conditions such as aphasia, environmental factors play a crucial role, since communication requires interaction with another person [9]. Therefore, it is important to identify and consider these factors in the care of people with aphasia, to support their optimal participation in society.

Many countries have implemented legislation to improve or protect the rights of people with disabilities [10–12]; however, in public places, most applications of these laws focus on the physical environment (e.g., ramps and escalators) [13]. This emphasis can be attributed to the hidden nature of many disabilities, such as aphasia, which is considered invisible [14]. Therefore, an increased understanding and awareness of communication deficits is needed. This would help reduce numerous barriers and increase facilitators impacting people with aphasia's access to local services. In clinical settings, speech–language pathologists generally aim to improve people with aphasia's communication difficulties by helping them to reduce personal barriers and increase personal facilitators, such as teaching communication strategies applicable in various situations, but interventions targeting participation are predominantly group therapies [15]. While valuable, group therapy cannot fully replicate real-world situations, such as using local services. Hence, to better target the actions and behaviours that enhance facilitators and reduce barriers to communication, a comprehensive understanding of the determinants influencing people with aphasia's participation is needed. The aim of this research is to synthetize knowledge of this topic.

2. Methods

2.1. Search Process

A systematic review of the literature was conducted and is reported here, following the Enhancing Transparency in Reporting the Synthesis of Qualitative Research statement

(see Appendix A) [16]. Five databases were searched in November 2023 and again in May 2024 without limitation to publication year: Medline, CINAHL, PsycINFO, ERIC, and Web of Science. A grey literature search was also performed using Google Scholar, following the recommendations proposed by Haddaway (2015) [17].

A comprehensive search strategy was applied. The inclusion criteria applied were the following: (1) studies relating to the adult population (18 years old and greater) with aphasia; (2) studies reporting barriers and facilitators to communication in local service contexts, as perceived by people with aphasia; (3) studies focusing primarily on communication accessibility (in contrast with physical accessibility); (4) studies reporting the primary results from experimental studies; and (5) studies published in English or French. Theses, dissertations, and conference abstracts were not included in this review.

The concept categories used to search the titles and abstracts were acquired aphasia, barriers and facilitators, and participation. Search terms for each of these concepts were combined according to each database's particularities (see Appendix B for details). To ensure a strict selection process, Covidence software (2024), a web-based platform that allows collaboration through the production of systematic reviews, was used [18]. Three independent reviewers (S.-È.P., L.-A.V., and L.M.) screened the titles and abstracts for eligibility, and two (S.-È.P. and L.M.) then read the full texts of all eligible articles. Conflicts for inclusion were resolved through discussion between the two reviewers.

The articles' methodological quality was assessed using the checklist developed by Kmet et al. [19] for qualitative studies. It contains 10 criteria that can be rated according to the degree to which they are met ("yes" = 2; "partial" = 1; "no" = 0). See Appendix C for further details. The two reviewers (S.-È.P. and L.M.) independently assessed the quality of each included study, and when discrepancies arose, they were discussed to determine a final score.

2.2. Data Extraction and Analysis

Despite our initial consideration of various study types, each of the selected articles reported qualitative data. Therefore, a single extraction table was used. Data were extracted by two reviewers (S.-È.P. and L.-A.V.) according to the following categories: (a) research design and aims; (b) population and sample size; (c) study setting (e.g., pharmacy, public transportation, etc.); (d) participants' characteristics; (e) perceived facilitators to communication; (f) perceived barriers to communication; (g) other relevant information; and (h) conclusion and future directions. The methods, results, and discussion/conclusion sections were extracted. When available, verbatim interview texts were analyzed within the articles and extracted to complement the reported results and conclusions.

Barriers and facilitators were extracted based on Howe et al.'s categorization [9], which was inspired by the ICF [3]. In their study, they interviewed people with aphasia and conducted a qualitative content analysis by extracting "environmental factors" and "other factors". Then, they categorized the extracted factors into subtypes based on themes. These were generally similar between barriers and facilitators (e.g., 7 subtypes of societal barriers and 8 subtypes of societal facilitators, with only the eighth subtype having been different for facilitators). In the present study, barrier and facilitator subtypes were merged into a single table. Also, "other factors" were categorized as "personal factors" in the present study, in accordance with the ICF. Environmental factors were divided in various subtypes to help yield a better view of which types of barriers and facilitators seemed most prevalent (see Table 1). Personal factors were not categorized with as much precision, given the limited amount of data.

Following the extraction and categorization of data, a narrative synthesis was conducted.

