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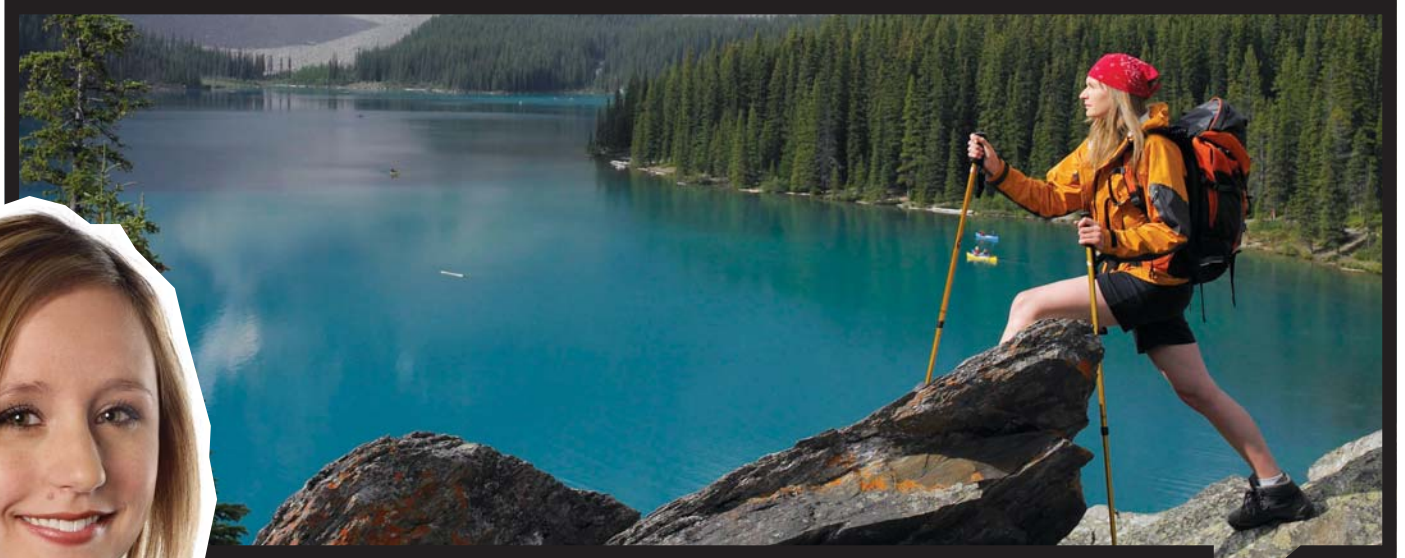


CASLPA-ACOA

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- ▶ *Roles of Speech-Language Pathologists and Nurses in Providing Communication Intervention for Nonspeaking Adults in Acute Care: A Regional Pilot Study*
Colleen Braun-Janzen, Leslie Sarchuk, and Robert P. Murray
- ▶ *Listeners' Social Perception of Speakers after Treatment for Laryngeal Cancer*
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- ▶ *Using Culturally Appropriate Methodology to Explore Dene Mothers' Views on Language Facilitation*
Luella Bernacki Jonk and Charlotte Enns
- ▶ *CASLPA Conference 2009 Abstracts*



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The purpose of the *Canadian Journal of Speech-Language Pathology and Audiology* (CJSLPA) is to disseminate contemporary knowledge pertaining to normal human communication and related disorders of communication that influence speech, language, and hearing processes. The scope of the Journal is broadly defined so as to provide the most inclusive venue for work in human communication and its disorders. CJSLPA publishes both applied and basic research, reports of clinical and laboratory inquiry, as well as educational articles related to normal and disordered speech, language, and hearing in all age groups. Classes of manuscripts suitable for publication consideration in CJSLPA include tutorials, traditional research or review articles, clinical, field, and brief reports, research notes, and letters to the editor (see Information to Contributors). CJSLPA seeks to publish articles that reflect the broad range of interests in speech-language pathology and audiology, speech sciences, hearing science, and that of related professions. The Journal also publishes book reviews, as well as independent reviews of commercially available clinical materials and resources.

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The Canadian Association of Speech-Language Pathologists and Audiologists ... the national voice and recognized resource for speech-language pathology and audiology.

Mission

The Canadian Association of Speech-Language Pathologists and Audiologists ... supporting and empowering our members to maximize the communication and hearing potential of the people of Canada

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Objet et Portée

L'Association canadienne des orthophonistes et audiologistes (ACOA) est l'association professionnelle nationale reconnue des orthophonistes et des audiologistes du Canada. L'Association a été fondée en 1964 et incorporée en vertu de la charte fédérale en 1975. L'Association s'engage à favoriser la meilleure qualité de services aux personnes atteintes de troubles de la communication et à leurs familles. Dans ce but, l'Association entend, entre autres, contribuer au corpus de connaissances dans le domaine des communications humaines et des troubles qui s'y rapportent. L'Association a mis sur pied son programme de publications en 1973.

L'objet de la *Revue canadienne d'orthophonie et d'audiologie* (RCOA) est de diffuser des connaissances relatives à la communication humaine et aux troubles de la communication qui influencent la parole, le langage et l'audition. La portée de la Revue est plutôt générale de manière à offrir un véhicule des plus compréhensifs pour la recherche effectuée sur la communication humaine et les troubles qui s'y rapportent. La RCOA publie à la fois les ouvrages de recherche appliquée et fondamentale, les comptes rendus de recherche clinique et en laboratoire, ainsi que des articles éducatifs portant sur la parole, le langage et l'audition normaux ou désordonnés pour tous les groupes d'âge. Les catégories de manuscrits susceptibles d'être publiés dans la RCOA comprennent les tutoriels, les articles de recherche conventionnelle ou de synthèse, les comptes rendus cliniques, pratiques et sommaires, les notes de recherche, et les courriers des lecteurs (voir Renseignements à l'intention des collaborateurs). La RCOA cherche à publier des articles qui reflètent une vaste gamme d'intérêts en orthophonie et en audiologie, en sciences de la parole, en science de l'audition et en diverses professions connexes. La Revue publie également des critiques de livres ainsi que des critiques indépendantes de matériel et de ressources cliniques offerts commercialement

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Vision

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Mission

L'Association canadienne des orthophonistes et audiologistes appuie et habilite ses membres en vue de maximiser le potentiel en communication et en audition de la population canadienne.

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From the Editor / Mot du rédacteur en chef

Spring Issue / Numéro de printemps



The first paper in the current issue of the *Canadian Journal of Speech-Language Pathology* is entitled “Roles of Speech-Language Pathologists and Nurses in Providing Communication Intervention for Nonspeaking Adults in Acute Care: A Regional Pilot Study.” It was written by Colleen Braun-Janzen, Leslie Sarchuk, and Robert P. Murray. In their study, the authors evaluated the patterns of practice of nurses and Speech-Language Pathologists with regards to the provision of communication interventions in acute care. This is an interesting contribution that raises important questions about the communication between nurses and Speech-Language Pathologists.

The second paper was written by Aarathi Turcotte, Anroup Wilson, Jeffrey Harris, Hadi Seikaly, and Jana Rieger. It has the title “Listeners’ Social Perception of Speakers after Treatment for Laryngeal Cancer.” In this study, Turcotte et al. compared listeners’ perceptions of total laryngectomies using tracheoesophageal voice, partial laryngectomies with partial supracricoid laryngectomies, and larynx cancer patients who were treated with radiation therapy. While quite a bit of research has already compared the resulting acoustic features and the speech intelligibility of the different treatment modalities for larynx cancer, this study taps into the underexplored topic of social perception – which ultimately is more immediately relevant to the patient than their jitter and shimmer values.

The third and final paper in the current issue breaks new ground in a different area. Luella Bernacki Jonk and Charlotte Enns’ paper is entitled “Using Culturally Appropriate Methodology to Explore Dene Mothers’ Views on Language Facilitation.” This study aimed to identify the differences in the beliefs and educational practices related to language acquisition of Dene and non-Aboriginal mothers. A survey of 30 Dene mothers in a Northern community was carried out using research methodology that was culturally adjusted to the Dene culture and language.

We have two literature reviews in this issue of the *Canadian Journal of Speech-Language Pathology*. Stacey Skoretz reviews *Dysphagia Following Stroke* by Stephanie Daniels and Maggie-Lee Huckabee, and Glen Nowell reviews *Exercises for Voice Therapy* by Alison Behrman and John Haskell.

Also in the current issue, you will find the program for the upcoming annual conference of the *Canadian Association of Speech-Language Pathologists and Audiologists* which will take place in London, Ontario, from April 29th to May 2nd 2009.



Le premier article du présent numéro de la *Revue canadienne d’orthophonie et d’audiologie* s’intitule « Le rôle des orthophonistes et des infirmières dans la prestation de services d’intervention en communication en milieu de soins aigus auprès d’adultes n’utilisant pas la communication orale : une étude pilote régionale ». Il est signé par Colleen Braun-Janzen, Leslie Sarchuk et Robert P. Murray. Dans leur étude, les auteurs ont évalué les formes de pratique des infirmières et des orthophonistes touchant la prestation de services d’intervention en communication en milieu de soins aigus. Cet article est intéressant parce qu’il soulève d’importantes questions sur la communication entre les infirmières et les orthophonistes.

Le deuxième article, signé par Aarathi Turcotte, Anroup Wilson, Jeffrey Harris, Hadi Seikaly et Jana Rieger, s’intitule « La perception sociale, par des auditeurs, de locuteurs ayant reçu un traitement contre un cancer du larynx ». Dans cette étude, les auteurs comparent la perception d’auditeurs vis-à-vis des laryngectomisés totaux utilisant une voix trachéo-œsophagienne, des personnes ayant subi une laryngectomie partielle et une laryngectomie supracricoidienne et des personnes atteintes d’un cancer du larynx ayant reçu de la radiothérapie. Bien qu’un certain nombre de recherches aient déjà comparé les caractéristiques acoustiques résultantes et l’intelligibilité de la parole des différentes méthodes de traitement du cancer du larynx, cette étude se penche sur un sujet peu exploré – soit, la perception sociale – qui à la limite a davantage de pertinence pour le patient que les valeurs de jitter et de shimmer.

Le troisième et dernier article du présent numéro innove dans un autre domaine. L’article « Recourir à une méthodologie adaptée à la culture pour explorer le point de vue des mères dénées sur la facilitation du langage » est signé par Luella Bernacki Jonk et Charlotte Enns. Cette étude vise à repérer les différences entre les attitudes et les méthodes d’éducation touchant l’acquisition du langage entre les mères dénées et les mères non autochtones. Les auteurs ont mené une enquête auprès de 30 mères dénées d’une collectivité du Nord en utilisant une méthode de recherche adaptée à la culture et à la langue dénées.

Ce numéro comporte aussi deux comptes rendus, soit celui de Stacey Skoretz sur l’ouvrage *Dysphagia Following Stroke* de Stephanie Daniels, et celui de Maggie-Lee Huckabee et Glen Nowell sur *Exercises for Voice Therapy* d’Alison Behrman et John Haskell.

Enfin, vous trouverez dans ce numéro le programme du congrès annuel à venir de l’Association canadienne des orthophonistes et audiologistes, qui aura lieu à London (Ontario), du 29 avril au 2 mai 2009.

Tim Bressmann

Editor / Rédacteur en chef

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- **Roles of Speech-Language Pathologists and Nurses in Providing Communication Intervention for Nonspeaking Adults in Acute Care: A Regional Pilot Study**
- **Le rôle des orthophonistes et des infirmières dans la prestation de services d'intervention en communication en milieu de soins aigus auprès d'adultes n'utilisant pas la communication orale : une étude pilote régionale**

Colleen Braun-Janzen
 Leslie Sarchuk
 Robert P. Murray

Abstract

This study investigated current practice patterns and opinions of best practice standards of nurses and speech-language pathologists (S-LPs) regarding management of nonspeaking adult patients in acute care. Data was comprised of questionnaires completed by 85 nurses and 34 hospital-based acute care S-LPs. Nurse respondents reported that they frequently facilitate hands-on communication intervention for nonspeaking patients. Most nurses agreed that quality of care would be enhanced if S-LPs were more involved in facilitating communication for acute care patients. Forty-eight percent of S-LPs and 49% of nurses reported that at their facilities, less than half of nonspeaking patients are routinely referred to speech-language pathology (S-LP), whereas 94% of S-LPs and 66% of nurses felt that nonspeaking patients should be referred to S-LP *most of the time*. Results suggest that S-LPs are spending increasing amounts of time in the area of dysphagia management and relatively minimal amounts of time providing communication intervention.

Abrégé

La présente étude examine les formes de pratique actuelle et les opinions d'infirmières et d'orthophonistes sur les normes de pratique exemplaire touchant la prise en charge de patients adultes n'utilisant pas la communication orale en milieu de soins actifs. Les données proviennent de questionnaires remplis par 85 infirmières et 34 orthophonistes en milieu hospitalier de soins aigus. Les infirmières ont signalé qu'elles facilitaient souvent l'intervention pratique en communication pour ces patients. La plupart des infirmières convenaient que la qualité des soins serait améliorée si des orthophonistes jouaient un plus grand rôle pour faciliter la communication des patients en milieu de soins aigus. Quelque 48 % des orthophonistes et 49 % des infirmières ont signalé que dans leur établissement, moins de la moitié des patients n'utilisant pas la communication orale étaient régulièrement référés vers le service d'orthophonie, tandis que 94 % des orthophonistes et 66 % des infirmières étaient d'avis que ces personnes devraient l'être « la plupart du temps ». Les résultats suggèrent que les orthophonistes consacrent de plus en plus de temps à la prise en charge de la dysphagie et relativement peu de temps à la prestation de services d'intervention en communication.

Key Words: nonspeaking, acute care, speech-language pathology, nursing, augmentative and alternative communication, survey, roles, practice patterns, opinions, dysphagia

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Many patients in the acute care setting are either temporarily, or permanently, unable to communicate verbally because of intubation, tracheostomy, head/neck surgery, or other reasons. Studies have demonstrated that the inability to communicate in the acute care setting is associated with feelings of anger, frustration, anxiety, shock, fear, terror, and powerlessness for both patients and caregivers (Bergbom-Engberg & Haljamäe, 1993; Fitch, 1987; Fowler, 1997; Hafsteindóttir, 1996; Happ, 2000; Hemsley et al., 2001; Menzel, 1998; Rotondi et al., 2002). Studies that have investigated communication in the acute care setting are found in both nursing and speech-language pathology (S-LP) literature. However, there is a paucity of published studies that have been done collaboratively by S-LP and nursing, suggesting that dialogue and collaboration between the disciplines working with acute care patients with communication needs may be lacking. For years, speech-language pathologists (S-LPs) working in the authors' acute care facility had anecdotally expressed their concerns regarding the provision of augmentative and alternative communication (AAC) and care for acutely ill patients. Low referral rates to S-LP for communication in the authors' facility led us to question how well other professionals, in particular nurses, understand the role of the S-LP in acute care. Several recent studies in the literature echo the authors' concerns that communication services are possibly being overlooked in the acute care population and that nurses working with nonspeaking patients may be doing so without the benefits of AAC.

The purpose of this study was to determine how nursing and S-LP roles in serving nonspeaking adults in acute care were perceived by both disciplines, as well as to investigate the current practice patterns and opinions of best practice standards regarding management of nonspeaking adult patients in acute care. It was speculated that information regarding these opinions and practice patterns might assist in improving quality of care to this population. Specifically, the study sought to answer the following questions:

1. According to S-LPs and nurses, who **is currently** involved in managing communication needs of nonspeaking adults in acute care?
2. According to S-LPs and nurses, who **should** be involved in managing communication needs of nonspeaking adults in acute care?
3. What are the stated opinions of S-LPs and nurses regarding expertise and knowledge in the management of communication needs of nonspeaking adults in acute care?
4. What are the stated opinions of S-LPs and nurses regarding the importance of communication for acute care patients?
5. Has dysphagia been prioritized over communication needs in acute care settings?

Literature Review

Role of Speech–Language Pathologists

Several studies in the S-LP literature describe the role of S-LPs in providing AAC intervention in the acute care setting (Costello, 2000; Dowden, Beukelman, & Lossing, 1986; Dowden, Honsinger, & Beukelman, 1986; Honsinger, Yorkston, & Dowden, 1987; Rice, 2000). In general, these studies focused on methods of communication output and described intervention approaches used at specific facilities. It is unclear how widespread the use of AAC is in acute care facilities and how routinely S-LPs are involved in facilitating communication for nonspeaking patients in acute care.

A pair of companion articles (Dowden et al., 1986a, 1986b) described a 2-year study that involved evaluating and selecting AAC methods for nonspeaking patients in two acute care facilities. The authors concluded that cognitive status was correlated with the ability to use AAC methods effectively and that patients who used more than one means of alternative communication were more likely to communicate successfully.

Rice (2000) described a protocol for using AAC in the Medical Intensive Care Unit (MICU). A decision tree format was used to assist medical staff in determining when to consult an S-LP and whether the use of AAC may be appropriate for a given patient. Rice provides anecdotal support for the use of AAC in the MICU by staff and patients.

One study in the nursing literature mentions the role of S-LPs working with acute care patients with communication needs. Hemsley et al. (2001) interviewed 20 nurses who cared for patients with severe communication difficulties in adult medical, surgical, and rehabilitation units. Nurses reported that positive communication was dependent on the successful use of AAC. Fourteen nurses stressed the need for inservice training in the area of AAC. All 20 felt that nurses should be responsible for informing S-LP when a patient with severe communication impairment is admitted. The authors highlighted the importance of collaboration between nurses and S-LPs in best serving patients with severe communication impairments.

These studies generally focused on methods of communication output and described intervention approaches used at specific facilities. However, it is unclear how widespread the use of AAC is in acute care facilities and how routinely S-LPs are involved in facilitating communication for nonspeaking patients in acute care. There is evidence that dysphagia has become increasingly dominant in the S-LP workload and that this trend may be associated with a declining emphasis on communication needs in acute care (Armstrong, 2003; Enderby & Petheram, 2002; Lawrie, 1996; McCooey-O'Halloran, Worrall, & Hickson, 2004).

Role of Nurses

The role of nurses in communicating with acute care patients is described in numerous articles in the literature. Key issues that are identified include facilitating communication output, providing psychosocial support, and providing pre-operative and ongoing education regarding medical care and procedures. In their review and analysis of the literature describing communication with ventilator dependant patients, Connolly and Shekleton (1991) highlighted the need for nurses to assess communication, teach communication methods, and encourage multiple communication methods, including the use of devices.

Williams (1992) described an algorithm for nurses to use in selecting communication methods for intubated patients. The author described advantages and disadvantages of a variety of nonverbal communication methods including pencil-paper, hand signals, lip reading, and high tech devices such as computers.

Several articles emphasize the role of nurses and other caregivers in providing psychosocial support for acute care patients (Bergbom-Engberg & Haljamäe, 1989, 1993; Hafsteindóttir, 1996; Holland, Cason, & Prater, 1997; Hupcey & Zimmerman, 2000; Rier, 2000; Turnock, 1991; Urden, 1997; Villaire, 1995). Villaire interviewed a 29-year-old woman with Guillaine-Barré syndrome who had spent several months in an intensive care unit (ICU). The interviewee stressed the importance of human contact, even if communication was one-way (nurse to patient) or involved listening while the nurse talked with someone else.

Bergbom-Engberg and Haljamäe (1989) retrospectively interviewed 158 patients who had been respirator-dependent in an ICU. The inability to talk was cited as the dominant factor related to feelings of anxiety, fear, agony, and panic. The authors stressed the importance of raising nurses' awareness of the relationship between communication difficulties and patients' negative emotional reactions, and providing "informative and supportive communication with the patient even if the patient does not seem to be alert and oriented."

AAC Intervention and Patient Perspectives

The literature suggests that in many facilities AAC intervention is inadequate and that there is a need for increased education of nurses and other caregivers in the area of communication (Albarran, 1991; Fried-Oken, Howard, & Roach Stewart, 1991; Hafsteindóttir, 1996; Hall, 1996; Happ, Tuite, Dobbin, DiVirgilio-Thomas, & Kitutu, 2004; Hemsley et al., 2001; Leathart, 1994; Llenore & Ogle, 1999; Lohmeier & Hoit, 2003; Robillard, 1994; Salyer & Stuart, 1985; Wojnicki-Johansson, 2001). Leathart observed 8 nurse-patient interactions in an intensive therapy unit (ITU). Patients were intubated but alert and able to communicate. Patients' communication was mainly comprised of replying to yes-no questions. Seven of 8 nurses reported difficulty communicating with patients in ITUs. Reasons cited were difficulty lip-reading, lack of patient feedback,

preoccupation with technical responsibilities, patients' psychological states, and lack of training in communication with patients.

Hafsteindóttir (1996) described patient frustration with alternative means of communication. The frustrations stemmed from physical weakness, poor vision, and hand tremors (associated with difficulty writing). None of the patients recalled receiving instructions about communication methods.

Over half of ventilated patients who participated in a study by Lohmeier and Hoit (2003) reported that they had no history of speech therapy, and only 5 of the 50 respondents had ever received AAC interventions. Problems or frustrations with speech were reported by 36 participants, suggesting a need for increased communication intervention for this population.

Happ et al. (2004) investigated 36 records of patients who received mechanical ventilation and who died during hospitalization in 8 ICUs during a 12-month period. No uses of picture boards, letter boards, or electrolarynx devices were documented. Their findings indicated that most communication consisted of yes-no responses to caregivers' questions about orientation or pain, suggesting that nurses controlled the communicative interactions.

Wojnicki-Johansson (2001) asked nurses to evaluate the communication of 22 patients who had been mechanically ventilated in the ICU. Nurses reported functional communication in 19 patients, however, this conflicted with the reports of 13 of the patients, who indicated that nurses had failed to understand their needs during their stay in ICU. Six patients reported that no functional communication was achieved, whereas nurses reported this to be the case for only 2 patients. Eight patients reported that nurses were unable to understand their messages. The author suggested that nurses should critically evaluate their communication skills and frequently verify the content of communication with patients.

Fried-Oken et al. (1991) interviewed 5 patients who reported negative emotional responses to the sudden onset of communication difficulties, the most common response being fear. Patients reported that some caregivers and family members did not know how to use their AAC systems and emphasized the need for increased training in this area.

Hall (1996) studied communication by observing interactions between nurses and their patients who were on ventilators. Hall concluded "nurses seemed more concerned about meeting their need to provide specific information to the patient than to discover what the patient might want." The author questioned whether nurses have the skills and knowledge to respond to and/or assess nonverbal communication and felt that this warranted continued investigation.

In a first-person account, Robillard (1994) described the difficulty of communicating without "real-time speech." The author, who was nonverbal and spent several months in an ICU, described various communication problems:

- Nurses were not able to properly use his alphabet board and refused to write the letters down when he spelled his message;
- Nurses refused to use his alphabet board with him;
- Physicians made surgical and other treatment decisions without allowing for more than a yes/no response; and
- There were frequent interruptions and disturbances when he was composing messages.

The literature reviewed suggests that AAC intervention in many acute care facilities is lacking and that nurses and other caregivers may not be receiving adequate training to address the spectrum of communication needs in this population. The nursing literature suggests that nurses are highly involved in facilitating communication output, providing psychosocial support, as well as educating patients regarding their care. However, accounts from the perspective of the patient suggest an overall lack of communication intervention for this population.

Method

This study was part of a larger project that investigated the AAC needs of patients in acute care. The authors developed two surveys to solicit information from nurses and S-LPs who worked with adults in acute care settings. The surveys were piloted with a small group of nurses and S-LPs, respectively. Based on the feedback, modifications were made. When appropriate, identical questions were included on each survey to allow for meaningful comparisons between groups. Questionnaires contained five parts: (a) clinician background and opinions about AAC, (b) AAC in one's facility, (c) issues involving nonspeaking patients in acute care, (d) clinician attitudes and opinions about communication intervention, and (e) demographic information. Respondents were asked to rank their level of agreement with a variety of statements using a 5-point Likert-like scale. In addition, several multiple choice questions relating to demographics were included. Only those questions pertaining to nursing and S-LP roles and attitudes were analysed in this study. Modified copies of the survey are included in Appendices A and B (several questions that did not pertain to this study were omitted).

An accompanying letter introduced the surveys and provided the following definitions:

Nonspeaking refers to patients who cannot use verbal speech to communicate. Some examples include patients who are intubated; patients who are tracheostomized and cuff deflation is not possible; and patients who have had surgery that temporarily or permanently impacts speech (e.g., laryngectomy). Exclusions include comatose or severely reduced levels of alertness; advanced dementia; severe cognitive deficits; and left-sided stroke with severe aphasia.

Augmentative and Alternative Communication (AAC) refers to methods of communication that provide an alternative or that are used in addition to verbal speech. AAC may be high tech or low tech.

Table 1

Sociodemographic characteristics of participant

Characteristic	Number of participants
Nurses' workplace (n = 85)	
ICU	30 (35%)
Acute Surgery	29 (29%)
Acute Medicine	24 (28%)
Other	2 (2%)
S-LPs' Workplace (n = 34)^a	
ICU	12 (35%)
Acute Surgery	12 (35%)
Acute Medicine	23 (68%)
Head and Neck Cancer Care	5 (15%)
Other	4 (12%)
Demographics of S-LPs (n = 34)	
Manitoba	14 (41%)
Ontario	8 (24%)
Saskatchewan	4 (12%)
Alberta	3 (9%)
Newfoundland and Labrador	3 (9%)
Quebec	1 (3%)
British Columbia	1 (3%)

Note: ^aMany S-LPs reported more than one work setting.

High tech refers to electronic communication devices that produce synthesized speech and/or devices that use pre-programmed recorded messages. Unless specifically referred to in a question, electrolarynx devices are not included in this definition.

Low tech refers to non-electronic alternative communication systems and devices such as gestures, facial expressions, pointing, sign language, eye gaze systems, picture boards, writing/printing, and alphabet boards.

The managers of acute medical-surgery and intensive patient care nursing wards at Health Sciences Centre, Winnipeg, Manitoba, were asked to distribute surveys to nurses on their units. The surveys were completed by 85 nurses. As some managers did not provide information regarding the number of surveys actually distributed, no exact response rate could be calculated. It was estimated that the response rate for the nursing survey was 20%. The surveys were distributed to the 33 hospital-based S-LPs in Manitoba who worked with adults. The return rate for S-LPs in Manitoba was 82%. Surveys were also distributed at a local workshop and emailed to several distribution lists across Canada. Unfortunately, the survey was not designed for electronic completion, and relatively few surveys were returned as a result of email correspondence. Therefore, an overall return rate could not be calculated. A total of 49 hospital-based S-LPs from across Canada completed the survey. Of the S-LPs who completed surveys, 34 indicated

Table 2

Responses to "It is appropriate for nurses to set up communication methods for nonspeaking patients"

Discipline	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
Nurses (<i>n</i> = 85)	34 (40%)	36 (42%)	8 (9%)	6 (7%)	1 (1%)
S-LPs (<i>n</i> = 34)	2 (6%)	15 (44%)	10 (29%)	5 (15%)	2 (6%)

Note: Differences between nurses and S-LPs were highly significant ($\chi^2 = 19.45$, *df* = 4, *p* < .001).

Table 3

Percentage of nurses and S-LPs indicating their level of agreement with the following statements

Statement	Discipline	Level of Agreement				
		Always/ Almost always (> 90%)	Most of the time (50-90%)	Sometimes (10-50%)	Rarely (< 10%)	Never
1a. Nonspeaking patients are referred to speech-language pathology (S-LP).	S-LPs	15%	36%	42%	6%	0
	Nurses	29%	23%	18%	19%	12%
1b. Nonspeaking patients should be referred to S-LP.	S-LPs	71%	24%	6%	0	0
	Nurses	33%	30%	26%	10%	1%
2a. If family and nurses are not able to set up a communication method for nonspeaking patients, S-LP is consulted.	S-LPs	18%	52%	27%	3%	0
	Nurses	29%	17%	21%	19%	14%
2b. If family and nurses are not able to set up a communication method for nonspeaking patients, S-LP should be consulted.	S-LPs	85%	15%	0	0	0
	Nurses	57%	27%	12%	4%	1%
3a. If patients are expected to be nonspeaking for more than 2-3 days, they are referred to S-LP.	S-LPs	12%	24%	36%	27%	0
	Nurses	13%	16%	26%	22%	23%
3b. If patients are expected to be nonspeaking for more than 2-3 days, they should be referred to S-LP.	S-LPs	68%	21%	12%	0	0
	Nurses	37%	24%	23%	12%	5%
4a. If family and nurses are not able to set up a Yes/No system, S-LP is consulted.	S-LPs	24%	27%	36%	12%	0
	Nurses	21%	12%	28%	19%	20%
4b. If family and nurses are not able to set up a Yes/No system, S-LP should be consulted.	S-LPS	85%	15%	0	0	0
	Nurses	55%	23%	11%	7%	5%

Notes: Responses of nurses and S-LPs were significantly different for all statements. (Statement 1a. *p* = .003, Statement 2a. *p* < .001, Statement 3a. *p* = .04, Statement 4a. *p* = .03, Statement 1b. *p* = .002, Statement 2b. *p* = .04, Statement 3b. *p* = .02, Statement 4b. *p* = 0.02).

that they presently worked in an acute care setting; therefore, only the results of these 34 were included in the analysis. Table 1 summarizes sociodemographic information of the respondents. All nursing questionnaires were included in analysis of the data. The 34 questionnaires from S-LPs who worked in an acute care setting were included. In addition, responses between various subcategories within disciplines were examined (years of experience, province, type of ward, level of expertise in AAC, and level of S-LP interest in AAC). Most S-LPs reported that they worked with multiple populations and on more than one ward; therefore, S-LP data could not be subdivided into mutually exclusive categories based on work settings. Numbers in many subcategories were relatively small, and response patterns of subgroups did not generally deviate substantially from the pooled data, therefore, unless stated otherwise, only the pooled data are reported.

To determine whether statistically significant differences existed between opinions and attitudes of nurses and S-LPs, χ^2 tests or Wilcoxon signed ranks tests were calculated. Scale choices were usually concatenated from 5 points to 3 or 2 depending on the description in the text. Only significant results are reported and discussed in detail. A probability of $p < .05$ was interpreted as statistically significant in this study.

Results

S-LP and Nursing Involvement in Managing Communication Needs of Nonspeaking Adults in Acute Care

Both nursing and S-LP respondents reported a high level of involvement of their own discipline in setting up communication methods for nonspeaking patients. Most (90%) nurses reported that they were involved in setting up communication methods for nonspeaking patients *almost always* or *most of the time*, whereas only 38% of nurses identified S-LP involvement *almost always* or *most of the time*. Only 37% of S-LPs indicated that nurses were routinely involved in establishing communication systems, however, 82% of S-LPs reported that their own discipline was involved *almost always* or *most of the time*. ICU nurses were more likely than other nurses to report a high level of involvement of their own discipline and were least likely to report S-LP involvement (Figures 1 and 2).

Nursing respondents were asked whether “nonspeaking patients find ways to communicate without help from staff.” Forty-six nurses (54%) *disagreed* or *strongly disagreed*; 19 (22%) were *not sure*; 20 (24%) *agreed*; and none *strongly agreed*.

Opinions of S-LPs and Nurses Regarding the Management of Communication Needs of Nonspeaking Adults in Acute Care

Both disciplines were asked to indicate their level of agreement with the following statement: “It is appropriate for nurses to set up communication methods for nonspeaking patients.” Most (82%) nurses and 50% of S-LPs

agreed or *strongly agreed*. Table 2 reports response patterns. Nurses were also asked to indicate agreement level with the statement, “Nurses do not have the background to help nonspeaking patients communicate.” Responses of nurses were as follows: 1 (1%) *strongly agreed*; 10 (12%) *agreed*; 17 (20%) were *not sure*; 45 (54%) *disagreed*; and 11 (13%) *strongly disagreed*.

Nurses and S-LPs were queried about referral patterns to S-LP for communication intervention in their facilities. Several statements that included a variety of referral criteria were presented, including length of time nonspeaking status is anticipated; failure of nurses and family in establishing a communication system; and failure of nurses and family in establishing a Yes/No system. Table 3 summarizes responses to four statements regarding current referral practices and corresponding statements reflecting attitudes regarding best practice standards.

Statements regarding referral practices elicited divergent responses from the nursing groups. Of the 10 nurses who indicated that nonspeaking patients were “never” referred to S-LP, 9 worked in an ICU setting. ICU nurses also accounted for 7 of 8 nurses who felt that S-LP referrals for nonspeaking patients should *rarely* or *never* occur. Similar patterns were found with the other three statements. Figure 3 reports the percentage of respondents who agreed with the statements in Table 3. Subgroups or disciplines differed significantly in all cases with χ^2 having a $p < .001$ (Figure 3).

The Wilcoxon signed ranks test was used to compare patterns of responses within each subgroup to the paired statements. In all cases, subgroups were more likely to agree with the *A (are being referred)* than the corresponding *B (should be referred)* statements, although in two instances, the differences did not reach the $p < .05$ level of significance. Mean ranks were calculated by comparing the scale score of the response of statement *A* to the scale score of the response to statement *B*. Table 4 summarizes these comparisons.

Nurses were requested to indicate their level of agreement with the statement: “Quality of care would be better if S-LP was more involved with nonspeaking patients.” Nineteen (22%) nurses *strongly agreed*; 34 (40%) *agreed*; 21 (25%) were *not sure*; 7 (8%) *disagreed*; and 4 (5%) *strongly disagreed*. Eight of the 11 nurses who *disagreed* or *strongly disagreed* were ICU nurses.

Opinions of S-LPs and Nurses Regarding the Importance of Communication for Acute Care Patients

Respondents were asked to indicate their level of agreement with the statement: “Acutely ill patients do not feel that communication is important.” Responses varied significantly between nurses and S-LPs ($p = .002$). Eighty-one nurses (95%) and 25 (74%) S-LPs *disagreed* or *strongly disagreed*; 2 (2%) nurses and 4 (11%) S-LPs were *not sure*; and 2 (2%) nurses and 5 (15%) S-LPs *agreed* or *strongly agreed*.

Table 4

Comparisons of response patterns to are and should statements regarding referral criteria, reported by mean scores

Statement ^a	ICU Nurses	Surgery Nurses	Medicine Nurses	S-LPs
1a	4.00	1.83	1.79	2.39
1b	3.17	1.59	1.54	1.35
	$p = .001$	$p = .07$ (ns) ^b	$p = .11$ (ns)	$p < .001$
2a	4.13	1.86	1.87	2.15
2b	2.38	1.31	1.22	1.15
	$p < .001$	$p = .01$	$p = .003$	$p < .001$
3a	4.54	2.66	2.30	2.79
3b	3.38	1.76	1.42	1.44
	$p = .001$	$p = .001$	$p < .001$	$p < .001$
4a	4.46	2.24	2.09	2.36
4b	2.66	1.48	1.25	1.15
	$p < .001$	$p = .002$	$p = .002$	$p < .001$

Notes: Lower scores indicate higher level of agreement. ^a1a. Nonspeaking patients are referred to S-LP; 1b. Nonspeaking patients should be referred to S-LP; 2a. If family and nurses are not able to set up a communication method for nonspeaking patients, S-LP is consulted; 2b. If family and nurses are not able to set up a communication method for nonspeaking patients, S-LP should be consulted; 3a. If patients are expected to be nonspeaking for more than 2-3 days, they are referred to S-LP; 3b. If patients are expected to be nonspeaking for more than 2-3 days, they should be referred to S-LP; 4a. If family and nurses are not able to set up a Yes/No system, S-LP is consulted; 4b. If family and nurses are not able to set up a Yes/No system, S-LP should be consulted. ^bns = not significant

Respondents were asked to indicate whether they agreed that “most acutely ill patients communicate only to have their immediate needs met.” Forty-nine (58%) nurses and 19 (56%) S-LPs *disagreed* or *strongly disagreed*; 11 (13%) nurses and 4 (12%) S-LPs were *not sure*; and 25 (29%) nurses and 11 (32%) S-LPs *agreed* or *strongly agreed*.

