The Effectiveness of an Edmonton Public Library Materials Pamphlet for Adults with

Communication Disorders

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The Effectiveness of an EPL Pamphlet

ABSTRACT

The Edmonton Public Library (EPL) contains a vast array of resources that have the potential to benefit individuals living with neurological communication disorders. This project builds on two previous projects, the latest of which developed a pamphlet for individuals with neurological communication disorders. This CSD 900 project involved shadowing adults with neurological communication disorders as they navigated the library using the pamphlet, and evaluated the possible barriers and strengths associated with the pamphlet. The observations from these visits guided us in determining the effectiveness of the pamphlet, and allowed us to make necessary adjustments to the resource before it is circulated within the speech-language pathology community. In addition, the participants provided us with insight on recommendations for future directions of this project. The overarching goals of this project and pamphlet were to help decrease the activity limitations and increase participation in the community for individuals with neurological communication disorders through increased engagement with the public library.

INTRODUCTION

Speech-language pathologists (S-LPs) play a role in the treatment and advocacy of adults with communication disorders. Adults can acquire communication disorders due to vascular causes such as a stroke, degenerative diseases (e.g. Parkinson's Disease, MS or ALS), or traumatic brain injuries. Depending on the particular etiology, e.g. the type, severity and characteristics, their communication strengths and deficits can vary greatly. Due to the

difficulty associated with communication, individuals often withdraw from social situations or other settings that expose their communication disorder or exacerbate it (Code & Herrmann, 2003). Withdrawing from social situations not only limits one's social interactions and opportunities to improve communication, but can also strain one's relationships, putting the individual at a greater risk for depression and loneliness (Hilari, 2011).

This current project builds on two previous projects that aimed to provide exposure to and outline the resources that are available at the Edmonton Public Library (EPL). The resources available through the EPL have the potential to benefit adults with communication disorders by improving communication accessibility according to the World Health Organization's International Classification of Functioning, Disability, and Health (WHO-ICF) (2001). The original project (Beckett, Benetti, Bruder, Garrett-Petts, Pranjivan & Weran, n.d.) identified the existing resources and assistive technology available at the EPL and presented this information in a draft brochure intended to be used by adults with communication disorders. Following that project, the second team (Alain, De Leon, Ostapowich, Skriver, Simioni & Sutter, n.d.) developed a pamphlet for individuals with communication disorders that outlined relevant materials at the EPL, such as audio books and large print books, in the hopes of encouraging more people to participate in the community and become involved in activities they were previously involved in, or would like to start. Our team trialed the EPL pamphlet with two adults with neurological communication disorders. Additionally, we observed the adults with communication disorders while they completed different tasks at the library, such as signing up for a library card, finding resources and asking for help from librarians as needed.

Through observation and interviews with participants, we aimed to determine the effectiveness of the pamphlet, evaluated possible strengths and barriers associated with using it, and made necessary adjustments to the resource before circulating it within the S-LP community. These findings will assist in determining potential areas for future projects, such as assisting individuals with navigating online resources at the EPL, providing educational in-services about communication disorders to library staff, or the creation of similar resources for other agencies. The over-reaching goal of this project and the pamphlet is to increase awareness of the resources available at the EPL, to decrease activity limitations (WHO-ICF, 2001) and to increase participation in the community for individuals with neurological communication disorders, in order to increase their overall quality of life.

Target Population

Neurological communication disorders often have detrimental effects on an individual's life and result in permanent disability in an individual. Neurological communication disorders can result from various etiological factors such as cerebrovascular accidents (i.e., strokes), traumatic brain injury (TBI), neoplasms (i.e., cancer), infections from the central nervous system, and degenerative disorders such as Alzheimer's disease, Amyotrophic Lateral Sclerosis (ALS), Parkinson's disease, and Multiple Sclerosis (MS) (Jani & Gore, 2014). Some of the communication disorders that result from these etiological factors include aphasia, apraxia of speech, and dysarthria (Jani & Gore, 2014).

Aphasia is an acquired language impairment that is the result of a focal brain lesion in the absence of other cognitive, motor, or sensory impairments (Papathanasiou, Coppens, & Potagas, 2013). It is most commonly caused by TBI, stroke, tumours, and dementia, with stroke

being the most common causes of neurological disorders (Jani & Gore, 2014). Aphasia can affect "all language components (phonology, morphology, syntax, semantics, pragmatics), across all modalities (speaking, reading, writing, signing)", and can affect both comprehension and expression of language (Papathanasiou et al., 2013, p. 431). It can also affect an individual's ability to communicate and their social functioning, quality of life, and the quality of life of his or her relatives or caregivers (Papathanasiou et al., 2013). Individuals with aphasia often experience depression, loss of social relationships, engage in fewer social activities, and experience high psychological distress (Hilari, 2011).

Motor speech disorders, including apraxia of speech (AoS) and dysarthria are another category of common neurological communication disorders. AoS is an acquired motor speech disorder, which affects a person's ability to plan, and program the necessary movements needed for speech (Papathanasiou et al., 2013). Individuals with AoS are believed to know the word(s) that they are intending to say, but have difficulty coordinating the movements of their articulators in order to say them (Papathanasiou et al., 2013). Dysarthria is a neurological communication disorder that often results from stroke, TBI, and degenerative disorders such as MS, ALS, and Parkinson's disease (Jani & Gore, 2014). It is a collective name for a group of motor speech disorders that result in "abnormalities in the strength, speed, range, steadiness, tone and accuracy of movement required for control of the respiratory, phonatory, resonatory, articulatory, and prosodic aspects of speech production" (Papathanasiou et al., 2013, p. 459).