Table 1. Categories used for analysis, based on Howe et al. [9].

| Contextual Factors	Contextual Factor Category	Factor Subtype
Environmental factors	Societal factors	Societal knowledge
		Services
		Policies (e.g., municipal, governmental)
		Procedures
		Task characteristics (e.g., requiring writing)
		Financial matters
		Transportation
		Service characteristics
	Attitudinal factors	Other people's actions
		Other people's attitudes
		Other people's knowledge
		Other people's characteristics
		Other people's roles (e.g., caregiver)
		Animals (i.e., presence of animals in the immediate environment)
	Physical factors	Objects' characteristics
		Objects (e.g., phones)
		Acoustic characteristics
		Visual characteristics
		Spatial characteristics
		Physical environment characteristics (e.g., familiarity of the environment)
Personal factors	Undefined	Undefined

3. Results

3.1. Study Selection

A total of 314 results were found through electronic databases. References were screened, and three articles were added manually. Following the removal of 45 duplicates and 239 irrelevant articles based on titles and abstracts, 30 full-text articles were assessed for eligibility (see Figure 1). Nine studies met the inclusion criteria.

3.2. Study Characteristics

The studies were mainly conducted in Canada and Australia and included populations of 1 to 25 people with aphasia. Each study reported both barriers and facilitators related to communication with local services; however, the majority did not report how many participants noted each barrier and facilitator. Therefore, our analysis focused on the number of studies, rather than the number of participants. Qualitative data about barriers and facilitators were mainly collected through semi-structured interviews. The local services represented were mainly businesses in the communities where the participants lived (e.g., supermarkets, coffee shops, pharmacies, hair salons, etc.) and public transportation. See Table 2 for details.
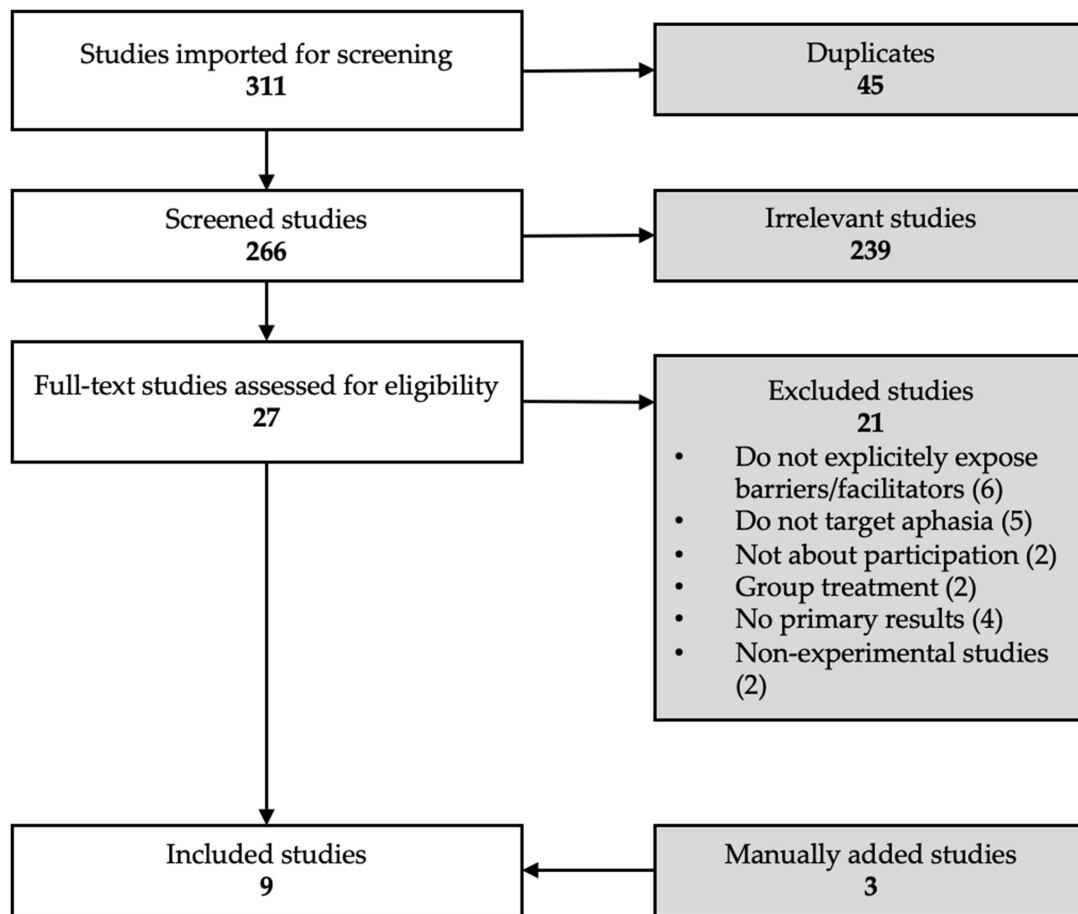
Figure 1. Flowchart of the study search and selection process.