Respondents were asked to indicate how often they could “understand what nonspeaking patients are trying to communicate.” The majority responded either *sometimes* (42% nurses, 62% S-LPs) or *most of the time* (46% nurses, 38% S-LPs). Forty-six (54%) nurses and 13 (38%) S-LPs indicated that they “can understand what nonspeaking patients are trying to communicate” *almost always* or *most of the time* ($p = .10$, marginally significant). Figure 4 outlines responses of both disciplines, including several subcategories of nurses.

Nurses’ responses to the statement, “Quality of care goes down when I cannot understand a patient,” were as follows: 21 (25%) indicated *always* or *almost always*; 18 (21%) indicated *most of the time*; 31 (36%) indicated *sometimes*; and 15 (18%) indicated *rarely* or *never*.

Prioritization of Dysphagia Over Communication

S-LPs were asked what percentage of referrals they received for communication (including referrals that specified both communication and swallowing). Seven (21%) reported 10% or fewer, 12 (35%) reported 10-25%, 7 (21%) reported 25-50%, and 8 (24%) reported greater than 50%.

Most (27 [88%]) S-LPs *agreed* or *strongly agreed* with the statement: “Many acute care patients with communication and swallowing needs are referred *only* for swallowing.” (Fifteen [45%] *strongly agreed*, 14 [42%] *agreed*, 3 [9%] *disagreed*, and 1 [3%] *strongly disagreed*).

Sixty-six percent (24/34) of S-LPs agreed that they could “only minimally address communication needs in the acute care setting.” (Six [18%] *strongly agreed*; 16 [48%] *agreed*; 2 [6%] were *not sure*; 8 [24%] *disagreed*; and 1 [3%] *strongly disagreed*). Only 12% (4/34) of S-LPs agreed with the statement: “I have time to provide high tech AAC intervention for nonspeaking patients in the acute care setting.” (Six [18%] were *not sure* and 23 [69%] *disagreed* or *strongly disagreed*). One respondent indicated that simple high tech AAC methods were used in the acute care setting *almost always*. It was noted that at this respondent’s facility, Occupational Therapy provides swallowing interventions.

Seventy-three percent (24/33) of S-LPs *agreed* or *strongly agreed* with the statement: “I have time to provide low tech AAC intervention for nonspeaking patients in the acute care setting.” (Three [9%] were *not sure* and 6 [18%] *disagreed*).

Discussion

S-LP and Nursing Involvement in the Management of Communication Needs of Nonspeaking Adults in Acute Care

The authors acknowledge that the assumptions drawn are based on nursing responses from a single facility and that the data reported here cannot be generalized without a few caveats. Despite the limitations, the findings illustrated interesting trends that warrant discussion and that will hopefully lead to additional investigations.

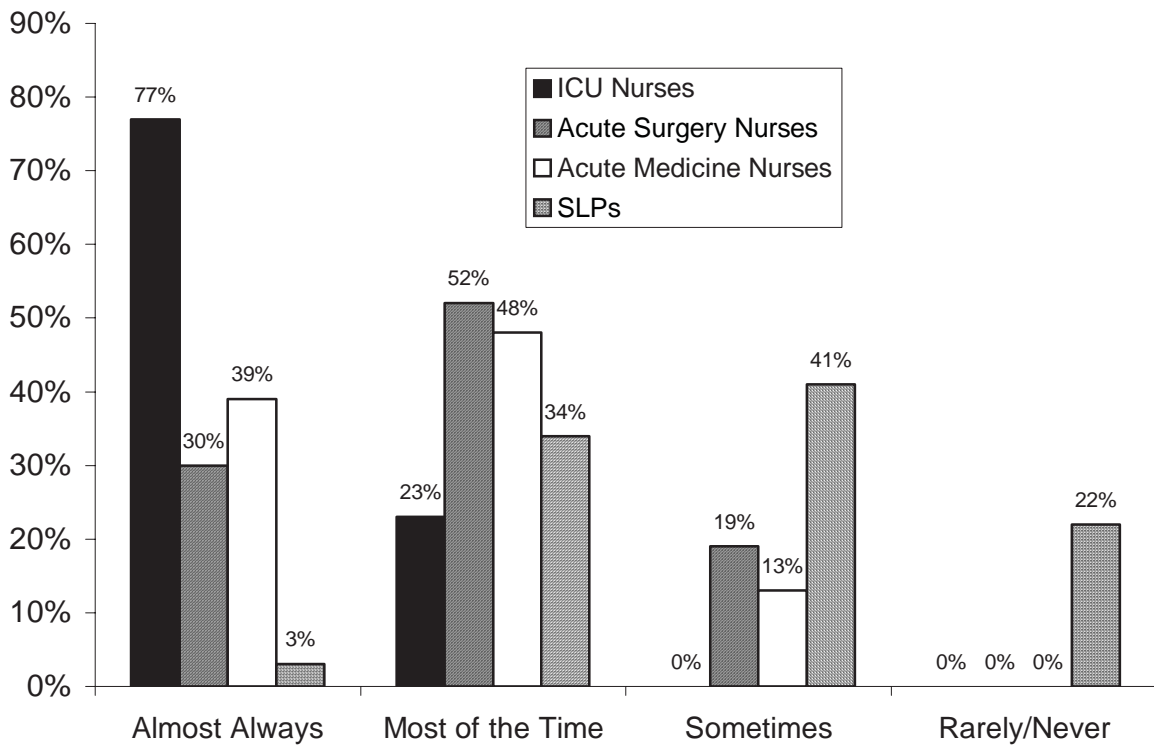


Figure 1. Responses by respective disciplines to: *How often are nurses involved in setting up communication methods for nonspeaking patients?* The levels of both nursing involvement and S-LP involvement differed significantly depending on who was asked (overall $\chi^2 p < .01$).

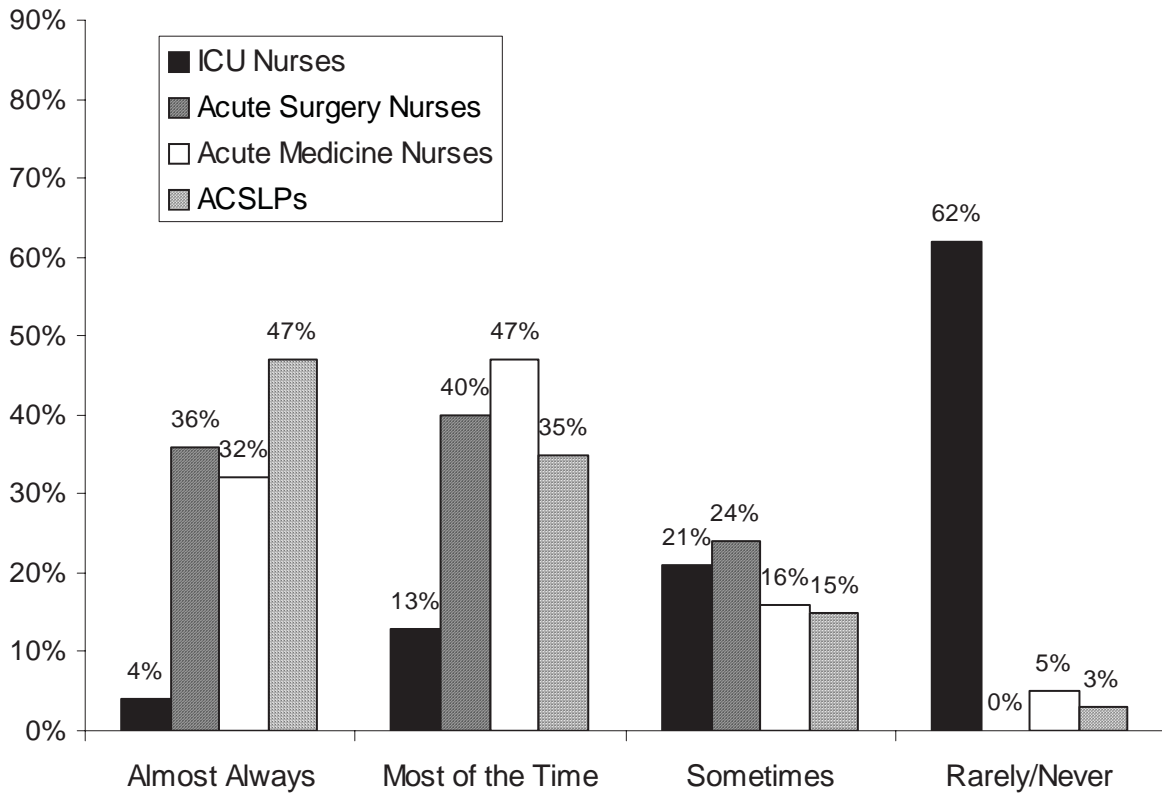


Figure 2. Responses by respective disciplines to: *How often are S-LPs involved in setting up communication methods for nonspeaking patients?* The levels of both nursing involvement and S-LP involvement differed significantly depending on who was asked (overall $\chi^2 p < .01$).

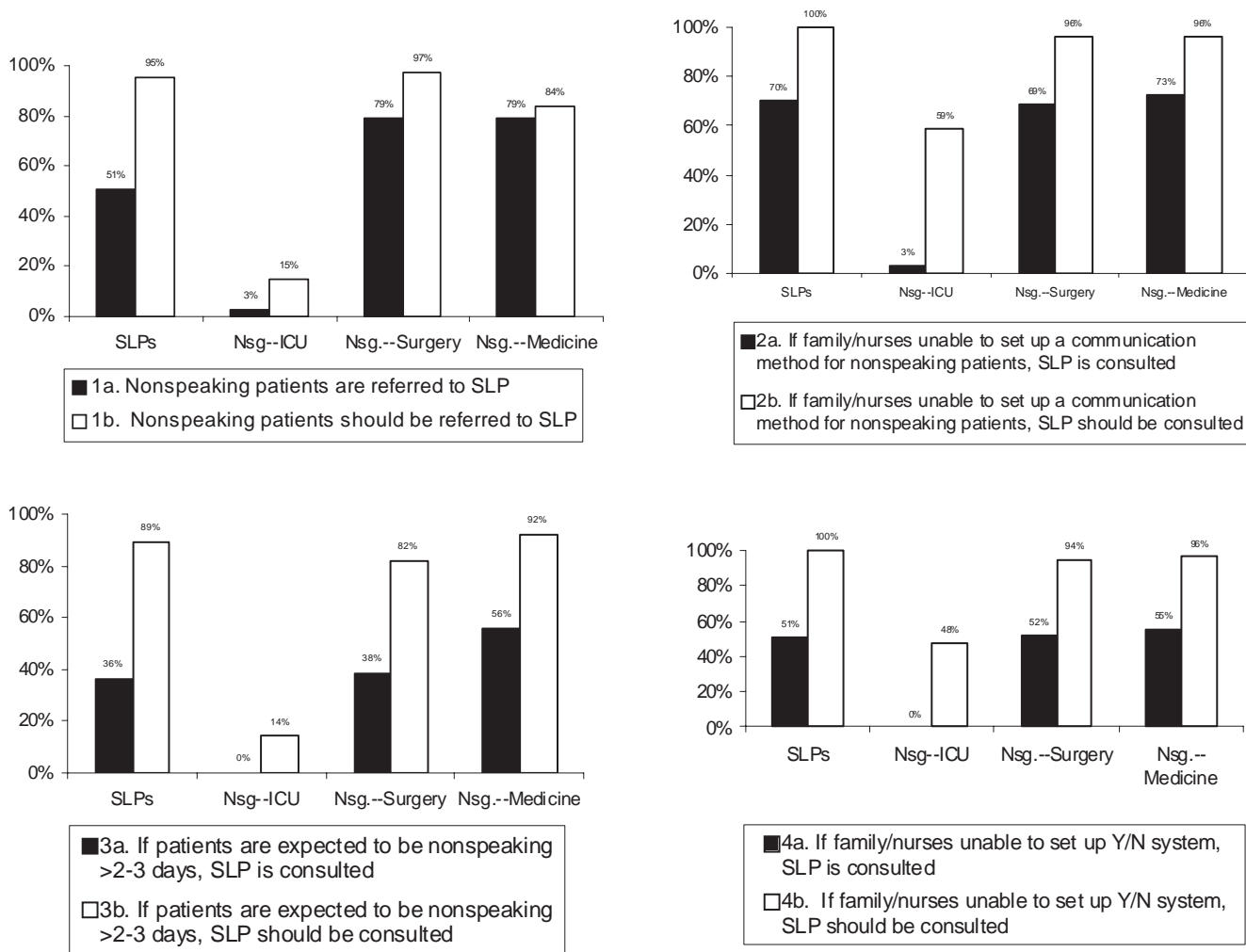


Figure 3. Percentage of respondents who agreed or strongly agreed with the indicated statements.

The survey responses of both nurses and S-LPs suggest that each feels that their own disciplines were integrally involved in establishing communication methods for nonspeaking patients in the acute care setting. Interestingly, both disciplines perceived their own to be more involved than the other. The discrepancies in reported levels of involvement may reflect a natural tendency to focus on roles within one's own discipline. Alternately, it may be indicative of differences in practice patterns between facilities. It also seems plausible that these data reflect a lack of awareness among both nurses and S-LPs of each other's respective training and scope of practice. Nurses who work weekends, evenings, or nights may have little opportunity to observe and interact with S-LPs. Differences in nursing and S-LP responses regarding patterns of communication intervention may also have resulted from differing interpretations of survey questions. Being "involved in

setting up communication methods" may not have been interpreted uniformly across and among disciplines. For example, would providing a patient with a pen and paper be considered "setting up a communication method"? It is possible that S-LPs who are trained in specialized AAC methods may have interpreted the term "communication method" more technically than nurses. There might have been a higher level of agreement had the survey queried the appropriateness of facilitating specific types of communication methods. It is also the authors' sense that it is possible that many S-LPs are unaware of the level of skill that some nurses have in the area of facilitating communication for nonspeaking patients. Clinical experience and the survey responses appear to support that both the nursing and the S-LP groups felt that nonspeaking patients are not referred to S-LP as frequently as they should be. Respondents were in general agreement that nonspeaking patients should be referred to S-LP *almost always* or *most of the time*.

Opinions of S-LPs and Nurses Regarding Expertise and Knowledge in the Management of Communication Needs of Nonspeaking Adults in Acute Care

Some striking differences were noted between the response patterns of ICU nurses and other respondents. ICU nurses reported a higher level of nursing involvement than other groups in setting up communication methods for nonspeaking patients. ICU nurses were in strongest agreement that it is appropriate for nurses to set up communication methods, and they were most likely to report that they had adequate background to help nonspeaking patients communicate. One could speculate that the ICU setting may present unique challenges and opportunities, thus necessitating a high level of direct nursing involvement in establishing communication methods. It may be that many ICU nurses have developed a high level of expertise in communicating with nonspeaking patients.

ICU nurses were more likely to report that they were adept at understanding nonspeaking patients than other groups of nurses or S-LPs. If communication in the ICU is centred on immediate medical needs, then gestures and yes/no questioning may often be sufficient to address such needs. However, if psychosocial needs are to be considered and patients are to be involved in discussions regarding alternate levels of care and end of life issues, then communication will likely be more challenging and a higher level of skill will be required from medical professionals in interacting with patients. Previous studies comparing perspectives of patients and nurses suggest that ICU nurses may frequently be unaware of patients' communication needs and preferences (Stovsky, Rudy & Dragonette, 1988; Wojnicki-Johansson, 2001). It is possible that some ICU nurses are better able to communicate with patients because of their training and experience. However, the literature suggests that some ICU nurses may not have adequate skills to address complex communication needs and might benefit from specialized training in this area (Albarran, 1991; Bergbom-Engberg & Haljamäe, 1989, 1993; Fried-Oken et al., 1991; Happ et al., 2004; Leathart, 1994; Salyer & Stuart, 1985; Turnock, 1991).

ICU nurses in this study did not tend to strongly advocate for referral to S-LP. It is unclear whether ICU nurses felt they were better equipped to provide communication intervention in the ICU setting than S-LPs. They may not have been aware of the types of intervention provided by S-LPs. Alternately, it is possible that ICU nurses perceived that the needs of ICU patients would not be well served by S-LP. Twelve S-LPs reported that they worked in an ICU setting, however, none worked exclusively in ICU, suggesting a limited involvement of S-LP in this setting. This is also supported by responses from ICU nurses who reported relatively low levels of S-LP involvement. The available nursing literature on communication issues in the ICU does not stress the need for S-LP involvement. Furthermore, if dysphagia is viewed as a priority, then S-LPs who work in an ICU may have minimal opportunities to address

communication needs. In addition, it is possible that the communication needs of nonspeaking patients in an ICU are fewer and more focused than those of patients in other acute care settings. Many patients in ICUs are intubated because of a medical crisis, without time for preoperative education. Reduced alertness and cognitive impairment may further interfere with communication. ICU nurses may feel that S-LPs do not have the skills and/or time to provide effective intervention in these circumstances.

Opinions of S-LPs and Nurses Regarding the Importance of Communication for Acute Care Patients

The nurses and S-LP respondents appeared to be in general agreement that communication is important to acutely ill patients. Nurses were more likely than S-LPs to express this. Surprisingly, a sizeable minority (15%) of S-LPs *agreed* or *strongly agreed* that "acutely ill patients do not feel that communication is important" and another 11% were *unsure*. It is troubling that professionals with specialized training in communication should come to this conclusion, especially given that this group is comprised of S-LPs who work in an acute care setting, and this view is at odds with documented patient-perspectives (Bergbom-Engberg & Haljamäe, 1989; Fitch, 1987; Fowler, 1997; Happ, 2000; Holland et al., 1997; Hupcey & Zimmerman, 2000; Menzel, 1998; Rotondi et al., 2002; Stovsky et al., 1988; Wojnicki-Johansson, 2001; Rier, 2000; Robillard, 1994; Urden, 1997; Villaire, 1995). Documentation of patient perspectives regarding communication in the acute care setting appears to be found primarily in the nursing and sociology literature and is comparatively lacking in the S-LP literature. The absence of patient perspective studies in the S-LP literature raises the question of whether S-LPs have a clear understanding of, or an interest in, patient perspectives in this population. Because of large caseloads and an emphasis on dysphagia, the importance of communication with acutely ill patients may have been lost. The results suggest varying opinions within both disciplines as to whether "most acutely ill patients communicate only to have their immediate needs met." Although a majority of respondents in both disciplines disagreed with the statement, a sizable minority (29% nurses, 32% S-LPs) agreed. The literature suggests that although immediate needs are a focus of communication interaction in acute care, the psychosocial aspect is also critical to patients (Albarran, 1991; Costello, 2000; Hall, 1996; Happ et al., 2004; Robillard, 1994; Villaire, 1995). Rier (2000) differentiated between the true "critically ill" experience when life is "hanging in the balance" and acute illness; he argued that communication interactions during the critically ill stage may be quite different from interactions during the acute or chronic stages. The present study did not differentiate between different levels of the illness within acute care. It is possible that the nature of communication output is variable and dependent on factors such as severity of illness, level of alertness, cultural dynamics, and individual differences. Continued investigation in this area is essential.

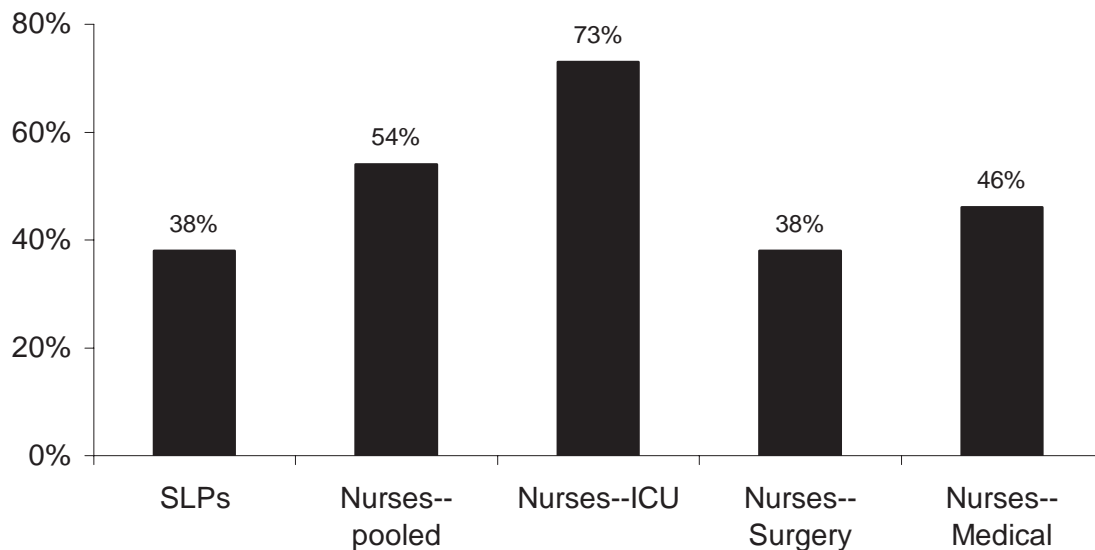


Figure 4. Percentage of respondents who reported that they could understand nonspeaking patients *almost always* or *most of the time*. Differences between subgroups in this table were significant ($p = .04$). Only individual subgroups were tested.

There was considerable variability in the responses from the nurses regarding whether the quality of care decreased when they were unable to understand patients. These responses may reflect the degree to which nurses perceive social interaction with patients to be within their scope of practice. However, considering the strong level of agreement (95%) among nurses that acutely ill patients feel that communication *is* important, it was surprising that 18% of nurses reported that quality of care *rarely* or *never* deteriorated when they were unable to understand patients. An additional 36% reported that quality of care was only *sometimes* reduced. It seems inconceivable that quality of care would not be reduced when caregivers cannot understand their patients. Patient perspectives described in the literature support the view that the ability of patients to communicate is extremely important (Bergbom-Engberg & Haljamäe, 1989; Fitch, 1987; Fowler, 1997; Hafsteindóttir, 1996; Happ, 2000; Holland et al., 1997; Hupcey & Zimmermann, 2000; Menzel, 1998; Rier, 2000; Robillard, 1994; Rotondi et al., 2002; Stovsky et al., 1988; Urden, 1997; Wojnicki-Johansson, 2001; Villaire, 1995). The literature describes varying attitudes and abilities of nurses in communicating with nonspeaking patients, which suggests that some nurses lack adequate awareness and/or skills in communicating effectively with nonspeaking patients (Hall, 1996; Holland et al., 1997; Leathart, 1994; Robillard, 1994; Salyer & Stuart, 1985; Stovsky et al., 1988; Turnock, 1991; Wojnicki-Johansson, 2001).

Responses to the statement "I can understand what nonspeaking patients are trying to communicate" were surprisingly variable. The disparity of responses may suggest that some health care professionals, regardless of discipline, are better at finding ways to communicate

with patients than others. Individual characteristics like natural problem-solving abilities, patience, and genuine interest in interacting with patients may play critical roles in communicating with nonspeaking patients. In addition, some health care professionals may have received more training and mentoring in this area. Another possibility is that respondents' perceived levels of communication skills may be at odds with patients' perceptions. This study did not address the impact of nursing versus S-LP services on the quality of care for the acutely ill patient. Further investigation of this issue is warranted.

Prioritization of Dysphagia Over Communication

Acknowledging the relatively small S-LP sample size, results from this study suggest that many S-LPs in acute care settings spend the majority of their time responding to swallowing referrals. Comments of several S-LPs suggest that there is a concern in some facilities that patients with communication needs are not being referred for S-LP service. One clinician indicated "dysphagia is a priority." Another stated, "Daily I wish I had more time and staff to educate nursing about options for nonspeaking patients and generate more timely referrals."

These anecdotal comments from the S-LPs working in acute care appear to be similar to reports in the literature describing trends of increased prioritization of dysphagia referrals with a corresponding decline in communication intervention by S-LP in hospital settings (Armstrong, 2003; Enderby & Petheram, 2002; Lawrie, 1996; McCooey-O'Halloran et al., 2004). In the field of medical speech-language pathology, it is not clear whether the emphasis on swallowing is being driven by referrals from physicians or other health care professionals, and/or whether S-LPs feel

that swallowing is a higher priority than communication in the acute care setting. However, one can speculate that as swallowing has evolved into a larger portion of the S-LP caseload over the past several decades, communication issues may have fallen by the wayside.

Limitations of the Study

All nursing respondents were from the same facility, therefore, the nursing data cannot be interpreted broadly and comparisons between nursing and S-LP responses should be viewed with caution. Almost half of the S-LP questionnaires received were from Manitoba. However, the responses by S-LPs from other provinces demonstrated answer trends similar to those from Manitoba.

The response patterns of the ICU nurses in the study indicated different trends than other nursing subgroups. However, separating the nurses into subgroups resulted in relatively low numbers for each group. Additional research investigating the relationship of S-LPs and ICU nurses in the ICU setting is clearly warranted.

The surveys used in this study did not go through a rigorous validation process. The definition of "nonspeaking" used for this study was fairly narrow and excluded several prominent populations who may be nonverbal. It is possible that some respondents may not have read the definition thoroughly and may not have referred back to it as they completed the survey. It is also possible that questions were not interpreted uniformly or as intended, therefore, the data should be viewed with some caution.

Summary and Conclusions

The data in the study, along with current literature, suggest that nurses frequently facilitate hands-on communication intervention for nonspeaking patients. The S-LP respondents in this study did not seem to be aware of the level of involvement of nurses in this area. The survey results suggest that most of the nursing respondents agree that quality of care would be enhanced if S-LP was more involved in facilitating communication systems for patient in acute care.

S-LPs and nurses have distinct roles in the acute care setting. Nurses may spend intensive time with individual patients, particularly in the ICU setting, whereas S-LPs are more likely to play a consultative role, providing assessment and recommendations. Although S-LPs have expertise in developing communication output systems, they may not have a full appreciation of some of the broader communication issues facing patients in acute care. Conversely, nurses working in acute care settings may have a good understanding of the overall communication issues in the acute care setting and provide patients with much needed information and expressions of comfort and reassurance. Patients will be best served if S-LPs and nurses within facilities work collaboratively. As suggested by McCooey-O'Halloran et al. (2004), S-LPs should broaden their role in working with acute care patients in providing psychosocial support to patients, as well as providing education to patients, families, and caregivers on effective

communication. This study highlights both the need for interdisciplinary dialogue between nurses and S-LPs and the need for collaborative research investigating issues related to communication needs of nonspeaking patients in acute care.

Clinical experience, information in the literature, and responses to this survey suggest that S-LP staffing levels in acute care facilities may not be adequate to respond to all communication needs in the acute care setting. Hospital-based S-LPs report spending increasing amounts of time in the area of dysphagia management, whereas time spent providing communication intervention appears to be minimal and may in fact be declining. In addition, the authors wonder if some S-LPs working in acute care settings do not fully appreciate the importance of communication to patients. If resources are indeed an issue, then it is imperative that S-LPs look carefully at their resources and priorities in acute care. Dysphagia and speech-language services should be balanced within acute care.

As a final note, practice changes have already occurred at the study facility in Manitoba. S-LPs are taking a more active role in the ICU. Despite persistent resource issues, S-LP time has been dedicated to rounds attendance in the ICUs to identify patients with communication needs, provide enhanced communication intervention, and educate other members of the ICU patient care team regarding S-LP services. The authors hope that this pilot study stimulates discussion and more widespread study of the issues highlighted.

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Appendix A

COMMUNICATION NEEDS IN THE ACUTE CARE SETTING: A SURVEY FOR NURSING STAFF

(To be completed by nurses working .5 FTE or greater)

Part I. Issues involving nonspeaking patients—Practice patterns in your facility

1. Who is involved in setting up communication methods for nonspeaking patients?

	<i>Almost always</i> (> 90%)	<i>Most of the time</i> (50-90%)	<i>Sometimes</i> (10-50%)	<i>Rarely</i> (< 10%)	<i>Never</i>
a. Patient/Family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Nursing Staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. S-LP	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. OT	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Other (specify):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. What percentage of nonspeaking patients use these types communication methods?

	<i>Almost all</i> (> 90%)	<i>Most</i> (50-90%)	<i>Some</i> (10-50%)	<i>A few</i> (< 10%)	<i>None</i>
a. Answering Yes/No questions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Patient pointing/gesturing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Mouthing words	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Letter board	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Picture board	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Writing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Electrolarynx devices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Electronic speaking devices, other than electrolarynx devices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. No reliable method is established	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Other (specify): _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. How much time do you have to spend with a speech-language pathologist to learn a communication method for an individual patient?

- Less than 5 minutes
- 5-15 minutes
- 15-30 minutes
- 30-45 minutes
- > 45 minutes

4. Please indicate how often the following is true on your unit.

	<i>Always/ Almost always</i> (> 90%)	<i>Most of the time</i> (50-90%)	<i>Sometimes</i> (10-50%)	<i>Rarely</i> (< 10%)	<i>Never</i>
On my unit:					
a. Nonspeaking patients are referred to speech-language pathology (S-LP).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. If family and nurses are not able to set up a communication method for nonspeaking patients, S-LP is consulted.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. If patients are expected to be nonspeaking for more than 2-3 days, they are referred to SLP.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. If family and nurses are not able to set up a Yes/No system, S-LP is consulted.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Nurses set up communication methods for nonspeaking patients.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Consultation to S-LP for communication slows down the discharge process.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Please indicate whether you agree or disagree with the following statements.

On my unit	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
a. Nurses are too busy to help nonspeaking patients communicate.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Nonspeaking patients find ways to communicate without help from staff.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Communication needs of nonspeaking patients are being met.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Part II. Nursing attitudes and opinions about communication of nonspeaking patients

6. What do you feel is a reasonable time for S-LP to respond to communication referrals in the acute care setting?

- Within 1 working day Within 1 week
 2-3 working days > 1 week

7. Please indicate your opinions about the following.

	Always/ Almost always (>90%)	Most of the time (50-90%)	Sometimes (10-50%)	Rarely (< 10%)	Never
a. Nonspeaking patients should be referred to S-LP.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. If family and nurses are not able to set up a communication method for nonspeaking patients, S-LP should be consulted.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. If patients are expected to be nonspeaking for more than 2-3 days, they should be referred to S-LP.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. If family and nurses are not able to set up a Yes/No system, S-LP should be consulted.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. I can understand what nonspeaking patients are trying to communicate.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Communicating with nonspeaking patients is time-consuming.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Quality of care goes down when I cannot understand a patient.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. Please indicate whether you agree or disagree with the following statements.

I feel that:	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
a. It is appropriate for nurses to set up communication methods for nonspeaking patients.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Nurses do not have the background to help nonspeaking patients communicate.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Acutely ill patients do not feel that communication is important.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Most acutely ill patients communicate only to have their immediate needs met.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Quality of care would be better if S-LP was more involved with nonspeaking patients.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. If available on the wards, what percentage of nonspeaking patients do you think would use these types of communication methods?

	Almost all (> 90%)	Most (50-90%)	Some (10-50%)	A Few (< 10%)	None
a. Electronic devices with recorded messages	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Electronic "type and speak" devices, similar to a talking computer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Electrolarynx devices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Picture boards/books	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Alphabet boards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Part III. Demographic/Biographical Information

10. Please indicate your highest level of education.

- PhD
- MSN
- BSN
- Diploma
- LPN
- Other (please specify: _____)

11. Where do you spend most of your working time?

- ICU
- Acute Medicine
- Acute Surgery
- Other (please specify: _____)

12. What unit do you work on? (optional)

13. How many years experience do you have working with patients in an acute care setting?

- < 5 years
- 5 years or greater

14. Would you be interested in attending a 30-45 minute inservice on the use of different communication methods?

- Yes
- Maybe
- No Thanks

Comments: _____

Appendix B

AUGMENTATIVE/ALTERNATIVE COMMUNICATION NEEDS OF PATIENTS IN THE ACUTE CARE SETTING: A SURVEY FOR SPEECH-LANGUAGE PATHOLOGISTS

Part I. Clinician Background and Opinions about AAC

1. What statement best describes your level of expertise in the field of AAC?

- Good working knowledge of a variety of low and high tech options. I feel confident in independently conducting assessments and making recommendations, consulting with OT regarding access/mounting issues as necessary.
- Basic knowledge of some high tech systems. I am able to independently assess and recommend low tech AAC options and often consult with an S-LP with expertise in the field to determine the most appropriate high tech device for patients.
- I facilitate simple low tech systems for patients as necessary and refer all patients who might benefit from high tech AAC options, or more complex low tech options, to an S-LP with expertise in AAC.
- I have little or no knowledge of high or low tech AAC methods and systems.

2. Please indicate whether you agree or disagree with the following statements:

	<i>Strongly agree</i>	<i>Agree</i>	<i>Not sure</i>	<i>Disagree</i>	<i>Strongly disagree</i>
a. I have a particular interest in the area of AAC.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. All S-LPs should be able to recommend and implement low tech, non-electronic AAC options.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. All S-LPs should be able to recommend and implement high and low tech AAC options.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. All AAC intervention should be done by specialists in the field.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Given my current caseload, learning and programming high tech devices is not an effective use of my time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Part II. AAC in your Facility

3. Do you have a dedicated AAC clinician at your facility?

- Yes No

4. Please indicate whether you agree or disagree with the following statements:

In my facility:	<i>Strongly agree</i>	<i>Agree</i>	<i>Not sure</i>	<i>Disagree</i>	<i>Strongly disagree</i>
a. I have access to low tech AAC devices/equipment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. I have access to high tech AAC devices/equipment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. I avoid recommending high tech AAC devices because of lack of access to equipment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

IF YOU DO NOT WORK IN AN ACUTE CARE SETTING, PLEASE OMIT PART III, AND PROCEED TO PART IV, QUESTION NUMBER 12.

Part III. Issues involving nonspeaking patients in the acute care setting—Practice patterns in your facility.

5. What is your average response time for acute care communication referrals?

- Within 1 working day Within 1 week
 2-3 working days > 1 week

6. What percentage of acute care referrals you receive are for communication? (Include referrals that specify both communication and swallowing).

- 10% or less 25-50%
 10-25% Greater than 50%

7. Who is involved in setting up communication methods for nonspeaking acute care patients?

	<i>Almost always</i> (> 90%)	<i>Most of the time</i> (50-90%)	<i>Sometimes</i> (10-50%)	<i>Rarely</i> (< 10%)	<i>Never</i>
a. Patient/Family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Nursing Staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. S-LP	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. OT	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Other (specify):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. What percentage of nonspeaking patients in the acute care setting use these types of communication methods?

	<i>Almost all</i> (> 90%)	<i>Most</i> (50-90%)	<i>Some</i> (10-50%)	<i>A few</i> (< 10%)	<i>None</i>
a. Answering Yes/No questions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Patient pointing/gesturing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Mouthing words	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Letter board	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Picture board	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Writing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Electrolarynx devices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Electronic speaking devices other than electrolarynx devices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. No reliable method is established	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Other (specify): _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. How often do you implement or facilitate these types of communication methods for nonspeaking acute care patients?