Phase One

The original project (Beckett et al., n.d.) was guided by the EPL's community-led service philosophy of "fostering collaborative relationships to build relevant and responsive library

services" (Edmonton Public Library, 2013, para. 1), as well as working with members of the

community to increase inclusion and accessibility for all individuals to library services

(Edmonton Public Library, 2013; Beckett et al., n.d.). With this philosophy in mind, the phase

one team visited two branches of the EPL, Stanley Milner and Strathcona, explored the EPL

website and met with library staff members/associate branch managers to further discuss the

resources available at the library. They identified a variety of resources that would be of benefit

to individuals with communication disorders, such as high interest low literacy books, audio

books, large print books, and Leap Stations (computer stations with accessibility features).

    After identifying resources that would be of benefit to adults with communication

disorders, the phase one team organized these resources into a pamphlet. In order to increase

comprehension for those with communication disorders, the pamphlet was designed using the

following features: large print, increased white space, reduced overall amount of text and

pictures, as recommended by Dietz, Ball and Griffith (2011) and Van de Sandt-Koenderman

(2004). Additionally, Beckett et al. (n.d.) also designed a colour-coding system to organize

resources into different categories based on the different areas that an individual with a

communication disorder may have difficulty with, such as vision, memory, reading,

communication, or attention. This design feature was included as it would make the pamphlet

easier to navigate, and allow users to find particular resources on the pamphlet more efficiently

(Beckett et al., n.d.).

    The result of Beckett et al. (n.d.)'s work was a four page prototype pamphlet that was

designed for individuals with communication disorders, and was also intended to be used by

caregivers, S-LPs and staff at the EPL. Following the completion of the prototype pamphlet,

Beckett et al. (n.d.) recommended that the pamphlet be trialed with individuals with communication disorders and obtain feedback to improve the resource further.

Phase Two

The second phase of this project was directed by the mission statement of the EPL and the framework of the World Health Organization's International Classification of Functioning, Disability, and Health (WHO-ICF, 2001). As discussed by the previous team, "The EPL mission statement and the WHO-ICF complement one another, as the EPL mission statement focuses on provision of services for all individuals, regardless of demographic, and the WHO-ICF focuses on maximizing activity and participation for individuals in spite of any limitations posed by their bodily structures and functions" (Alain et al., n.d., p. 3). With these guiding principles at the forefront of their project, the phase two team worked to revise the form, content, and use of the pamphlet that was developed in phase one. They elicited feedback from clinical S-LPs on their revisions from which further revisions were made. In addition to creating a functional, communication-friendly pamphlet, the phase two team also created an accompanying pamphlet intended for use by individuals without neurological communication disorders such as S-LPs, care-partners, and librarians. The two pamphlets are identical in form but differ in content. The purpose of the accompanying pamphlet, referred to as the "facilitator pamphlet", was to provide care partners with enough information about the available resources to be able to support an individual with a neurological communication disorder, or to seek out more information on a specific resource if they required it (Alain et al., n.d.).

The process of analyzing the phase one draft of the pamphlet was carried out in four steps; 1) student visits to different EPL branches, 2) revisions to previous pamphlet based on

student experiences, 3) development of the facilitator pamphlet, and 4) feedback from clinical

S-LPs resulting in further changes.

During step one, the phase two team took the pamphlet to three EPL branches and

determined that improvements could be made regarding its user-friendliness. Modifications

were made that addressed the layout, content, and accessibility of the pamphlet and four areas

of change were proposed. Consistent with Elman (2001), the first change was to create a

second pamphlet for facilitators, which would accompany the pamphlet for individuals with

communication impairment. The facilitator pamphlet, intended for use by S-LPs, care-partners,

or a librarian, included more detailed information about each available resource. Second, the

communication-friendly version of the pamphlet was edited according to Rose, Worrall,

Hickson, & Hoffman (2011) to increase readability by reducing jargon, highlighting key points,

and simplifying syntax and vocabulary. The organization of the pamphlet was also changed to

reflect findings from Rose et al. (2011) who reported that headings, which are clearly linked to

content, facilitate better comprehension of written material. New headings were chosen to

present the materials, a subheading about the EPL mobile application was added, and a section

for users to fill in the name and phone number of the closest library branch was included.

Sentence level text was also changed to bullet format with shorter, simple sentences, as

supported by Parr, Wimbourne, Hewitt, & Pound (2008; as cited in Alain et al., n.d.). Next, they

changed the legend and defined the following icons: *attention, listening, memory, physical*

movement, reading, speaking, vision, and writing. The phase two team also stated that people

with aphasia (PWA) benefit from colour-coding as it facilitates their comprehension of written

material (Howe et al., 2008; as cited in Alain et al., n.d.). Each legend item was colour coded

and the words "if these skills are hard for you, look for these symbols" were added to the

pamphlet above the legend. This was to clarify that an icon placed next to a particular material

indicated that the material was appropriate for an individual who had impairments in the

domain represented by the icon (Alain et al., n.d.). It is important to note here that although

the legend of the pamphlet is impairment-based, the use of the pamphlet as a whole is not

meant to be impairment based. Alain et al., (n.d.) emphasize that the main goal of the

pamphlet is to have a positive impact on adults with neurological communication disorders and

their life participation. The final change was to eliminate photographic illustrations, as there

was not enough space to fit a photo beside each resource. This change increased the amount of

white space on the pamphlet, a feature that improves reading comprehension in individuals

with aphasia (Rose et al., 2011).