Table 2. Overview of included studies.

Ref. No.	Authors (Year)	Country	Accessibility Context	People with Aphasia	Data Collection Strategy	Methodological Quality [19]
[20]	Kim et al. (2023)	Canada	Local businesses	9	Interviews	18/20
[21]	Taylor et al. (2021)	Australia	Local businesses	1	Interview	20/20
[22]	Dalemans et al. (2010)	Netherlands	Local businesses	13	Interviews	20/20
[9]	Howe et al. (2008a)	Australia	Local businesses, public transportation	25	Interviews	20/20
[23]	Blonski et al. (2014)	Canada	Community centre with exercise programs	10	Interviews	18/20
[24]	Ashton et al. (2008)	Australia	Public transportation	7	Interviews and, observation	17/20
[25]	Anglade et al. (2019)	Canada	Local businesses	6	Observation	15/20
[26]	Howe et al. (2008b)	Australia	Local businesses	10	Observation	19/20
[27]	Le Dorze et al. (2014)	Canada	Local businesses	17	Discussion groups	20/20

3.3. Methodological Quality Ratings

The mean methodological quality rating of the studies was 18.56/20 (see Appendix C for details). The criterion that was less respected was the connection to a theoretical framework or a wider body of knowledge (mean score of 1.4/2). The other criteria generally had a score of 2/2 for almost all articles, with most criteria having one or two articles with a score of 1/2.

3.4. Reported Barriers and Facilitators

The results show that the most mentioned environmental factors were barriers, and these were mainly found at the societal and attitudinal levels. The public's lack of awareness of aphasia was one of the most prominent barriers, whether it was reported about society in general or in individuals. Furthermore, other people's actions and attitudes were mentioned in almost every article as being the greatest attitudinal barrier. It was reported that people are often disrespectful and impatient toward people with aphasia. Physical barriers were more related to noisy or visually stimulating environments. The facilitators were mainly a mirror of the barriers. See Table 3 for detailed environmental factors.

Table 3. Environmental barriers and facilitators.

Category of Contextual Factors	Factor Subtype	Barriers	Facilitators
Societal factors	Societal knowledge	■ Lack of awareness of aphasia [9,21,27]: ○ Tendency to address communication deficits by making written material larger or by speaking more loudly to people with aphasia [21] ■ Lack of adequate training for employees of public services [20,21] ■ Aphasia is an invisible disability [9] *"The physical things… seem to get so many stories [in the media], but you hardly ever hear anything about… the brain people."* [9]	■ A better awareness of aphasia [9] ■ Training for employees [9] *"Understanding… Education about aphasia is the most important one."* [9]
	Services	■ Lack of opportunities and adapted services [9] *"Finished my speech therapy… devastated at home 'cause… I didn't know what to do from here."* [9]	■ Having opportunities to meet other people (with or without aphasia) [9,23] ■ Having programs designed for people with aphasia to stay active in their community [23] ■ Staff stability in local services [23] ■ Having courses to help use the internet [9] ■ Contribution of speech–language therapists to list accessible stores or to help people with aphasia advocate for adaptations [9,25]
	Policies	■ Lack of government policies for people with aphasia [9]	■ Financing for people with aphasia and programs designed for them [9]
	Procedures	■ Difficult when quick responses are expected (e.g., ordering at a fast food restaurant or asking a bus driver to stop) [9,24,27] ■ Procedures that require filling in a written form (e.g., at a police station, bank) [9,22,24,27] ■ Businesses or procedures that require vocal recognition [9]	■ Short procedures [9] ■ Procedures that do not require too much oral or written language [9,24] ■ People with aphasia having an official card to obtain help from someone else, instead of being obligated to use a vending machine for train tickets [26]
	Task characteristics	■ Tasks requiring group conversation [9] ■ Tasks requiring the writing of numbers (e.g., to note down a telephone number) [26]	■ Tasks that do not require oral language [9]
	Financial matters	■ Services that charge based on time (e.g., legal services billed by the hour) [9]	■ Prices adapted for people with aphasia, or according to their income [9] ■ Low cost of public transportation [23]
	Transportation		■ Predictability and regularity of procedures for taking the bus and paying a fare [24] ■ When other people use the same stop on public transportation, it reduces people with aphasia's cognitive load [24]