	<i>Almost always</i> (> 90%)	<i>Most of the time</i> (50-90%)	<i>Sometimes</i> (10-50%)	<i>Rarely</i> (< 10%)	<i>Never</i>
a. Answering Yes/No questions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Patient pointing/gesturing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Mouthing words	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Letter board	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Picture board	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Writing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Electrolarynx devices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Electronic speaking devices other than electrolarynx devices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Other (specify): _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. Please indicate how often the following is true on acute care wards in your facility.

	<i>Always/ almost always</i> (> 90%)	<i>Most of the time</i> (50-90%)	<i>Sometimes</i> (10-50%)	<i>Rarely</i> (< 10%)	<i>Never</i>
In my facility:					
a. Nonspeaking patients are referred to speech-language pathology (S-LP).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. If family and nurses are not able to set up a communication method for nonspeaking patients, S-LP is consulted.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. If patients are expected to be nonspeaking for more than 2-3 days, they are referred to S-LP.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. If family and nurses are not able to set up a Yes/No system, S-LP is consulted.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. Please indicate whether you agree or disagree with the following statements.

	<i>Strongly agree</i>	<i>Agree</i>	<i>Not sure</i>	<i>Disagree</i>	<i>Strongly disagree</i>
In my facility:					
a. With my current caseload, I can only minimally address communication needs in the acute care setting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. I have time to provide low tech AAC intervention for nonspeaking patients in the acute care setting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. I have time to provide high tech AAC intervention for nonspeaking patients in the acute care setting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Many acute care patients with communication and swallowing needs, are referred only for swallowing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Part IV. Clinician attitudes and opinions about communication intervention for nonspeaking patients in the acute care setting

12. What do you feel is a reasonable time to respond to communication referrals in the acute care setting?

- Within 1 working day
- 2-3 working days
- Within 1 week
- > 1 week

13. Please indicate your opinions about the following.

	<i>Always/Almost always (> 90%)</i>	<i>Most of the time (50-90%)</i>	<i>Sometimes (10-50%)</i>	<i>Rarely (< 10%)</i>	<i>Never</i>
a. Nonspeaking patients should be referred to S-LP.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. If family and nurses are not able to set up a communication method for nonspeaking patients, S-LP should be consulted.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. If patients are expected to be nonspeaking for more than 2-3 days, they should be referred to S-LP.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. If family and nurses are not able to set up a Yes/No system, S-LP should be consulted.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. If a patient's nonspeaking status is expected to be temporary (3 days or less) AND attempts by family or nurses at setting up a communication method have been unsuccessful, S-LP should be consulted.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. I can understand what nonspeaking patients are trying to communicate.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. Please indicate whether you agree or disagree with the following statements.

I feel that:	<i>Strongly agree</i>	<i>Agree</i>	<i>Not sure</i>	<i>Disagree</i>	<i>Strongly disagree</i>
a. It is appropriate for nurses to set up communication methods for nonspeaking patients.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Electrolarynx devices should rarely be considered in the acute care setting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. High tech AAC methods, other than electrolarynx devices, should rarely be considered in the acute care setting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. I would be more likely to consider high tech AAC options if a dedicated clinician could provide comprehensive assessment and intervention.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Acutely ill patients do not feel that communication is important.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Most acutely ill patients communicate only to have their immediate needs met.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

15. If available on the wards, what percentage of nonspeaking patients do you think would use these types of communication methods?

	<i>Almost all (> 90%)</i>	<i>Most (50-90%)</i>	<i>Some (10-50%)</i>	<i>A Few (< 10%)</i>	<i>None</i>
a. Electronic devices with recorded messages	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Electronic "type and speak" devices, similar to a talking computer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Electrolarynx devices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Picture boards/book	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Alphabet boards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Part V. Demographic/Biographical Information

16. What province are you from? _____

17. How many years have you worked as a Speech-Language Pathologist?

- < 5 years 5 years or greater

18. With which populations do you currently spend the majority of your working time? (Check all that apply).

- ICU Rehab
 Acute Medicine Head and Neck cancer care
 Acute Surgery Other. Please Specify: _____

Comments: _____

■ Listeners' Social Perception of Speakers after Treatment for Laryngeal Cancer

■ La perception sociale par des auditeurs, de locuteurs ayant reçu un traitement contre un cancer du larynx

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Abstract

Three primary methods to treat laryngeal cancer include radiation therapy, total laryngectomy, and supracricoid laryngectomy. Perceptual assessment to determine the social impact of vocal outcomes related to each treatment was employed to understand the effect that a disordered voice may have on societal perception of patients undergoing these treatments. Forty listeners were recruited to rate the voices of four groups of speakers: individuals treated with radiation therapy; individuals treated with total laryngectomy and rehabilitated with a tracheoesophageal voice prosthesis; individuals treated with supracricoid laryngectomy; and individuals with no history of vocal disorders. The listeners rated the speakers' voices on rating scales with eight descriptors related to the social perception of speech. The ratings were made on 7-point Likert scales. Results indicated that listeners rated the non-surgical groups more positively than the surgical groups on traits such as *attractive*, *clever*, *sophisticated*, and *trustworthy*. The surgical groups were rated more negatively than non-surgical groups on traits such as *scary*, *annoying*, and *intimidating*. These findings provide insight into how patients undergoing these treatments may be perceived by society. Individuals with total laryngectomies may be at a higher risk of encountering negative social stigmatization in their daily life.

Abrégé

Les trois principales méthodes pour traiter un cancer du larynx comprennent la radiothérapie, une laryngectomie totale et une laryngectomie supracricoïdienne. On a mené une évaluation subjective de l'incidence sociale de la voix résultant de chaque traitement afin de comprendre l'effet d'un trouble de voix sur la perception qu'a la société des patients qui subissent ces traitements. On a recruté 40 auditeurs pour évaluer la voix de quatre groupes de locuteurs : les personnes ayant subi une radiothérapie, celles ayant eu une laryngectomie totale et une réadaptation avec un implant pour la voix trachéo-oesophagienne, celles ayant subi une laryngectomie supracricoïdienne et celles n'ayant pas d'antécédents de trouble de la voix. Les auditeurs ont évalué la voix des locuteurs sur des échelles à huit descripteurs portant sur la perception sociale de la voix. Ils ont utilisé une échelle de Likert à sept niveaux. Les résultats indiquent que les auditeurs ont accordé une évaluation plus positive au groupe de locuteurs n'ayant pas subi de chirurgie qu'aux groupes ayant eu une chirurgie pour les traits de personnalité comme le caractère attrayant, l'intelligence, la subtilité et la fiabilité. Les groupes ayant subi une opération ont été jugés comme faisant plus peur, comme étant plus contrariants et comme étant plus intimidants que les autres groupes. Ces résultats donnent un aperçu de la façon dont les patients qui subissent ces traitements sont perçus par la société. Les laryngectomisés totaux risquent davantage d'être l'objet de stigmatisation dans leur quotidien.

Keywords: laryngeal cancer, radiation therapy, total laryngectomy, supracricoid laryngectomy, perception, social attributes

Background

Approximately 1,100 cases of laryngeal cancer are diagnosed annually in Canada (Canadian Cancer Society/National Cancer Institute of Canada, 2008). Three methods of interest to this study used for primary treatment of laryngeal cancer include total laryngectomy, supracricoid laryngectomy, and radiation therapy. The treatment of choice is related largely to the stage of cancer at diagnosis. Each method of treatment has the tendency to distort a speaker's voice because anatomical structures necessary to produce voice may be removed or altered. Modifications to the vocal structures have the potential to change the vocal quality of the speaker, which has an impact on their quality of life (Starmer, Tippett, & Webster, 2008; Lallh & Rochet, 2000; Witt et al., 1997) and professional options (Hurst & Cooper, 1983).

Total laryngectomy becomes necessary in advanced stages of the cancer (Zacharek et al., 2001). This surgery involves the removal of the entire larynx (including the vocal folds). Speech rehabilitation must then focus on replacing the voice, which is the source signal for speech. This can be achieved with either electrolaryngeal, esophageal, or tracheoesophageal speech. Electrolaryngeal speech requires an electrolarynx, which is a mechanical handheld device with a vibrating plastic diaphragm. This vibrating diaphragm is placed against the neck and the sound waves are transmitted through the neck tissue into the vocal tract. Using this artificial voicing source, the patient can then move the articulators and produce speech sounds. A second choice for speech production is esophageal speech. The patient must insufflate air into the upper esophagus by injecting, swallowing, or "inhaling" air just below the level of the cricopharyngeal segment. When the air is released again, the upper esophageal sphincter vibrates and a ructus sound is produced. This ructus can be used as the sound source for speech. The third alternative is tracheoesophageal (TE) speech. In order to enable a laryngectomee to use TE speech, a surgically created fistula connects the trachea and esophagus (Blom & Singer, 1995). A small one-way valve, called a voice prosthesis, is placed in the fistula. The prosthesis prevents material from the esophagus from spilling into the trachea while allowing air to flow from the trachea into the esophagus. TE speech can then be produced by using air from the lungs to drive the pharyngoesophageal segment. In order to speak, the stoma must be sealed (with the thumb or with a one-way valve) during exhalation to divert the air into the esophagus.

One more recent form of treatment for laryngeal carcinoma is the supracricoid laryngectomy (SCL; Farrag et al., 2007). This treatment entails the removal of a portion of the larynx above the cricoid cartilage. At least one arytenoid cartilage must remain intact to allow for voluntary ad- and abduction of the vocal folds. Typically, the remaining arytenoid cartilage/s will move in an

anterior direction to make contact with the epiglottis or the base of the tongue in order to produce voice. Speech is produced without a mechanical aid or a stoma in the neck (Schindler et al., 2005; Coman, Grigg, Tomkinson, & Gallagher, 1998).

Primary radiation therapy is used for smaller (early stage) laryngeal tumours. This particular approach is a non-invasive procedure that keeps the vocal tract structures relatively intact. The drawbacks to this treatment approach are the length of treatment period and the unavoidable irradiation of healthy cells during treatment (Fietkau & Sauer, 1992).

The voices of individuals who have undergone treatment for laryngeal cancer are often characterized as abnormal. One study showed that patients using TE speech were judged to have a less acceptable voice quality than normal control speakers (Pindzola, Auburn, & Cain, 1988). Finizia, Dotevall, Lundström, and Lindström (1999) indicated that patients treated with radiation therapy for laryngeal cancer were rated more positively by inexperienced listeners in terms of voice quality, speech intelligibility, and speech acceptability than patients with TE speech. They also found that the laryngectomy group rated themselves lower on the same characteristics when compared to the normal controls and the radiation therapy group. Zacharek et al. (2001) illustrated that patients with SCL are judged to be highly intelligible, however, their vocal quality was found to have different dysphonic features. On a self-rating questionnaire, these patients identified themselves as having moderate-severe voice problems. Eksteen, Rieger, Nesbitt, and Seikaly (2003) conducted a study to examine the acoustic information related to individuals who had undergone treatment for laryngeal cancer, including those who had undergone either total laryngectomy, supracricoid laryngectomy, or radiation therapy. They found that the speakers who had undergone either a supracricoid laryngectomy or a total laryngectomy had higher noise-to-harmonics ratios, as well as higher jitter and shimmer values, in comparison to a group of patients who had undergone radiation therapy and a control group of normal speakers.

While it is self-evident that modifications of the vocal structures during treatment of laryngeal cancer have the potential to change the voice (Starmer et al., 2008), there is little reliable information that can be provided to patients to counsel them about the perceptual consequences of the treatment they will receive (Pindzola et al., 1988). As an altered voice quality can affect a patient's quality of life, information about the effects of the patient's chosen treatment on the voice should be provided. Different aspects of life that have been shown to be affected by a voice disorder are self-esteem, career options, and social interactions.

Research shows that when vocal characteristics deviate from the norm, there may be an impact on how speakers perceive themselves and their quality of life (Lallh & Rochet, 2000). Witt et al. (1997) investigated how children with cleft palate viewed their speech and how it affected their lives. Almost half of the children in the cleft palate group felt

that they had problems with their speech and expressed a desire to improve their speech.

Disorders of speech may also influence occupational prospects. Hurst and Cooper (1983) looked at how stuttering affected future professional options. They sent out questionnaires to employers and asked their opinions about job performance and employability for individuals who stutter. While the majority of employers rejected the idea that stuttering would interfere with job performance, they felt that stuttering could affect employability and promotion prospects. Similarly, individuals with voice disorders have expressed the opinion that their voice had impinged on their occupational prospects (Smith et al., 1996).

Listeners often stigmatize speakers with speech disorders by associating their speech with negative characteristics. For example, Witt et al. (1997) found that parents and teachers consistently rated children with cleft palate more negatively than non-cleft children. In another study, McKinnon, Hess, and Landry (1986) investigated how college students reacted to moderately disordered speech samples of stuttering, hypernasality, and lateral lisp compared to normal speech. Listeners felt higher anxiety and preferred to disassociate and distance themselves from speakers with speech disorders. Blood, Mahan, and Hyman (1979) also found that listeners were reluctant to communicate with individuals with disordered speech. Elementary school-aged children were found to respond negatively to recordings of speakers with severe hypernasality. Lallh and Rochet (2000) found that speakers with voice disorders and hypernasal vocal qualities were rated more negatively than speakers with normal voices on characteristics such as intelligence, reliability, kindness, and physical appearance. Finally, a study by Rieger et al. (2006) documented listeners' social perceptions of speakers both before and after surgery for oropharyngeal cancer and found that positive perceptions of speakers were significantly diminished after surgery, whereas negative perceptions were increased.

When carrying out social perceptual studies, it is important that the demographics and characteristics of the listeners are rigorously controlled. Research has indicated that age and sex may impact how listeners perceive vocal quality. Williams and Dietrich (2001) found that as the age of listeners decreased, their ratings of individuals with communication disorders became more positive. In another study, Deal and Oyer (1991) found that female listeners tended to rate speakers who stutter more positively than male listeners. Thus, care must be taken when interpreting studies that have not taken listener characteristics into account.

Present Study

While acoustic outcomes and intelligibility of speech have been compared across the three methods of laryngeal cancer treatment that are of interest to this study (Eksteen et al., 2003), studies to date have not compared the social perception of the vocal outcome. The importance of understanding how individuals will be regarded in society after treatment for laryngeal cancer cannot be overemphasized.

Table 1
Listener Characteristics

Listener Number	Occupation	Sex	Age
1	Professional	Male	23
2	Professional	Male	21
3	Professional	Male	23
4	Student	Male	18
5	Professional	Male	26
6	Professional	Female	29
7	Other	Female	46
8	Student	Female	23
9	Student	Female	20
10	Student	Female	22
11	Professional	Male	24
12	Other	Male	22
13	Professional	Female	23
14	Student	Female	20
15	Student	Male	23
16	Professional	Male	30
17	Student	Female	18
18	Student	Female	22
19	Student	Male	26
20	Student	Female	21
21	Student	Female	19
22	Student	Female	24
23	Student	Male	23
24	Student	Female	18
25	Professional	Male	25
26	Student	Female	18
27	Student	Female	22
28	Other	Male	23
29	Student	Female	20
30	Student	Male	26
31	Professional	Female	23
32	Student	Male	24
33	Professional	Female	22
34	Student	Male	23
35	Professional	Female	23
36	Professional	Male	22
37	Professional	Male	56
38	Other	Female	57
39	Student	Male	23
40	Professional	Male	50

It has been observed that while speech intelligibility may remain within normal limits, the produced speech may not be perceived as socially acceptable. These perceptions may impact the patients' social relationships as well as their occupational options. The purpose of this study was to assess listeners' social perceptions of patients following three different types of treatment for laryngeal cancer. Previous studies have suggested that perceptual rating scales can realistically reflect how listeners judge voices (van As, Koopmans-van Beinum, Pols, & Hilgers, 2003; Qi & Weinberg, 1995). Therefore, the main tool for measurement in this study is a rating scale that was devised to assess how patients will be viewed by the general population following treatment for laryngeal cancer.

There were three specific research questions for this study. Firstly, the study aimed to determine if listeners would rate the speakers who had undergone treatment for laryngeal cancer differently than a control group. Secondly, it was of interest to determine whether one type of treatment for laryngeal cancer resulted in better social perceptions. Thirdly, it was of interest to determine if the demographics (i.e., sex, occupation, and age) of the listeners influenced the social perception ratings.

Methods

Participants

Forty adult participants, 20 males and 20 females, were recruited as listeners for this study. The average age of the participants was 26 years and ranged from 18-57 years (Table 1). The participants came from student, professional, and other backgrounds. The category *students* was composed of currently-enrolled university students, the category *professional* consisted of individuals who were working in a full-time capacity outside the home, and the category *other* consisted of adults who were not currently employed outside the home. Participants were all English-speaking and residing in Canada. None of the listeners were aware of the nature of the communication disorder or the medical history of the speakers to which they would be listening. Participants were informed that they were taking part in a research study where they would be required to make judgments about social perceptions of speech.

Methods

Speech Recordings: Voice samples from 22 speakers used in this study came from a database at the Institute for Reconstructive Sciences in Medicine (iRSM) at the Misericordia Community Hospital in Edmonton, Alberta. The voice samples were used in a previous study (Eksteen et al., 2003) approved by the Health Review Ethics Board at the University of Alberta. Ethics clearance to use the archival data for the current study was obtained. All voice samples used in this study came from male speakers. They were classified as belonging to one of four groups: six speakers were in the total laryngectomy (TL) group, six were in the supracricoid laryngectomy (SCL) group,

Table 2

Speaker Characteristics

Speakers	Age	Treatment Type
1	45	SCL
2	57	SCL
3	59	SCL
4	63	SCL
5	69	SCL
6	75	SCL
7	48	TL
8	58	TL
9	62	TL
10	63	TL
11	68	TL
12	69	TL
13	55	RT
14	64	RT
15	69	RT
16	81	RT
17	83	RT
18	81	Control
19	73	Control
20	56	Control
21	72	Control
22	49	Control

Notes: SCL = supracricoid laryngectomy; TL = total laryngectomy; RT = radiation therapy

five were in the radiation therapy (RT) group, and five speakers without a history of laryngeal pathology formed a control group (Table 2). The TL speakers used a tracheoesophageal voice.

Stimulus CD: A CD was produced by transferring the speakers' voice recordings from a digital audiotape (DAT) onto a computer via the Computerized Speech Lab (CSL model 4400, Kay Elemetrics, Pine Brook, NJ). The speech recordings were adjusted for loudness across all speech samples. Both extraneous pauses as well as extended pauses were removed from the speech samples. The voice samples were randomly ordered and recorded onto the CD. There were 26 samples. Of these, four were repeated to obtain intra-rater reliability estimates. The repeated samples were comprised of two speakers from the control group, one speaker from the RT group and one speaker from the SCL group.

Two speech samples from speakers with no history of vocal pathology were included for listener practice. The practice speakers read a sentence from the Rainbow

Passage ("These take the shape of a long round arch with its path high above and its two ends apparently beyond the horizon"). The intent of the practice samples was to familiarize the listeners with the content of the speech sample and the content of the rating form. In addition, it gave the listeners a chance to adjust the volume of the CD to a comfortable listening level.

An announcement informing the participants that they could adjust the volume levels to ensure a comfortable listening level during the study was played. Participants were instructed to verify that the speaker number at the top left corner of the rating scale page matched the spoken number preceding each voice sample on the CD. Instructions about filling out the scale were given to the participants via an announcer who stated, "Listen to each voice and circle the number for the characteristic that best corresponds to the voice that you have just heard." When the CD continued, the announcer said, "Sample speaker number one," which was followed with a two second pause. The first practice speaker then read the selected sentence from the Rainbow Passage, which was followed by a 35 second pause to allow the listeners to complete their rating judgments on the social perception scale provided. The same procedure was repeated for the second practice speaker which concluded the two practice trials. Once the practice trials were completed, the announcer stated, "Now we are ready to begin the study." The same procedure that was utilized for the practice samples was also used for the 22 experimental speaker samples and for the four repeated samples that were included for intra-rater reliability. At the end of the CD, the announcer thanked the listeners for their participation in the study.

Social Perception Scale: The scale was produced to evaluate listeners' impressions of individuals that have undergone one of three laryngeal cancer treatments. The scale contained eight adjectives, four that were positive qualities and four that were negative. The selected adjectives were: trustworthy, attractive, clever, sophisticated, boring, scary, intimidating, and annoying (Lallh & Rochet, 2000; Bloom, Zajac, & Titus, 1999; Blood et al., 1979). For every adjective, there was an associated 7-point scale where the anchors were 1 (*not at all*) and 7 (*very much*).

Portable CD players (Sony D-EJ621) were used to play the CD recordings to listeners. The CD players had a frequency response of 20–20 000 Hz. To allow for effective listening, participants used headphones (Jensen JF25) that had a frequency response matching that of the CD players (20–20 000 Hz).

Participants were either tested alone or in pairs. When tested in pairs, the listeners were seated so that they could not see each other. A hearing screening was conducted prior to the listening task. If any participant was found to have a hearing loss, they were excused from the study and were referred to an audiologist for further testing. After the hearing screening, other demographic information was collected such as the participants' age, sex, and occupation.

The participants were given a few minutes to become familiar with the adjectives that were used in the social perception scale. Following this, the headphones were placed on the listener's head and adjusted for comfort. The experimenter then pressed play to begin the study. The experimenter remained in the room for the full duration of the CD playing to ensure that there were no problems with the equipment and to guarantee that the CD was played without being stopped.

Statistical Analysis

SPSS was used to perform all statistical calculations. Forty listeners rated 26 voice files on each of the eight descriptive variables. For each descriptive variable, the ratings from the 40 listeners were averaged and calculated for each of the 22 speakers. The listeners' second ratings for the four randomly selected speakers were removed from the main analysis and used only for estimating intra-rater reliability. A one-way multivariate analyses of covariance (MANCOVA) was employed to determine if significant differences between listener ratings of the speech samples existed. This allowed for between-group comparisons to be made, while controlling for age of the speakers. The dependent variables were the social perception categories (boring, clever, etc.), the between-group factor was treatment group, and the covariate was age.

A two-way MANCOVA was conducted to determine the effect of listener characteristics on their ratings of the speakers. The two factors were sex (male or female) and occupation (student, professional, and other), and the covariate was age of the listeners.

An intra-class correlation coefficient (ICC) was completed to establish intra-rater reliability. This was done through comparison of listener ratings of four repeated speech samples, totaling 18% of the data. ICCs were also conducted to determine inter-rater reliability across listeners.

When more than two levels within the independent variable being examined existed and significant main effects were present, post hoc testing was used to determine significant group differences. This study used SPSS Bonferroni adjusted p-values where $p < .05$ for the post hoc statistics.

Results

Inter-rater Reliability

The mean inter-rater reliability across the eight variables revealed an ICC value of 0.9626 (range = 0.8904 and 0.9867; Table 3). Mean intra-rater reliability across the eight variables revealed an ICC value of 0.7335 (range = 0.497 and 0.8137; Table 4).

Effects of listener characteristics

The effect of listeners' age, sex, and occupation on perceptual ratings were examined through a two-way MANCOVA. The results indicated that there were no significant effects of these variables on how speakers were perceived.

Table 3
Inter-rater Reliability

Adjective	ICC Average Rater Value	95% Confidence Interval	
		Lower Bound	Upper Bound
Boring	0.8904	0.813	0.9466
Attractive	0.9767	0.9602	0.9886
Clever	0.9735	0.9547	0.9871
Scary	0.9867	0.9773	0.9935
Annoying	0.9586	0.9294	0.9798
Sophisticated	0.9804	0.9665	0.9904
Intimidating	0.9650	0.9402	0.9829
Trustworthy	0.9701	0.9489	0.9854

Table 4
Intra-rater Reliability

Variable	ICC Average Rater Value	95% Confidence Interval	
		Lower Bound	Upper Bound
Boring	0.4937	0.3083	0.6294
Attractive	0.8137	0.7455	0.8636
Clever	0.8048	0.7333	0.8571
Scary	0.7295	0.6304	0.802
Annoying	0.6218	0.4833	0.7231
Sophisticated	0.8134	0.7448	0.8636
Intimidating	0.7660	0.6802	0.8287
Trustworthy	0.7624	0.6719	0.8275

Listener judgments of speakers' characteristics

Means and standard deviations of listener responses for each perceptual characteristic are reported in Table 5. Table 6 includes significant effects found between particular treatment groups through post hoc analyses, and Table 7 provides a summary of the between-group results.

Boring

A group effect was found ($p = .05$) for the variable *boring*. With respect to group means, the control group was rated to be the most boring ($M = 4.49$), followed by the RT group ($M = 3.75$), the SCL group ($M = 3.65$), and the TL group ($M = 3.39$). Post hoc analyses revealed that significant between-group differences existed only between the TL group and RT group ($p = .05$). No age effects were found for this adjective, indicating that speakers' age did not influence listener ratings.

Attractive

A group effect was found ($p < .001$) for the variable *attractive*. The TL group was rated as the least attractive ($M = 1.36$), followed by the SCL group ($M = 1.85$), the RT group ($M = 2.85$), and the control group ($M = 3.01$). Specifically, significant differences were found through post hoc analyses between the SCL group and the RT group ($p < .005$), the SCL group and the control group ($p < .005$), the TL group and the RT group ($p < .001$), as well as the TL group and the control group ($p < .001$). An age effect was found for this variable ($p = .001$),

demonstrating that speakers' ages significantly affected listeners' ratings. The older speakers were rated as less attractive than the younger speakers.

Clever

A significant group effect was found ($p < .001$) for the variable *clever*. The control group was rated the most clever ($M = 3.94$), while TL group was rated the least clever ($M = 2.28$). The perceptual ratings for the two remaining groups fell in between, with the SCL group receiving a lower rating ($M = 2.78$) than the RT group ($M = 3.68$). Post hoc analyses revealed that significant differences existed between the SCL group and the RT group ($p < .05$), the SCL group and the control group ($p = .05$), the TL group and RT group ($p < .005$), and the TL group and the control group ($p = .001$). A significant age effect was found for this adjective ($p = .01$). The older speakers were rated as less clever than the younger speakers.

Scary

A significant group effect was found ($p < .001$) for the variable *scary*. The TL group was rated as the most scary ($M = 4.69$), followed by the SCL group ($M = 4.08$), the RT group ($M = 1.97$), and the control group ($M = 1.36$). Post hoc analyses revealed significant differences between the SCL group and the RT group ($p = .001$), the SCL group and the control group ($p < .001$), the TL group and the RT group ($p < .001$), and the TL group and the control group ($p < .001$). No significant age effects were found for this variable.

Annoying

A significant group effect was revealed ($p < .001$) for the variable *annoying*. The RT group was rated the least annoying ($M = 3.00$), while the TL group was rated as the most annoying ($M = 4.81$). The control group and SCL group ratings fell in between the previously mentioned groups, with SCL group receiving a mean rating of 4.31 and the control group receiving a mean rating of 3.06. Post hoc testing revealed significant differences between the SCL group and the RT group ($p < .05$), the SCL group and the control group ($p = .05$), the TL group and the RT group ($p = .001$), as well as between the TL group and the control group ($p < .005$). A significant age effect was found for this particular adjective ($p = .05$). The older speakers were rated as more annoying than the younger speakers.

Sophisticated

A significant group effect was revealed ($p < .001$) for the variable *sophisticated*. The control group was found to be the most sophisticated ($M = 4.03$), followed by the RT group ($M = 3.47$), the SCL group ($M = 2.46$), and the TL group ($M = 2.00$). Differences were found between the following groups through post hoc testing: the SCL group and the RT group ($p < .01$), the SCL group and the control group ($p = .001$), the TL group and the RT group ($p < .001$), and the TL group and the control group ($p < .001$). A significant age effect was found for this variable ($p = .001$). The older speakers were rated as less sophisticated than the younger speakers.

Intimidating

There was a significant group effect ($p < .001$) found for the variable *intimidating*. The TL group was rated the most intimidating ($M = 3.99$), followed by the SCL group ($M = 3.57$), the RT group ($M = 2.10$), and the control group ($M = 1.77$). Post hoc measures showed that significant differences existed between the SCL group and the RT group ($p < .005$), the SCL group and the control group ($p < .001$), the TL group and the RT group ($p < .001$), and the TL group and the control group ($p < .001$). No significant age effects were found for this adjective.

Trustworthy

A significant group effect was discovered ($p < .001$) for the variable *trustworthy*. The RT group was found to be the most trustworthy ($M = 4.31$), while the TL group was rated the least trustworthy ($M = 2.43$). Accordingly, the SCL group and the control group average ratings fell between the previously mentioned groups with the SCL group receiving a mean rating of 2.75 and the control group receiving a mean rating of 4.27. Post hoc test measures indicated that the following groups had significant differences between each other: the SCL group and the RT group ($p < .001$), the SCL group and the control group ($p = .001$), the TL group and the RT group ($p < .001$), and the TL group and the control group ($p < 0.001$). No significant age effects were found for this variable.

Discussion

The purpose of this study was to determine how individuals who had undergone three different types of treatment for laryngeal cancer were perceived by naïve listeners. The voices of these individuals were compared to controls who had no history of laryngeal pathology. The naïve listeners rated all voices using a 7-point rating scale with eight descriptor adjectives, which were: *boring*, *attractive*, *clever*, *scary*, *annoying*, *sophisticated*, *intimidating*, and *trustworthy*. Significant between-group effects were found for all adjectives. In addition, some ratings appeared to be influenced by the age of the speakers. Finally, listener characteristics such as age, sex, and occupation did not appear to influence the results.

Table 5

Means and Standard Deviations

Dependent Variable	Group	Mean	Standard Deviation
Boring	SPCL	3.65	0.36
	TL	3.39	0.31
	RT	3.75	0.88
	Control	4.49	0.70
Attractive	SPCL	1.85	0.70
	TL	1.36	0.14
	RT	2.85	1.09
	Control	3.01	0.60
Clever	SPCL	2.78	0.58
	TL	2.28	0.21
	RT	3.68	1.14
	Control	3.94	0.75
Scary	SPCL	4.08	1.21
	TL	4.69	0.80
	RT	1.97	0.74
	Control	1.36	0.18
Annoying	SPCL	4.31	0.71
	TL	4.81	0.38
	RT	3.00	1.04
	Control	3.06	0.83
Sophisticated	SPCL	2.46	0.66
	TL	2.00	0.20
	RT	3.47	1.14
	Control	4.03	1.10
Intimidating	SPCL	3.57	0.59
	TL	3.99	0.77
	RT	2.10	0.46
	Control	1.77	0.41
Trustworthy	SPCL	2.75	0.55
	TL	2.43	0.24
	RT	4.31	0.87
	Control	4.27	0.37

Note: The scale was 1 = not at all and 7 = very much

Group effects

Significant effects between each treatment group were found for each dependent variable. Common trends were observed between all of the variables except for the adjective *boring*. In answering the first question of this study, whether listeners perceived differences between the treatment groups and the control group, the results generally suggest that the control group was rated more positively than the surgically treated groups, but not the radiation therapy group. In consideration of the second question, whether there were any differences between the treatment groups, significant differences were not found between individuals who had received SCL and those who received TL procedures. This indicates that listeners did not perceive a large difference between the speakers of these two surgical groups on social perceptual attributes. However, there were consistent significant differences in social perception ratings

Table 6

Post Hoc Analysis of between group differences that were significant

Characteristic	Treatment Group 1	Treatment Group 2	Significance
Trustworthy	Supracricoid	Radiation	0.000
	Supracricoid	Normal	0.001
	Laryngectomy	Radiation	0.000
	Laryngectomy	Normal	0.000
Intimidating	Supracricoid	Radiation	0.004
	Supracricoid	Normal	0.001
	Laryngectomy	Radiation	0.000
	Laryngectomy	Normal	0.000
Sophisticated	Supracricoid	Radiation	0.006
	Supracricoid	Normal	0.001
	Laryngectomy	Radiation	0.000
	Laryngectomy	Normal	0.000
Annoying	Supracricoid	Radiation	0.013
	Supracricoid	Normal	0.025
	Laryngectomy	Radiation	0.001
	Laryngectomy	Normal	0.002
Scary	Supracricoid	Radiation	0.001
	Supracricoid	Normal	0.000
	Laryngectomy	Radiation	0.000
	Laryngectomy	Normal	0.000
Clever	Supracricoid	Radiation	0.030
	Supracricoid	Normal	0.012
	Laryngectomy	Radiation	0.002
	Laryngectomy	Normal	0.001
Attractive	Supracricoid	Radiation	0.002
	Supracricoid	Normal	0.002
	Laryngectomy	Radiation	0.000
	Laryngectomy	Normal	0.000
Boring	Laryngectomy	Normal	0.054

Table 7

Summary of significant between-group results

Attribute		TL	SCL	RT	
Boring	TL				
	SCL				
	RT				*
	Control				
Attractive	TL				
Clever					
Scary	SCL				
Annoying					
Sophisticated	RT	*	*		
Intimidating					
Trustworthy	Control	*	*		

between the surgically-treated groups and the radiation therapy group, with the latter being rated more positively. The results suggest that listeners tended to rate individuals in the non-surgical groups more positively than individuals in the surgical groups. Thus, the voicing changes that accompany the loss of vocal fold tissue and the development of a new voicing source are picked up by the listeners and such voice changes may influence the social perception of these patients in a negative manner.

The variable *boring*, which was chosen as an adjective in an attempt to assess perception of the monotony of the speaking pattern, was rated more inconsistently by the listeners when compared to the other adjectives. A significant difference was found only between the TL group and the control group. In addition, the listener ratings appeared to result in a more positive perception of the voices of individuals with TL (i.e., they were rated as the least boring speakers out of all four groups). Initially, this appeared counterintuitive given the fact that all the speakers with TL spoke with a trachesophageal voice prosthesis and therefore used their pharyngoesophageal segment as the voicing source. This will usually result in a more monotonous voice, and thus would have been thought to result in higher ratings of *boring* than the other groups. As the listeners were not provided with a standardized definition, their own perception of the meaning of the word *boring* may have differed from one another. From the researchers' point of view, the word *boring* was initially intended to reflect monotony of a voicing source (i.e., a lack of pitch inflection). However, from an untrained listener's point of view, the voices of the TL group may have been the most interesting because they were also the most

deviant from normal, as has been established through an acoustic study of the same voices (Eksteen et al., 2003). Upon hearing the tracheoesophageal voices, the listeners may simply have reacted to the novelty of the sound.

Speaker's age effects

Significant age effects were found for the adjectives *attractive*, *clever*, *annoying*, and *sophisticated*. The listeners rated the older speakers less *attractive*, less *clever*, more *annoying*, and less *sophisticated* than the younger speakers. van As, Hilgers, Verdonck-de Leeuw and Koopmans-van Beinum (1998) analyzed voices of patients with total laryngectomies and found that younger speakers had significantly lower jitter values than older speakers. However, there were no significant differences in perceptual ratings (e.g., abnormal-normal; ugly-beautiful, etc.). Linville (1996) indicated that older speakers can exhibit increased harsh, hoarse, strained, and breathy vocal qualities. This finding may explain why the listeners in this current study may have rated older speakers more negatively on some of the descriptors.

Listener effects

Listeners' age, sex, and occupation were not found to influence how listeners rated the speakers on the listed characteristics. These findings are somewhat inconsistent with past research. Williams and Dietrich (2001) found that younger participants tended to rate individuals with voice disorders more favourably than older participants. The age range of the listeners in their study was quite similar to the age range in the current study. One potential reason for this difference may be that the participants in the Williams and Dietrich study were provided with a description of an individual with a communicative disorder, rather than a voice sample. Additionally, these authors used a different population of abnormal speakers (i.e., four different communicative disorders and a control group), which also may explain the difference of the age effect in the two studies.