Feedback on the pamphlets was collected from S-LPs who were working as clinical

educators in the Department of Communication Sciences and Disorders at Corbett Clinic. Two

of the S-LPs worked primarily with adults and were consulted because of their experience and

knowledge with the target population. The third S-LP worked primarily with pediatric clients

and was consulted for more general feedback on the functionality and layout of the pamphlet.

Adjustments were made to the working drafts of the pamphlets based on detailed written and

verbal feedback on both the communication-friendly and facilitator versions. They considered

all suggestions carefully and determined which of the changes were most appropriate for their

project, implementing them into their working draft.

At the conclusion of their project, the previous team made recommendations for the

next steps. In agreement with the phase one team, they suggested that future teams include

adults with neurological communication disorders in the project and accompany them, with the pamphlet, on library visits in order to assess the usefulness of the current draft and to recommend any changes. Additionally, they discussed the eventual implementation of an educational in-service to library staff regarding the use of the pamphlets for individuals with neurological communication disorders. The goal of in-service training would be to "increase library staff's awareness of communication disorders and provide them with skills to facilitate positive, successful interactions with our target population" (Alain et al., n.d, p. 21). This recommendation is in accordance with Shepherd & McDougall (2008) who describe a framework for developing a program in alignment with the WHO-ICF (2001) that aims to increase communication accessibility in libraries. The program, *Libraries for All*, includes facilitator training with library staff in order to promote supportive communication strategies and overall awareness of individuals with communication disorders, especially those who use AAC (Shepherd & McDougall, 2008). Completion of observations, expert consultations, and resulting revisions in phase two brought this resource closer to being ready for public use. This resource will ultimately reduce activity limitations and participation restrictions (WHO-ICF, 2001) by providing greater access to the EPL.

Phase Three

The current project is a continuation of the two previous phases of student projects and is also directed by the EPL mission statement and the WHO-ICF model. With these guiding frameworks at the forefront, the goal of this phase of the project was to determine the effectiveness and utility of the pamphlet with individuals who have neurological communication disorders. According to Rose, Worrall, Hickson, & Hoffman (2011), while there

are health education materials available, there are no evidence based guidelines for developing printed education materials that are effective for PWA. In acknowledgement of the lack of guidelines, the current team aimed to beta test the developed material with the target population in the target environment as a way to determine its effectiveness, always keeping in mind the idiosyncratic presentation of neurological communication disorders. Following feedback received during these trials, modifications were made to the pamphlet in order to increase its effectiveness and ready the pamphlet for release for general use. It is recommended that revisions be made on a one to two year basis to ensure its effectiveness.

METHODS

Materials

We created communication-friendly materials for this project following guidelines set out by Rose et al. (2011). The materials used pictures, simple and concrete text, larger font size, an abundance of white space, and bolding of keywords in order to facilitate comprehension (Rose et al., 2011).

Pamphlet (Appendix A). See Phase Two for development and description of the pamphlet.

Information Handout (Appendix B). This handout was distributed to adult clients at Corbett Clinic. It was used to inform individuals about the opportunity for a library visit and to indicate their interest by providing contact information. It included our names and pictures in order to build rapport with interested individuals prior to library visits.

Pre-Visit Questionnaire (Appendix C). The Pre-Visit Questionnaire was used at the beginning of the library visits to determine the individual's current library use, familiarity with the library and with library resources.

Post-Visit Questionnaire (Appendix D). The Post-Visit Questionnaire was used at the end of the library visits to gain information about the individuals' experiences at the library, with the pamphlet and their opinion on the pamphlet's utility for someone with aphasia.

Procedure

We began this phase of the project by reviewing the pamphlet and familiarizing ourselves with the resources available at the EPL. After informal observations were made at different branches of the library, we consulted with an S-LP who works primarily with adults with communication disorders. Based on her comments and recommendations, some changes were made to the current layout and content of the pamphlet. Prior to recruiting participants, we identified potential challenges that could be encountered by adults with communication disorders at the library. The volunteers were clients attending individual speech therapy at the University of Alberta Corbett Clinic during the spring 2015 treatment block. We accompanied two individuals with communication disorders to different branches of the library to assess the effectiveness of the pamphlet with these individuals and collect qualitative data on their individual experience.

Prior to visiting the library with the volunteers, we visited four different branches of the EPL in different areas of Edmonton to conduct informal observations. Staff friendliness and helpfulness, overall layout of the library, and availability of resources were taken into consideration to informally assess overall usability and consistency of resources across

branches. At each branch, we conversed with library staff and asked general questions about the patrons that visited their branch, their experience with individuals with communication disorders and the availability of communication boards. Overall, we noted that all libraries had a positive environment with many friendly staff members who were interested in the project and eager to learn more about the project and how to serve patrons with communication disorders. However, it was noted that communication boards used by the library (Shepherd & McDougall, 2008) were not available in hard copy at some of the branches, and that each branch used different terminology to refer to the communication boards (e.g., a board for someone with hearing impairment). Communication boards are available on the EPL website and can be accessed for individual use.