Table 3. *Cont.*

Category of Contextual Factors	Factor Subtype	Barriers	Facilitators
Attitudinal factors	Other people's actions	■ Lack of consideration and adaptation when talking to a person with aphasia: 　o Talking too fast [9,22,23]; 　o Not verifying people with aphasia's understanding [26]; 　o Not allowing people with aphasia enough time to respond [9,22]; 　o Not including people with aphasia in conversations [9,22]; 　o Correcting people with aphasias' errors [9] ■ People not asking what they can do to support people with aphasia through interactions [9,21–23,27] *"Just take time right. Just let me think right."* [20]	■ Adaptation to improve understanding by people with aphasia: 　o Reducing the speech rate [9,20–24,27]; 　o Giving choices when asking a question [9,22]; 　o Giving clear instructions [9,22,23] ■ People helping with the completion of forms [9] ■ People asking what can be done to support the interaction [21]
	Other people's attitudes	■ People are often impatient or have offensive attitudes [9,22,27]: 　o Making people with aphasia feel stupid; 　o Treating people with aphasia like a child; 　o Lacking respect for people with aphasia ■ Relatives sometimes seem embarrassed by their difficulties [9,22,27] *"Treat you as if I'm stupid,"* *"Impatience. . . Number one [barrier],"* *"Doesn't give you any respect"* [9,21–23,26,27]	■ People focusing on the strengths of people with aphasia, rather than their difficulties [9] ■ Patience and politeness [9,20–24,27] *"Light-hearted attitude. . . makes you relax more."* [9]
	Other people's knowledge	■ Lack of awareness of aphasia [9,20–23]: 　o People thinking people with aphasia are less intelligent because they do not understand the effects of aphasia [9]	■ Easier when other people know about people with aphasia's challenges related to aphasia [9,22,27] *"Got to the situation where he knew that what I said wasn't really what I meant."* [9]
	Other people's characteristics	■ More difficult for people with aphasia when an interlocutor has an accent [9]	■ People with good communication skills [9,22,23]
	Other people's roles	■ Caregivers sometimes tend to overprotect people with aphasia or underestimate their abilities [22]: 　o Making decisions for them, excluding them from financial decisions ■ Difficulty for people with aphasia to rely on somebody else [9]	■ The help of a family member as a caregiver to help with daily tasks and socialization [9,22–24,27] ■ Having individual help during an activity [23]
	Animals		■ The presence of animals helps; they do not act differently because of the aphasia [9]

Table 3. *Cont.*

Category of Contextual Factors	Factor Subtype	Barriers	Facilitators
Physical factors	Objects' characteristics	■ Public transportation schedules are difficult to understand [9,24,26] ■ Complex signalling [24] ■ When prices are not indicated [25]	■ Simplified written instructions [9,24]
	Objects	■ Complex objects (e.g., ATMs, phones) [9]	■ Screens announcing the next stop on public transportation [9,24] ■ Having usable written information helps people with aphasia avoid speaking when needed [9,24,25]
	Acoustic characteristics	■ Noisy environments [9,22,27]	■ Calm environments [9,22]
	Visual characteristics	■ When items are not categorized in stores [9]	
	Spatial characteristics	■ Visually stimulating environments (e.g., bus stations) [9] ■ Outside of big cities, public transportation is harder to access [22]	■ Items accessible without help in stores [9,25,26] ■ Community proximity and socialization is better than individualism for people with aphasia [22]
	Physical environment characteristics		■ Familiar environments are better; people with aphasia know where things are and they know the staff [9,22] ■ Well-being in nature [9] ■ Stores easily accessible on foot [22]

Personal factors were mentioned less frequently than environmental ones. Motivation was a common facilitator, whereas a lack of motivation was often a barrier to people with aphasia's participation in activities such as shopping. Psychological conditions were noted as a barrier; these were often related to other people's negative actions and attitudes, which can lead to anxiety, depression, and a general avoidance of social interactions. Table 4 regroups each personal factor reported in the reviewed literature.

Table 4. Personal barriers and facilitators.

Type of Personal Factors	Barriers	Facilitators

Motivation	■ People with aphasia letting other people do everything for them [21,22,27]
	■ People with aphasia withdrawing from difficult situations [22,27]
	■ People with aphasia lacking interest in other people and choosing to be alone [22]
	■ Some people with aphasia avoid social situations out of pride [27]
	"if you don't reach out, you get nothing; you get to stay alone, sitting in your corner." [27]
		■ Easier when people with aphasia are motivated and when they have a positive self-image [22,23,27]
		■ Better for people with aphasia when they are determined to continue participating and socializing without letting someone else do everything for them [22,23,27]
		■ Self-advocacy is beneficial due to the following [21,27]:
		  o People with aphasia can receive better services when they mention their aphasia;
		  o It helps raise awareness
		■ Preparation for the expected situation (e.g., preparing the answers to questions often asked at grocery store checkout stations) [21,22,25]