Past research has indicated that the sex of a listener may affect perception of a speaker's voice. Deal and Oyer (1991) found that female participants rated individuals who stuttered more positively than the male participants. Similarly, Williams and Dietrich (2001) found that their male study participants rated speakers with communication disorders as more stressed than the female participants. One reason for the sex discrepancy between the Williams and Dietrich study and the present study may be that the listeners in the current study were recruited from various backgrounds, while those in Williams and Dietrich's study were all in undergraduate programs. The diversity of backgrounds in the present study may have diluted any differences related to sex.

Acoustic data versus perceptual data

Acoustic data can be a useful tool to complement perceptual data as they enable clinicians to appreciate all aspects of a client's voice. The two surgical treatment groups in this study were rated lower in terms of the social

perception of their speech compared to both the non-surgically treated group (RT) and the control group. While the RT group was rated lower on most characteristics than the control group, these differences were not significant. The perceptual data in the present study correspond to the acoustic data from a previous study: Eksteen et al. (2003) found significant acoustic differences between the surgical and non-surgical groups. The surgical groups had a higher noise-to-harmonics ratio in addition to higher jitter and shimmer values in comparison to the control group and the RT group.

Other studies have shown that when individuals are judged as perceptually different, their acoustic data also differ from normal speakers (Zacharek et al., 2001). Dworkin et al. (2003) found that both SCL and TL subjects showed higher jitter and shimmer values in addition to lower harmonics-to-noise measures than normal. The TL and SCL groups were perceptually evaluated as having a hoarse and strained vocal quality, which is an unfortunate side effect of the surgical technique.

In contrast to individuals treated surgically, those having undergone RT for laryngeal cancer were found to display inconsistent vocal outcomes. Acoustically and perceptually, their voices are found to be either comparable to normal speakers or just slightly atypical (Dagli, Mahieu, & Festen, 1997; Aref et al., 1997). Aref et al. (1997) found that some of their RT participants exhibited abnormal values for jitter, shimmer, and harmonics-to-noise ratio, however, others displayed values within the normal range. When judged on a 7-point scale, where 1 was deemed normal and 7 was most deviant from normal, the RT subjects received a mean score of 2.4, which indicates a slightly different vocal quality. Thus, the relationship between acoustic data and perceptual data for individuals having undergone RT for laryngeal cancer is less clear.

Limitations and Future Research

The adjectives chosen for the social perception rating scale were a potential limitation in this study. As definitions were not provided to the participants, the meanings they attributed to the words may have been subjective. This lack of control may have led to difficulty in the interpretation of variables such as *boring*. Other adjectives that may have posed concerns for listeners were *clever*, *sophisticated*, and *attractive*. Qualitative feedback from the participants following the study revealed that it was difficult for some male listeners to objectively rate male speakers on the *attractive* characteristic. Additional feedback indicated that the adjectives *clever* and *sophisticated* were not easily distinguished. Furthermore, while inter-rater reliability was consistently high, intra-rater reliability was poor at times. This suggests that listeners may have wandered in their interpretation of the descriptors as they progressed through the task.

Rather than providing speakers with two normal female sample speakers, at least one male sample speaker could have been presented to help set their personal rating system. If a disordered voice had been included in addition

to male and female sample recordings, variables such as *boring* might have followed the same pattern as the other variables.

Future research in this topic area should include voice samples from female speakers to provide a more complete picture. Future studies could also include actual interactions between listeners and speakers (telephone conversations or face-to-face interactions) to make the research setting less contrived. Participants in this study frequently asked whether the patient voices they heard were computer generated and were surprised to learn that the voices were from real speakers. By including actual interactions, listeners would have an opportunity to appreciate the person behind the voice disorder.

Conclusion

Currently, there are several treatment options for laryngeal cancer. One non-surgical option is radiation therapy, while total laryngectomy and supracricoid laryngectomy involve surgical removal of substantial parts or the entire larynx. In the pre-operative counseling, information regarding the functional outcomes of each treatment should be provided to allow the patient to make an informed decision. The present study found clear differences between the surgical and the non-surgical groups. RT was rated more positively when compared to the other treatment options. The data did not indicate that individuals with TL were perceived less favorably than those with SCL. The findings may serve to provide patients and clinicians with some first orienting information about the potential social perceptual consequences of different treatment modalities for laryngeal cancer.

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■ Using Culturally Appropriate Methodology to Explore Dene Mothers' Views on Language Facilitation

■ Recourir à une méthodologie adaptée à la culture pour explorer le point de vue des mères dénées sur la facilitation du langage

Luella Bernacki Jonk
Charlotte Enns

Abstract

This study aimed to identify the differences in the beliefs and educational practices related to language acquisition of Dene and non-Aboriginal mothers. A survey of 30 Dene mothers in a Northern community was carried out using research methodology that was culturally adjusted to the Dene culture and language. The 30 non-Aboriginal mothers completed a conventional survey form. The survey evaluated the mothers' beliefs about language acquisition and their current practices of supporting their children's language learning. The study revealed subtle differences between the Dene and the non-Aboriginal mothers with regards to both their beliefs and practices. The Dene mothers valued spirituality and their child's connection to traditional faith and beliefs more highly than the non-Aboriginal mothers. They also supported the use of child-directed speech to facilitate their children's language development. They felt that Elders and grandparents had an important role to play in their children's lives, and they favoured teaching by providing a combination of verbal and hands-on instruction. The Dene mothers reported frequent use of language facilitation strategies. By adjusting the survey in a culturally appropriate way, the participation in the research was facilitated for the Dene mothers.

Abrégé

La présente étude vise à repérer les différences de croyances et de méthodes d'éducation concernant l'acquisition du langage entre les mères dénées et les mères non autochtones. On a mené une enquête auprès de 30 mères dénées d'une communauté du Nord en utilisant une méthode de recherche adaptée à la culture et à la langue dénées. Les 30 mères non autochtones ont rempli un formulaire de sondage classique. L'enquête cherchait à évaluer les attitudes des mères sur l'acquisition du langage et leurs pratiques actuelles pour favoriser l'apprentissage du langage chez leur enfant. L'étude a montré des différences entre les mères dénées et les mères non autochtones, tant sur le plan de leurs attitudes que de leurs pratiques. Les mères dénées valorisent davantage la spiritualité et le lien de leur enfant avec la foi et les croyances traditionnelles que ne le font les mères non autochtones. Elles soutiennent aussi le recours à la parole adaptée aux enfants pour faciliter l'acquisition du langage. Elles sont d'avis que les aînés et les grands-parents ont un rôle important à jouer dans la vie de leurs enfants, et elles favorisent une méthode d'éducation qui allie les instructions verbales et pratiques. Les mères dénées ont dit utiliser fréquemment des stratégies de facilitation du langage. L'adaptation de l'enquête à la culture a facilité la participation des mères dénées à la recherche.

Key terms: Aboriginal, Dene, children, language, mother-child interaction

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Background

The country of Canada spans not only a vast geographical space but also comprises a multitude of diverse populations and cultural heritages. The Aboriginal peoples of Canada are an important component of this cultural diversity. The Constitution Act of 1982 names three groups recognized as being Aboriginal: Indian, Métis, and Inuit (McCue, 2000). Aboriginal peoples are made up of diverse languages, cultures, and traditions. The term First Nation is widely used in Canada and refers to the Indian Aboriginal people. Unfortunately, Aboriginal Canadians have often found themselves in an economically and politically marginalized position. The provision of services to meet the specific needs of the different Aboriginal cultural groups has been hampered by an incomplete understanding of their cultural values, knowledge, and beliefs. Such a lack of understanding may also affect the provision of services related to communication disorders.

One way to bridge a gap in knowledge is through quantitative and qualitative research. However, research in the field of communication disorders in Canada is normally carried out by university-trained researchers who do not have an Aboriginal cultural background and who typically are not immersed in Aboriginal ways of life. Therefore, the research undertaken in Aboriginal communities may be considered cross-cultural. The goal of this paper is to create awareness for specific adjustments to research paradigms that may be used with Aboriginal populations in Canada.

Researchers conducting cross-cultural studies in communities with cultures distinct from their own may face a variety of challenges, particularly those related to establishing rapport and trust. This especially holds true for many of the First Nation communities in Canada that have often been historically disadvantaged by research endeavours. Smith (1999) comments pointedly that "the term *research* is inextricably linked to European imperialism and colonialism. The word *research* itself is probably one of the dirtiest words in the Indigenous world's vocabulary" (p. 115).

Ethical guidelines for research in Aboriginal communities

In Canada, medical research in Aboriginal communities is regulated by a set of guidelines developed by the Canadian Institutes of Health Research (CIHR, 2007). These 15 guidelines establish the ground rules for carrying out research with Aboriginal participants. These new guidelines supplement, and sometimes supercede, previous codices such as those by the Royal Commission on Aboriginal People (RCAP, 1993), the *Ethical Principles for the Conduct of Research in the North* by the Association of Canadian Universities for Northern Studies (ACUNS, 1992), and the *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans* (1998) by three of Canada's research funding agencies. The CIHR (2007) guidelines were developed to protect and preserve the unique cultural

heritage of Aboriginal peoples and to emphasize that researchers conducting research with Aboriginals need to respect their viewpoints, experiences, and territory.

Battiste (2005) discusses potential challenges for conducting research with Aboriginal participants. These challenges can relate to language difficulties, the perception of personal space, the intrusion upon sacrosanct knowledge, the use of inappropriate research methodologies, and the differences in the understanding of the informed consent process. Piquemal (2001) described how the consent process could go awry in Aboriginal cultures and developed four recommendations for the pursuit of free and informed consent from Aboriginal research participants. These include:

1. Negotiating responsibilities prior to seeking free and informed consent;
2. Obtaining free and informed consent from the relevant authorities;
3. Confirming consent to ensure that consent is ongoing; and
4. Completing the circle: providing the community with the research data and findings.

Aboriginal perspectives on communication disorders

The Aboriginal peoples of Canada will often have their own unique perspectives on scientific, agricultural, technical, and ecological knowledge (Daes, 1993). This also includes medical and psychological aspects of human behaviour, such as communication disorders. However, as with all cultures, there is intra-culture variation, and thus Aboriginal peoples must not be regarded as a uniform group (Loppie, 2007).

Recent cross-cultural studies such as Johnston and Wong (2002) and Simmons and Johnston (2007) noted differences in language learning between specific cultural groups. Scollon and Scollon (1984) noted substantial differences in the discourse patterns between Athabaskan natives of northern Alberta and non-Aboriginals, often resulting in communicative breakdowns between the two cultural groups. Discourse patterns are very much a part of a person's personality and culture (Schieffelin, 1983; Givon, 1985). A number of studies observed that Aboriginal children speak less and are quieter than non-Aboriginal children (Crago, 1990; Philips, 1983; Scollon & Scollon, 1984). Children of different language and cultural communities may exhibit differences in narrative production (Fiestas & Pena, 2004; Kay-Raining Bird & Vetter, 1994; Michaels, 1981; Price, Roberts, & Jackson, 2006; Young, Diehl, Morris, Hyman, & Bennetto, 2005). Examples of these differences are story length, vocabulary, moral of the story, syntactic complexity, verb tenses, and the sequence of action. In general, Aboriginal narratives are often structured thematically, while Western narratives are sequential and are structured in three distinct parts: beginning, middle, and end.

Ball, Bernhardt, and Deby (2006) and Ball and Lewis (2005) documented how Aboriginal native languages are

central to how children participate in cultural traditions. Aboriginal children may differ from Western children in their communicative behaviours in terms of body language, eye contact, learning style, verbal response time, and speaking volume and frequency. However, such language differences displayed by Aboriginal children may not be understood by non-Aboriginal educators and could be interpreted as language delays or disorders.

This is described in a poem by an unknown Aboriginal author, framed as a mother's letter to her child's teacher:

He doesn't speak standard English, but he is no way "linguistically handicapped." If you will take the time and courtesy to listen and observe carefully, you will see that he and the other Indian children communicate very well among themselves and with other Indians. They speak "functional" English, very effectively augmented by their fluency in the silent language, the subtle, unspoken communication of facial expression, gestures, body movement and the use of personal space. ... Will you help my child to learn to read; or will you teach him that he has a reading problem? Will you help him develop problem solving skills; or will you teach him that school is where you try to guess what answer the teacher wants? (Respect My Child, 1978, p. 34)

The poem also describes how a different parental philosophy in Aboriginal cultures emphasizes practical experiential learning styles:

He is not accustomed to having to ask permission to do the ordinary things that are part of normal living. He is seldom forbidden to do anything; more usually the consequences of an action are explained to him and he is allowed to decide for himself whether or not to act. His entire existence since he has been old enough to see and hear has been an experiential learning situation, arranged to provide him with the opportunity to develop his skills and confidence in his own capacities. Didactic teaching will be an alien experience to him. (Respect My Child, 1978, p. 34)

The difference in discourse and learning patterns becomes important in mainstream classrooms. The discourse style of the Aboriginal child's home environment may differ quite dramatically from the discourse of the classroom. Academic success in the classroom is influenced by one's narrative style. Aboriginal children who struggle academically may have discourse styles that are "at variance with the teacher's own literate style and expectations" (Doughty, Thornton, & Doughty, 1977, p. 165). Philips (1983) remarked on the traditional Western *Show and Tell* activities that reflect interaction organization patterns of the whole classroom; the teacher chooses who will speak, when they will speak, and what they will speak about. This pattern may be incongruent with the collectivist culture of Aboriginals who often value collaborative group work more than individualistic statements and achievements

(Westby & Vining, 2002). Translation of Aboriginal languages into English is uncommon, due to Aboriginal languages' inherent history of oracy. For many Aboriginal people, English is not their first language, or they may speak a dialect of English, therefore, even when English words are used by Aboriginal speakers, the meaning may differ subtly (Santa Ana, 2004) from what the speaker intended.

Goals of the present study

The differences in attitudes towards language learning are a key topic that all educators and specialists working with Aboriginal children should understand. This is a particularly challenging topic for speech-language pathologists (S-LPs) in rural settings in Canada. Depending on the geographical location, Aboriginal children can represent a large proportion of clinicians' caseloads. Many Aboriginal communities are working hard to preserve their native languages. These efforts need to be supported by clinicians and educators and recognized for the contribution they can make to preserving Aboriginal culture. The cultural traditions specific to the community must be taken into consideration when studying the perspectives of Aboriginal mothers' beliefs and practices towards language learning.

The goal of the present study was to evaluate Dene mothers' attitudes to language acquisition and spoken communication. The study explored the attitudes and beliefs of Dene mothers regarding language acquisition in one remote First Nation community, Lac Brochet, Manitoba. Specifically, the following questions motivated the study:

1. How do the Dene mothers promote their children's language development through their parenting?
2. Which discourse practices do the mothers perceive as being helpful for the language development of their children?

The attitudes of Dene and non-Aboriginal mothers were evaluated using culturally sensitive methodology. In order to ensure that the study design was culturally appropriate for both groups of participants, an asymmetrical research design with different interview techniques for the two groups was used. This required adopting the attitude that "different from" is not the same as "worse than" or "better than," and that the same measure will not necessarily assess all mothers fairly.

Materials and Methods

Participants

Participant inclusion criteria for the Dene group specified the following: (a) female, (b) agreed to participate in the study, (c) self-reported Dene ancestry, and (d) presently caring for children in the age range of 2 to 6 years or having cared for children in this range within the last two years. Participant inclusion criteria were the same for the non-Aboriginal mothers except for self-report of Aboriginal ancestry. The two groups' demographic information was balanced as much as possible.

The majority of the 30 Western mothers were low-income earners, over 35 years of age, had Grade 12 diplomas. All used English as their first language. They were recruited from a small Winnipeg neighbourhood. The mothers were identified by daycare centre managers. The 30 Dene mothers lived in Lac Brochet in the most northern part of Manitoba. Most were low-income earners, younger than 35 years, and reported Dene as their first language. Only two Dene mothers had Grade 12 diplomas.

Methods

An asymmetrical survey study was used to gather Dene and non-Aboriginal mothers' responses. A 36-item survey was adapted with permission from Johnston and Wong (2002). The first 14 items were reworded by the first author in order to adjust for the specific populations and research questions at hand. To ensure the cultural appropriateness of the first 14 questions (Balnaves & Caputi, 2001), the first author consulted with a cultural informant from the Dene community. The wording of the remaining 10 "belief" items was not altered from the original survey. The final 12 items of the survey queried frequency of language facilitation "practices" and focused on practices related to language support and parental scaffolding. After the last survey item, the mothers were invited to add their comments or to share additional observations. The survey form may be found in Appendix A.

The 30 non-Aboriginal mothers (in Winnipeg) received the written English form of the survey through their children's daycare facility. These mothers were identified by the daycare centre managers, who distributed 100 survey packages to mothers. The package included the survey, a consent form, a brief description of the study, and a stamped return envelope. After two months, 30 mothers had mailed back their surveys.

The 30 Dene mothers in Lac Brochet completed the survey in a face-to-face interview format administered by a research assistant who was a community member. Recruitment took the form of an information meeting that was chaired by the primary researcher and the research assistant. Any additional recruitment after this meeting was done by the research assistant.

The research assistant was a Dene woman who was literate and bilingual in Dene and English. She was compensated with an hourly wage for her time. The research assistant administered all 30 surveys to the Dene mothers.

Two translators from the community translated the English version of the survey to Dene and then back to English. At the time of the survey administration, the Dene participants had the choice of (a) listening to the audio-taped, translated version (the Dene language is used almost exclusively in oral form in the community), (b) listening to the research assistant read the questions in English, or (c) listening to the research assistant read the questions in Dene. All participants chose to have the research assistant read the survey questions to them in English, with clarification in Dene when necessary.

Results

Univariate analysis

The responses of the Dene and the non-Aboriginal mothers were compared using two-sample *t*-tests. The tests probed for significant differences between the answers of the 36 survey items. Table 1 displays the percentages of Dene and non-Aboriginal mothers agreeing (4) or strongly agreeing (5) with each of the 24 statements related to the mothers' beliefs about language acquisition. Using a Bonferroni-adjustment procedure, each test used a 0.005 level of significance, which resulted in an experiment-wide level of significance of 0.12. Statistically significant group differences were found for 4 of the 24 belief questions (10, 18, 20, and 24).

An analogous type of analysis was conducted for the remaining 12 practice statements. Table 2 indicates the percentage of mothers in each group who reported using each practice *almost always* (4). Three items of the 12 practice items showed significant group differences (28, 32, and 35) at $\alpha = .01$.

Linear discriminant analysis

A linear discriminant analysis of the data was used to examine all independent variables simultaneously. Linear discriminant analysis allows for a discriminant rule to be created, which is then used to predict group membership based only on a participant's responses on the independent variables. The discriminant analysis indicated that the belief items taken as a set could reliably differentiate members of the groups (Wilks' lambda = 0.221, $p < .0001$, multiple $R^2 = 0.773$).

Magnitudes of correlations for all other independent variables were less than 0.2.

Using the "cross-validation" classification method, each individual was deleted from the data set and a discriminant rule was constructed to predict group membership. Using this method, 26 of the non-Aboriginal caregivers and 21 of the Dene mothers were correctly classified, for an overall accuracy rate of 78.33%. A further stepwise procedure was conducted using the survey items in Table 2 in a discriminant analysis. The belief items taken as a set could reliably differentiate members of the groups (Wilks' lambda = 0.311, $p < .0001$, multiple $R^2 = 0.689$). Using this discriminant function, the cross-validation method correctly classified 26 of the non-Aboriginal and 27 of the Dene mothers, for an accuracy rate of 88.33%.

Using the same multivariate test procedures, a discriminant function was derived for the practice items. The linear discriminant function could reliably differentiate members of the groups (Wilks' lambda = 0.645, $p < .029$, multiple $R^2 = 0.355$). The cross-validation classification method correctly classified 20 of the Western caregivers and 20 of the Dene mothers, for an accuracy rate of 66.67%. A stepwise procedure using only Questions 28 and 35 demonstrated that the practice items taken as a set could reliably differentiate members of the groups (Wilks' lambda = 0.742, $p < .0001$, multiple $R^2 = 0.258$).

Table 1

Percentage of Dene and Non-Aboriginal mothers agreeing (4) or strongly agreeing (5) with each of the 24 belief statements

Belief Item	Western	Dene
1. Children play outside	30.00	30.00
2. Children play inside/toys	63.33	43.33
3. Parent request help with S/L	66.67	76.67
4. Parent concern child not speaking by K	93.33	93.33
5. Ear infections affect speech	53.33	43.33
6. Parent comfortable copying child's play	100.00	80.00
7. Ok for child not to respond	13.33	33.33
8. Child can sit and listen without pictures	36.67	70.00
9. Siblings teach young child new words	56.67	76.67
10. Child's connection to spirituality	53.33	96.67*
11. Child will talk to a familiar older person	90.00	93.33
12. K/Nursery are important for children	86.67	93.33
13. Tell my child a story for a purpose	73.33	76.67
14. Child learns best by doing	76.67	66.67
15. Parent should ask child to repeat word	83.33	93.33
16. Children understand words before they speak	96.67	90.00
17. Speech is important for children making friends	80.00	90.00
18. Using baby talk will impede your child's speech	66.67	26.67*
19. Three-year-olds are too young to do chores	26.67	50.00
20. Children learn best through instruction	90.0	93.33
21. Words are better than gestures	86.67	80.00
22. Children learn important things with play	96.67	90.00
23. Children should be allowed to take turns in conversation	70.00	56.67
24. Grandparents give good advice	43.33	96.67

* $p < .005$. See Appendix A for full survey item.

A high correlation of 0.805 between Question 28 and the discriminant function was the reason why only two variables were taken into consideration. Question 28 discriminated between the two groups almost as well as all 12 variables together. Using this discriminant function, the cross-validation method correctly classified 19 of the non-Aboriginal mothers and 22 of the Dene mothers, for an accuracy rate of 68.33%.

Qualitative analysis of survey comments

In addition to the information provided by the participants' ratings, a comment section at the end of the survey

provided another data source. The comments were analyzed qualitatively and the major recurring themes were identified. The two participant groups delivered two different messages.

Almost all comments made by the Dene mothers were brief and related to culture and language preservation. As one mother said, "It is important for children to learn the English language but even more important that they keep their Dene language. It is getting more difficult though, because of technology."

The comments written by the non-Aboriginal group were longer, more in-depth, and pertained to specific survey items. They often remarked on specific speech or language challenges their children had encountered and how they facilitated language. For example, one non-Aboriginal mother wrote, "[Item #25] We never tell her it's wrong, instead we gently say the correct sentence back to her," or "[Item #31] We don't want to make her feel bad or embarrassed so we just lead by example."

Discussion

This study was an investigation of differences between Dene and non-Aboriginal mothers' attitudes related to language acquisition. Several modifications were made to the research methods in an attempt to make them more appropriate for the Dene participants. These modifications included the use of a Dene research assistant, the translation of the survey into the Dene language, different methods of survey administration for the two participant groups, and consultation with cultural informants.

The linear discriminant analysis differentiated clearly between the two groups of participants when all questionnaire items related to beliefs were included. An overall identification accuracy of 78.33% was a satisfactory result for the relatively small group of participants ($N = 60$) and demonstrated that the questionnaire items reliably elicited different response patterns from the two groups. With a cross-validation approach, the identification accuracy was

Table 2

Percentage of Western and Dene mothers reporting using a practice almost always (4)

Frequency Item	Western	Dene
25. Tell my child s/he uses the wrong word	33.33	60.00
26. Read a book to my child at bedtime	46.67	36.67
27. Ignore the fact my child's speech is incorrect	33.33	10.00
28. Follow along with my child's topic	50.00	90.00*
29. Repeat what my child says	30.00	70.00
30. Practice parallel talk	33.33	70.00
31. Tell my child s/he leaves out words	26.67	63.33
32. Change my words when child not understanding	40.00	90.00*
33. Talk to my child about what happened that day	50.00	86.67
34. Use picture books to teach child	33.33	73.33
35. Ask my child to repeat	23.33	80.00*
36. Ask my child to tell family member about events	43.33	73.33

* $p < .01$. See Appendix A for full survey item.

further improved to 88.33%. When the same analyses were used to evaluate the discriminative power of the practice items, the accuracy was lower with 66.67% correct group assignment. Cross-validation only improved the rate to 68.33%, which indicates that the ratings between the Dene and the non-Aboriginal mothers were not as far apart as were the differences for the belief items; however, there were a greater number of belief items (24) than frequency items (12), which may have contributed to the above difference. It is important to keep in mind that the chance level for the linear discriminant classification was 50%.

While the linear discriminant analysis could clearly differentiate between the two groups, the detailed univariate analysis of the questionnaire items revealed that only 7 of the 36 questions (19.4%) elicited significantly different ratings from the group of Dene mothers. Statistically significant group differences were found for 4 of the 24 belief questions (17%) (10, 18, 20, and 24) while 3 of the 12 practice items showed significant group differences (28, 32, and 35). The sample of Dene mothers in this study may be regarded as bicultural (Westby & Vining, 2002) in that these Dene mothers will likely use a blend of Western and traditional child-rearing practices. The survey items that yielded clear statistical differences will be discussed in more detail in the following paragraphs.

Belief statement # 10. My child's connection to spirituality is important to me.

The Dene respondents strongly agreed with this statement. One of the key aspects of traditional knowledge is the belief that spirit is in everything (Fitznor, 1998). As

with other remote communities in Canada's north, the Jesuit priests instilled a strong Christian faith when they first came to Lac Brochet. Most residents have blended Christian beliefs with their traditional animistic philosophy (Westby & Vining, 2002) and their respect towards the land and the animals.

Belief statement # 18. If parents use "baby talk" (like "wawa" for water or "jammies" for pajamas) their child won't learn to speak well.

Dene mothers in general were less in agreement with this statement than the non-Aboriginal mothers. Although there is no evidence in the literature that a child's speech is hindered by baby talk, some of the current literature on language development does not encourage the use of baby talk (motherese, child-directed speech; Wasserman, 2007). Ball et al. (2006) observed that Dene

mothers tended to use more nicknames and humorous word play in their native language, which may account for their greater acceptance of word simplifications or modifications.

Belief statement # 20. Young children learn best when they are given instructions.

There was strong agreement with this statement from both groups; however, the Dene caregivers' responses were significantly stronger. The strong support for this statement may have stemmed from the Dene mothers' belief that children are taught through explanations, oral teachings, and stories. The term *instructions* may have a degree of vagueness. The cultural informant felt that the mothers would have agreed equally if the question would have read, "young children learn best when they are shown how to do things." *Instructions* may have been interpreted as a combination of explanation and hands-on demonstrations.

Belief statement # 24. Grandparents or older family members give good advice about the way that young children grow up.

There was a clear distinction between the Dene and non-Aboriginal groups in response to this item. The Dene mothers felt that the Elders or grandparents gave good advice but most non-Aboriginal mothers disagreed with this statement. These findings can be interpreted to mean that Dene culture may place more value on traditional ways of learning in which knowledge is passed on from the older generation.

The 12 discourse practice items listed in the second part of the survey are referred to in the communication disorders literature as language facilitation techniques (Muir et al., 2000). Of the 12 practice statements, items 28, 32, and 35 (25%) showed a significant difference between the groups.

Practice statement # 28. Follow along with my child's topic of conversation.

Dene caregivers responded by stating that they practiced this technique very often, while non-Aboriginal mothers responded more neutrally. Aboriginal culture is often described as collectivist. Sharing ideas and experiences are viewed as important values by many Aboriginal peoples (Westby & Vining, 2002).

Practice statement # 32. Change my words or sentence when my child does not understand me.

The Dene mothers almost uniformly reported to do this *Almost Always*. The non-Aboriginal mothers also responded positively but showed a lower average rating value. Since the Dene mothers were raising their children bilingually in English and Dene, they may have interpreted this question in terms of facilitating bilingual language acquisition.

Practice statement # 35. Ask my child to repeat a sentence after me.

The non-Aboriginal mothers responded variably, while the Dene mothers reported to use this practice *Almost Always*. Again, it is possible that the Dene mothers interpreted this question in reference to the bilingualism in the community and the need to teach the words specific to each language. Parenting a child in two languages may require a more structured approach to language interaction (Daigneault-Hammersmith, Tavares, Mercredi, & Settee, 2007; Northwest Territories Learning Council, 2007), so the parents may have a heightened awareness of language facilitation strategies.

The qualitative analysis of the survey comments provided only limited additional insights. The Dene mothers made brief comments that mostly related to culture and language preservation. While the non-Aboriginal mothers made more extensive and specific comments, there was less of a common theme in their comments because the comments were addressing specific speech or language challenges that their children had encountered.

The current study succeeded in recruiting 30 Dene mothers from a small rural community in Manitoba. Recruitment in Aboriginal communities is often difficult, and the local buy-in into the study was probably improved by the culturally sensitive way in which the study was introduced to the community and carried out. Implementing the survey through a local bilingual research assistant who came to the participants' homes very likely improved the compliance of the participants. No such adjustments were made for the non-Aboriginal mothers in the urban setting.

It is therefore unclear whether the asymmetrical research design may also have led to asymmetries in the research results. It would be interesting to directly compare the compliance of both Aboriginal and non-Aboriginal research participants using traditional Western methodology and the culturally sensitive research methodology. Speaking from our experience, it seems likely that a Western paper survey method would result in lower participation and compliance with the research procedures in Aboriginal communities. However, further research should assess whether the non-Aboriginal participants would also prefer the culturally sensitive research procedures that were used with the Dene mothers.

It should be noted that the results can only represent the views of the Dene mothers in Lac Brochet who participated in the current study. While other Aboriginal peoples in Canada may have similar values and philosophies regarding language learning, the Aboriginal peoples must not be regarded as a uniform group (Loppie, 2007).

Conclusion

This study successfully identified a number of subtle differences in the beliefs and educational practices related to language acquisition of Dene and non-Aboriginal mothers. The Dene mothers valued spirituality and their child's connection to traditional faith and beliefs. These mothers also supported the use of child-directed speech to facilitate their children's language development. They felt that Elders and grandparents had an important role to play in their children's lives, and they favored teaching by providing a combination of verbal and hands-on instruction. The Dene mothers reported frequent use of language facilitation strategies. The participation in the research was facilitated for the Dene mothers by adjusting the way the survey was carried out to ensure that it was completed in a culturally appropriate manner.

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Editor Note

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Appendix A

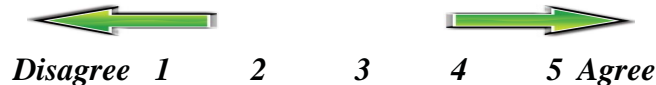
Survey

Thank you for your consent to complete this survey with you. You have the option for this survey to be read to you in English or Dene. We are doing this survey to educate ourselves on how your children learn language. There are many different ways that adults and children talk and play together. We want to find out about how the caregivers in your community talk and play with their children. It is important for us to understand this so that we can assess your children's language in a fair way, and offer appropriate suggestions to you if your child is having trouble learning language or how to speak.

There are no right or wrong answers. The format of the survey is such that you will be asked to choose a number from 1-5 that shows how much you agree with the statement.

For example:

It is important that your child eats breakfast every day.



If you strongly disagree with this statement you would answer 1.

If you agree with this statement, but not overly agree, you would tell me 4.

If you really have no preference one way or the other, you would answer with 3.

When answering these questions, try to think about your children who are in the range of 3-5 years of age or in pre-school.

1. My child spends much of the day playing outside.

Disagree 1 2 3 4 5 Agree

2. My child spends much of the day inside with books and toys (blocks, trucks, play-dough, coloring books, etc.).

Disagree 1 2 3 4 5 Agree

3. I would like to be taught how to help my child to understand and say more words.

Disagree 1 2 3 4 5 Agree

4. I would be concerned if my 4-year-old child was not speaking in Nursery/Headstart.

Disagree 1 2 3 4 5 Agree

5. A lot of ear infections may change how a child speaks.

Disagree 1 2 3 4 5 Agree

6. I feel comfortable copying my child's play on the floor (e.g. They are playing with blocks and you go down and play with the blocks too).

Disagree 1 2 3 4 5 Agree

7. It is ok for my child to not respond to me right after I ask a question.

Disagree 1 2 3 4 5 Agree

8. My child can easily sit and listen to a story without picture books.

Disagree 1 2 3 4 5 Agree

9. My child's brothers and sisters teach him/her new language as much as I do.

Disagree 1 2 3 4 5 Agree

10. My child's connection to spirituality is important to me.

Disagree 1 2 3 4 5 Agree

11. My child will easily talk to an older person (who they know) if given a chance.

Disagree 1 2 3 4 5 Agree

12. My 4-5 year old should attend Nursery/Kindergarten 3-5 days a week.

Disagree 1 2 3 4 5 Agree

13. When I tell my child a story, it is usually for a purpose (example: teaching).

Disagree 1 2 3 4 5 Agree

14. Children learn best by doing (provided they are out of danger), for example, how to make toast.

Disagree 1 2 3 4 5 Agree

15. Parents should ask young children to repeat new words in order to help them learn to talk.

Disagree 1 2 3 4 5 Agree

16. Children understand some words even before they can speak.

Disagree 1 2 3 4 5 Agree

17. Speech is especially important because it helps young children to make friends.

Disagree 1 2 3 4 5 Agree

18. If parents use 'baby talk' (like wawa for water, or 'jamies' for pajamas) their child won't learn to speak well.

Disagree 1 2 3 4 5 Agree

19. Three year olds are too young to help with household chores.

Disagree 1 2 3 4 5 Agree

20. Young children learn best when they are given instructions.

Disagree 1 2 3 4 5 Agree

21. Young children should always be encouraged to communicate with words rather than gestures.

Disagree 1 2 3 4 5 Agree

22. Young children learn important things while playing.

Disagree 1 2 3 4 5 Agree

23. Young children should be allowed to take a turn in conversations that include adults who are not family members.

Disagree 1 2 3 4 5 Agree

24. Grandparents or older family members give good advice about the way that young children grow up.

Disagree 1 2 3 4 5 Agree

The following 12 questions will be answered in terms of how often these practices occur. For example, whether or not it always happens or never happens. You will choose the number according to how often it occurs:

Hardly ever
1

Sometimes
2

Very often
3

Almost always
4

25. Tell my child if s/he uses the wrong word.

Hardly ever
1

Sometimes
2

Very often
3

Almost always
4

26. Read a book to my child at bedtime or naptime.

Hardly ever
1

Sometimes
2

Very often
3

Almost always
4

27. Ignore the fact that I do not understand something my child says.

Hardly ever
1

Sometimes
2

Very often
3

Almost always
4

28. Follow along with my child's topic of conversation.

<i>Hardly ever</i>	<i>Sometimes</i>	<i>Very often</i>	<i>Almost always</i>
1	2	3	4

29. Repeat what my child says, adding new words.

<i>Hardly ever</i>	<i>Sometimes</i>	<i>Very often</i>	<i>Almost always</i>
1	2	3	4

30. Talk about what is going on when my child and I are playing or doing things together. Example: When playing tea party, "Now, I'm pouring my tea. You're eating a tea cake. Is it good?"

<i>Hardly ever</i>	<i>Sometimes</i>	<i>Very often</i>	<i>Almost always</i>
1	2	3	4

31. Tell my child if s/he leaves some words out of a sentence.

<i>Hardly ever</i>	<i>Sometimes</i>	<i>Very often</i>	<i>Almost always</i>
1	2	3	4

32. Change my words or sentence when my child does not understand me.

<i>Hardly ever</i>	<i>Sometimes</i>	<i>Very often</i>	<i>Almost always</i>
1	2	3	4

33. Talk with my child about what happened that day when I wasn't there. Example: at preschool or at home while I was at work.