Consulting with S-LP. Following the visits to the different EPL branches, we consulted with an S-LP clinical educator to acquire feedback on the pamphlet, and recommendations for potential participants. On her recommendation, the pamphlet was edited to reduce abstract language, increase the amount of white space, and eliminate redundant category headings. Rose et al. (2011) found that PWA preferred written material that used language that was "straight to the point." Increased white space, or spaced formatting, has also been shown to increase reading comprehension and facilitated reading for those with aphasia (Rose et al., 2011; Brennan, Worrall & McKenna, 2005). She also recommended that a picture of the communication board be added to the pamphlet to act as a shared reference if use of the tool is required. Including a picture of the communication board on the pamphlet could also reduce confusion surrounding inconsistent terminology used to refer to the communication board. Brennan et al. (2005) found that by using simpler syntax and vocabulary, large print, increased

white space and pictures, PWA were able to comprehend more information. These findings were echoed in the Rose et al.'s (2011) guidelines for designing communication-friendly health information as well. As this pamphlet is designed to be a printed educational material for people with communication disorders, it is important that these design features be included in order to make it accessible for the target population.

Participants. The University of Alberta Communication Sciences and Disorders department has an in-house clinic. Many of the clients who attend this clinic are active in the community and participate in various research projects within the Department of Communication Sciences and Disorders.

To determine participant interest in this project, communication-friendly pamphlets were given to other student clinicians at Corbett Clinic to offer to their clients if appropriate (see Appendix B). Individuals expressed interest by providing their contact information on the flyer. The flyers were returned to us, and interested clients were contacted and provided further explained the nature of the project. The project was described as a library excursion that required the individual's personal knowledge and experience with aphasia to help us assess the effectiveness of the pamphlet. In addition, we would also introduce the individuals to the type of resources available at the library in their neighbourhood.

Initially, six individuals expressed interest in the project. Upon contacting the interested participants, two individuals were available to schedule a visit to their neighbourhood library. Participant 1 (P1), was a 62 year old male with moderate expressive non-fluent aphasia, mild receptive and mild apraxia of speech. Participant 2 (P2) was a 57-year-old male with moderate expressive non-fluent aphasia, mild apraxia of speech and mild dysarthria. P1 and P2 both had

left middle cerebral artery cerebral vascular accidents in 2012. When they indicated interest in the study, both P1 and P2 were receiving individual therapy at Corbett Clinic. At the time of the library visit, they were both enrolled in a Book Club therapy group as they had both indicated that improving reading was a priority.

Library Visits. Due to the client-lead nature of these visits, they did not follow a particular sequence and were not carried out in a systematic manner. Activities and interactions were based on client interests and suggestions and were carried out while we observed. This resulted in two library visits that were different in both their structure and outcomes. Prior to visiting the library with P1 and P2, clinicians came up with a list of potential barriers that may exist for PWA when visiting their local library. Physical access to books or resources, since both men presented with right hemiparesis, transportation to and from the library, and overall size and layout of the library were all perceived as potential challenges. Other barriers related to personal factors, such as comfort level asking a librarian for assistance, and whether or not they would feel comfortable attempting to repair a communication breakdown if one were to occur. In order to minimize some of these barriers, transportation was arranged prior to the visits and we provided communication support and general assistance when needed or requested. The Pre-Visit Questionnaire (Appendix C) was used to assess library familiarity with both participants.

Visit One. We arranged to meet P1 at the Woodcraft branch of the EPL. Upon meeting with P1, we went through the Pre-Visit Questionnaire (see Appendix C) with him. After completing the questionnaire, we showed P1 the pamphlet and discussed it with him. During this time, P1 provided opinions, engaged in discussions, and asked questions about particular

items on the pamphlet. After becoming familiarized with the pamphlet, P1 engaged in tasks including: looking for fiction and non-fiction books, communicating with library staff and signing up for a new library card, navigating the library website, and reading a magazine online. Most of these activities included resources that were listed on the pamphlet and were of interest to P1. At the end of the visit, the Post-Visit questionnaire (See Appendix D) was completed with P1.

Visit Two. We arranged to meet P2 at the Lois Hole branch of the EPL. As with P1, we went through the Pre-Visit Questionnaire with P2 (See Appendix C). After completing the questionnaire, we showed and discussed the pamphlet at length with P2. P2 provided insights and opinions about particular items on the pamphlet, and asked questions as they arose. Following this discussion, P2 also signed up for a library card and asked the library staff about particular resources he had read about in the pamphlet. At the end of the visit, the Post-Visit questionnaire (See Appendix D) was discussed with P2.

RESULTS

Visit 1

P1 had a good general understanding of the resources available at the library prior to viewing the pamphlet. He had used the library prior to his stroke and continued to use it similarly after his stroke, though he reported that he does not go very often. He was familiar with the branch that was visited and was able to navigate the book, magazine, and music section of the library with no guidance. P1 indicated that while he had a library card, he preferred reading the materials at the library rather than checking them out. He reported some

difficulty with finding items, but said that he felt comfortable asking for assistance from library personnel.

P1 responded positively to the overall layout and format of the pamphlet. While browsing the various resources listed, P1 indicated that he was not familiar with DAISY Books or the LEAP Station, two specialized resources that are only available at the main branch of the EPL. He understood that the impairment based symbols corresponded to resources that may help with that particular area of challenge. Since speaking was the area of communication that he found the most challenging, P1 felt that many of the resources listed on the pamphlet were not relevant to him, as speaking is not as well represented on the pamphlet as other impairment areas. When asked about the content and design of the pamphlet, he did not have any suggestions on how it could be changed or improved.