Table 4. *Cont.*

Type of Personal Factors	Barriers	Facilitators
Physical and psychological conditions	■ Strokes often lead to physical and cognitive difficulties [22]: 　○　e.g., paralysis, memory loss, attention deficits, etc. ■ Aphasia can lead to stress, anxiety, depression, and shame [22,27] ■ Some people with aphasia feel like they do not belong anymore [22] ■ Feelings of solitude and frustration [23,27] *"I am embarrassed. People think that I am crazy, and I am not. I don't dare to talk to strangers. I feel ashamed."* [22]	

To better illustrate these barriers and facilitators, Figure 2 provides an example of an experience a people with aphasia may encounter when going to a coffee shop. The left side of the figure represents common barriers, while the right side highlights facilitators that could enhance people with aphasia's experience.
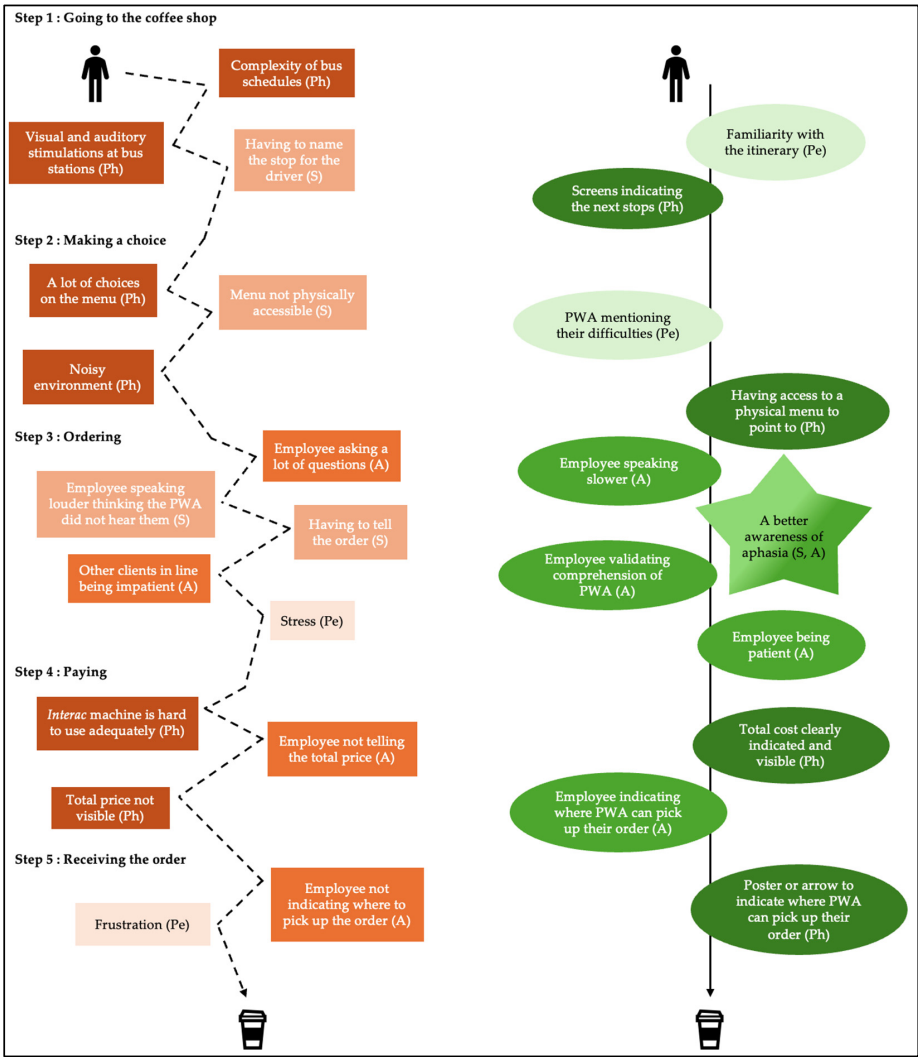

Figure 2. Trajectories of a person with aphasia visiting a coffee shop. The rectangles are barriers, ovals are facilitators, and star is for the main facilitator. Ph: physical; S: societal; A: attitudinal; Pe: personal.

4. Discussion

This review aims to portray the barriers and facilitators for people with aphasia when accessing local services. A systematic qualitative literature review was conducted, synthesizing findings from nine articles. Barriers and facilitators were categorized based on Howe et al.'s work [9], which aligns with the ICF [3]. Contextual factors, both environmental and personal, were reported. Environmental factors consist of attitudinal, social, and physical factors, which were further divided as presented in Tables 1 and 3. Personal factors were categorized according to the analyses conducted by the authors of the present study.