<i>Hardly ever</i>	<i>Sometimes</i>	<i>Very often</i>	<i>Almost always</i>
1	2	3	4

34. Use picture books or flash cards to teach my child new words.

<i>Hardly ever</i>	<i>Sometimes</i>	<i>Very often</i>	<i>Almost always</i>
1	2	3	4

35. Ask my child to repeat a sentence after me.

<i>Hardly ever</i>	<i>Sometimes</i>	<i>Very often</i>	<i>Almost always</i>
1	2	3	4

36. Ask my child to tell another family member about something that we did together.

<i>Hardly ever</i>	<i>Sometimes</i>	<i>Very often</i>	<i>Almost always</i>
1	2	3	4

COMMENT SECTION

Sometimes surveys do not allow you to explain yourself well enough. Please use this page to expand on certain issues that are important to you and your child's language/culture.

Thank-you!

Book Reviews/ Évaluation de livres

Exercises for Voice Therapy

Edited by Alison Behrman, PhD, CCC-SLP and John Haskell, EdD, CCC-SLP (2008)

Publisher: Plural Publishing Inc., San Diego, California
Reviewer: Glen Nowell, M.Sc., S-LP (C), CASLPO
Affiliation: Voice Laboratory and Treatment Centre of Ontario Associates, Voice Clinic at Hamilton Health Sciences, Hamilton, Ontario

Alison Behrman and John Haskell have taken a bright idea and based a readable and useful book on it. The idea: invite a number of voice therapists to contribute their favourite voice therapy exercises and organize the exercises by disorder area or physiological sub-system. This has produced a voice therapy “masterclass” complete with a CD for demonstrating exercises that are too difficult to convey through text alone. In the preface, the editors state, “voice therapy has been called both an art and a science, and many of the exercises may reflect more art than science.” Indeed, exercises included in the book are credited to, or influenced by, singing vocalises, dramatic arts, Indigenous Australian calls, Alexander Technique, and yoga breathing techniques. The exercises are provided by experienced voice therapists and singing voice specialists. I was pleased to see such a varied and interdisciplinary cross-section, which I feel appropriately represents an eclectic approach to the artistic science of voice therapy.

The book is divided into several chapters, which in turn are comprised of very short sub-chapters, often only one or two pages in length. This makes the book very accessible and helps the reader to get quick inspiration or a speedy overview of other people’s ideas. However, it makes it difficult to summarize and discuss the content of the book for the purposes of a book review! In order to best do the book justice, I will follow the sequence of chapters.

Chapter One is a quick overview of concepts of clinical voice therapy, including ideas for selecting treatment targets, a nice hierarchy of stimuli ranking (“level of difficulty based on sound, linguistic and cognitive loads,” p. 3) and concepts of facilitating generalization of skills outside the clinic. After giving a nod to major influences in the field of voice therapy, the authors challenge the readership to strive for more efficacy data.

Chapter Two, “Before and After,” is brief. It includes exercises intended to diminish post-surgical phonatory trauma (Behrman’s “light and easy talking”) and to cool down the voice after heavy voice use (Carroll’s “vocal cool-down”). The highlight for me was DeJonckere’s “vocal plasticity” approach, which may be known to others as diagnostic therapy or stimulability assessment. In vocal

plasticity, clinicians are encouraged to seek voice quality improvement by modifying variables in a sequence: posture, breathing, laryngeal position, loudness, articulation and resonance, and auditory feedback. This is concise and straightforward, and a valuable guide for a neophyte clinician.

Chapter Three, “Teaching Speech-Breathing Support,” provides examples of breath pacing exercises and ways to increase a patient’s awareness of the relationship between airflow and phonation. Spencer’s “breath sensitivity training” comes from the theatre. It includes elements of body movements paired with breathing exercises, as well as progressive relaxation and visualization components. It might have been better placed in Chapter Six, “Integrating voice production with body movement,” where it would have been among other physical exercises such as Alexander Technique and yoga.

Titze (2006) is quoted in the title of Chapter Four, “Using a Semioccluded Vocal Tract.” “Using the term semioccluded vocal tract, Titze (2006) explains that these maneuvers increase the interaction between the airflow directed by the vibrating vocal folds and the resonance features of the vocal tract” (p. 33). This chapter includes exercises such as lip trills and tongue trills. Brief mention is made of voiced fricatives and use of props (straws), but no specific exercises are suggested.

Chapter Five, “Resonant Voice,” includes a series of exercises designed to optimize forward focus and tune the vocal tract. It is in this chapter where the exercises seem most convincingly derived from vocal pedagogy texts and studios. Chanting and nasal vocalization exercises are classic staples of voice therapy. Silvia Pinho’s “Spaghetti” exercise focuses on lowering the larynx, which may help a patient change from an excessively high laryngeal carriage. Sarah Schneider’s “Hum-Sigh with Chewing” is a very familiar exercise to me, but I found the term “sigh” in the title misleading. I assumed the sigh inferred a breathy, low intensity phonation but the CD example demonstrated the target to be a clear, resonant and energized sound.

In Chapter Six, “Integrating Voice Production with Body Movement,” the integration is presented across a continuum from the intense self-awareness and guided elimination of habituated patterns in the Alexander Technique, through the gentle arm swings and shallow knee bends of Horman’s “arm swing warm-up,” to the vigorous marching and punching to accent the energetic connection between breath and voice in Paseman’s “I like to move it! Move it! Kinesthetically speaking.” In this chapter, I had expected that some of the Alexander techniques would be distilled and packaged into a format that could be applied by readers in their voice therapy practice. However, the authors caution that Alexander techniques should be performed in conjunction with an Alexander teacher (p. 70); they then suggest how to locate such a person. It is unclear why the authors felt such a cautionary “Don’t try this at home, kids” was needed. I am also unsure why Susan Miller’s yoga-inspired “relaxed heart-mind

breathing” was included in Chapter Six, as the exercise involves no body movement and focuses exclusively on awareness of respiration. It might have made more sense to put Miller’s exercise in Chapter Three because the focus is on breathing.

Chapter Seven, “Articulatory Freedom,” involves variations on the chewing technique as well as tongue protrusion to diminish habituated jaw and tongue tension or posterior tongue carriage. Haskell’s exercise draws attention to sounds produced at the front of the mouth using anterior consonants.

In Chapter Eight, “Teaching Loud Voice Production,” the authors argue that “many of our clients need to use a loud voice on a daily basis. Rather than admonishing the client to avoid loud voice use, it is more practical to teach the client how to achieve a loud voice in a healthy manner” (p. 89). Naturally, they encourage mastery of speech-level techniques before exploring techniques to increase intensity. The highlight of the chapter is the editors’ brief but concise explanation of the acoustics and biomechanics of twang and its close relationship to the singer’s formant. I was also glad to see *messa di voce* (crescendo-diminuendo) appear as part of the exercise in Ostrowski’s “vocal intensity play.” Phyland’s “Cooee (the Aussie Bushman’s Call)” may be a little too unconventional for many patients, particularly those who are self-conscious practicing.

Chapter Nine, “Facilitating Efficient Vocal Fold Closure,” brings forth several exercises focused on hard glottal attacks, glottal fry, and resistance to subglottic pressure.

Chapter Ten, “Pediatric Voice Therapy,” would have deserved its own book. The exercises are so different in approach and intent that they would have been more at home in separate chapters with more exercises of their own kind.

Chapter Eleven, “Special Cases,” has a pair of exercises for vocal fold dysfunction, one for transgender voice and one for puberphonia.

The CD is purported to include 21 examples, but in fact it consists of 19 examples, most of which are recorded by the clinician writing the exercise referenced on the CD. The recording quality is good and most of the samples are introduced before the exercises are demonstrated. Some of the tracks are confusing when one tries to follow along with the book, such as Lader’s “Chant Talk” where the spoken steps and written steps are numbered differently. The CD definitely enhances the book. It takes some of the exercises off the page and demonstrates the target vocal qualities and maneuvers.

Most of the illustrations convey the gist of the exercise. That being said, they are very unflattering, and most of the characters look upset or ill. Lader and Wolf’s “Alexander-based vocal therapy: with a little help from Carl Stough” is nicely illustrated in a format very different from the rest of the book, with very clear pen-and-ink illustrations contrasting strongly from the shaded sketches found in the rest of the book. I wish the whole book had been illustrated the same way that it was for this exercise.

Overall, the book is well conceived and the editors’ comments are on the mark. As promised, the book does indeed contain voice therapy exercises that can be applied as written or modified to suit the purpose. They provide fodder for creativity in tailoring exercises for voice therapy. At the same time, the authors and editors acknowledge that many of the exercises are not based on research evidence but reflect the oral tradition of passing on knowledge in vocal pedagogy. I have come across variations of many of the exercises found in this book while observing fellow voice therapists, voice teachers, and singing voice specialists working with their patients. Overall, I recommend the book as supplemental reading for both beginners and experienced voice therapists.

References:

Titze, I. (2006). Voice training and therapy with a semi-occluded vocal tract: Rationale and scientific underpinnings. *Journal of Speech, Language and Hearing Research, 49*, 448–459.

Dysphagia Following Stroke

Stephanie K. Daniels & Maggie-Lee Huckabee

Publisher: Plural Publishing Inc., San Diego, CA
Reviewer: Stacey A. Skoretz, M.Sc., CCC-SLP,
 PhD Candidate
Affiliation: Department of Speech Language Pathology,
 University of Toronto

At last, a practical and comprehensive book focusing on the assessment and management of swallowing disorders following stroke has graced the shelves. With its clinically relevant content and well-written text, this book provides information both for the junior and the senior dysphagia clinician. The authors provide balanced and objective information which is well-grounded in research. The book's up-to-date discussions of challenging issues provide the readers with insights and methods by which to approach their roles and responsibilities.

This 362-page book has 22 sections, the first of which commences with introductory information regarding stroke. The introductory sections provide a foundation for the reader to more fully understand the etiology of dysphagia. Right at the outset, tables and charts provide summaries of neurological examinations for patients following stroke. There is also a review of the current literature regarding the epidemiology of neurogenic dysphagia. This useful method of summarizing information and organizing it into forms and tables continues throughout the book.

Section two provides a summary of the neural control of swallowing. In addition, the authors provide a brief overview regarding the imaging methods by which neural control has been investigated. Section three covers the anatomy and physiology of normal swallowing. It includes tabularized summaries of the literature investigating the variability of swallowing in normal populations.

Sections four through eight focus on the clinical swallowing examination. These clinical examination sections are excellent and among the most informative of this book. Section four details history gathering and the conduct of patient and family interviews. The authors also cover evaluation methods for cognitive and communication impairments. Although this overview is not exhaustive, it does provide practical information regarding the assessment of these impairments and how they would relate to and affect dysphagia assessment and management. Section six reviews the oral mechanism examination and closes with a case study. The cranial nerve examination findings from the case are summarized in a chart. The authors walk the reader through clinical problem solving and possible positive and negative predictors for swallowing impairment, based on this cranial nerve exam. Section seven focuses on the assessment of oral intake while section eight reviews the literature supporting the prediction of dysphagia and aspiration following stroke. Section nine reviews adjuncts to the clinical examination such as pulse

oximetry, cervical auscultation and cough reflex testing. Daniels and Huckabee provide a balanced discussion by also describing the limitations of the clinical swallowing exam and its adjuncts.

Sections 10 through 13 are devoted to instrumental swallowing examinations. The authors include videofluoroscopy, aerodynamic measurements, videoendoscopy, and manometry. These sections provide information regarding the history, the advantages and disadvantages, the procedures, and the interpretation of these instrumental assessment methods. Examples are provided on the utility of each instrumental examination. The authors also discuss compensatory strategies and treatment plans that can be derived from the examination results.

Sections 14 and 15 focus on the diagnosis of dysphagia following stroke. Section 14 reviews the professional responsibilities surrounding this diagnosis. The authors review short-term and long-term goals based on the practitioner's available resources. They discuss the restrictions many clinicians face with regards to their access to resources such as instrumental methods of assessment. Section 15 delves into the differential diagnosis of dysphagia following stroke. Again, the authors provide an extensive summary of research focusing on the diagnosis of dysphagia in stroke.

The remaining seven sections focus on dysphagia management. They cover diet considerations, compensatory strategies, rehabilitative techniques, and finally, emerging management modalities. The authors provide practical explanations of the techniques and offer accessible descriptions of their implementation.

This book is not detailed enough to be considered a stand-alone resource for dysphagia courses. However, it contains sections that would be valuable and applicable for clinicians, or students, of all levels of expertise. As a clinician in this area, I know this will become a well-used book in my own library. As a clinical educator, I will be strongly recommending this book to my future students. Although this book focuses on dysphagia following stroke, portions would also be of use to clinicians working with other patient populations across the continuum of care. The authors have married the clinical applications and research worlds well by delivering a concise, practical, and well-balanced book that is a pleasure to read.

CASLPA Conference 2009 Abstracts

London, Ontario
April 29 – May 2, 2009

Preconference Workshops

Bilingual Aphasia: Evidence and Clinical Issues

Patricia Roberts, PhD, School of Rehabilitation Sciences, University of Ottawa, Ottawa, ON; Swathi Kiran, PhD, Department of Communication Sciences and Disorders, University of Texas at Austin, Austin, TX

This clinically oriented tutorial on bilingual aphasia will review the current knowledge about language localization, impairment patterns and treatment effects, presenting some of the questions most often asked by patients, families, and clinicians and examining whether the literature provides answers to them. A “sceptical reader’s guide” to recent studies will be presented.

DSL m[i/o] v5: Update for Clinicians

Richard Seewald, PhD, Susan Scollie, PhD, University of Western Ontario, London, ON; Sheila Moodie, MClSc, Marlene Bagatto, AuD, National Centre for Audiology, University of Western Ontario, London, ON; Shane Moodie, MSc, Frances Richert, MSc, H. S. Leeper Speech and Hearing Clinic, University of Western Ontario, London, ON

An update of the latest version of the Desired Sensation Level Method, DSL m[i/o] v5, will be described in this one-day pre-conference workshop. The implementation of evidence-based revisions and additions to the DSL Method will be explained. Practical applications of the DSL Method will be discussed through demonstrations and case studies.

Speech-Language Pathology and Audiology Workshops

Finding Your “Big Voice”: Communicating Your Passion Through Vocal Freedom, Physical Grounding and Fearlessness

Elaine Overholt

Every individual on the planet has a completely unique voice waiting to be set free. How do we blast through the fear that keeps us from finding that very personal, yet powerful voice to communicate our strongest feelings, passions, and purpose – our *Big Voice*?

Telling Stories from the Perspectives of Different Groups of Individuals with Communication Disorders

Jeff Nisker, MD, PhD, FRCSC, FCAHS, Schulich School of Medicine & Dentistry, University of Western Ontario, London, ON

“It is only with the heart that one can see rightly for what is essential is invisible to the eye.” (*The Little Prince* Antoine de Saint-Exupéry, 1943) Fictional works contribute greatly to compassionate patient care through their power to explore the feelings of patients and caregivers in a manner that can be absorbed for later understanding to assist others.

Good Grief!

Jill Bader, MA, J Bader Consultant, LLC, Parker, CO

Parents’ post-diagnostic grieving is a transformational process which assists the emotional adjustments needed for the task at hand and the challenges ahead. This presentation will help professionals understand and facilitate this process to ensure that a parent’s powerful emotional states serve positive purposes rather than thwart rehabilitation progress. A parent support group will be viewed via videotape.

Pandemic Preparedness – Not if, but When

Patricia Simone, Emergency Preparedness, Middlesex-London Health Unit, London, ON

This session will provide an overview of what Pandemic Influenza is and how it differs from Seasonal Influenza and Avian Influenza. We will explore the current statistics, infection control practices including personal protective measures and antivirals and learn why we should be concerned about this pending crisis which likely will have a huge impact on the healthcare practices within our communities. We will talk about the planning strategies, globally, nationally, provincially, and locally and motivate you to start thinking about what the impact of this crisis would be on you! At the end of the session, participants will have the tools necessary to begin the planning processes within their office and home.

Managing the Communication Needs of Patients with Dementia

Patti Hinton, MSc, Parkwood Hospital, London, ON; Tammy Hopper, PhD, Department of Speech Pathology and Audiology, University of Alberta, Edmonton, AB; Elizabeth Lock, MD, MSc, MEd, FRCPC (Psychiatry), Mental Health Service for the Deaf, London, ON

In this session the presenters will discuss the issues related to mental health and cognitive functioning of older adults. In particular, presenters will discuss the hearing and cognitive-communication functioning of individuals with dementia in long-term care settings. However, they will also discuss strategies to optimize care and communication of these patients in other settings such as acute care hospitals and private practices.

Putting Evidence into Practice in Communication Disorders

Harvey Abrams, PhD, Army Audiology and Speech Center, Walter Reed Army Medical Center, Washington, DC; Carla Johnson, PhD, Department of Speech-Language Pathology, University of Toronto, Toronto, ON

Evidence-based practice (EBP) is a framework for clinical decision-making, requiring integration of research evidence, clinical expertise, and client preferences. The presenters will use a case study approach (a family considering a cochlear implant for their child) to illustrate EBP, drawing on evidence and expertise in both audiology and speech-language pathology.

Humanitarian Projects in Speech-Language Pathology and Audiology: Sharing Our Knowledge

Karen MacKenzie-Stepner, MHSc, CCC, Halton Hills Speech Centre, Georgetown, ON; Julie Purdy, PhD, Starkey Laboratories, Mississauga, ON; Rebecca Harrison, MCI Sc (SLP), Express Yourself-Blue Balloon, Burlington, ON; André Marcoux, PhD, University of Ottawa, Ottawa, ON

Audiologists and speech-language pathologists are becoming increasingly involved in national and international service projects. Professional contributions have included the provision of assessment, treatment, and consultation services and the training of families, caregivers, and paraprofessionals. Student participation has also been encouraged through clinical education opportunities. Listen to their stories and learn how to become involved.

An Introduction to Cochlear Implants: Basic Information for Speech-Language Pathologists and Audiologists

Kim Zimmerman, MSc, University Hospital Cochlear Implant Team, London Health Sciences Centre, London, ON

This presentation will provide an overview of current cochlear implant technology and criteria, as well as information on the importance of early referrals to a cochlear implant program, the cochlear implant assessment process, and rehabilitation requirements pre- and post-implant. The need for, and importance of, collaborative practice between the cochlear implant program and community professionals will also be addressed.

Professional Inclusivity in Interprofessional Practice: Possible or Improbable?

Susan Anthony, former Chair, Undergraduate Nursing, University of Western Ontario, and PhD student, London, ON

Exploration of professional attitudes, boundaries, and hierarchies sheds light on the complex working relationships among disciplines and interprofessional teams. Facilitators and barriers to interprofessional practice are considered within the context of evidence-based collaborative patient-centred care.

Audiology Workshops

Assistive Technologies and Communication Access for School-Aged Children

Dawna Lewis, Boys Town National Research Hospital, Omaha, NE

This talk will address hearing assistance technology for children. The first part will focus on a variety of devices for alerting, e.g., telephones, television, stereos, etc. The second part will focus specifically on FM systems. The role of HAT in promoting communication access will be discussed as well as monitoring and managing changing needs of children and families.

Communication with Deafness and Dementia

Elizabeth Lock, MD, MSc, MEd, FRCPC (Psychiatry), Mental Health Service for the Deaf, London, ON

This workshop-type presentation focuses on dealing with D/deaf and hard of hearing patients who also may have dementia. We will use some clinical case-based examples and interactive discussions interspersed with lectures to examine this area. Particular topics include a review of the epidemiology of deafness as it relates to those seeking medical care, challenges in diagnosing dementia in D/deaf or hard of hearing persons, and clinical aspects of working with D/deaf and hard of hearing patients with dementia. We will also examine the important area of working with the families of such patients and the challenges therein.

Auditory Neuropathy/Dys-synchrony – Assessment and Management

Yvonne Sininger, PhD, Division of Head and Neck Surgery, David Geffen School of Medicine, University of California, Los Angeles, CA

This presentation will feature current information on diagnosis, mechanisms, and management of auditory neuropathy/dys-synchrony. Information on genetic mutations associated with AN and implications regarding the physiologic basis of the disorder will be discussed. Rehabilitation strategies, use of manual communication and visual augmentation, fitting of amplification, and cochlear implantation will also be discussed.

Current Issues and Directions in Adult Audiologic Rehabilitation

Jean-Pierre Gagné, PhD, Université de Montréal, Montreal, QC; Mary Beth Jennings, PhD, School of Communication Sciences and Disorders, University of Western Ontario, London, ON

Fundamental and practical issues related to audiologic rehabilitation will be addressed. Applications and implications of the International Classification of Functioning (ICF, WHO, 2001) for rehabilitation will be discussed as will those related to Perceived Self-Efficacy. Results of a treatment efficacy training program incorporating both of those concepts will be summarized.

Vestibular Physiology and Disorders for the Audiologist

Lorne Parnes, MD, FRCSC, Department of Otolaryngology, University of Western Ontario, London, ON

In this session, we will review the basic physiology of the vestibular system and discuss the commonly used diagnostic vestibular tests including the ENG/VNG and VEMP. We will then review the different diseases that can affect the vestibular system, and finally, we will provide an overview of the general treatments for vestibular disorders.

Current Issues and Developments in Hearing Instrument Verification

William Cole, PEng, Etymonic Design Inc., Dorchester, ON

Modern hearing instruments present the fitter with a daunting array of adjustments intended to allow precise tailoring of both the static and adaptive properties of the prosthesis to the auditory needs of the wearer. This talk will focus on ways of verifying that the intended results have been achieved.

Digital Signal Processing Technologies in Hearing Aids

Vijay Parsa, PhD, Faculties of Health Sciences and Engineering, University of Western Ontario, London, ON

Digital signal processing (DSP) is at the heart of current generation hearing instruments. This presentation will discuss DSP technologies prevalent in modern hearing aids such as noise reduction, adaptive directionality, feedback cancellation, and binaural processing. A critical review of the evidence of various DSP technologies in hearing aids will also be included.

Cerumen Management: Honing Your Skills

Kyle Goettl, RN, BScN, Amputee Rehabilitation Program, Parkwood Hospital, London, ON; Patti Hinton, MSc, Audiologist, Parkwood Hospital, London, ON

Cerumen build-up in our patients' ears results in many lost patient care hours and plays havoc with hearing aid use and benefit. Minimizing the impact of this is an important part of every audiologist's practice. This session is intended for those who have taken a cerumen management course and want to increase their proficiency with ear syringing techniques through hands-on practice. In addition, Parkwood Hospital's cerumen management training for nursing staff will be reviewed.

Speech-Language Pathology Workshops

The Impact of Working Memory on Classroom Learning

Susan Gathercole, Department of Psychology, University of York, York, UK

Working memory refers to the ability to hold information in mind for brief periods of time. In this workshop, the nature and development of working memory will be reviewed, as well as its importance to academic learning. Assessment and intervention strategies will be presented.

Medically Complex Cases: A Collaborative Approach

David Leasa, MD, University of Western Ontario, and London Health Sciences Centre-University Hospital, London, ON; Jane Gillett, MD, FRCP(C), Hamilton Health Sciences Centre, and McMaster University, Hamilton, ON; Monidipa Dasgupta, MDCM, FRCP(C), MSc, John Yoo, MD, FRCS(C), FACS Schulich School of Medicine and Dentistry, University of Western Ontario, London, ON

This session is designed to promote advanced understanding of medical issues as they relate to complex cases encountered by speech-language pathologists. Case examples from Respiriology, Neurology, Otolaryngology, and Geriatric Medicine will be used to underscore the impact of medical issues on S-LP clinical practice across a variety of practice settings.

Distinguishing Working Memory and Language Impairments in School-Aged Children

Lisa Archibald, PhD, School of Communication Sciences and Disorders, University of Western Ontario, London, ON

Some children with developmental language differences may have specific deficits in language or memory skills. In this workshop, we'll examine how limitations in working memory and/or linguistic skills may lead to similar but distinct communication impairments. Profiles and intervention strategies related to deficits in working memory, language, or both will be discussed.

Two Sides of a Coin: Brain, Behaviour and Our Understanding of Stuttering

Luc De Nil, PhD, Dept. of Speech-Language Pathology, University of Toronto, Toronto, ON

Recent advances in neuroimaging allow researchers to get a close look at how the brain works in people who stutter. At the same time, ongoing cognitive and behavioural research continues to demonstrate important characteristics of stuttering. This talk will focus on how these different approaches complement each other towards greater understanding of stuttering.

Dementia Update: Profiles, Assessments, and Interventions

Barbara Purves, Jeff Small, PhD, School of Audiology and Speech Sciences, University of British Columbia, Vancouver, BC; Elizabeth Rochon, PhD, University of Toronto, and Toronto Rehabilitation Institute, Toronto, ON; Tammy Hopper, PhD, Department of Speech Pathology and Audiology, University of Alberta, Edmonton, AB; J. B. Orange, PhD, School of Communication Sciences and Disorders, University of Western Ontario, London, ON

Demographic trends indicate that there are increasing numbers of individuals with dementia in Canada with predicted rises in the coming three decades. These trends have had and will continue to exert dramatic influences on the practice of speech-language pathologists. The speakers in this session will provide a comprehensive overview of research-based clinical practice issues for individuals who exhibit a wide range of dementia types.

Bridging Theory, Research, and Clinical Practice in AAC

Ann Sutton, PhD, Université de Montréal, and CHU Sainte-Justine, Lachine, QC; Natacha Trudeau, PhD, Université de Montréal, and CHU Sainte-Justine, Montreal, QC

Applications of linguistic theories and models to AAC will be illustrated through examples of current research that explores developmental changes in the use of graphic symbols. This approach has led us to adopt new perspectives on interactions in the context of AAC and to reflect on clinical practice.

Children's Early Literacy: The Role of Speech Quality and Invented Spelling

Monique Sénéchal, PhD, Department of Psychology, Carleton University, Ottawa, ON

Among other topics, Dr. Sénéchal will describe how young children's exploration of how letters capture speech sounds might promote early literacy more so than a simple focus on phonological awareness through language games.

Clinical Practice Issues in Feeding/Swallowing Assessment and Intervention: Infants and Young Children

Joan Arvedson, PhD, Feeding and Swallowing Services, Children's Hospital of Wisconsin, Milwaukee, WI

This session will focus on assessment and management issues in feeding and swallowing deficits in infants and young children through an evidence-based approach with emphasis on understanding the "total" child. Participants will learn effective problem-solving approaches to clinical feeding assessments, criteria for instrumental swallow studies, and management considerations that take into account the "whole" child and family.

Autism, the Enigma: Integrating Research and Clinical Experience to Plan Interventions

Shelley Mitchell, MSLP(C), Autism Research Unit, The Hospital for Sick Children, Toronto, ON; Janis Oram Cardy, PhD, Department of Communication Sciences and Disorders, University of Western Ontario, London, ON; Wendy Roberts, MD, FRCP(C), Autism Research Unit, The Hospital for Sick Children, and Bloorview Kids Rehab, and University of Toronto, Toronto, ON

This two-part seminar will use video-based cases to bootstrap interactive discussions on Autism Spectrum Disorders. Interdisciplinary and evidence-based assessment and intervention principles will be integrated with the latest research on genetics, neuroimaging, early identification, psychopharmacology, and complementary and alternative medicine. Natural history studies from infancy to preschool will be presented in the first part and school-age to adolescence in the second part.

Toward Evidence-Based Clinical Practice in Dysphagia: Assessment and Sensory-Motor Therapeutic Approaches

Ruth Martin, PhD, School of Communication Sciences and Disorders, University of Western Ontario, London, ON; Rosemary Martino, PhD, Department of Speech-Language Pathology, University of Toronto, Toronto, ON; Catriona Steele, PhD, Swallowing Rehabilitation Research Laboratory, Toronto Rehabilitation Institute, Toronto, ON

Evidence-based practice is paramount in dysphagia management given the serious health and quality-of-life impact of swallowing impairment. This session will evaluate the existing evidence base, and present novel findings in three areas of dysphagia management: (i) assessment, (ii) sensory-based, and (iii) motor-based therapeutic approaches.

Supportive Personnel

Developmental Coordination Disorder: Signs Supportive Personnel can Recognize and Manage in Therapy

Robin Gaines, PhD, Children's Hospital of Eastern Ontario Research Institute, and University of Ottawa, Ottawa, ON

In this workshop, participants will learn about the diagnosis of Developmental Coordination Disorder (DCD) and how a child with DCD is challenged to complete everyday tasks. Current knowledge about the co-existence of DCD with speech/language and attentional disabilities will be discussed. Videotaped examples of children in therapy will be shared. Participants will learn to recognize their own "helping behaviours" and will be given strategies for management of a child's motor difficulties.

An Introduction to Cochlear Implants and the Role Supportive Personnel can Play

Kim Zimmerman, MSc, University Hospital Cochlear Implant Team, London Health Sciences Centre, London, ON

This presentation will provide an overview of current cochlear implant technology and criteria, as well as information on the rehabilitation required post implant. The importance of collaborative practice between the cochlear implant program and community professionals and support personnel will also be addressed.

Intervention “Tricks or Treats” for Supportive Personnel*Elizabeth MacKinnon, Rehab Place, London, ON*

Each day therapy preparation means that clinicians need to find new ways to teach and develop communication skills. Sometimes inspiration comes easily and other times not at all. When the latter occurs, it is nice to be able to open the cupboard and find materials that expedite goals in an enjoyable way. This session will review a variety of therapy materials (these are the treats) and will provide a forum to talk about the “tricks” that make them work.

Speech-Language Pathology and Audiology Contributed Papers**Skills for Clinical Education and Mentorship – Enhancing Practice Education Culture***Lynn Ellwood, MHSc, S-LP(C), University of Toronto, Toronto, ON; Josée Sanscartier, Orthophoniste, University of Ottawa, Ottawa, ON; Susan Schurr, MClSc, University of Western Ontario, London, ON; Karen Luker, MHSc, CASLPO, Toronto, ON*

This seminar will address essential skills for mentoring professional peers and students. A scenario-based format will challenge learners to actively apply the principles proposed. Participants are invited to bring scenarios for discussion. Participants will learn practical ways to support and challenge the learner and to manage evaluation and feedback effectively.

Ongoing Professional Development in Aphasia: Colleagues as Curriculum*Rochelle Cohen-Schneider, MEd, Aphasia Institute, Toronto, ON*

Clinicians working with aphasia engage in ongoing professional development. Learning activities include reading literature and attending learning events. The team environment can also be a site of valuable professional development. This presentation discusses an approach to capturing the experiences of team members and creating an informal curriculum for ongoing learning.

Making the Move to School*Anila Punnoose, BSc, MSc, Reg CASLPO, Nancy Sarlo, BA, MHSc, Reg CASLPO, Can Communicate Services, Whitby, ON*

“Making the Move to School,” a preparation program for the S-LP/CDA team to support transition from preschool to school, facilitates understanding of the expectations of the Ontario Curriculum in the first years of school. Contents of this tool will be reviewed and a best practices discussion will be included.

Speech-Language Pathology Contributed Papers**Spanning the Gap: Building Partnerships in Remote and Rural First Nations Communities***Deanne Zeidler, S-LP, Ben Perry, S-LP, First Nations Education Steering Committee, Vancouver BC*

The First Nations participants from urban, rural, and remote communities have started on a promising journey. Because of the nature of the students and the communities they come from, graduates have potential to go beyond a role as assistants. They will be “resident experts,” providing a bridge between outside expertise and the residents of their communities. Another possible role is to raise awareness in their communities and disseminate information that will foster the development of languages. Presenters will focus on the strengths of this particular program and share profiles of students.

The Dynamics of Success with Speech-Language Pathology Practice in Nunavut*Michael Chappell, MHSc, University of Toronto, Iqaluit, NU*

Nunavut’s first health care funded speech-language pathology position introduced the Baffin Region to opportunities to have services that Northern community members had previously to travel to Ottawa, Montreal, and Winnipeg to receive. It also introduced to local health care services the opportunity to have direct access to swallowing, augmentative, and language expertise. This presentation will outline the successful strategies, partnership, and resources that were used to establish the service, develop a strong referral confidence within the Inuktitut speaking population and to work in coordination with nine remote community health care centres. It will also discuss the boundaries, barriers, and hesitations that an Inuit culture and community has when accepting a service that intervenes at the level of language when any current discussion of traditional language is very provocative.

Providing Services to First Nations Communities – (Of interest to all professionals offering services in the North)*Rosalee Shenker, Montreal Fluency Centre, Montreal, QC; Sharla Peltier, S-LP, Nipissing First Nation, North Bay, ON; Alice Eriks-Brophy, University of Toronto, Toronto, ON; Luella Jonk, University of Manitoba, Winnipeg, MB*

This 90-minute session will be conducted by experienced speech-language pathologists and researchers. Each panellist will share their work with First Nations Communities and discuss lessons learned to inform practice. Topics will include (but are not limited to): language acquisition in First Nations children, authentic evaluation for these children, and considerations for practice. Conference participants will be given an opportunity to ask questions.

Planning and Running Successful Preschool Therapy Groups*Margit Pukonen, MHSc, Reg CASLPO, S-LP(C), The Speech & Stuttering Institute, Toronto, ON*

Group therapy as an approach has strengths beyond increasing caseload size. However, goal achievement and behaviour management can be challenging. A planning process for running groups will be presented along with strategies for maximizing children’s participation. Parent involvement, record keeping, and outcomes will also be discussed.

Classroom-Based Intervention for Preschool Children

Rose Sinclair, MClSc, S-LP(C), Reg CASLPO, Michelle Truppe, MSc, S-LP(C), Reg CASLPO, Thames Valley Children's Centre, London, ON; Debbie Shugar, MA, S-LP(C) Reg. CASLPO, Middlesex London Health Unit, tykeTALK, London, ON

This session will describe a pilot that used a model of service delivery for preschool children with speech and language delays within the classroom setting. The process for supporting speech-language pathologists in the use of this model and results will be presented.

Hands that Feed the Words: Gestures and Language

Shirley Leew, PhD, Alberta Health Services, University of Alberta, Calgary, AB; Robin Gaines, PhD, Children's Hospital of Eastern Ontario, Ottawa, ON

Attention to communicative gestures is important in clinical practice with developing children under three years. This session will inform clinicians about current evidence concerning typical development of gestures, developmental trajectories, and the role gestures play in early language development. Focus will be the application of research to assessment and intervention.

Emergent Literacy Training in a Multicultural Population

Andrea Gingras, MSLP, S-LP(C), Kimberly Murphy, MSc (A), S-LP(C), Montreal Fluency Centre, Montreal, QC; Laura Justice, PhD, CCC-SLP, Ohio State University, Columbus, OH

Emergent literacy skills are critical for establishing a foundation for early reading and, ultimately, future academic learning. This presentation will describe a pilot project in a multicultural community that provided direct intervention for emergent literacy and trained parents to use techniques, such as print referencing, during shared book reading.

Integrating Emergent Literacy with Preschool Speech and Language Intervention

Anne Carruthers, MClSc, S-LP, Reg CASLPO, Melanie Evans, BA, BEd, CDA, Trish Major, MClSc, S-LP, Reg CASLPO, Alida Roloson, MClSc, S-LP, Reg CASLPO, Thames Valley Children's Centre, Elgin Satellite, St. Thomas, ON; Michelle Truppe, MSc, S-LP(C), Reg CASLPO, Thames Valley Children's Centre, London, ON

This session will describe a pilot project that incorporates emergent literacy into existing preschool speech and language intervention. Assessment, goal selection, and the use of embedded and explicit literacy strategies will be discussed in an interactive format.

Private Practice in ABI: Do You Have What It Takes?