Due to P1's good general knowledge of many of the resources at this particular branch of the library, we asked if he would be willing to try using the computers - a resource that he was less familiar with. On a scale from "none to a lot" corresponding to the numbers 0-4, P1 rated himself a 1 in terms of experience using computers. In order to gain access to the computers, users are required to enter their library card pin number. He produced his library card and attempted to find his pin. When he was unsuccessful after a couple of attempts, we assisted him in looking on his card and trying to enter the numbers into the computer. When this failed, we suggested that P1 go to the librarian's desk to ask for assistance.

P1 initiated a conversation with the librarian using the words "*computer"* and "*pin*." She knew what he was referring to and asked to see his library card. The card was very outdated which prompted her to start the process of signing him up for a new card. It was noted during

their interaction that P1 held onto the pamphlet during their conversation and showed it to the librarian while he was talking to her. While he did not use it to explicitly ask a question, or point to a specific resource, it acted as a shared referent. This resulted in the librarian recognizing that P1 needed a certain level of support during their conversation and she was observed to slow her rate of speech and check in with P1 to see that he was understanding each step of the process.

After P1 received his new library card and pin number, he was able to successfully log onto the library computer. On the computer, he navigated the EPL website to find the *National Geographic* magazine. P1 required moderate support to become oriented to the buttons required to locate various EPL online materials, but once he understood the general layout of the website he was able to navigate it relatively independently. He expressed excitement over the fact that he was able to find the desired National Geographic article on the computer, as he was unaware that magazines could be accessed online through the EPL website.

Following these activities, we went through the Post-Visit Questionnaire (Appendix D) with P1. When asked what he liked most about the library visit, he said that he liked "*the people.*" He thought the librarian was *"really good,"* and also liked that we introduced him to the EPL website. P1 reported that there was *"nothing"* he did not like about the library. He said that he would visit the library again, and that he would bring the pamphlet with him. P1 felt that the pamphlet was helpful because he was able to learn about different resources that he did not previously know were available, such as the computers, DAISY Books, LEAP station, E-Readers, and the EPL app. When asked if he felt that the pamphlet would be helpful without support from us or another support provider, he said yes, it would be helpful on it's own and

that it was easy to understand. P1 felt as though the pamphlet would help him to utilize the library more and he would tell someone else with aphasia about the pamphlet and the library.

Visit 2

P2 was generally unfamiliar with the extent of the resources available at the library prior to viewing the pamphlet. He had not visited this particular branch before, and had not visited any of the EPL branches prior to his stroke in 2012. P2 did not have a library card, but indicated interest in getting one.

After viewing the pamphlet, P2 was most interested in discussing the various resources and he provided suggestions for how the pamphlet could be made more user-friendly. P2 had the following suggestions regarding the form of the communication-friendly pamphlet. He felt that the colours used for the symbols should be altered to improve the ease of distinguishing between them. In particular, he felt that the colors used for the "Memory" (dark pink) and "Writing" (red) symbols were too similar and the symbol for "Speaking"(dark blue) was too dark, making it difficult to read the letter within. Based on these recommendations, the symbol for "Physical Movement" was also changed to a lighter color. P2 recommended increasing the font size of the branch names where particular resources were available, as it would be important to have this information if you were seeking out a particular resource. P2 discussed that bolded words are supportive for him when reading written material and thought that some of the more important words within the pamphlet could be bolded to improve comprehension. These suggestions were implemented in the final version of the pamphlet.

In terms of content, P2 was surprised to see all of the resources that the library had to offer. He had some specific suggestions to improve clarity about some of the resources that

people may be more unfamiliar with such as the LEAP station and DAISY books. P2 recommended that the "Leap Station" heading should be changed to read "LEAP Computer Station." The lack of an explicit description requires users to make an inference based on other descriptive information provided under the heading, i.e., "big mouse and keyboard." In line with the need for explicit description, P2 also suggested that the description of DAISY Books include that speed of listening can be changed as he felt this was a valuable component of this resource.

After reviewing the pamphlet, P2 took the pamphlet to the front desk of the library and initiated a conversation with the librarian about the pamphlet and what it was used for. He showed the librarian the pamphlet and described, in his words, what it was for. *"This is a pamphlet to help people with aphasia know what is at the library. It has ….. [listed off the headings]… and these students are trying to see if it is helpful. Do you think that's good?"* The librarian was engaged in the conversation with P2 and while she did not look at the pamphlet in great detail, she indicated to him that the librarians were always willing to help individuals as much as possible and that in general, the pamphlet sounded like a *"good idea."*

Following this discussion about the pamphlet and library, P2 informed the librarian that he would like to sign up for a library card. Similar to Visit One with P1, the librarian provided P2 with a lot of time to provide answers to her questions and she checked in several times to ensure comprehension. P2 was able to complete all of the required steps to sign up for a library card with no support from us. Again, the pamphlet acted as a shared referent between P2 and the librarian, providing a context for conversation.