4.1. Barriers and Facilitators

This review highlighted various environmental barriers that hinder people with aphasia's participation in society. Social barriers are primarily related to a lack of employee training in local services, a lack of adapted services and opportunities, and an inadequate adaptation of various procedures. Regarding attitudinal barriers, other people's actions and attitudes were the most frequently reported. The lack of awareness of aphasia, whether it was at the societal or attitudinal level, was mentioned in most articles as a significant barrier [9,20–23,27]. Physical barriers were less frequently reported and were mainly linked to stimulating environments (i.e., noisy and/or visually busy spaces) and to the complexity of several objects. The environmental facilitators identified (societal, attitudinal, and physical) were generally the converse of the reported barriers. These findings align with those of Baylor et al., who studied restrictions to communicative participation in individuals with various medical conditions associated with communication difficulties. They noted similar barriers and concluded that comparable communicative participation restrictions were reported, regardless of the differing impairments among participants. Furthermore, they observed that environmental barriers can, for various reasons, inconvenience individuals with different communication deficits. For instance, a noisy environment makes it difficult for an individual with a speech disorder to be heard, while it represents excessive stimulation for someone with comprehension difficulties [28].

Personal barriers were reported infrequently [21–23,25,27]. They were primarily related to a lack of motivation to engage in activities such as going shopping [21,22,27]. Mental health difficulties were also noted, including stress and anxiety [22,23,27]. Additional personal barriers were associated with physical impairments, which are common in the post-stroke aphasic population [22]. Regarding personal facilitators, self-advocacy emerged as the most significant factor [21,27]. Once again, facilitators were essentially a mirror of the reported barriers. However, the presence of a caregiver was perceived differently by each person with aphasia. In several studies, people with aphasia reported the perceived benefits of a caregiver available to help them improve their socialization and participation in activities [9,22–24,27]. Conversely, other people with aphasia noted that caregivers could be overly protective, which hindered their autonomy and participation [22].

Most of these barriers could be related to our society's ableism. The general lack of adaptations at the environmental level can be associated with the expectation that everybody communicates equally. Moreover, personal barriers such as a negative self-perception can ensue from a lifetime of living with ableist ideas [29].

This review highlights the prevalence of environmental barriers for people with aphasia regarding local services. It emphasizes the need for action to reduce these barriers to improve people with aphasia's participation.

4.2. What Can Be Done to Catalyze the Communicational Participation of People with Aphasia?

Speech–language therapists were identified as facilitators in helping people with aphasia identify local services adapted for people with communication difficulties and for enhancing their self-advocacy skills. Self-advocacy refers to an individual's ability to articulate their needs in challenging situations [30]. It requires both strength and an effective way of communicating one's difficulties. It is crucial for people with aphasia to be able to advocate for their needs and the necessary adaptations [31]. To achieve

self-advocacy, people with aphasia need a positive perception of themselves and their abilities. Hence, speech–language therapists can intervene in the concern of the person with aphasia regarding their sense of productivity and their beliefs related to their new communication skills [29]. However, as Kim et al. [20] highlighted, regardless of the level of self-advocacy, satisfaction with the interaction often depends on the person with whom the individual with aphasia is communicating. While speech–language therapists can influence people with aphasia's participation on an individual basis [32], improving access to local services also requires addressing societal and attitudinal factors. Without improvements in these broader areas, the efforts of speech–language therapists alone will be insufficient in enhancing people with aphasia's overall access to local services. While speech–language therapists and other experts in the field of communication disorders agree that people with aphasia are entitled to communicative access as much as a person with a mobility limitation might need a ramp to access a building, how to efficiently reduce barriers to communication is still uncertain [33].