Elizabeth Skirving, MS, MEd, Reg CASLPO, Cognitive and Communication Services, Inc., London, ON; Lisa Jadd, MClSc, Reg CASLPO, Stephanie Ellis, MSc, Reg CASLPO, Marla McNaught, MClSc(C), Reg CASLPO, Cognitive and Communication Services, Inc., London, ON

This session will provide a framework for discussing the unique challenges inherent in community-based brain injury rehabilitation: specialized skills for assessing and treating cognitive-communication disorders in clients' home and community settings; integration of functional goals in collaboration with other rehabilitation professionals; knowledge and advocacy for medical, legal, and insurance issues.

Putting Usable Research in the Hands of Front Line Clinicians

Kathryn Wishart, LCST MSc, Centre For Ability, Vancouver, BC; Kathleen Bloom, PhD, Knowledge Impact Strategies Consulting Ltd., Windsor, ON

Uptake and usefulness of research is increased when clinicians play an active role with researchers in creating knowledge products. We will outline a project to produce a database of clinically relevant research summaries and a template for a user friendly web-based search engine to guide language intervention in preschool children.

Life with Aphasia: Promoting Successful Community Re-Integration

Jan Roadhouse, MSLP, Reg CASLPO, S-LP, Adult Recreation Therapy Centre, Brantford, ON; Aura Kagan, PhD, Rochelle Cohen-Schneider, M Ed, Reg CASLPO, Catherine Low, BA, Hons, CDA, Aphasia Institute – The Pat Arato Aphasia Centre, Toronto, ON; Ruth Patterson, MSc (Applied), Reg CASLPO, York Durham Aphasia Centre, Stouffville, ON

Members of the Ontario Aphasia Centres Interest Group will discuss the following innovations:

- Living with Aphasia: Framework for Outcome Measurement (A-FROM)
- Assisting people with aphasia to have meaningful conversations with their doctors
- Using Life History books to promote successful community reintegration
- Starting a community-based aphasia program

When Reality Television Collides with Rehabilitation: A Transdisciplinary Approach

Deidre Sperry, MSc, S-LP(C), Private Practice, Dundas, ON; Leslie Birkett, BSc OT, OT Reg (Ont), Private Practice, Burlington, ON

This presentation will introduce participants to an ecologically valid tool to assess community safety of the adolescent with acquired brain injury involving executive functioning impairments. This tool attempts to bridge the gap between the challenges of attaining client-centred services for youth with disabilities and provision of a clinically relevant assessment.

Parent Articulation Training Program

Jacqueline Gance, S-LP, Debi Maniloff, S-LP, Ottawa Carleton District School Board, Ottawa, ON

The Parent Articulation Training Program is an innovative method of service delivery for students with mild articulation difficulties. This hands-on training program is offered in the evenings for families and staff to facilitate remediation of articulation difficulties that impact on self-esteem, literacy development, and communicative success.

Speech Therapy Telepractice: Efficiencies, Efficacy, and Ethics

Marnee Brick, MSc, Reg SASLPA, CASLPA, University of Nebraska at Kearney, Okotoks, AB

On-line telepractice is a growing solution for speech-language pathologists and communities. It enables speech-language pathologists to more effectively and efficiently manage their caseloads, while affording communities access to speech-language pathologist services. In addition, telepractice reduces the costs that are associated with driving, while it increases direct therapy time with students. It is important for the speech-language pathologist to be well informed and skilled in regards to providing on-line telepractice. Knowledge of the technology, adhering to professional standards, and providing quality sessions are three of the key points to be covered.

Measuring Treatment Outcomes for Speech, Emergent-Literacy, and Oral-Language Deficits

Karla Washington, Post Doctoral Fellow, Bloorview Research Institute, Toronto, ON; Genese Warr-Leeper, PhD, Associate Professor, University of Western Ontario, London, ON

Given the increasing need for evidence to base and guide clinical practices, the important role of measuring outcomes that may be used to support speech-language intervention will be highlighted. A sample of outcome studies designed to measure treatment outcomes for speech, emergent-literacy, and oral-language along deficits with social competence will be detailed.

Poster Sessions**SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY
CHILDREN****Readiness for School Programming Outcomes for At-Risk Children**

Aida Sefic, BSc, Rosine Salazer, BEd, MSc, S-LP, Thames Valley District School Board, London, ON; Genese Warr-Leeper, PhD, Associate Professor, University of Western Ontario, London, ON; Michelle Ahrens, MSc, S-LP, Halton Peel Preschool Speech and Language Program, Burlington, ON

The influence of a four-session program designed to promote school readiness for at-risk children and their families prior to entry into Junior Kindergarten was examined. Readiness in literacy-related skills and school readiness competencies were found to be significantly higher for attendees of the program compared to matched non-attendees.

Improving Literacy Outcomes in At-Risk School-Age Children

Julia Colangeli, SLP, Hotel Dieu Shaver Health and Rehabilitation Centre, St. Catharines, ON; Genese Warr-Leeper, PhD, Associate Professor, University of Western Ontario, London, ON; Rosine Salazer, BEd MSc SLP, Thames Valley District School Board, London, ON; Karla Washington, Post Doctoral Fellow, Bloorview Kids Rehab, Toronto, ON

Outcomes of speech-language pathology enhanced Phonological Awareness programming in SK and the relationships between PA skills and future literacy performance were examined. Following SK, students receiving enhanced programming scored significantly higher in PA compared to controls. Grade 1 reading and grade 3 EQAO Mathematics correlated significantly with PA skills in SK.

The Benefits of Sign Language for ALL Children

Sara Bingham, WeeHands Baby Sign Language Inc., Brooklin, ON

There has been an increase in the amount of baby sign language classes, books, videos, and DVDs available to parents over the past five years. What does the research say regarding the use of sign language with hearing children? Does it have a positive effect on speech development? Does it have a positive effect on language development? What are the long term effects of signing with young children? This presentation will review research regarding the idea of signing with hearing children and will provide suggestions regarding using sign language in therapeutic practice.

**SPEECH-LANGUAGE PATHOLOGY
GENERAL****Retrieval of Nouns and Verbs: A Comparative Study**

Joseph Kuryakose, BSc Speech and Hearing, Shimil Ulahannan, BSc Speech and Hearing, JSS Institute of Speech and Hearing, Mysore, India

Word retrieval is a complex process, important for speech and language fluency. Retrieval of nouns and verbs is essential for the production of grammatical speech. In picture-naming task, participants have to verbally name a displayed target picture. The reaction time measured approximates the time course of the participant's lexical access.

The Severity Question, a Simple Yet Not So Simple One

Carolyn Cronk, Université de Montréal, Montreal, QC

This presentation will explore the perspectives, both historical and current, that have informed our thinking about the severity of communication disorders, reflecting upon their advantages and shortcomings, with particular

reference to preschool child language disorder. Suggestions will be offered as to possible tools for determining severity of communication disorders.

Canadian Therapists in Kenya: Treatment Impact Using Goal Attainment Scaling

Tara Ross, S-LP, MSc Reg CASLPO, David Ross, PT, MScPT, Julie Hard, PT, MScPT, Blythe Dalziel, PT, MScPT, Alysia Carpe, OT, MSc OT Reg (Ont), Puja Ahluwalia, PT, BSc, Kenya Working Group – ICDR at University of Toronto, Toronto, ON

Goal Attainment Scaling (GAS) has been proven an effective outcome measure to follow patient change. An inter-professional rehabilitation team from Canada used the measure to determine the effectiveness of their treatments during a short-term volunteer trip to a community-based rehabilitation clinic in rural Kenya.

Longitudinal Survey of Language Acquisition in Children Adopted from Ethiopia

Sara Knox, MScSLP Student, Sally Reaper, MScSLP Student, Karen Pollock, PhD, RSLP, University of Alberta, Edmonton, AB

The acquisition of English in eight children adopted from Ethiopia was tracked over the first year post-adoption, using the MCDI and parent surveys. Varied outcomes were observed. Interviews with parents and adoption professionals were also conducted to gather information about the medical and developmental issues faced by this growing population.

Twisted Tongues: An Ultrasonographic Study of Lingual Contortion Speech

Tim Bressmann, PhD, Nesa Hosseinpour, BSc, University of Toronto, Toronto, ON

Understanding speech with a contorted tongue may improve interventions for glossectomies. The present study evaluated global aspects of lingual movement and the acoustics of speech with a contorted tongue. Ultrasound imaging was used to analyze tongue movement. The muscles of the tongue adapt dynamically to approximate the articulatory targets.

CHILD LANGUAGE

A New “Cross-Linguistic” Naming Test by Ardila: Performance of Bilingual Children

Patricia Roberts, PhD, S-LP(C), Associate Professor, Aurore Akerley, University of Ottawa, Ottawa ON

Twenty-four French-English bilingual children (7 to 14 years old) named the 40 pictured nouns, adjectives, and verbs that make up this new test. Stimulus characteristics are assessed. Test scores and level of bilingualism were strongly correlated despite a number of important weaknesses in this preliminary version of the test.

Differences between a Semantic vs. Pictographic Strategy to Plan Narratives

Molly Whittleton, BSc, Dalhousie University, Dartmouth, NS; Patricia Cleave, PhD, S-LP(C), Dalhousie University, Halifax, NS

Thirty-two children in grades three and four received instruction on how to use semantic webs or pictography for a narrative generation task. Children were tested on narrative productions before and after this instruction and differences in their oral narratives were examined.

Effectiveness of Two Direct Treatments on Session-to-Session Syntactic Growth for Preschool SLI

Karla Washington, Post Doctoral Research Fellow, Bloorview Kids Rehab, Toronto, ON; Genese Warr-Leeper, PhD, Associate Professor, University of Western Ontario, London, ON

The session-to-session syntactic-growth outcomes of two direct-treatments were examined. Both programs targeted expressive-grammar deficits for preschool SLI. One program used computer-assisted treatment and the other conventional language treatment. No statistically significant differences were found between the two direct-treatments; however, clinically, interesting patterns of performance were noted.

A Preliminary Evaluation of the Responsiveness of the FOCUS

Nancy Thomas-Stonell, BSc DSP, Bernadette Robertson, LCST, Joan Walker, Bloorview Kids Rehab, Toronto, ON; Kelly Hanlon, BA, Bruce Oddson, PhD, Laurentian University, Sudbury, ON; Peter Rosenbaum, MD, McMaster University, Hamilton, ON

The FOCUS, an outcome measure for preschool children, links speech-language treatment to a child's ability to participate in their world. Data was analyzed to determine which FOCUS items demonstrated the most changes in the initial stages of treatment. Changes were noted in several items after only five hours of treatment.

Literacy Experiences of Preschool Children in an Eastern Ontario First Nations Community

Cara Cressman, MSc, S-LP, KidsAbility Centre for Child Development, Waterloo, ON; Marilyn Kertoy, PhD, University of Western Ontario, London, ON

This project investigated views a First Nations community holds regarding preschool literacy and participation in home and community preschool literacy activities. Similarities and differences were found among First Nations and other communities on literacy development and participation in literacy activities. The value of this information for practitioners will be discussed.

Oral Language Abilities in Kindergarten as Predictors of Reading Outcomes

Tania Kalwani, MSc, University of Western Ontario, Richmond Hill, ON; Genese Warr-Leeper, PhD, Karla Washington, Post Doctoral Research Fellow, University of Western Ontario, London, ON; Rosine Salazer, MS, Steven Killip, PhD, Norah Mitchell, Thames Valley District School Board, London, ON

This study examined the ability of oral language skills in a large sample of JK and SK students to predict early and late elementary literacy levels. Sentence repetition and narrative skills predicted reading differently for grades 3 and 6 and whether the language measures were administered in JK or SK.

Correcting Compensatory Misarticulations with Corrective Babbling®: A Parent-Based Approach

Cindy Dobbelsteyn, S-LP(C), Assistant Professor, Elizabeth Kay-Raining Bird, PhD, Assistant Professor, Jennifer Parker, MSc S-LP(C), Ashlee Budden, Charlotte Clarkson, BA, Dalhousie University, Halifax, NS; Serena Browne, MSc S-LP(C), Dalhousie University, Kingston, ON

Individuals with a history of velopharyngeal dysfunction often exhibit persistent compensatory misarticulations (CMAs) after palatal surgery. This study investigated the Corrective Babbling® approach to remediation of CMAs. Parent training followed by four months of caregiver-delivered intervention resulted in a reduction in speech errors with noted parental satisfaction with the program.

Response to Intervention Using the Serious Nonsense (© Garnett) Program

Catherine Garnett, S-LP, School District #36, and Private Practice, Surrey, BC

Efficacy is needed to meet the communication needs of unintelligible primary children. The Serious Nonsense Auditory Awareness/Speech Therapy Program (© Garnett) assists children with varying degrees of unintelligibility and can be delivered by S-LPs as well as trained parents and SEAs. Results of therapy with several children will be presented.

Semantic and FAS Verbal Fluency in French-English Bilingual Children

Patricia Roberts, PhD, S-LP(C), Associate Professor, University of Ottawa, Ottawa, ON; Marie-Lyne Lussier, University of Ottawa, Shediac, NB

Twenty-four bilingual children (7 to 14 years old) performed two verbal fluency tests. The study examines the relationships between the children's score (number of correct words produced) and their age and between their score and their level of bilingualism. Issues in how to score this test for bilingual speakers are also considered.

SCHOOL AGE**ABRACADABRA: Evidenced-Based Software Designed to Teach Literacy Skills to Struggling Readers**

Sue Wastie, MA, S-LP(C), School District 47, Powell River, Vancouver, BC; Philip Abrami, PhD, Centre for the Study of Learning and Performance, Montreal, QC

ABRACADABRA is an online, evidence-based multimedia tool. Developed by researchers at Concordia University over the past eight years, ABRACADABRA provides interactive alphabetic, fluency, comprehension, and writing activities that promote basic literacy skills among emerging readers. It is primarily designed for young readers who are struggling and at-risk.

ADULT LANGUAGE AND SPEECH**People Living with Aphasia Talk about Changes in Life Participation**

Taslim Moosa, MCl Sc S-LP(C), Beata Batorowicz, MSc, University of Western Ontario, London, ON

Six focus groups were held with individuals with aphasia and their partners to explore their perceptions of changes in participation related to aphasia, and perceived barriers and facilitators to participation. The investigators will discuss the implications for clinical practice and various stakeholders including clients, their communication partners, and clinicians.

Comparing Speech Skill Learning in Stuttering and Parkinson's Disease

Sarah Smits-Bandstra, PhD, S-LP, McGill University, Kilbride, ON; Vincent Gracco, PhD, McGill University, Montreal, QC; Luc De Nil, PhD, University of Toronto, Toronto, ON

The skill acquisition and retention of persons who stutter, persons with Parkinson's disease, and control subjects were compared while performing a syllable reading task. Findings from performance measures, electromyography, and event-related potentials will have potential implications for how to maximize speech treatment effectiveness for these two populations.

Dynamic MR and Videofluoroscopic Imaging of Patients with Partial Tongue Resection

Janette Quintero, BA, Tim Bressmann, PhD, University of Toronto, Toronto, ON; Katalin Mady, PhD, University of Munich, Toronto, ON; Ambros Beer, MD, University of Technology, Munich, Toronto, ON

This poster will present findings from the quantitative comparison of preoperative and postoperative tongue movement and velocity during the speech of four patients with partial glossectomies, using MR imaging and videofluoroscopy. The imaging data were supplemented with acoustic analyses of the glossectomees' speech.

Speech with a Rapid Palatal Expander Appliance: Initial Effects and Long-Term Adaptation

Kyle Stevens, BSc, Tim Bressmann, PhD, Dan-Que Pham, BA, Janette Quintero, BA, Siew-Ging Gong, DDS, Bryan Tompson, DDS, University of Toronto, Toronto, ON

The purpose of this study was to accurately describe the effects of a rapid palatal expander (RPE) appliance on the speech of orthodontic patients. Twenty-two paediatric patients were recorded at different points during their treatment. The outcome measures were articulation test scores, speech acceptability ratings, and acoustic analyses.

ADULT NEUROGENIC DISORDERS

Ontario Aphasia Centres: Community Re-engagement for People with Aphasia

Ruth Patterson, MSc (Applied), Reg CASLPO, York-Durham Aphasia Centre, Stouffville, ON; Jan Roadhouse, MSLP, Reg CASLPO, Adult Recreation Therapy Centre, Brantford, ON; Vivienne Epstein, S-LP, Community Rehab, Hamilton, ON; Sarah Chapman-Jay, S-LP, Niagara Health System, Niagara Falls, ON

The Ontario Aphasia Centres Interest Group is a network of aphasia centres with a common interest in enhancing the life participation of people affected by aphasia across the stroke-care continuum. The poster will provide the group's terms of reference, membership information, accomplishments to date, and the locations of aphasia centres.

Life with Aphasia: Aphasia Camp 2008

Jan Roadhouse, MSLP, Reg CASLPO, Adult Recreation Therapy Centre, Brantford, ON

This poster will outline the planning, partnerships, funding, delivery, and outcomes of the first-ever weekend camp for people with aphasia in Ontario. Aphasia Camp was inspired by Stephen and Carol Goff and sponsored by the Adult Recreation Therapy Centre. It was held near Brantford in September 2008.

Effects of Respiratory Muscle Training on Parkinson's Patients' Speech Intelligibility

Vaneysa Hansen, MA, Washington University, Victoria, BC; Barbara Mathers-Schmidt, PhD, Professor and Chair, CSD Department, Western Washington University, Bellingham, WA

The purpose of this study was to determine if specific respiratory muscle training in a Parkinson's patient would result in increased speech intelligibility. The subject showed improvement on the SIT, unpredictable sentences, single word list, FVC, and FVC%. Results suggest that the subject's speech intelligibility improved with respiratory training.

The Clinical Significance of LSVT for Persons with Parkinson's Disease

Laura Boland, MSc, S-LP, Reg CASLPO, Dalhousie University, Brockville, ON; Ellen Hickey, PhD, S-LP(CCC), Dalhousie University, Halifax, NS

The clinical significance of LSVT was investigated. Participants with Parkinson's disease completed quality of life scales and interviews pre-LSVT, post-LSVT, and six months post-LSVT. Analyses revealed improvements in voice and communication immediately post-LSVT, but not six months later. Social validation data were also collected; results indicated no perceived improvements in communication post-LSVT.

Using Community Transfer Activities with Aphasia Groups to Increase Participation

Taslim Moosa, MCl Sc S-LP(C), University of Western Ontario, London, ON

This poster will examine the use of community transfer activities with several aphasia groups at the University of Western Ontario. Planned group community outings were used within the therapeutic service delivery model as a means to address barriers to and develop skills for participation in meaningful life activities.

Selective L2-Retrieval Deficits of Shared Words in a Bilingual Aphasic

Gopee Krishnan, Shivani Tiwari, Manipal University, Manipal, India

We report on a balanced bilingual aphasic subject (Kannada-Malayalam: two south Indian Dravidian languages) who evidenced a specific retrieval deficit in L2 for those words that share similar phonological and semantic forms in L1 and L2 (e.g., a:me [L1] – a:ma [L2] – tortoise).

Facial Nerve Disorders: Evaluation and Intervention Approaches

Alexa Okrainec, Associate Professor, S-LP, Brandon University, Winnipeg, MB

Facial expression, a salient form of nonverbal expression, contributes to our success as communicators. Drawing on the scientific literature, the poster will outline methods for managing facial nerve disorders. Rehabilitation approaches will be reviewed. The poster will emphasize research and application to practice.

CLINICAL EDUCATION

Clinical Education: Partnering with Rural and Remote Communities

Taslim Moosa, MCl Sc S-LP(C), Susan Schurr, MCl Sc SLP, University of Western Ontario, London, ON

A novel clinical education model was implemented at the University of Western Ontario to expand and challenge clinical thinking and practice about culturally diverse and remote populations. A review of outcomes including evaluations of the students' learning experience and the impact of the service provided will be discussed.

AUGMENTATIVE COMMUNICATION

The Use of Eye Gaze Technology with Clinically Complex Individuals

Barbara Anne Molo-Kato, S-LP(C) CCC Reg. CASLPO, Melinda Cox, OT, Kelly Dymond, Michael Seaman, Bridgpoint Health Hospital – ACWC, Toronto, ON

The latest advances in eye gaze technology offer individuals with severe physical impairments, such LIS or advanced stages of ALS, an instrument to unlock or preserve their ability to communicate. This study explores some of the challenges of assessing and supporting this technology both in the hospital and the community.

FLUENCY

Cluttering Education: A Survey of Canadian University Programs

Carla Di Domenicantonio, MHSc, Private Practice, Burlington, ON; Francis Duldulao, BA Candidate, McMaster University, Hamilton, ON

Cluttering has been described as an orphan in the field of speech-language pathology (Weiss, 1964). It is believed that many people who clutter fail to be identified accurately because of lack of awareness of the disorder both amongst professionals and the public. The present survey was designed to investigate whether and how Canadian speech-language pathology university programs educate students on the subject of cluttering. Survey findings will be presented and discussed.

International Cluttering Association: An Introduction

Carla Di Domenicantonio, MHSc, Private Practice, Burlington, ON; Francis Duldulao, BA Candidate, McMaster University, Hamilton, ON

The International Cluttering Association (ICA) was formed in May 2007 in an effort to increase public and professional awareness of the communication disorder of cluttering, to foster research and international collaboration, and to facilitate the exchange of information. This poster will introduce the ICA to Canadian S-LPs. The poster will present a current working definition of cluttering, explain the ICA mission, introduce Canada's representatives, identify available resources for the S-LP, and encourage participation in the ICA.

AUDIOLOGY

Older Adults Expend More Effort to Understand Speech in Noise

Penny Anderson Gosselin, MCl Sc, PhD Candidate, Université de Montréal, St. Hubert, QC; Jean-Pierre Gagné, PhD, Université de Montréal, Montreal, QC

Listening effort is an important dimension of understanding speech, yet audiologists evaluate it subjectively. Using a dual task paradigm, our goal is to quantify and compare the amount of listening effort that normal hearing younger and older adults experience when they hear speech in background noise.

Cortical Dynamics of Auditory Change Detection

Shannon MacLean, PhD Candidate, Lawrence Ward, PhD, University of British Columbia, Sechelt, BC

This electroencephalography (EEG) study examined the brain regions involved in auditory change detection as indexed by the Mismatch Negativity (MMN) response. The task involved both passive listening and active sound localization. We measured the timing between active brain regions and delineated various stages of this important auditory process.

Congrès de l'ACOA 2009

Abrégés

London (Ontario)

du 29 avril au 2 mai

Ateliers antérieurs au congrès

L'aphasie chez les personnes bilingues : données probantes et enjeux cliniques

Patricia Roberts, PhD, École des sciences de la réadaptation, Université d'Ottawa, Ottawa, ON; Swathi Kiran, PhD, Department of Communication Sciences and Disorders, University of Texas at Austin, Austin, TX

Cet atelier portant sur l'aphasie chez les personnes bilingues et axé sur la pratique clinique fera un bilan des connaissances actuelles sur la localisation du langage, les diverses présentations des troubles et les effets du traitement. Nous y présenterons certaines des questions les plus fréquemment posées par les patients, leurs familles et les cliniciens, et nous examinerons si la recherche y fournit des réponses. Un « guide du lecteur sceptique » de la recherche récente sera présenté.

L'algorithme DSL m[i/o] v5 : une mise à jour pour les cliniciens

Richard Seewald, PhD, Susan Scollie, PhD, University of Western Ontario, London, ON; Sheila Moodie, MClSc, Marlene Bagatto, AuD, National Centre for Audiology, University of Western Ontario, London, ON; Shane Moodie, MSc, Frances Richert, MSc, H. S. Leeper Speech and Hearing Clinic, University of Western Ontario, London, ON

Cet atelier antérieur au congrès d'une durée d'un jour décrira une mise à jour de la dernière version de la *Desired Sensation Level Method*, DSL m[i/o] v5. Nous expliquerons comment des révisions et ajouts fondés sur les données probantes ont été intégrés à la Méthode DSL. Nous présenterons des applications pratiques de la Méthode DSL à l'aide de démonstrations et d'études de cas.

Ateliers communs d'orthophonie et d'audiologie

Trouver sa « grosse voix » : communiquer sa passion au moyen de la libération de la voix, des bases physiques et de l'intrépidité

Elaine Overholt

Chaque personne dans le monde a une voix totalement unique n'attendant que d'être libérée. Comment pouvons-nous pulvériser la peur qui nous empêche de trouver cette voix aussi personnelle que puissante pour communiquer nos sentiments les plus forts, nos passions et notre dessein – c'est-à-dire notre « grosse voix »?

Raconter des histoires du point de vue de divers groupes de personnes ayant des troubles de la communication

Jeff Nisker, MD, PhD, FRCSC, FCAHS, Schulich School of Medicine & Dentistry, University of Western Ontario, London, ON

« On ne voit bien qu'avec le cœur. L'essentiel est pour les yeux. » (*Le Petit Prince*, Antoine de Saint-Exupéry, 1943)
Les oeuvres de fiction peuvent grandement nous aider à fournir des soins aux patients avec compassion, grâce à leur capacité d'explorer les sentiments des patients et des prestataires de soins d'une façon qui peut être absorbée et comprise plus tard dans le but d'aider les autres.

Ciel! La peine des parents après le diagnostic

Jill Bader, MA, J Bader Consultant, LLC, Parker, CO

Le deuil des parents après l'obtention d'un diagnostic est un processus de transformation permettant de faire les ajustements émotionnels nécessaires pour faire face aux tâches et aux défis à venir. Cet exposé aidera les professionnels à comprendre et à soutenir ce processus pour faire en sorte que les états émotionnels des parents aient une fonction positive et n'entravent pas le processus de réadaptation. Nous observerons un groupe de soutien de parents sur vidéo.

Se préparer pour une pandémie ... au-delà de l'hypothèse, la certitude

Patricia Simone, Emergency Preparedness, Middlesex-London Health Unit, London, ON

Cette séance exposera la nature d'une pandémie de la grippe et décrira comment celle-ci se distingue de la grippe saisonnière ou de la grippe aviaire. Nous explorerons les statistiques actuelles, nous examinerons des pratiques de contrôle des infections, y compris les mesures de protection personnelle et les drogues antivirales, et nous apprendrons pourquoi il y a lieu de s'inquiéter de cette crise imminente qui aurait des conséquences majeures sur les pratiques en matière de soins de santé dans nos collectivités. Nous discuterons des stratégies de planification mondiales, nationales, provinciales et locales, et nous vous encouragerons à réfléchir sur les conséquences d'une telle crise pour vous! À la fin de la séance, les participants auront les outils nécessaires pour entamer le processus de planification au travail et à la maison.

Prendre en charge les besoins en matière de communication des patients déments

Patti Hinton, MSc, Parkwood Hospital, London, ON; Tammy Hopper, PhD, Department of Speech Pathology and Audiology, University of Alberta, Edmonton, AB; Elizabeth Lock, MD, MSc, MEd, FRCPC (psychiatrie), Mental Health Service for the Deaf, London, ON

Lors de cet exposé, les conférenciers discuteront des questions portant sur la santé mentale et le fonctionnement cognitif des personnes âgées. Ils aborderont notamment l'audition et le fonctionnement cognitivo-linguistique des personnes avec une démence dans les milieux de soins de longue durée. Toutefois, ils exploreront aussi des stratégies pour optimiser les soins et la communication de ces patients dans d'autres milieux, par exemple les hôpitaux de soins aigus et les pratiques privées.

Troubles de la communication : Fonder ses décisions sur des données probantes

Harvey Abrams, PhD, Army Audiology and Speech Center, Walter Reed Army Medical Center, Washington, DC; Carla Johnson, PhD, Department of Speech-Language Pathology, University of Toronto, Toronto, ON

La pratique fondée sur des données probantes forme un cadre pour la prise de décisions cliniques, qui nécessitent l'intégration de preuves issues de la recherche, d'expertise clinique et des préférences des clients. Les présentateurs se serviront d'une étude de cas (une famille qui envisage un implant cochléaire pour son enfant) pour illustrer la pratique fondée sur les données probantes et se serviront de données probantes et d'expertise des domaines de l'audiologie et de l'orthophonie.

Des initiatives d'aide humanitaire en orthophonie et en audiologie : partager notre savoir

Karen MacKenzie-Stepner, MHSc, CCC, Halton Hills Speech Centre, Georgetown, ON; Julie Purdy, PhD, Starkey Laboratories, Mississauga, ON; Rebecca Harrison, MCI Sc (SLP), Express Yourself-Blue Balloon, Burlington, ON; André Marcoux, PhD, Université d'Ottawa, Ottawa, ON

Des audiologistes et des orthophonistes participent de plus en plus à des projets d'aide nationaux et internationaux. Leurs contributions professionnelles comprennent la prestation de services d'évaluation, de traitement et de consultation aux familles, aux prestataires de soins et aux paraprofessionnels. La participation des étudiants est encouragée grâce à des occasions de stages cliniques. Venez écouter leurs histoires et apprendre comment y prendre part.

Initiation aux implants cochléaires: information de base pour les orthophonistes et les audiologistes

Kim Zimmerman, MSc, University Hospital Cochlear Implant Team, London Health Sciences Centre, London, ON

Cet exposé donne un aperçu de la technologie actuelle et des critères d'admissibilité en matière d'implants cochléaires. Il comprendra également de l'information au sujet de l'importance de la consultation précoce d'un programme d'implants cochléaires, du processus d'évaluation pour l'implant cochléaire, de même que des besoins en matière de réadaptation avant et après l'implantation. Le besoin et l'importance de la collaboration entre le programme d'implants cochléaires et les professionnels dans la collectivité seront abordés.

L'inclusivité professionnelle dans la pratique interprofessionnelle : possible ou improbable?

Susan Anthony, ancienne directrice du programme de baccalauréat en sciences infirmières, University of Western Ontario, et étudiante au doctorat, London, ON

Cette exploration des attitudes, des limites et des hiérarchies chez les professionnels mettra en lumière les relations de travail complexes entre les disciplines et au sein des équipes interdisciplinaires. Les facteurs qui facilitent et entravent la pratique interdisciplinaire seront envisagés dans un contexte de soins axés sur le patient et sur la collaboration, et fondés sur les données probantes.

Ateliers d'audiologie

Les technologies d'aide et d'accès à la communication pour les enfants d'âge scolaire

Dawna Lewis, Boys Town National Research Hospital, Omaha, NE

Cette discussion portera sur les technologies d'aide à l'audition pour les enfants. La première partie présentera une variété d'appareils d'alerte, de téléphones, de télévisions, de systèmes de son, etc. La deuxième partie portera particulièrement sur les systèmes MF. On discutera du rôle des technologies d'aide à l'audition dans la promotion de l'accès à la communication, ainsi que de la surveillance et de la gestion des besoins des enfants et des familles à mesure qu'ils évoluent.

La communication avec les personnes sourdes et atteintes de démence

Elizabeth Lock, MD, MSc, MEd, FRCPC (Psychiatrie), Mental Health Service for the Deaf, London, ON

Cet exposé est un atelier pour apprendre comment travailler avec les patients sourds ou déficients auditifs qui pourraient aussi avoir une démence. La présentation sera enrichie d'exemples de cas cliniques et de discussions interactives pour examiner la question. Les sujets abordés comprendront un survol de l'épidémiologie de la surdité chez les personnes nécessitant des soins médicaux, les défis relatifs au diagnostic de la démence chez les personnes sourdes ou avec déficience auditive, ainsi que les aspects cliniques du travail avec les personnes sourdes et déficientes auditives qui ont une démence. Nous explorerons également l'importance de la collaboration avec les familles de ces patients, ainsi que les défis associés.

Neuropathie/dyssynchronie auditive – évaluation et prise en charge

Yvonne Sininger, PhD, Division of Head and Neck Surgery, David Geffen School of Medicine, University of California, Los Angeles, CA

Cet exposé présentera de l'information à jour sur le diagnostic, les mécanismes et la prise en charge de la neuropathie/dyssynchronie auditive. Nous discuterons des mutations génétiques associées aux neuropathies

auditives, ainsi que des conséquences découlant des bases physiologiques du trouble. Nous aborderons également les stratégies de réadaptation, l'utilisation de communication manuelle et de suppléance visuelle, l'ajustement de l'amplification et les implants cochléaires.

Questions actuelles et orientations en réadaptation audiolinguistique chez les adultes

Jean-Pierre Gagné, PhD, Université de Montréal, Montréal, QC; Mary Beth Jennings, PhD, School of Communication Sciences and Disorders, University of Western Ontario, London, ON

Nous aborderons les questions fondamentales et pratiques relatives à la réadaptation audiolinguistique. Nous résumerons les applications et les répercussions de la Classification internationale du fonctionnement (CIF, OMS, 2001) en ce qui a trait à la réadaptation, de même que celles de la Perception de ses propres capacités (*Perceived Self Efficacy*). Nous présenterons les résultats d'un programme de formation sur l'efficacité du traitement qui intègre ces deux concepts.

La physiologie vestibulaire et les troubles du système vestibulaire du point de vue des audiologistes

Lorne Parnes, MD, FRCSC, Department of Otolaryngology, University of Western Ontario, London, ON

Dans cette présentation, nous ferons un examen de la physiologie de base du système vestibulaire, et nous discuterons des tests diagnostiques vestibulaires les plus utilisés, y compris l'ENG/la VNG et les potentiels évoqués vestibulaires myogéniques. Nous examinerons ensuite les différentes maladies pouvant affecter le système vestibulaire, puis nous terminerons avec un survol des traitements généraux pour les troubles vestibulaires.

Questions actuelles et évolution de la vérification des appareils auditifs

William Cole, ingénieur, Etymonic Design Inc., Dorchester, ON

Les appareils auditifs modernes présentent à l'ajusteur un ensemble intimidant d'ajustements visant à permettre une personnalisation précise des propriétés statiques et adaptatives de la prothèse selon les besoins auditifs de la personne qui la portera. Cet exposé concernera surtout les façons de vérifier que les résultats visés ont été obtenus.

Les technologies de traitement numérique du signal dans les appareils auditifs

Vijay Parsa, PhD, Faculties of Health Sciences and Engineering, University of Western Ontario, London, ON

Le traitement numérique du signal (TNS) fait partie intégrante de la génération actuelle des appareils auditifs. Cette présentation portera sur les technologies de TNS couramment utilisées dans les appareils auditifs modernes, par exemple la réduction du bruit, la directivité adaptative, la compensation des rétroactions et le traitement binaural. Nous ferons également un examen critique des données probantes sur les diverses technologies TNS utilisées dans les appareils auditifs.

L'exercice du cérumen : parfaire ses compétences

Kyle Goettl, infirmier autorisé, BScN, Amputee Rehabilitation Program, Parkwood Hospital, London, ON; Patti Hinton, MSc, audiologiste, Parkwood Hospital, London, ON

L'accumulation de cérumen dans les oreilles des patients mène à la perte de nombreuses heures de soins auprès des patients et entrave le fonctionnement et les bienfaits des appareils auditifs. Tous les audiologistes doivent être en mesure de minimiser l'effet de cette réalité dans leur pratique clinique. Cet atelier s'adresse aux personnes qui ont suivi un cours sur la gestion du cérumen et qui veulent parfaire leurs compétences relativement aux techniques de nettoyage à l'aide d'une seringue grâce à des essais pratiques. De plus, nous discuterons de la formation du personnel infirmier pour la gestion du cérumen à l'hôpital Parkwood.

Ateliers d'orthophonie

L'incidence de la mémoire de travail sur l'apprentissage en salle de classe

Susan Gathercole, Department of Psychology, University of York, York, UK

La mémoire de travail est la capacité de tenir de l'information en tête pour de courtes périodes de temps. Dans cet atelier, on examinera la nature et le développement de la mémoire de travail, de même que son importance pour l'apprentissage en salle de classe. On présentera également des stratégies pour l'évaluation et l'intervention.