For the final step of Visit Two, we went through the Post-Visit Questionnaire (see Appendix D) with P2. When asked what he liked most about the library visit, P2 said the *"friendliness"* of library staff and the *"comfortable"* atmosphere of the library. He stated that he felt like he *"could come back tomorrow and spend a few hours"* looking at all of the resources. He also commented that some people may feel intimidated upon walking into the library due its size. However, he felt that the pamphlet would help to encourage people to visit the library or to make return visits, and that after visiting once or twice "*it's not as scary.*" When asked if he would return to the library, P2 said that he "*will be back again, no joke.*" He was unsure if he would bring the pamphlet with him on return visits, but this was due to the fact that he had learned and was now aware of the resources available at the library.

DISCUSSION

The overall purpose of this project was to help decrease activity limitations and increase participation in the community for individuals with neurological communication disorders. The goal was to evaluate the effectiveness of a communication-friendly pamphlet that outlined the resources available for this population at the EPL. In order to determine the effectiveness of the pamphlet and determine whether it could fulfill the purpose of increasing participation, we trialed the pamphlet with two individuals with communication disorders at two branches of the EPL. Results of the library visits indicated that this pamphlet was beneficial for individuals with communication disorders. By providing information on the resources offered by the EPL, the pamphlet acted as a starting point for increasing accessibility to the library for individuals with neurological communication disorders. In learning about the resources available at the EPL, P1

independently engaged in activities that he may have been less likely to attempt had he not known that they were available. P2, who was unaware of what the EPL had to offer prior to viewing the pamphlet, was adamant that he would return to the library to use some of the resources suggested on the pamphlet, an activity that he had not previously engaged in. Both P1 and P2 were surprised by the amount of resources that were available, and expressed interest in returning to the EPL on their own to utilize them. This suggests that the pamphlet has the potential to increase independence in individuals with neurological communication disorders.

For some, it is possible that seeing the pamphlet and learning about the resources would be all that is required to get them to the library and encourage their use of the materials available. For others, it might require the pamphlet and the accompaniment of a care-partner who can guide them through the use of some of the more unfamiliar resources, much like when P1 used the library computer. For individuals who require more support, the Facilitator Pamphlet would be a beneficial tool for an unfamiliar care-partner to use in order to understand what some of the available resources are. The pamphlet was able to act as an informative and helpful resource for individuals with neurological communication disorders to learn about materials at the EPL that would benefit them. Furthermore, it was also observed to act as a communication ramp. During both visits, the pamphlet served as an external communication support that provided a context for the participant and the librarian, i.e., an unfamiliar communication partner. For individuals with more severe aphasia, or other neurological communication disorders, the pamphlet has the potential to act as a low-tech

communication device. Moreover, with the addition of the picture of the Communication Board on the Pamphlet, more routes for communication have been made available.

Based on the positive outcomes of both library visits, along with the potential benefits that the pamphlet could provide to other individuals with communication disorders, we believe that this resource is ready to be distributed. The pamphlet also has the potential to benefit the EPL and it's staff, as it promotes provision of services for all individuals, regardless of demographic, which is a major component of the EPL mission statement (Edmonton Public Library, 2013). With the pamphlet available for distribution, S-LPs in the community will have another resource in their toolbox to decrease activity limitations and increase community participation for their clients facing communication barriers. It is important to note that all the resources listed on the pamphlet are free, and that there is no charge to sign up for a library card at the EPL. This is an added benefit to the EPL, as there are not many community services that are available that are entirely free. Testing the pamphlet at the EPL with P1 and P2, and receiving their input on the content and functionality of this resource was paramount to this project. Their experiences affirmed our belief that the pamphlet has the ability to benefit individuals with neurological communication disorders through increasing participation and decreasing activity limitations.

RECOMMENDATIONS

As the pamphlet is ready to be circulated, recommendations for use by S-LPs are outlined below. It is our hope that S-LPs and S-LP students will utilize this resource, and that it will eventually be implemented in the wider community.

S-LPs

S-LPs should consider this resource not only with individuals who are targeting reading in therapy, but with all individuals with neurological communication disorders. We feel that it is a resource that is beneficial to all, as it promotes activity and participation (WHO-ICF, 2001) in the community, which is often a challenge for those with communication disorders (Code & Herrmann, 2003). When recommending or using this pamphlet with clients, it is important to recognize their individual strengths and challenges, therefore, S-LPs should use their clinical decision-making and consider recommendations for use on an individual basis.

When providing this pamphlet to clients, S-LPs should consider the following. Firstly, individuals may need an introduction to the resources at the library, as P1 did during his visit, in order to use them. This may apply to other individuals with communication disorders, especially if they are unfamiliar with the EPL. It might be necessary to introduce the individual to the library or their care-partner so that they have access to the resources. Second, the type and location of branch should also be considered. Smaller neighbourhood branches have potential benefits such as smaller facilities that are easier to navigate than a larger branch and the ability to build relationships with library personnel. These benefits are important to consider as they could help increase one's comfort with the library and interacting with library staff, which could lead to increased independence. Choosing a library in one's neighbourhood has the potential to decrease activity limitations due to proximity to one's home. On the other hand, larger branches also have potential benefits. They have a greater quantity of resources, such as books, magazines, etc. Additionally, some of the more novel resources described in the

pamphlet, such as the Leap Station, can only be accessed at the Stanley Milner, which is the EPL's flagship branch.

Next Steps

Moving forward, we agree with the phase two team and recommend that an educational in-service be provided to library staff. The goal of this in-service training would be to promote awareness of neurological communication disorders, introduce them to the pamphlet and provide them with communication strategies (Alain et al., n.d.). Similar programs have been successfully implemented in other countries, as well as in other parts of Canada (see Shepherd & McDougall, 2008). There are community librarians at each branch that are in place to address the needs of various library patrons. Future researchers should consider contacting these individuals when attempting to set-up the in-service sessions.