As previously mentioned, a general lack of awareness of aphasia was reported in most articles and appears to be the root cause of many barriers, particularly societal and attitudinal ones. For instance, impatient and offensive attitudes [9,22,27], individuals not adjusting their communication when interacting with people with aphasia [9,20–23,26,27], the lack of adapted services for people with aphasia [9], and insufficient governmental policies for people with aphasia [9] can all be exacerbated by this lack of awareness. Enhanced awareness of aphasia in the general population could, therefore, benefit people with aphasia in numerous ways. Nunn et al. (2024) highlighted this as a facilitator against stigma and discrimination related to ableism toward people with aphasia [29]. A recent study surveyed approximately 400 stakeholders (people with aphasia, carers, workers with experience with people with aphasia) about their perceptions of aphasia awareness [34]. Participants emphasized that aphasia awareness involves educating people about what aphasia is and teaching them how to communicate effectively with people with aphasia. The primary reason highlighted by workers and people with aphasia for the importance of aphasia awareness is that people with aphasia face communication barriers every day. Additionally, people with aphasia mentioned that aphasia affects their friends and family, while workers noted the necessity of aphasia awareness, since most people do not know how to adjust themselves and assist people with aphasia during communication. These findings reinforce the results of the present study. Increasing awareness of aphasia appears to be a promising strategy for improving participation, including access to local services, for people with communication difficulties. An aggravating factor is the invisible nature of aphasia [34]. Many employees do not realize that their client has aphasia or another communication difficulty; therefore, they might not adapt themselves for the next people with aphasia or advocate for necessary changes with their managers. In recent years, numerous programs and campaigns have been implemented to raise aphasia awareness, offering conferences, designated days/weeks/months for aphasia awareness, training, and general education about the condition (see the Aphasia Institute in Canada [35] or Stroke Association in United Kingdom [36]). However, some challenges have emerged including the following: campaigns have heterogenous aims (e.g., educating about aphasia, improving communication skills, fundraising, etc.), the audience typically consists of individuals already familiar with aphasia, and people with aphasia and their family members are not always involved in organizing these campaigns [37].

Although self-advocacy by people with aphasia cannot solely address the lack of aphasia awareness, people with aphasia are essential in advocating for their rights to increase facilitators and reduce barriers in accessing local services [29]. In accordance with this, the results of the present study reveal a gap between recommended adaptations and their actual implementation in local services. At the societal level, legislation and recommendations exist to enhance accessibility in various settings. For instance, Accessibility Standards Canada (ASC), established under the Accessibility Canada Act, aims to create accessibility standards nationwide [38]. However, none of the ASC standards

address communication beyond sensory deficits such as visual and hearing impairments. Furthermore, they emphasize that issues cannot be resolved if they are not recognized, highlighting the need for people with aphasia to be involved in discussions to better inform policymakers about their realities. Additionally, the ASC's recommendations are not mandatory, meaning organizations are not obligated to follow them. This indicates the need for global accessibility standards and recommendations to become enforceable regulations. Thus, societal changes are needed to facilitate better participation for people with aphasia. As suggested in the present study, some adaptations are relatively simple to implement. For instance, at the physical level, providing a physical menu that people with aphasia could use to point to their order or ensuring the total amount of an order was visible to the client would be beneficial. At the attitudinal and societal levels, improving awareness of aphasia could have a great impact for people with aphasia, so it would be important to hold mandatory training sessions related to communication with people with aphasia for employees and managers.

5. Conclusions

This study enhances our understanding of the barriers faced by people with aphasia in accessing local services, marking a step toward implementing necessary adaptations in local services for the population with communication deficits. As discussed above, individual efforts alone are insufficient. Accessibility standards related to communication should be increased and reinforced by regulations to limit the reduction in people with aphasia's participation in society.

Future research should examine the perspectives of local services' managers and employees. Additionally, collecting data on people with aphasia's experiences in a broader range of settings not covered in the analyzed articles—such as pharmacies, banks, museums, or airports—would be valuable. The advances in the digital world have led to new ways of accessing information (e.g., digital menus in restaurants). This could lead to new facilitators for many people with aphasia, as much as barriers (e.g., increased difficulty to access printed material). Future research should explore this further. Finally, studying communication challenges in diverse populations (e.g., individuals with head injuries, neurodegenerative diseases, or developmental disorders) across these settings is also warranted.

Limitations

This systematic review includes articles from Canada, Australia, and the Netherlands. These countries have similar cultures and socioeconomic contexts. Therefore, local services could vary in other regions. Furthermore, given that many of the reported barriers and facilitators are societal or attitudinal, and that communication is significantly influenced by cultural factors, the findings may not be generalizable to countries with different cultural contexts.

Appendix A

Table A1. Enhancing Transparency in Reporting the Synthesis of Qualitative Research (ENTREQ) [16].