Cas médicaux complexes : une approche de collaboration

David Leasa, MD, University of Western Ontario et London Health Sciences Centre – University Hospital, London, ON; Jane Gillett, MD, FRCP(C), Hamilton Health Sciences Centre et McMaster University, Hamilton, ON; Monidipa Dasgupta, MDCM, FRCP(C), MSc, John Yoo, MD, FRCS(C), FACS Schulich School of Medicine and Dentistry, University of Western Ontario, London, ON

Cet exposé vise à promouvoir une compréhension avancée des questions médicales pertinentes en ce qui a trait aux cas complexes rencontrés par les orthophonistes. Nous utiliserons des exemples de cas en respirologie, neurologie, otolaryngologie et médecine gériatrique pour faire ressortir les répercussions des questions médicales sur la pratique clinique des orthophonistes dans divers milieux d'exercice.

Faire la différence entre un trouble de la mémoire de travail et un trouble du langage chez les enfants d'âge scolaire

Lisa Archibald, PhD, School of Communication Sciences and Disorders, University of Western Ontario, London, ON

Certains enfants avec des difficultés de développement du langage peuvent avoir des déficits spécifiques sur le plan du langage ou de la mémoire. Dans cet atelier, nous examinerons comment des difficultés au niveau de la mémoire de travail et/ou des habiletés langagières peuvent mener à des troubles de la communication semblables mais

distincts. Nous discuterons également de profils et de stratégies d'intervention en matière de déficits au niveau de la mémoire de travail, du langage et des deux.

Les deux côtés de la médaille : le cerveau, le comportement et ce que l'on sait du bégaiement

Luc De Nil, PhD, Department of Speech-Language Pathology, University of Toronto, Toronto, ON

Les progrès récents en neuro-imagerie permettent aux chercheurs d'observer de près le fonctionnement du cerveau chez les personnes qui bégaient. Parallèlement, la recherche cognitive et comportementale en cours continue de définir les caractéristiques importantes du bégaiement. Cette discussion portera sur la façon dont ces deux approches se complètent pour en arriver à une meilleure compréhension du bégaiement.

Tour d'horizon sur la démence : profils, évaluations et interventions

Barbara Purves, Jeff Small, PhD, School of Audiology and Speech Sciences, University of British Columbia, Vancouver, C.-B.; Elizabeth Rochon, PhD, University of Toronto, et Toronto Rehabilitation Institute, Toronto, ON; Tammy Hopper, PhD, Department of Speech Pathology and Audiology, University of Alberta, Edmonton, AB; J. B. Orange, PhD, School of Communication Sciences and Disorders, University of Western Ontario, London, ON

Les tendances démographiques indiquent qu'il y a un nombre croissant de personnes avec une démence au Canada, et que ce nombre continuera d'augmenter au cours des trois prochaines décennies. Ces tendances ont eu, et continuent d'avoir, des répercussions profondes sur la pratique des orthophonistes. Les conférenciers de cet exposé présenteront un survol complet des questions de pratique clinique fondées sur la recherche pour les personnes qui présentent divers types de démence.

Communication suppléante et alternative : faire le pont entre la théorie, la recherche et la pratique clinique

Ann Sutton, PhD, Université de Montréal, et CHU Sainte-Justine, Lachine, QC; Natacha Trudeau, PhD, Université de Montréal, et CHU Sainte-Justine, Montréal, QC

Nous illustrerons l'application de théories et de modèles linguistiques à la communication suppléante et alternative (CSA) à l'aide d'exemples de la recherche actuelle qui explorent les changements développementaux dans l'utilisation des pictogrammes. Cette démarche nous a mené à adopter de nouvelles perspectives en ce qui a trait aux interactions dans le contexte de la CSA, ainsi qu'à réfléchir sur la pratique clinique.

L'apprentissage de la lecture et de l'écriture chez les jeunes enfants : le rôle de la qualité de la parole et l'orthographe inventé

Monique Sénéchal, PhD, Department of Psychology, Carleton University, Ottawa, ON

Entre autres sujets, M^{me} Sénéchal décrira comment l'exploration, par les jeunes enfants, de la correspondance entre les mots et les sons pourrait promouvoir l'alphabétisme précoce davantage que le simple développement de la conscience phonologique par l'entremise de jeux de langage.

Les questions de pratique clinique entourant l'évaluation de l'alimentation et de la déglutition et l'intervention chez les poupons et les jeunes enfants

Joan Arvedson, PhD, Feeding and Swallowing Services, Children's Hospital of Wisconsin, Milwaukee, WI

Cette présentation portera sur les questions d'évaluation et de prise en charge des troubles de l'alimentation et de la déglutition chez les poupons et les jeunes enfants. Le sujet sera exploré grâce à une approche fondée sur les données probantes et sera principalement axé sur la compréhension de l'enfant dans toute sa personne. Les participants apprendront des méthodes de résolution de problèmes efficaces pour l'évaluation de l'alimentation en milieu clinique, des critères à suivre pour les évaluations instrumentales de la déglutition, et des facteurs à considérer lors de la gestion de cas qui tiennent compte de l'enfant dans toute sa personne et de sa famille.

L'autisme, un trouble énigmatique : allier la recherche et l'expérience clinique pour planifier des interventions

Shelley Mitchell, MSLP(C), Autism Research Unit, The Hospital for Sick Children, Toronto, ON; Janis Oram Cardy, PhD, Department of Communication Sciences and Disorders, University of Western Ontario, London, ON; Wendy Roberts, MD, FRCP(C), Autism Research Unit, The Hospital for Sick Children, Bloorview Kids Rehab et University of Toronto, Toronto, ON

Ce séminaire en deux parties utilisera des cas sur vidéo pour amorcer des discussions interactives au sujet des troubles du spectre de l'autisme. Des principes d'évaluation et d'intervention interdisciplinaires et fondés sur les données probantes seront intégrés à la recherche récente dans les domaines de la génétique, de la neuro-imagerie, de l'identification précoce, de la psychopharmacologie et de la médecine complémentaire et douce. La première partie portera sur des études d'histoire naturelle de la petite enfance à l'âge préscolaire, et la deuxième partie sur des études de l'âge scolaire à l'adolescence.

En quête de pratiques cliniques fondées sur les preuves en dysphagie : évaluation et méthodes thérapeutiques sensorimotrices

Ruth Martin, PhD, School of Communication Sciences and Disorders, University of Western Ontario, London, ON; Rosemary Martino, PhD, Department of Speech-Language Pathology, University of Toronto, Toronto, ON; Catriona Steele, PhD, Swallowing Rehabilitation Research Laboratory, Toronto Rehabilitation Institute, Toronto, ON

La pratique fondée sur les données probantes est essentielle en dysphagie, compte tenu des répercussions profondes des troubles de la déglutition sur la santé et la qualité de vie. Cet exposé évaluera les données probantes existantes et présentera de nouveaux résultats dans trois domaines de la gestion de la dysphagie: i) l'évaluation; ii) les approches thérapeutiques sensorielles; iii) les approches thérapeutiques motrices.

Personnel de soutien

Trouble de l'acquisition de la coordination : des signes que le personnel de soutien peut reconnaître et prendre en charge en thérapie

Robin Gaines, PhD, Institut de recherche du Centre hospitalier pour enfants de l'Est de l'Ontario et Université d'Ottawa, Ottawa, ON

Dans cet atelier, les participants apprendront ce que sont les troubles d'acquisition de la coordination (TAC) et quelles sont les difficultés rencontrées par un enfant avec un tel trouble dans le cadre de ses activités quotidiennes. On discutera des connaissances actuelles au sujet de la comorbidité des TAC et des troubles de parole/langage et d'attention. On présentera des exemples vidéos d'enfants en thérapie. Les participants apprendront à reconnaître leurs propres « comportements d'aide » et découvriront des stratégies pour gérer les difficultés motrices des enfants.

Une initiation aux implants cochléaires et au rôle que peut jouer le personnel de soutien

Kim Zimmerman, MSc, University Hospital Cochlear Implant Team, London Health Sciences Centre, London, ON

Cet exposé donnera un aperçu de la technologie actuelle des implants cochléaires et des critères d'admissibilité, ainsi que des renseignements sur la réadaptation nécessaire après l'implantation. Nous soulignerons l'importance de la collaboration clinique entre le programme d'implants cochléaires, les professionnels et le personnel de soutien dans la communauté.

Des trucs et des récompenses à l'usage du personnel de soutien

Elizabeth MacKinnon, Rehab Place, London, ON

Tous les jours, en préparant leur thérapie, les cliniciens doivent trouver de nouvelles façons d'enseigner et de développer les habiletés de communication. Parfois, l'inspiration vient facilement, mais il arrive qu'elle ne vienne pas du tout. Quand on est à court d'idées, il est bien de pouvoir ouvrir une armoire et trouver du matériel pour cibler des buts d'une façon amusante. Cet atelier présentera une variété de matériel de thérapie (les récompenses) et agira à titre de forum pour parler des « trucs » pour les utiliser.

Articles présentés en orthophonie et audiologie

Compétences nécessaires pour la formation clinique et le mentorat – améliorer les mécanismes de formation en milieu professionnel

Lynn Ellwood, MHSc, S-LP(C), University of Toronto, Toronto, ON; Josée Sanscartier, orthophoniste, Université d'Ottawa, Ottawa, ON; Susan Schurr, MEd, University of Western Ontario, London, ON; Karen Luker, MHSc, OAOO, Toronto, ON

Ce séminaire portera sur les compétences essentielles pour le mentorat de pairs professionnels et d'étudiants. Nous utiliserons des scénarios pour encourager les participants à faire une application active des principes proposés. Les participants sont invités à apporter des scénarios dont nous pourrions discuter. Les participants apprendront des moyens pratiques d'appuyer et de stimuler les apprenants, ainsi que de gérer les évaluations et de communiquer la rétroaction de façon efficace.

Perfectionnement professionnel continu dans le domaine de l'aphasie : les collègues comme source de perfectionnement

Rochelle Cohen-Schneider, MEd, Aphasia Institute, Toronto, ON

Les cliniciens qui travaillent dans le domaine de l'aphasie prennent part à un perfectionnement professionnel constant. Les activités d'apprentissage comprennent la lecture d'articles de recherche et la participation à des événements d'apprentissage. Le travail d'équipe peut aussi apporter des apprentissages professionnels précieux. Cet exposé présente une façon de tirer profit des expériences des membres de l'équipe et de créer un plan informel pour l'apprentissage continu.

« Making the Move to School » : un programme de transition de la maternelle à l'école

Anila Punnoose, BSc, MSc, membre OAOO, Nancy Sarlo, BA, MHSc, membre OAOO, Can Communicate Services, Whitby, ON

Le programme « Making the Move to School » vise à préparer les orthophonistes et les assistants en orthophonie à appuyer la transition de la maternelle à l'école. Il aide à comprendre les attentes du Curriculum de l'Ontario pour les premières années d'école. Nous examinerons le contenu de cet outil et discuterons des pratiques d'excellence.

Articles présentés en orthophonie

Faire le pont : établir des partenariats avec les communautés des Premières Nations en milieu éloigné et rural

Deanne Zeidler, orthophoniste, Ben Perry, orthophoniste, First Nations Education Steering Committee, Vancouver, C.-B.

Les participants des Premières Nations provenant de communautés urbaines, rurales et éloignées ont entamé un cheminement prometteur. En raison de la nature des élèves et des communautés dans lesquelles ils vivent, les finissants ont la possibilité de dépasser les limites du rôle d'assistants. Ils seront les « experts sur place » et feront le pont entre les spécialistes de l'extérieur et les résidents de leur communauté. Un autre rôle possible est celui de sensibiliser les gens dans leur communauté et de transmettre l'information dans le but de favoriser le développement du langage. Les présentateurs aborderont les forces de ce programme et décriront le profil des élèves.

La dynamique du succès de la pratique orthophonique au Nunavut

Michael Chappell, MHSc, University of Toronto, Iqaluit, NU

Le premier poste d'orthophoniste financé par le système de santé du Nunavut a permis à la région de Baffin d'obtenir des services pour lesquels les membres des collectivités du Nord devaient préalablement se déplacer à Ottawa, Montréal ou Winnipeg. Il a également ajouté aux soins de santé locaux un accès direct à des compétences spécialisées en déglutition, en langage et en communication suppléante. Cet exposé dressera un portrait des stratégies, des partenariats et des ressources grâce auxquels il a été possible d'établir le service, d'établir une confiance solide pour la consultation chez les membres de la population parlant l'Inuktitut et de collaborer avec les neuf autres centres de soins de santé éloignés. On discutera également des limites, des barrières et des hésitations dans la communauté et la culture inuit envers l'acceptation d'un service qui intervient au niveau du langage quand toute discussion actuelle au sujet de la langue traditionnelle est très provocatrice.

Offrir des services aux communautés des Premières Nations – (d'intérêt pour tous les professionnels offrant des services dans le Nord)

Rosalee Shenker, Centre de la fluidité verbale de Montréal, Montréal, QC; Sharla Peltier, orthophoniste, Première Nation de Nipissing, North Bay, ON; Alice Eriks-Brophy, University of Toronto, Toronto, ON; Luella Jonk, University of Manitoba, Winnipeg, MB

Cette séance de 90 minutes sera donnée par des orthophonistes et chercheurs d'expérience. Chaque panéliste fera connaître son travail auprès des communautés des Premières Nations et discutera des leçons retenues dans le but de modeler la pratique. Les sujets abordés seront, entre autres: l'acquisition du langage chez les enfants des Premières Nations, l'évaluation authentique de ces enfants et les facteurs à envisager pour la pratique clinique. Les participants à la conférence auront l'occasion de poser des questions.

Organiser et diriger un groupe de thérapie pour les enfants d'âge préscolaire

Margit Pukonen, MHSc, membre OAOO, O(C), The Speech & Stuttering Institute, Toronto, ON

La thérapie de groupe en tant qu'approche a des forces au-delà de la gestion du nombre croissant de cas. Toutefois, l'atteinte des buts et la gestion du comportement peuvent être difficiles. Cet exposé présentera un processus de planification des groupes, ainsi que des stratégies pour maximiser la participation de chaque enfant. Il abordera également la participation des parents, la tenue de dossiers et les résultats.

Intervention en classe chez les enfants d'âge préscolaire

Rose Sinclair, MClSc, O(C), membre OAOO, Michelle Truppe, MSc, O(C), membre OAOO, Thames Valley Children's Centre, London, ON; Debbie Shugar, MA O(C) membre OAOO, Middlesex London Health Unit, tykeTALK, London, ON

Cet exposé décrira un pilote mettant en cause un modèle de prestation de services dans la salle de classe aux enfants d'âge préscolaire avec un retard de parole et de langage. Nous présenterons le processus pour appuyer les orthophonistes dans l'utilisation de ce modèle, ainsi que les résultats du pilote.

Les mains qui façonnent les mots : gestes et langue

Shirley Leew, PhD, Alberta Health Services, University of Alberta, Calgary, AB; Robin Gaines, PhD, Centre hospitalier des enfants de l'Est de l'Ontario, Ottawa, ON

Il est important de porter attention à la communication par les gestes dans la pratique clinique avec les enfants de moins de trois ans. Cette séance renseignera les cliniciens sur les données probantes actuelles au sujet du développement typique des gestes, des trajectoires développementales et du rôle des jeux de gestes dans le développement du langage précoce. Elle portera particulièrement sur l'application de la recherche à l'évaluation et à l'intervention.

Formation sur l'éveil à la lecture et à l'écriture auprès d'une population multiculturelle

Andrea Gingras, MSLP, O(C), Kimberly Murphy, MSc (A), O(C), Centre de la fluidité verbale de Montréal, Montréal, QC; Laura Justice, PhD, S-LP(CCC), Ohio State University, Columbus, OH

Les compétences d'éveil à la lecture et à l'écriture sont essentielles à l'établissement des fondements de la lecture précoce et, éventuellement, à l'apprentissage scolaire. Cet exposé décrira un projet pilote dans une communauté multiculturelle, dans le cadre duquel on a donné une intervention directe pour l'émergence de la lecture et formé les parents à utiliser des techniques, comme les allusions au langage écrit, pendant la lecture commune.

Intégrer l'éveil à la lecture et à l'écriture aux interventions en orthophonie auprès d'enfants d'âge préscolaire

Anne Carruthers, MClSc, orthophoniste, membre OAOO, Melanie Evans, BA, BEd, assistante en orthophonie, Trish Major, MClSc, orthophoniste, membre OAOO, Alida Roloson, MClSc, orthophoniste, membre OAOO, Thames Valley Children's Centre, Elgin Satellite, St. Thomas, ON; Michelle Truppe, MSc, O(C), membre OAOO, Thames Valley Children's Centre, London, ON

Cet exposé décrira un projet pilote qui incorpore l'éveil à la lecture et à l'écriture à l'intervention existante en parole et langage auprès des enfants d'âge préscolaire. Nous utiliserons un format interactif pour discuter de l'évaluation, du choix de buts et de l'utilisation de stratégies intégrées et explicites d'éveil à la lecture et à l'écriture.

Pratique privée spécialisée dans les lésions cérébrales acquises : que faut-il?

Elizabeth Skirving, MS, MEd, membre OAOO, Cognitive and Communication Services, Inc., London, ON; Lisa Jadd, MClSc, membre OAOO, Stephanie Ellis, MSc, membre OAOO, Marla McNaught, MClSc, O(C), membre OAOO, Cognitive and Communication Services, Inc., London, ON

Cette présentation agira comme cadre pour discuter des défis uniques propres à la réadaptation des lésions cérébrales dans la communauté : les compétences spécialisées nécessaires pour évaluer et traiter les troubles cognitivo-linguistiques aux foyers des clients et dans la communauté; l'intégration de buts fonctionnels en collaboration avec d'autres professionnels de la réadaptation; les connaissances et la promotion des questions médicales, juridiques et d'assurances.

Mettre la recherche utile à la portée des cliniciens de première ligne

Kathryn Wishart, LCST MSc, Centre For Ability, Vancouver, C.-B.; Kathleen Bloom, PhD, Knowledge Impact Strategies Consulting Ltd., Windsor, ON

L'utilisation et l'utilité de la recherche augmentent quand les cliniciens jouent un rôle actif aux côtés des chercheurs dans la création de produits de connaissance. Nous donnerons un aperçu d'un projet visant à mettre en place une base de données de résumés de recherches avec une utilité clinique, ainsi qu'un modèle d'un moteur de recherche convivial sur le Web pour guider l'intervention en langage auprès des enfants d'âge préscolaire.

Vivre avec l'aphasie : favoriser une réinsertion communautaire réussie

Jan Roadhouse, MSLP, membre OAOO, orthophoniste, Adult Recreation Therapy Centre, Brantford, ON; Aura Kagan, PhD, Rochelle Cohen-Schneider, M Ed, membre OAOO, Catherine Low, BA, Hons, assistante en orthophonie, Aphasia Institute – The Pat Arato Aphasia Centre, Toronto, ON; Ruth Patterson, MSc (Applied), membre OAOO, York Durham Aphasia Centre, Stouffville, ON

Des membres du groupe d'intérêt des Centres d'aphasie de l'Ontario discuteront des innovations suivantes :

- *Living with Aphasia: Framework for Outcome Measurement (A-FROM)*
- Aider les personnes aphasiques à entretenir des conversations productives avec leurs médecins
- Utiliser les livres d'histoire personnelle pour favoriser la réintégration dans la communauté
- Débuter un programme d'aphasie dans la communauté

Quand la télé-réalité sert à la réadaptation : une démarche transdisciplinaire

Deidre Sperry, MSc, O(C), pratique privée, Dundas, ON; Leslie Birkett, BSc OT, ergothérapeute agréée (Ont), pratique privée, Burlington, ON

Cette présentation fera connaître aux participants un outil valide sur le plan écologique pour évaluer la sécurité, dans sa communauté, de l'adolescent avec une lésion cérébrale acquise et des difficultés au niveau des fonctions exécutives. Cet outil vise à faire le pont entre les défis dans l'obtention de services axés sur le client pour les jeunes avec des déficits et l'exécution d'une évaluation pertinente sur le plan clinique.

Programme de formation sur l'articulation à l'intention des parents

Jacqueline Gance, orthophoniste, Debi Maniloff, orthophoniste, Ottawa Carleton District School Board, Ottawa, ON

Le programme de formation des parents en articulation (*Parent Articulation Training Program*) est une méthode innovatrice de prestation de services aux élèves avec des difficultés d'articulation légères. Ce programme de formation pratique est offert le soir aux familles et au personnel et vise à faciliter le rattrapage des difficultés d'articulation qui ont des répercussions sur l'estime de soi, le développement de la lecture et de l'écriture et la réussite de la communication.

La télépratique de l'orthophonie : efficacité et éthique

Marnee Brick, MSc, membre SASLPA, ACOA, University of Nebraska at Kearney, Okotoks, AB

La télépratique en ligne est une solution de plus en plus utilisée par les orthophonistes et les collectivités. Elle permet aux orthophonistes de gérer leurs dossiers plus efficacement tout en offrant aux collectivités un accès aux services en orthophonie. De plus, la télépratique réduit les coûts associés aux déplacements, tout en augmentant le temps de thérapie directe avec les élèves. Il est important que les orthophonistes possèdent l'information et les compétences nécessaires pour fournir des services par la télépratique en ligne. Cette présentation abordera plusieurs facteurs clés, notamment la connaissance de la technologie, le respect des normes professionnelles et la prestation de sessions de qualité.

Mesurer les résultats d'un traitement de la parole, de l'éveil à la lecture et à l'écriture et d'un trouble de langage oral

Karla Washington, associée post-doctorat, Bloorview Research Institute, Toronto, ON; Genese Warr-Leeper, PhD, professeure associée, University of Western Ontario, London, ON

Compte tenu du besoin croissant de données probantes pour guider et appuyer la pratique clinique, cette présentation soulignera l'importance de mesurer les résultats pouvant être utilisés pour soutenir l'intervention en orthophonie. Nous présenterons un échantillon d'études sur les résultats dont le but était de mesurer les résultats du traitement de la parole, de l'éveil à la lecture et à l'écriture, du langage oral et des compétences sociales.

Affiches

ORTHOPHONIE ET AUDIOLOGIE ENFANTS

Le fruit des programmes de préparation à l'école pour les enfants à risque

Aida Sefic, BSc, Rosine Salazer, BEd MSc S-LP, Thames Valley District School Board, London, ON; Genese Warr-Leeper, PhD, professeure associée, University of Western Ontario, London, ON; Michelle Ahrens, MSc, orthophoniste, Halton Peel Preschool Speech and Language Program, Burlington, ON

Cet exposé examinera l'incidence d'un programme de quatre sessions visant à promouvoir la préparation à l'école pour les enfants à risque et leurs familles avant l'entrée à la maternelle. On a trouvé que le niveau de préparation, en terme de compétences d'apprentissage de lecture et de l'écriture et de compétences scolaires, était significativement plus élevé chez les participants au programme qu'au sein du groupe équivalent d'enfants qui n'y ont pas participé.

Améliorer l'alphabétisation chez les enfants d'âge scolaire à risque

Julia Colangeli, orthophoniste, Hotel Dieu Shaver Health and Rehabilitation Centre, St. Catharines, ON; Genese Warr-Leeper, PhD, professeure associée, University of Western Ontario, London, ON; Rosine Salazer, BEd MSc S-LP, Thames Valley District School Board, London, ON; Karla Washington, associée post-doctorat, Bloorview Kids Rehab, Toronto, ON

Nous examinerons les résultats d'un programme de conscience phonologique enrichi en orthophonie au niveau jardin, ainsi que la relation entre les compétences en matière de conscience phonologique et les habiletés futures en lecture et en écriture. Après le jardin, les élèves qui ont reçu un programme enrichi avaient un score de conscience phonologique significativement plus élevé que le groupe de contrôle. Le niveau de lecture en première année et le score au test de mathématiques de l'OQRE en troisième année avaient une corrélation significative avec les compétences en conscience phonologie au jardin.

Les avantages du langage gestuel pour TOUS les enfants

Sara Bingham, WeeHands Baby Sign Language Inc., Brooklin, ON

Depuis cinq ans, on connaît une augmentation du nombre de cours, de livres, de vidéos et de DVD sur le langage signé pour les bébés à l'intention des parents. Qu'est-ce que la recherche indique concernant l'utilisation du langage signé avec les enfants entendants? Est-ce qu'il a un effet positif sur le développement de la parole? Est-ce qu'il a un effet positif sur le développement du langage? Quels sont les effets à long terme de l'utilisation du langage signé avec les jeunes enfants? Cette présentation passera en revue la recherche concernant l'utilisation du langage signé avec les enfants entendants et donnera des suggestions concernant l'utilisation du langage signé dans la pratique thérapeutique.

ORTHOPHONIE THÈMES GÉNÉRAUX

Le rappel des noms et des verbes : une étude comparative

Joseph Kuryakose, BSc Speech and Hearing, Shimil Ulahannan, BSc Speech and Hearing, JSS Institute of Speech and Hearing, Mysore, India

L'accès lexical est un processus complexe qui joue un rôle important dans la fluidité de la parole et du langage. L'évocation des noms et des verbes est essentielle pour la production d'énoncés grammaticaux. Dans une tâche de dénomination, les participants devaient nommer verbalement une image présentée. Le temps de réaction mesuré correspond approximativement au délai d'accès lexical du participant.

La question de la sévérité, à la fois simple et complexe

Carolyn Cronk, Université de Montréal, Montréal, QC

Cet exposé examinera les perspectives, tant historiques qu'actuelles, qui ont modelé notre pensée concernant la sévérité des troubles de la communication. On réfléchira sur leurs avantages et leurs limites, particulièrement en ce qui a trait aux troubles du langage chez les enfants d'âge préscolaire. On donnera des suggestions d'outils potentiels pour déterminer la sévérité des troubles de la communication.

Des thérapeutes canadiens au Kenya : les répercussions du traitement selon une échelle d'atteinte de buts

Tara Ross, orthophoniste, MHSc membre OAOO, David Ross, physiothérapeute, MScPT, Julie Hard, physiothérapeute, MScPT, Blythe Dalziel, physiothérapeute, MScPT, Alysia Carpe, MSc OT, ergothérapeute agréée (Ont), Puja Ahluwalia, physiothérapeute, BSc, groupe de travail du Kenya – ICDR, University of Toronto, Toronto, ON

L'échelle d'atteinte de buts (*Goal Attainment Scaling*) est un outil dont l'efficacité a été démontrée pour mesurer les résultats et assurer un suivi des changements chez les patients. Une équipe de réadaptation interprofessionnelle du Canada a utilisé cette échelle pour mesurer l'efficacité de ses traitements pendant un voyage de bénévolat à court terme dans une clinique de réadaptation communautaire d'une région rurale du Kenya.

Étude longitudinale de l'acquisition du langage chez des enfants adoptés de l'Éthiopie

Sara Knox, étudiante à la maîtrise en orthophonie, Sally Reaper, étudiante à la maîtrise en orthophonie, Karen Pollock, PhD, RSLP, University of Alberta, Edmonton, AB

Nous avons fait un suivi de l'acquisition de l'anglais chez huit enfants adoptés de l'Éthiopie pendant la première

année après l'adoption à l'aide du MCDI et de questionnaires pour les parents. Des résultats variés ont été observés. Des entrevues avec les parents et les professionnels d'adoption ont également été effectuées pour recueillir de l'information sur les problèmes médicaux et développementaux auxquels cette population croissante fait face.

Langues virées : une étude échographique de la contorsion linguale de la parole

Tim Bressmann, PhD, Nesa Hosseinpour, BSc, University of Toronto, Toronto, ON

La compréhension de la parole avec contorsion linguale pourrait améliorer l'intervention auprès des personnes avec une glossotomie. La présente étude avait pour but d'évaluer les aspects globaux des mouvements linguaux et l'acoustique de la parole avec contorsion linguale. Nous avons utilisé une imagerie par ultrasons pour analyser les mouvements de la langue. Les muscles de la langue s'adaptent de façon dynamique pour produire une approximation des cibles articulatoires.

LANGAGE CHEZ LES ENFANTS

Un nouveau test de dénomination « inter-linguistique » par Ardila : performance des enfants bilingues

Patricia Roberts, PhD, O(C), professeure associée, Aurore Akerley, Université d'Ottawa, Ottawa ON

Vingt-quatre enfants bilingues français-anglais (de 7 à 14 ans) ont nommé les 40 noms, adjectifs et verbes représentés par des images que contient ce nouveau test. Les caractéristiques des stimuli ont été évaluées. Nous avons constaté une forte corrélation entre les résultats au test et le niveau de bilinguisme, malgré le grand nombre de faiblesses de cette version préliminaire du test.

Les différences entre une stratégie sémantique et une stratégie pictographique dans la planification de la narration

Molly Whittleton, BSc, Dalhousie University, Dartmouth, N.-É.; Patricia Cleave, PhD, O(C), Dalhousie University, Halifax, N.-É.

Trente-deux enfants de troisième et quatrième année ont reçu un enseignement sur l'utilisation de toiles sémantiques ou de pictogrammes dans une tâche de création d'histoires. Nous avons évalué la production d'histoires de chaque enfant avant et après cet enseignement, et nous avons mesuré la différence entre chaque narration orale.

Efficacité de deux traitements directs sur la croissance syntactique au fil des sessions chez les enfants d'âge préscolaire avec un trouble spécifique du langage

Karla Washington, associée de recherche post-doctorat, Bloorview Kids Rehab, Toronto, ON; Genese Warr-Leeper, PhD, professeure associée, University of Western Ontario, London, ON

Nous avons examiné la croissance syntactique au fil des sessions lors de deux traitements directs. Les deux programmes ciblaient les troubles de grammaire expressive chez les enfants d'âge préscolaire avec un trouble spécifique du langage. Un programme consistait en un traitement assisté par ordinateur, et l'autre en une thérapie du langage conventionnelle. On n'a trouvé aucune différence significative entre les deux traitements directs. Toutefois, des tendances d'intérêt clinique ont été observées en ce qui a trait à la performance.

Une évaluation préliminaire de la réceptivité de la mesure FOCUS

Nancy Thomas-Stonell, BSc DSP, Bernadette Robertson, LCST, Joan Walker, Bloorview Kids Rehab, Toronto, ON; Kelly Hanlon, BA, Bruce Oddson, PhD, Université Laurentienne, Sudbury, ON; Peter Rosenbaum, MD, McMaster University, Hamilton, ON

FOCUS, une mesure des résultats pour les enfants d'âge préscolaire, établit un lien entre la thérapie en orthophonie et la capacité de l'enfant à participer dans son environnement. Des données ont été analysées pour déterminer quels facteurs de la mesure FOCUS démontraient le plus grand changement aux étapes initiales du traitement. Des changements ont été notés pour plusieurs facteurs après seulement cinq heures de thérapie.

L'alphabétisation chez les enfants d'âge préscolaire dans une communauté des Premières Nations de l'Est ontarien

Cara Cressman, MSc, orthophoniste, KidsAbility Centre for Child Development, Waterloo, ON; Marilyn Kertoy, PhD, University of Western Ontario, London, ON

Ce projet visait à étudier les opinions des membres d'une communauté des Premières Nations concernant l'alphabétisation des enfants d'âge préscolaire et la participation, à la maison et dans la communauté, à des activités d'alphabétisation à l'intention des enfants d'âge préscolaire. Nous avons trouvé des opinions semblables et divergentes parmi les membres des communautés des Premières Nations et d'autres communautés concernant le développement de l'alphabétisme et la participation aux activités d'alphabétisation. Nous discuterons de la valeur de cette information pour les professionnels.

Les habiletés en langage oral en maternelle peuvent-elles prédire la performance en lecture?

Tania Kalwani, MSc, University of Western Ontario, Richmond Hill, ON; Genese Warr-Leeper, PhD, Karla Washington, associée de recherche post-doctorat, University of Western Ontario, London, ON; Rosine Salazer, MS, Steven Killip, PhD, Norah Mitchell, Thames Valley District School Board, London, ON

Cette étude évaluait si les habiletés de langage oral d'un large échantillon d'élèves de maternelle et de jardin pouvait prédire les niveaux d'apprentissage de la lecture précoces et tardifs au niveau élémentaire. La répétition de phrases et les habiletés narratives ont prédit un niveau de lecture différent en troisième et en sixième année, peu importe si les mesures du langage étaient exécutées en maternelle ou en jardin.

Corriger les mauvaises articulations compensatoires grâce à la méthode Corrective Babbling®: une approche axée sur les parents

Cindy Dobbelsteyn, O(C), professeure adjointe, Elizabeth Kay-Raining Bird, PhD, professeure adjointe, Jennifer Parker, MSc O(C), Ashlee Budden, Charlotte Clarkson, BA, Dalhousie University, Halifax, N.-É.; Serena Browne, MSc O(C), Dalhousie University, Kingston, ON

Les personnes avec une histoire de dysfonction vélopharyngée présentent souvent de mauvaises articulations compensatoires qui persistent après une chirurgie palatale. Cette étude examinait la méthode Corrective Babbling® pour la correction des mauvaises articulations compensatoires. Une formation des parents suivie, par une intervention d'une durée de quatre mois par les personnes à charge, ont eu pour résultat une réduction du nombre d'erreurs de parole et une bonne satisfaction des parents envers le programme.

Résultats d'interventions fondées sur le programme de néologismes sérieux de Garnett®

Catherine Garnett, orthophoniste, district scolaire n° 36 et pratique privée, Surrey, C.-B.

Nous avons besoin d'outils efficaces pour répondre aux besoins en matière de communication des enfants principalement inintelligibles. Le programme de sensibilisation auditive/d'orthophonie par néologismes sérieux (*Serious Nonsense Auditory Awareness/Speech Therapy Program*) de Garnett® vise à aider les enfants avec divers niveaux d'inintelligibilité et peut être exécuté par les orthophonistes, de même que les parents préalablement formés et les assistants en orthophonie. Les résultats de la thérapie avec plusieurs enfants seront présentés.

Résultats au test de fluidité verbale sémantique et au FAS d'enfants bilingues français-anglais

Patricia Roberts, PhD, O(C), professeure associée, Université d'Ottawa, Ottawa, ON; Marie-Lyne Lussier, Université d'Ottawa, Shédiac, N.-B.

Vingt-quatre enfants bilingues (de 7 à 14 ans) ont exécuté deux tests de la fluidité verbale. Cette étude examine la relation entre le score des enfants (nombre de mots produits correctement) et leur âge, ainsi qu'entre leur score et leur niveau de bilinguisme. Les problèmes relatifs à l'établissement de scores à ces tests pour les enfants bilingues sont également envisagés.

ÂGE SCOLAIRE

ABRACADABRA : Un logiciel fondé sur des données probantes pour enseigner des habiletés en littératie aux lecteurs qui éprouvent de la difficulté

Sue Wastie, MA, O(C), district scolaire 47, Powell River, Vancouver, C.-B.; Philip Abrami, PhD, Centre d'études sur l'apprentissage et la performance, Montréal, QC

ABRACADABRA est un outil multimédia fondé sur les données probantes et disponible en ligne. Développé par des chercheurs à l'Université Concordia au cours des huit dernières années, ABRACADABRA contient des activités interactives sur l'alphabet, la fluidité, la compréhension et l'écriture qui stimulent les habiletés de base en littératie chez les nouveaux lecteurs. Il vise principalement les jeunes lecteurs en difficulté ou à risque.