It is also recommended that future teams promote the use of this resource by connecting with community S-LPs at various sites (inpatient, home care, continuing care, etc.) to educate them on the use of the pamphlet. Developing focus groups that connect S-LPs, librarians, and people with neurological communication disorders and exploring how this resource could be used, would be a beneficial next step for this project. . This step should be carried out to determine how generalizable our results are to the larger population of adults with communication disorders.

CONCLUSIONS

As there are currently no evidence based guidelines for developing printed education materials for PWA (Rose et al., 2011), it was important to beta-test the pamphlets with

members of the target population to determine it's value and effectiveness. Based on

participant report, we found the pamphlet to be an effective resource for people with

neurological communication disorders. The suggestions provided by P1 and P2 were crucial in

moving the pamphlet into a stage where it was ready to be distributed so that more individuals

could benefit from its use. With these modifications, we feel confident that the current version

of the pamphlet is compatible with the communication needs of individuals with

communication disorders.

While we were able to act as supports for these particular participants and plan the

visits accordingly, it is important to recognize that each PWA has different challenges and that

every library branch is different. Potential barriers to participation and access should be

considered on a person-to-person basis. Although our findings cannot be generalized to include

all individuals with neurological communication disorders, we do feel that the pamphlet is a

valuable resource that should be distributed to the larger population. By distributing the

pamphlet, S-LPs and student clinicians in the Edmonton will become more aware of the

resources offered by EPL. It will also provide them with the opportunity to use the pamphlet

with clients. This would increase awareness of the pamphlet within the community, thereby

allowing for access within a larger population. Greater exposure of the pamphlet allows for

more opportunities to acquire feedback on its use. Feedback from a larger population has the

potential to further improve this resource, ideally making it as representative as possible for the

target population as a whole. Based on the positive responses of P1 and P2 to the pamphlet,

their interest in pursuing library resources, and the possible opportunities that can arise while

using the pamphlet, we feel as though this resource has the potential to increase activity and

life participation in those with neurological communication disorders. Due to the potential

benefits of the pamphlet to increase quality of life, and the positive response it has received

thus far, it is the appropriate time to distribute this resource to the larger population.

ACKNOWLEDGEMENTS

This project would not have been possible without the support and participation of our

volunteers, P1 and P2. Their contribution allowed this project to move forward and resulted in

the completion of an effective resource available for the larger population of individuals with

communication disorders. Their time and expertise was paramount to the completion of this

project and was very appreciated. Finally, each of the EPL staff members that we interacted

with was friendly, helpful, and knowledgeable and assisted in this project moving forward.

AFTERWORD

At the same time that P1 participated in this project, he was also involved in a Book Club

treatment group at Corbett Clinic. Each week, he was provided with a summary of two chapters

of the book to read for the following week. The topic of the book being read was of great

interest to P1 and he wanted more information than the summaries provided. Following his

visit to the Edmonton Public Library, P1 showed up to book club and provided fellow group

members with supplementary information from the book that had not been provided in the

summary. When asked if he had done some research about the book, he replied that he had

gone to the library and checked out the audiobook of the book being read. This increased his

knowledge on the topic and allowed him to contribute more than before to conversations. He

listened to chapters before they were assigned and knew what happened in the book even

before the student clinicians did. Prior to visiting the library for this project, P1 had not utilized

the EPL's resources in decades. P1 was a motivated client and was proud that he was able to

take initiative in his own treatment by supplementing his reading materials with the audiobook.

He was able to complete the book at his desired rate rather than be constrained by the

materials set out by the group. When another group member made a prediction about what

was going to happen next, P1 could be observed smiling to himself, because he already knew.

This anecdote illustrates the potential of the EPL to affect positive change in adults with

communication disorders. We sincerely hope that there will be more anecdotes like this one.

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Appendix A

Edmonton Public Library

Help for Adults with Communication Disorders

My Library Location:

_____

Phone Number:

_____

For more information
Website: www.epl.ca

Stanley A. Milner (main branch)
Phone: 780-496-7000

UNIVERSITY OF ALBERTA

December 2015 https://era.library.ualberta.ca/

USING THE LIBRARY

Access

- Free library cards
- Reserve shelves and holds
- Home delivery service
- Online resources

How to Get Help?

- Communication boards
  - Board includes letters, words, pictures that you can point to
- Library customer service desk
- Online *Ask Us* feature

Material Loans

- Extended loans material
- Library Elf
  - Add family to your account to help with holds and returns

Materials at the Library

Paper Books

[A] [M] [R]

High Interest/Low Literacy Books
· Popular books
· Easy reading level
Stanley A. Milner Library, ESL section

[A] [R] [V]

Large Print Books
All locations

Audio Books

[A] [L] [P] [R] [V]

Audiobooks on CDs
· Listen to books
All locations

[A] [P] [R] [V]

DAISY Books
· Listen to books with a special player, can change speed
Stanley A. Milner

Computers

[A] [L] [M] [P] [R] [S] [V] [W]

· Free internet
· Writing programs
All locations

LEAP Computer Station

[P] [R] [V] [W]

· Wheelchair friendly
· Big mouse and keyboard
· Larger picture
· Can read information to you
· Scanned pages read out loud
· Word prediction software
· Types while you talk
Stanley A. Milner