No.	Item	Guide and Description	Location (Lines)
1	Aim	State the research question the synthesis addresses.	100
2	Synthesis methodology	Identify the synthesis methodology or theoretical framework that underpins the synthesis, and describe the rationale for the choice of methodology.	140–151
3	Approach to searching	Indicate whether the search was pre-planned or iterative.	109
4	Inclusion criteria	Specify the inclusion/exclusion criteria.	109–115
5	Data sources	Describe the informational sources used, grey literature databases, relevant organisational websites, experts, information specialists, generic web searches, hand searching, reference lists) and when the searches were conducted; provide the rationale for using the data sources.	105–108
6	Electronic search strategy	Describe the literature search.	116–118 Appendix B
7	Study screening methods	Describe the process of study screening and sifting.	118–123
8	Study characteristics	Present the characteristics of the included studies.	166–174 Table 2
9	Study selection results	Identify the number of studies screened and provide reasons for study exclusion.	158–161 Figure 1
10	Rationale for appraisal	Describe the rationale and approach used to appraise the included studies or selected findings.	123–126
11	Appraisal items	State the tools, frameworks, and criteria used to appraise the studies or selected findings.	124–129 Appendix C
12	Appraisal process	Indicate whether the appraisal was conducted independently by more than one reviewer and if consensus was required.	127–129
13	Appraisal results	Present the results of the quality assessment and indicate which articles, if any, were weighted/excluded based on the assessment and give the rationale.	176–180, Table 2 Appendix C
14	Data extraction	Indicate which sections of the primary studies were analyzed and how the data were extracted from the primary studies.	131–139
15	Software	State the computer software used, if any.	No software used for analysis
16	Number of reviewers	Identify who was involved in coding and analysis.	132–133
17	Coding	Describe the process of the coding of data.	140–151
18	Study comparison	Describe how comparisons were made within and across studies.	140–151
19	Derivation of themes	Explain whether the process of deriving the themes or constructs was inductive or deductive.	140–151
20	Quotations	Provide quotations from the primary studies to illustrate themes/constructs and identify whether the quotations were participant quotations or the author's interpretation.	Tables 3 and 4
21	Synthesis output	Present rich, compelling, and useful results that go beyond a summary of the primary studies.	Tables 3 and 4, Figure 2

Appendix B

Table A2. Search strategy by database.

Database		Keywords	Results
Google Scholar		aphasi * | "aphasic person" | "language disorder" | "communication disorder" | "communication impairment" accessib * | "accessible communication" | "communication access" | "access program" | "access measure" | "universal access" | "universal design *" | "assistive technolog *" | "architectur * access *" | adapt * | signage | "social participation" | accommodat * | independen * | "inclusive society" | inclusi * | barriers | facilitators "public facilit *" | "public space *" | "financial institution *" | store * | shop * | museum * | transportation | restaurant *	200 first results
CINAHL		In title and in abstract: (aphasi * OR ("language disorders" or "language impairment" or "specific language disorder") OR "communicati * impairment" OR "acquired language disorder") AND (accessib * OR communicati * N3 access * OR access * N3 program OR access * N3 measure OR universal access OR universal design OR assistive technolog * OR accomodations OR (barriers or obstacles or challenges) OR facilitators) AND (public facilit * OR public space OR communit * N3 participation OR social N3 participation) Criteria: All adults	21
MEDLINE	Searched via Ovid	In title and abstract: (aphasi * or language disorders or language impairment or specific language disorder or communicati * impairment or acquired language disorder) AND (accessib * or (communicati * adj3 access *) or (access * adj3 program) or (access * adj3 measure) or accomodations or barriers or obstacles or facilitators) AND (public facilit * or public space or (communit * adj3 participation) or (social adj3 participation))	10
PsycINFO			22
ERIC			1
Web of Science		(aphasi * OR "language disorders" OR "language impairment" OR "specific language disorder" OR "acquired language disorder" OR "communicati * impairment") AND (accessib * OR "communicati * access *" OR "access * program" OR "access * measure" OR "universal access" OR "universal design" OR "assistive technolog *" OR accomodations OR barriers or obstacles or challenges OR facilitators) AND ("public facilit *" OR "public space" OR "communit * participation" OR "social participation") Document types: Articles	57
Manually added references			3
		Total number of references	314
		Number of screened references (duplicates removed)	269

Appendix C

Table A3. Methodological quality analysis, based on Kmet et al. [19].

Criterion	Ref. No.								
	[20]	[21]	[22]	[9]	[23]	[24]	[25]	[26]	[27]
Question/objective sufficiently described?	2	2	2	2	2	2	2	2	2
Study design evident and appropriate?	2	2	2	2	2	2	1	2	2
Context for the study clear?	2	2	2	2	2	2	1	2	2
Connection to a theoretical framework/wider body of knowledge?	1	2	2	2	0	2	0	1	2

Table A3. *Cont.*

Criterion	Ref. No.								
	[20]	[21]	[22]	[9]	[23]	[24]	[25]	[26]	[27]
Described sampling strategy relevant and justified?	1	2	2	2	2	1	2	2	2
Data collection methods clearly described and systematic?	2	2	2	2	2	2	2	2	2
Data analysis clearly described and systematic?	2	2	2	2	2	2	2	2	2
Use of verification procedure(s) to establish credibility?	2	2	2	2	2	2	2	2	2
Conclusion supported by the results?	2	2	2	2	2	2	1	2	2
Reflexivity of the account?	2	2	2	2	2	0	2	2	2

0 = no; 1 = partially; 2 = yes.

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