E-Readers

[A] [L] [M] [P] [R] [S] [V] [W]

· An object to download books on
· Can change text size and colour
Lois Hole   Jasper Place
Millwoods   Riverbend
Woodcroft Whitemud Crossing

Library Apps
(for Apple or Android)

[A] [L] [M] [P] [R] [S] [V] [W]

· Maps
· Locations
· Account information
· Lists of books and other materials

If these skills are hard for you, look for these symbols:

[A] Attention

[L] Listening

[M] Memory

[P] Physical Movement

[R] Reading

[S] Speaking

[V] Vision

[W] Writing

Edmonton Public Library

Supporting Adults with Communication Disorders at EPL

This brochure is intended to inform SLPs, librarians, and other professionals of the many resources available at the Edmonton Public Library. These resources may be recommended to individuals with communication disorders (due to brain injury, stroke, learning disability, progressive disorders, etc.) based on their primary area of difficulty. Individuals with communication disorders can be provided with a corresponding version of this brochure written in clear language.

GENERAL COMMUNICATION STRATEGIES

- Ask the individual how they like to communicate
- Speak clearly
- Take your time
- Write down key words on a paper
- Use drawings or pictures

For more information
Website: www.epl.ca

Stanley A. Milner (main branch)

UNIVERSITY OF ALBERTA

December 2015 https://era.library.ualberta.ca/

USING THE LIBRARY

Access
- Free library cards
  - Visit any branch with proof of address to sign up for a free card
  - Fill out this form ahead of time: www.epl.ca/signup
- Reserve shelves/holds
  - Items will be placed on reserve shelves as requested for easy pick-up
- Home delivery service
  - Volunteers select and deliver materials directly to individuals
- Online resources
  - Language learning software, music, magazines, apps and much more

Help
- Communication boards
  - Available online and at the library to help the client/patron communicate with staff
- Library customer service desk
- Online *Ask Us* feature
  - Staff available to answer the client/ patron's questions

Loans
- Extended loans material
  - If arranged with staff, materials can be taken out longer without additional fines
- Library Elf
  - Add family members to the client/ patron's account to help with holds and returns

Materials at the Library

Paper Books

| A | M | R |

High Interest/Low Literacy Books
· Books with popular content written at a lower reading level
Stanley A. Milner Library, ESL section

Large Print Books

| A | R | V |

All locations

Audio Books

| A | L | P | R | V |

Audiobooks on CDs
· Recorded audio of texts being read
All locations

| A | P | R | V |

DAISY Books
· A collection of books that can be listened to using a special electronic player
Stanley A. Milner

Computers

| A | L | M | P | R | S | V | W |

· Internet and writing programs are available on public computers
· Free Wi-Fi available
All locations

LEAP Stations

| P | R | V | W |

· Wheelchair friendly
· Alternate mouse and keyboard
· Screen enlargement
· Screen reading software
· Optical character recognition scanner (scanned pages can be read out loud)
· Word prediction software
· Voice operated dictation software
Stanley A. Milner

E-Readers

| A | L | M | P | R | S | V | W |

· Devices available to download and read books on
· Customizable text size and colour
Lois Hole   Jasper Place
Millwoods   Riverbend
Woodcroft   Whitemud Crossing

EPL App (for Apple or Android)

| A | L | M | P | R | S | V | W |

· Maps
· Locations
· Account information
· Lists of books and other materials

Use these impairment-based codes to find resources that are appropriate for your client/patron:

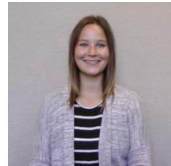| A	L	M	P	R	S	V	W
Attention	Listening	Memory	Physical Movement	Reading	Speaking	Vision	Writing

Appendix B

Hi! We are Speech Language Pathology **student clinicians** at **Corbett Clinic**.

| Lindsay | Jillian | Rachelle |

The **Edmonton Public Library** has great **resources** for people with **aphasia**. We made a **pamphlet** to help adults with aphasia use the library. **We need your help to make the pamphlet better.**

Do you want to **visit the library with student clinicians** and learn more about the libraries resources?

YES   NO

If **yes,**
please write your **name** and **contact info** so we can to go to the library.

Name:_____
Contact info:_____
(**phone number or email**)

Appendix C

Welcome to the library! 🙂

BEFORE we start…

Have you **been** to one of the **libraries** in Edmonton before?

If **yes**, **THEN:**

1. Did you go to the **library BEFORE your communication disorder or AFTER**? Or **BOTH**?

2. What did you **do** at the library? (Example: To get books, listen to music, get CDs, magazines, use their computers)

3. On a scale from **NONE** to **A LOT**, how much **experience** do you have with the **library, computers and technology?**

If NO, THEN:

1. If you **have not** been to the library before, **why not?**

2. Have you ever **thought** of **coming** to the **library** since your **stroke**? What has stopped you from coming?

What do **YOU** think you **can do** at the **library**?

Appendix D

AFTER the visit….

    1. What did you **LIKE MOST** about this **library visit**?

    2. What did you **NOT like** about this **library visit**?

    3. Was the **pamphlet helpfu**l to you?

If **YES,**

How was it helpful?

If **NO,**

What did you **NOT like** about the **pamphlet?**

Why was it **not helpful**?

4. Would you **come** to the library **again?**

If **YES,**

Would you **bring** the **pamphlet** with you again?

5. What would help you to **use the library more**?