LANGAGE ET PAROLE CHEZ LES ADULTES

Des personnes aphasiques discutent des changements dans la participation aux activités quotidiennes

Taslim Moosa, MCl Sc, O(C), Beata Batorowicz, MSc, University of Western Ontario, London, ON

Six groupes de discussion ont été tenus avec des personnes aphasiques et leurs conjoints afin d'examiner leurs perceptions des changements dans la participation découlant de l'aphasie, de même que des barrières à la participation et des facteurs la facilitant. Les chercheurs discuteront des répercussions pour la pratique clinique et pour les diverses personnes en cause, y compris les clients, leurs partenaires de communication et les cliniciens.

Comparaison de l'apprentissage des habiletés de parole chez les personnes qui bégaièrent et les personnes avec la maladie de Parkinson

Sarah Smits-Bandstra, PhD, orthophoniste, McGill University, Kilbride, ON; Vincent Gracco, PhD, McGill University; Montréal, QC; Luc De Nil, PhD, University of Toronto, Toronto, ON

On a comparé l'acquisition et la rétention d'habiletés chez des personnes qui bégaièrent, des personnes avec la maladie de Parkinson et un groupe de contrôle lors d'une tâche de lecture de syllabes. Les résultats des mesures du rendement, de l'électromyographie et des potentiels évoqués pourraient avoir des répercussions sur la façon de maximiser l'efficacité du traitement pour la parole chez ces deux populations.

Imagerie par résonance magnétique dynamique et par vidéofluoroscopie de patients avec une résection partielle de la langue

Janette Quintero, BA, Tim Bressmann, PhD, University of Toronto, Toronto, ON; Katalin Mady, PhD, University of Munich, Toronto, ON; Ambros Beer, MD, University of Technology, Munich, Toronto, ON

Cette affiche présentera les résultats d'une comparaison quantitative du mouvement et de la vitesse de la langue pendant la parole avant et après la chirurgie chez des patients avec une glossotomie partielle. Les données d'imagerie ont été captées par résonance magnétique et vidéofluoroscopie. À ces données s'ajoutent des analyses acoustiques de la parole des sujets de l'étude.

La parole avec un appareil d'extension rapide du palais : effets initiaux et adaptation à long terme

Kyle Stevens, BSc, Tim Bressmann, PhD, Dan-Que Pham, BA, Janette Quintero, BA, Siew-Ging Gong, DDS, Bryan Tompson, DDS, University of Toronto, Toronto, ON

Cette étude avait pour but de décrire avec précision les effets d'un appareil d'extension rapide du palais sur la parole de patients en orthodontie. Vingt-deux patients pédiatriques ont été enregistrés à différents moments dans leur traitement. Les mesures des résultats étaient les scores sur les tests d'articulation, les cotes d'acceptabilité de la parole et les analyses acoustiques.

TROUBLES NEUROLOGIQUES CHEZ LES ADULTES**Les centres pour personnes aphasiques de l'Ontario : le ré-engagement communautaire des personnes aphasiques**

Ruth Patterson, MSc (Applied), membre OAOO, York-Durham Aphasia Centre, Stouffville, ON; Jan Roadhouse, MSLP, membre OAOO, Adult Recreation Therapy Centre, Brantford, ON; Vivienne Epstein, orthophoniste, Community Rehab, Hamilton, ON; Sarah Chapman-Jay, orthophoniste, Niagara Health System, Niagara Falls, ON

Le groupe d'intérêt des Centres d'aphasie de l'Ontario est un réseau de centres d'aphasie dont l'intérêt commun est de renforcer la participation aux activités quotidiennes des personnes touchées par l'aphasie au long du continuum des soins suite aux accidents cérébro-vasculaires. Cette affiche présentera le mandat du groupe, des renseignements sur les membres, les réalisations jusqu'à maintenant et l'emplacement des centres d'aphasie.

Vivre avec l'aphasie : Camp d'aphasie 2008

Jan Roadhouse, MSLP, membre OAOO, Adult Recreation Therapy Centre, Brantford, ON

Cette affiche présentera la planification, les partenariats, le financement, la prestation de services et les résultats du tout premier camp de fin de semaine pour les personnes aphasiques en Ontario. Le Camp d'aphasie était l'idée de Stephen et Carol Goff et a été financé par l'Adult Recreation Therapy Centre. Il a eu lieu près de Brantford en septembre 2008.

Effets du renforcement des muscles respiratoires sur l'intelligibilité de la parole d'un patient avec la maladie de Parkinson

Vaneysa Hansen, MA, Washington University, Victoria, BC; Barbara Mathers-Schmidt, PhD, professeure et directrice, CSD Department, Western Washington University, Bellingham, WA

Le but de cette étude était de déterminer si un renforcement ciblé des muscles respiratoires chez un patient avec la maladie de Parkinson améliorerait l'intelligibilité de la parole. On a constaté chez le sujet une amélioration au niveau du test d'intelligibilité des phrases, des phrases imprévisibles, de la liste de mots distincts, de la capacité vitale forcée et du pourcentage de la capacité vitale forcée. Les résultats suggèrent que l'intelligibilité de la parole du patient s'est améliorée grâce au renforcement des muscles respiratoires.

L'importance clinique de la méthode Lee-Silverman pour le traitement de la voix (LSVT) chez les parkinsoniens

Laura Boland, MSc, orthophonie, membre OAOO, Dalhousie University, Brockville, ON; Ellen Hickey, PhD, S-LP(CCC), Dalhousie University, Halifax, N.-É.

Nous avons étudié l'importance clinique de la méthode LSVT. Des participants avec la maladie de Parkinson ont rempli une échelle sur la qualité de vie et passé des entrevues avant, immédiatement après et six mois après la thérapie LSVT. Des analyses ont trouvé une amélioration de la voix et de la communication immédiatement après la thérapie, mais pas six mois plus tard. Des données de validation sociale ont également été recueillies; les résultats n'indiquent aucune amélioration perçue de la communication après la thérapie LSVT.

Utilisation d'activités de transfert dans la communauté au sein des groupes d'aphasie pour augmenter la participation

Taslim Moosa, MCl Sc O(C), University of Western Ontario, London, ON

Cette affiche examinera l'utilisation d'activités de transfert dans la communauté par plusieurs groupes d'aphasie à l'Université Western Ontario. Des sorties de groupe planifiées dans la communauté ont été utilisées dans le cadre d'un modèle de prestation de services dans le but de franchir les barrières et de développer des habiletés de participation aux activités quotidiennes importantes.

Troubles d'évocation lexicale sélective des mots partagée dans la L2 chez les personnes aphasiques bilingues

Gopee Krishnan, Shivani Tiwari, Manipal University, Manipal, India

Nous présentons un sujet bilingue avec bilinguisme équilibré (Kannada-Malayalam, deux langues dravidiennes du sud de l'Inde) qui montrait un trouble d'accès lexical spécifique dans la L2 pour les mots avec une forme sémantique et phonologique semblable dans la L1 et la L2 (p. ex., a:me [L1] – a:ma [L2] – tortue).

Troubles du nerf facial : évaluation et intervention

Alexa Okrainec, professeure associée, orthophoniste, Brandon University, Winnipeg, MB

L'expression faciale, une forme d'expression non-verbale importante, contribue à notre succès en tant que communicateurs. En se fondant sur la recherche scientifique publiée, cette affiche présentera des méthodes de prise en charge des troubles du nerf facial. Les démarches de réadaptation seront examinées. L'affiche portera particulièrement sur la recherche et son application pour la pratique clinique.

FORMATION CLINIQUE

Formation clinique : établir des partenariats avec les collectivités rurales et éloignées

Taslim Moosa, MCl Sc O(C), Susan Schurr, MCl Sc S-LP, University of Western Ontario, London, ON

Un nouveau modèle d'enseignement clinique a été mis en oeuvre à l'Université Western Ontario dans le but d'élargir et de stimuler la réflexion et la pratique cliniques en ce qui concerne les populations éloignées et multiculturelles. Nous discuterons des résultats, y compris l'évaluation des expériences d'apprentissage des étudiants et la répercussion des services fournis.

COMMUNICATION SUPPLÉANTE

Le recours à la technologie par commande oculaire pour les patients ayant des troubles complexes sur le plan clinique

Barbara Anne Molo-Kato, O(C) CCC, membre OAOO, Melinda Cox, ergothérapeute, Kelly Dymond, Michael Seaman, Bridgepoint Health Hospital – ACWC, Toronto, ON

Les progrès récents de la technologie par commande oculaire donnent aux personnes avec des déficits physiques graves, par exemple le syndrome de verrouillage ou les stades avancés de la SLA, un instrument pour libérer ou préserver leur capacité à communiquer. Cette étude examine certains défis liés à l'évaluation et au soutien de cette technologie, tant à l'hôpital que dans la communauté.

Fluidité

Enseignement du bredouillement : une enquête sur les programmes universitaires canadiens

Carla Di Domenicantonio, MHSc, pratique privée, Burlington, ON; Francis Duldulao, candidat au BA, McMaster University, Hamilton, ON

Le bredouillement a été décrit comme un orphelin dans le domaine de l'orthophonie (Weiss, 1964). On croit que de nombreuses personnes qui bredouillent n'ont pas été identifiées en raison du manque de connaissance de ce trouble par les professionnels et le public. La présente enquête visait à évaluer si les programmes d'orthophonie des universités canadiennes donnent aux étudiants un enseignement au sujet du bredouillement, et comment ils le font. Les résultats de l'enquête seront présentés et feront l'objet d'une discussion.

Association internationale du bredouillement : une présentation

Carla Di Domenicantonio, MHSc, pratique privée, Burlington, ON; Francis Duldulao, candidat au BA, McMaster University, Hamilton, ON

L'Association internationale du bredouillement (*International Association on Cluttering*) a été formée en mai 2007 dans le but de sensibiliser le public et les professionnels au sujet du trouble de la communication appelé le bredouillement, d'encourager la recherche et la collaboration internationale, et de faciliter l'échange d'information. Cette affiche présentera l'Association internationale du bredouillement aux orthophonistes canadiens. Nous y donnerons la définition *ad hoc* actuelle du bredouillement, nous expliquerons la mission de l'Association, nous présenterons les représentants du Canada, nous ferons connaître les ressources disponibles pour l'orthophoniste et nous encouragerons la participation à l'Association.

AUDIOLOGIE

Les adultes plus âgés déploient davantage d'efforts pour entendre malgré le bruit

Penny Anderson Gosselin, MCl Sc, candidate au doctorat, Université de Montréal, St-Hubert, QC; Jean-Pierre Gagné, PhD, Université de Montréal, Montréal, QC

L'effort d'écoute est un facteur important dans la compréhension de la parole, mais les audiologistes l'évaluent subjectivement. À l'aide d'un paradigme à deux tâches, nous avons tenté de quantifier et de comparer l'effort d'écoute déployé par les personnes jeunes et âgées avec une audition normale lors de l'écoute de parole dans le bruit.

La dynamique corticale du dépistage d'un changement de l'audition

Shannon MacLean, candidate au doctorat, Lawrence Ward, PhD, University of British Columbia, Sechelt, C.-B.

Cette étude électroencéphalographique (EEG) visait à examiner les régions du cerveau qui participent à la perception des changements auditifs tels qu'indexés par la réponse de négativité de discordance (MMN). La tâche consistait à faire une écoute passive et une localisation de son active. Nous avons mesuré le temps écoulé entre l'activation des diverses régions du cerveau et déterminé diverses étapes de ce processus auditif important.



Information for Contributors

The Canadian Journal of Speech-Language Pathology and Audiology (CJSLPA) welcomes submissions of scholarly manuscripts related to human communication and its disorders broadly defined. This includes submissions relating to normal and disordered processes of speech, language, and hearing. Manuscripts that have not been published previously are invited in English and French. Manuscripts may be tutorial, theoretical, integrative, practical, pedagogic, or empirical. All manuscripts will be evaluated on the basis of the timeliness, importance, and applicability of the submission to the interests of speech-language pathology and audiology as professions, and to communication sciences and disorders as a discipline. Consequently, all manuscripts are assessed in relation to the potential impact of the work on improving our understanding of human communication and its disorders. All categories of manuscripts submitted will undergo peer-review to determine the suitability of the submission for publication in CJSLPA. The Journal has established multiple categories of manuscript submission that will permit the broadest opportunity for dissemination of information related to human communication and its disorders. The categories for manuscript submission include:

Tutorials: Review articles, treatises, or position papers that address a specific topic within either a theoretical or clinical framework.

Articles: Traditional manuscripts addressing applied or basic experimental research on issues related to speech, language, and/or hearing with human participants or animals.

Clinical Reports: Reports of new clinical procedures, protocols, or methods with specific focus on direct application to identification, assessment and/or treatment concerns in speech, language, and/or hearing.

Brief Reports: Similar to research notes, brief communications concerning preliminary findings, either clinical or experimental (applied or basic), that may lead to additional and more comprehensive study in the future. These reports are typically based on small “*n*” or pilot studies and must address disordered participant populations.

Research Notes: Brief communications that focus on experimental work conducted in laboratory settings. These reports will typically address methodological concerns and/or modifications of existing tools or instruments with either normal or disordered populations.

Field Reports: Reports that outline the provision of services that are conducted in unique, atypical, or nonstandard settings; manuscripts in this category may include screening, assessment, and/or treatment reports.

Letters to the Editor: A forum for presentation of scholarly/clinical differences of opinion concerning work previously published in the Journal. Letters to the Editor may influence our thinking about design considerations, methodological confounds, data analysis, and/or data interpretation, etc. As with other categories of submissions, this communication forum is contingent upon peer-review. However, in contrast to other categories of submission, rebuttal from the author(s) will be solicited upon acceptance of a letter to the editor.

Submission of Manuscripts

Contributors should use the electronic CJSLPA manuscript submission system at <http://cjslpa.coverpage.ca> to submit articles. If you are unable to use the electronic system, please send a file containing the manuscript, including all tables, figures or illustrations, and references in MS Word or WordPerfect format via e-mail to the Editor at: tim.bressmann@utoronto.ca. Alternatively, manuscripts may still be submitted by sending five (5) hard copies to:

Tim Bressmann, PhD
Editor in Chief
Canadian Journal of Speech-Language Pathology and Audiology
Department of Speech-Language Pathology
University of Toronto
160 - 500 University Avenue
Toronto, Ontario M5G 1V7

Along with copies of the manuscript, a cover letter indicating that the manuscript is being submitted for publication consideration should be included. The cover letter must explicitly state that the manuscript is original work, that it has not been published previously, and that it is not currently under review elsewhere. Manuscripts are received and peer-reviewed contingent upon this understanding. The author(s) must also provide

appropriate confirmation that work conducted with humans or animals has received ethical review and approval. Failure to provide information on ethical approval will delay the review process. Finally, the cover letter should also indicate the category of submission (i.e., tutorial, clinical report, etc.). If the editorial staff determines that the manuscript should be considered within another category, the contact author will be notified.

All submissions should conform to the publication guidelines of the Publication Manual of the American Psychological Association (APA), 5th Edition. A confirmation of receipt for all manuscripts will be provided to the contact author prior to distribution for peer review. CJSLPA seeks to conduct the review process and respond to authors regarding the outcome of the review within 90 days of receipt. If a manuscript is judged as suitable for publication in CJSLPA, authors will have 30 days to make necessary revisions prior to a secondary review.

The author is responsible for all statements made in his or her manuscript, including changes made by the editorial and/or production staff. Upon final acceptance of a manuscript and immediately prior to publication, the contact author will be permitted to review galley proofs and verify its content to the publication office within 72 hours of receipt of galley proofs.

Organization of the Manuscript

All copies should be typed, double-spaced, with a standard typeface (12 point, noncompressed font) on an 8 ½ X 11 page. All margins should be at least one (1) inch. For paper submissions, an original and four (copies) of the manuscript should be submitted directly to the Editor. Author identification for the review process is optional; if blind-review is desired, three (3) of the copies should be prepared accordingly (cover page and acknowledgments blinded). Responsibility for removing all potential identifying information rests solely with the author(s). All manuscripts should be prepared according to APA guidelines. This manual is available from most university bookstores or is accessible via commercial bookstores. Generally, the following sections should be submitted in the order specified.

Title Page: This page should include the full title of the manuscript, the full names of the author(s) with academic degrees and affiliations, and a complete mailing address and email address for the contact author.

Abstract: On a separate sheet of paper, a brief yet informative abstract that does not exceed one page is required. The abstract should include the purpose of the work along with pertinent information relative to the specific manuscript category for which it was submitted.

Key Words: Following the abstract and on the same page, the author(s) should supply a list of key words for indexing purposes.

Tables: Each table included in the manuscript must be typewritten and double-spaced on a separate sheet of paper. Tables should be numbered consecutively beginning with Table 1. Each table must have a descriptive caption. Tables should serve to expand the information provided in the text of the manuscript, not to duplicate information.

Illustrations: All illustrations included as part of the manuscript must be included with each copy of the manuscript. All manuscripts must have clear copies of all illustrations for the review process. High resolution (at least 300 dpi) files in any of the following formats must be submitted for each graphic and image: JPEG, TIFF, AI, PSD, GIF, EPS or PDF. For other types of computerized illustrations, it is recommended that CJSPLA production staff be consulted prior to preparation and submission of the manuscript and associated figures/illustrations.

Legends for Illustrations: Legends for all figures and illustrations should be typewritten (double-spaced) on a separate sheet of paper with numbers corresponding to the order in which figures/illustrations appear in the manuscript.

Page Numbering and Running Head: The text of the manuscript should be prepared with each page numbered, including tables, figures/illustrations, references, and appendices. A short (30 characters or less) descriptive running title should appear at the top right hand margin of each page of the manuscript.

Acknowledgments: Acknowledgments should be typewritten (double-spaced) on a separate page. Appropriate acknowledgment for any type of sponsorship, donations, grants, technical assistance, and to professional colleagues who contributed to the work but are not listed as authors, should be noted.

References: References are to be listed consecutively in alphabetical order, then chronologically for each author. Authors should consult the APA publication manual (5th Edition) for methods of citing varied sources of information. Journal names and appropriate volume number should be spelled out and italicized. All literature, tests and assessment tools, and standards (ANSI and ISO) must be listed in the references. All references should be double-spaced.

Potential Conflicts of Interest and Dual Commitment

As part of the submission process, the author(s) must explicitly identify if any potential conflict of interest or dual commitment exists relative to the manuscript and its author(s). Such disclosure is requested so as to inform CJSPLA that the author or authors have the potential to benefit from publication of the manuscript. Such benefits may be either direct or indirect and may involve financial and/or other nonfinancial benefit(s) to the author(s). Disclosure of potential conflicts of interest or dual commitment may be provided to editorial consultants if it is believed that such a conflict of interest or dual commitment may have had the potential to influence the information provided in the submission or compromise the design, conduct, data collection or analysis, and/or interpretation of the data obtained and reported in the manuscript submitted for review. If the manuscript is accepted for publication, editorial acknowledgement of such potential conflict of interest or dual commitment may occur within the publication.

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Each manuscript submitted to CJSPLA for peer-review that is based on work conducted with humans or animals must acknowledge appropriate ethical approval. In instances where humans or animals have been used for research, a statement indicating that the research was approved by an institutional review board or other appropriate ethical evaluation body or agency must clearly appear along with the name and affiliation of the research ethics and the ethical approval number. The review process will not begin until this information is formally provided to the Editor.

Similar to research involving human participants, CJSPLA requires that work conducted with animals state that such work has met with ethical evaluation and approval. This includes identification of the name and affiliation of the research ethics evaluation body or agency and the ethical approval number. A statement that all research animals were used and cared for in an established and ethically approved manner is also required. The review process will not begin until this information is formally provided to the Editor.

Renseignements à l'intention des collaborateurs

La Revue canadienne d'orthophonie et d'audiologie (RCOA) est heureuse de se voir soumettre des manuscrits de recherche portant sur la communication humaine et sur les troubles qui s'y rapportent, dans leur sens large. Cela comprend les manuscrits portant sur les processus normaux et désordonnés de la parole, du langage et de l'audition. Nous recherchons des manuscrits qui n'ont jamais été publiés, en français ou en anglais. Les manuscrits peuvent être tutoriels, théoriques, synthétiques, pratiques, pédagogiques ou empiriques. Tous les manuscrits seront évalués en fonction de leur signification, de leur opportunité et de leur applicabilité aux intérêts de l'orthophonie et de l'audiologie comme professions, et aux sciences et aux troubles de la communication en tant que disciplines. Par conséquent, tous les manuscrits sont évalués en fonction de leur incidence possible sur l'amélioration de notre compréhension de la communication humaine et des troubles qui s'y rapportent. Peu importe la catégorie, tous les manuscrits présentés seront soumis à une révision par des collègues afin de déterminer s'ils peuvent être publiés dans la RCOA. La Revue a établi plusieurs catégories de manuscrits afin de permettre la meilleure diffusion possible de l'information portant sur la communication humaine et les troubles s'y rapportant. Les catégories de manuscrits comprennent :

Tutoriels : Rapports de synthèse, traités ou exposés de position portant sur un sujet particulier dans un cadre théorique ou clinique.

Articles : Manuscrits conventionnels traitant de recherche appliquée ou expérimentale de base sur les questions se rapportant à la parole, au langage ou à l'audition et faisant intervenir des participants humains ou animaux.

Comptes rendus cliniques : Comptes rendus de nouvelles procédures ou méthodes ou de nouveaux protocoles cliniques

portant particulièrement sur une application directe par rapport aux questions d'identification, d'évaluation et de traitement relativement à la parole, au langage et à l'audition.

Comptes rendus sommaires : Semblables aux notes de recherche, brèves communications portant sur des conclusions préliminaires, soit cliniques soit expérimentales (appliquées ou fondamentales), pouvant mener à une étude plus poussée dans l'avenir. Ces comptes rendus se fondent typiquement sur des études à petit « n » ou pilotes et doivent traiter de populations désordonnées.

Notes de recherche : Brèves communications traitant spécifiquement de travaux expérimentaux menés en laboratoire. Ces comptes rendus portent typiquement sur des questions de méthodologie ou des modifications apportées à des outils existants utilisés auprès de populations normales ou désordonnées.

Comptes rendus d'expérience : Comptes rendus décrivant sommairement la prestation de services offerts en situations uniques, atypiques ou particulières; les manuscrits de cette catégorie peuvent comprendre des comptes rendus de dépistage, d'évaluation ou de traitement.

Courrier des lecteurs : Forum de présentation de divergences de vues scientifiques ou cliniques concernant des ouvrages déjà publiés dans la Revue. Le courrier des lecteurs peut avoir un effet sur notre façon de penser par rapport aux facteurs de conception, aux confusions méthodologiques, à l'analyse ou l'interprétation des données, etc. Comme c'est le cas pour d'autres catégories de présentation, ce forum de communication est soumis à une révision par des collègues. Cependant, contrairement aux autres catégories, on recherchera la réaction des auteurs sur acceptation d'une lettre.

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Pour soumettre un article, les auteurs doivent utiliser le système de soumission électronique de l'ACOA à l'adresse <http://cjslpa.coverpage.ca>. Si vous ne pouvez pas utiliser le système électronique, veuillez envoyer par courriel un fichier Word ou WordPerfect contenant le manuscrit, y compris tous les tableaux, les figures ou illustrations et la bibliographie. Adressez le courriel au rédacteur en chef à l'adresse tim.bressmann@utoronto.ca. Vous pouvez aussi soumettre cinq (5) exemplaires sur papier à :

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On doit joindre aux exemplaires du manuscrit une lettre d'envoi qui indiquera que le manuscrit est présenté en vue de sa publication. La lettre d'envoi doit préciser que le manuscrit est une œuvre originale, qu'il n'a pas déjà été publié et qu'il ne fait pas actuellement l'objet d'un autre examen en vue d'être publié. Les manuscrits sont reçus et examinés sur acceptation de ces conditions. L'auteur (les auteurs) doit (doivent) aussi fournir une attestation en bonne et due forme que toute recherche impliquant des êtres humains ou des animaux a fait

l'objet de l'agrément d'un comité de révision déontologique. L'absence d'un tel agrément retardera le processus de révision. Enfin, la lettre d'envoi doit également préciser la catégorie de la présentation (i.e. tutoriel, rapport clinique, etc.). Si l'équipe d'examen juge que le manuscrit devrait passer sous une autre catégorie, l'auteur-contact en sera avisé.

Toutes les présentations doivent se conformer aux lignes de conduite présentées dans le publication *Manual of the American Psychological Association (APA)*, 5^e Édition. Un accusé de réception de chaque manuscrit sera envoyé à l'auteur-contact avant la distribution des exemplaires en vue de la révision. La RCOA cherche à effectuer cette révision et à informer les auteurs des résultats de cette révision dans les 90 jours de la réception. Lorsqu'on juge que le manuscrit convient à la RCOA, on donnera 30 jours aux auteurs pour effectuer les changements nécessaires avant l'examen secondaire.

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Tous les textes doivent être dactylographiés à double interligne, en caractère standard (police de caractères 12 points, non comprimée) et sur papier 8 ½" X 11" de qualité. Toutes les marges doivent être d'au moins un (1) pouce. L'original et quatre (4) copies du manuscrit doivent être présentés directement au rédacteur en chef. L'identification de l'auteur est facultative pour le processus d'examen : si l'auteur souhaite ne pas être identifié à ce stade, il devra préparer trois (3) copies d'un manuscrit dont la page couverture et les remerciements seront voilés. Seuls les auteurs sont responsables de retirer toute information identificatrice éventuelle. Tous les manuscrits doivent être rédigés en conformité aux lignes de conduite de l'APA. Ce manuel est disponible dans la plupart des librairies universitaires et peut être commandé chez les libraires commerciaux. En général, les sections qui suivent doivent être présentées dans l'ordre chronologique précisé.

Page titre : Cette page doit contenir le titre complet du manuscrit, les noms complets des auteurs, y compris les diplômes et affiliations, l'adresse complète de l'auteur-contact et l'adresse de courriel de l'auteur contact.

Abrégé : Sur une page distincte, produire un abrégé bref mais informateur ne dépassant pas une page. L'abrégé doit indiquer l'objet du travail ainsi que toute information pertinente portant sur la catégorie du manuscrit.

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Conflits d'intérêts possibles et engagement double

Dans le processus de présentation, les auteurs doivent déclarer clairement l'existence de tout conflit d'intérêts possibles ou engagement double relativement au manuscrit et des auteurs. Cette déclaration est nécessaire afin d'informer la RCOA que l'auteur ou les auteurs peuvent tirer avantage de la publication du manuscrit. Ces avantages pour les auteurs, directs ou indirects, peuvent être de nature financière ou non financière. La déclaration de conflit d'intérêts possibles ou d'engagement double peut être transmise à des conseillers en matière de publication lorsqu'on estime qu'un tel conflit d'intérêts ou engagement double aurait pu influencer l'information fournie dans la présentation ou compromettre la conception, la conduite, la collecte ou l'analyse des données, ou l'interprétation des données recueillies et présentées dans le manuscrit soumis à l'examen. Si le manuscrit est accepté en vue de sa publication, la rédaction se réserve le droit de reconnaître l'existence possible d'un tel conflit d'intérêts ou engagement double.

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Légendes des illustrations : Les légendes accompagnant chaque figure et illustration doivent être dactylographiées à double interligne sur une feuille distincte et identifiées à l'aide d'un numéro qui correspond à la séquence de parution des figures et illustrations dans le manuscrit.

Numérotation des pages et titre courant : Chaque page du manuscrit doit être numérotée, y compris les tableaux, figures, illustrations, références et, le cas échéant, les annexes. Un bref (30 caractères ou moins) titre courant descriptif doit apparaître dans la marge supérieure droite de chaque page du manuscrit.

Remerciements : Les remerciements doivent être dactylographiés à double interligne sur une feuille distincte. L'auteur doit reconnaître toute forme de parrainage, don, bourse ou d'aide technique, ainsi que tout collègue professionnel qui ont contribué à l'ouvrage mais qui n'est pas cité à titre d'auteur.

Références : Les références sont énumérées les unes après les autres, en ordre alphabétique, suivi de l'ordre chronologique sous le nom de chaque auteur. Les auteurs doivent consulter le manuel de l'APA (5^e Édition) pour obtenir la façon exacte de rédiger une citation. Les noms de revues scientifiques et autres doivent être rédigés au long et imprimés en italiques. Tous les ouvrages, outils d'essais et d'évaluation ainsi que les normes (ANSI et ISO) doivent figurer dans la liste de références. Les références doivent être dactylographiées à double interligne.

Participants à la recherche – êtres humains et animaux

Chaque manuscrit présenté à la RCOA en vue d'un examen par des pairs et qui se fonde sur une recherche effectuée avec la participation d'êtres humains ou d'animaux doit faire état d'un agrément déontologique approprié. Dans les cas où des êtres humains ou des animaux ont servi à des fins de recherche, on doit joindre une attestation indiquant que la recherche a été approuvée par un comité d'examen reconnu ou par tout autre organisme d'évaluation déontologique, comportant le nom et l'affiliation de l'éthique de recherche ainsi que le numéro de l'approbation. Le processus d'examen ne sera pas amorcé avant que cette information ne soit formellement fournie au rédacteur en chef.

Tout comme pour la recherche effectuée avec la participation d'êtres humains, la RCOA exige que toute recherche effectuée avec des animaux soit accompagnée d'une attestation à l'effet que cette recherche a été évaluée et approuvée par les autorités déontologiques compétentes. Cela comporte le nom et l'affiliation de l'organisme d'évaluation de l'éthique en recherche ainsi que le numéro de l'approbation correspondante. On exige également une attestation à l'effet que tous les animaux de recherche ont été utilisés et soignés d'une manière reconnue et éthique. Le processus d'examen ne sera pas amorcé avant que cette information ne soit formellement fournie au rédacteur en chef.



CALL FOR PAPERS

CASLPA Conference 2010
Whitehorse, Yukon
May 19–22, 2010

**Deadline for receipt of all program submissions:
September 15, 2009**

**Online abstract submissions at:
www.caslpa.ca/english/events/conference.asp**

The Canadian Association of Speech-Language Pathologists and Audiologists (CASLPA) 2010 conference will be held in Whitehorse, Yukon. CASLPA invites program submissions to the annual conference.

Clinicians from all practice settings are encouraged to share their insight, experience, methods, and research. CASLPA invites submissions of papers, poster sessions, scientific exhibits, mini-seminars, and videotapes. Multidisciplinary presentations will be considered. Sessions will be scheduled daily from May 19–22, 2010.

SESSION TYPES

Paper Presentations: A paper presentation should be based on current research that has not been published, clinical experience, or case studies (45 minutes in duration).

Mini-seminars: These sessions are designed to provide opportunity for interactive discussion of clinical practice and professional issues (90 minutes in duration).

Poster Sessions: Poster presentations should stand alone in conveying information. Each display should contain title and author(s), statement of purpose, methodology, results, and conclusions. Posters must be in landscape format, no larger than 2.4 m x 1.2 m. Authors are required to be present at designated times to respond to questions and discussion.

Scientific Exhibits: These sessions will be incorporated with the poster presentations. Exhibitors are required to be present at designated times to describe and discuss the exhibit. A table of approximately 1.8 m x .75 m and a poster board of approximately 2.4 m x 1.2 m will be available. Exhibitors are responsible for providing all equipment that will be required.

Videotape Presentations: Videotapes may be presented on clinical topics, case studies, agencies, therapy procedures, or other topics. Videotapes must be on 1/2-inch VHS video cassette.

- Themes:**
- Evaluating and implementing new technologies/methods
 - Measuring outcome and efficacy
 - Best practice/clinical guidelines
 - Ethics in clinical practice
 - Multi-linguistic considerations
 - Rural and isolated service delivery
 - First Nations and aboriginal service delivery
 - Mediator/facilitation training
 - Designing and implementing clinical research
 - Working with multi-discipline teams
 - Other

The complete call for papers including conditions for acceptance, instructions and request for presentation form, can be downloaded from our website at: www.caslpa.ca/english/events/conference.asp You can submit online or contact nick@caslpa.ca to have a hard copy e-mailed, faxed, or mailed to you.



APPEL POUR COMMUNICATIONS

Congrès de l'ACOA 2010
Whitehorse (Yukon)
du 19 au 22 mai 2010

**Date limite de réception des propositions :
le 15 septembre 2009**

**Vous pouvez soumettre votre proposition de communication en ligne au :
www.caslpa.ca/francais/events/conference.asp**

Le congrès annuel 2010 de l'Association canadienne des orthophonistes et audiologistes (ACOA) se tiendra à Whitehorse (Yukon). L'ACOA vous invite donc à soumettre vos propositions de communication pour son programme du congrès annuel 2010.

Les cliniciens de tous genres de pratique sont encouragés à partager leurs réflexions, leurs expériences, leurs méthodes et leurs recherches. L'ACOA souhaite recevoir des propositions de communications, de communications affichées, d'expositions scientifiques, de mini-séminaires de formation et de vidéocassettes. Les présentations multidisciplinaires seront également prises en considération. Les sessions se tiendront pendant le jour, du 19 au 22 mai 2010.

TYPES DE SESSION

Présentation de communication : Une présentation de communication devrait être basée sur une recherche courante, une expérience clinique ou sur une étude de cas, être récente et ne pas avoir été publiée (durée de 45 minutes).

Mini-séminaires : Ces séances sont conçues de manière à susciter des discussions interactives au sujet de la pratique clinique et des problèmes professionnels (durée de 90 minutes).

Séances d'affichage : La présentation des affiches doit suffire, à elle seule, à fournir de l'information. Chaque présentoir doit contenir le titre et le nom du ou des auteurs, l'énoncé de principe, la méthodologie, les résultats et conclusions. Les affiches doivent être présentées sous format en largeur et selon des dimensions ne dépassant pas 2.4 m par 1.2 m. Lors de périodes établies à l'avance, les auteurs devront être présents pour répondre aux questions et participer aux échanges (discussions).

Expositions scientifiques : Ces activités seront incorporées aux sessions d'affichage. Lors de périodes établies à l'avance, les exposants devront être présents pour décrire et discuter de leur exposition. Une table mesurant approximativement 1.8 m par .75 m et un tableau d'affichage de 2.4 m x 1.2 m seront mis à la disposition des exposants. Les exposants doivent fournir tout autre équipement nécessaire.

Présentations de vidéocassette : Les vidéocassettes peuvent présenter des sujets cliniques, des études de cas, des agences, programmes, procédures de thérapie ou autres. Les vidéocassettes doivent être de type VHS (1/2 pouce).

- Themes:**
- Évaluation et mise en oeuvre de nouvelles technologies/méthodes
 - Mesure de performance ou de rendement (outcome) et efficacité
 - Ce qui fonctionne en pratique/ conseils à suivre en milieu clinique
 - Questions liées au multilinguisme
 - Formation de médiateurs/facilitateurs
 - Éthique en milieu clinique
 - Prestation de services dans les régions rurales et éloignées
 - Prestation de services aux communautés autochtones et des Premières Nations
 - Collaboration au sein d'équipes multidisciplinaires
 - La planification et la réalisation de recherche en milieu clinique
 - Autre

Le formulaire pour soumettre les propositions de communications, les conditions et les instructions peuvent être téléchargés à partir du site Web de l'ACOA au www.caslpa.ca/francais/events/conference.asp. Vous pouvez soumettre votre demande en ligne ou en communiquant avec nick@caslpa.ca pour obtenir un formulaire et informations par envoi postal ou électronique ou par télécopieur.



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Are you looking for a professionally rewarding work environment with ample opportunity to make a difference? The CBE is a recognized leader in the K-12 education sector and is one of the largest school districts in Canada. We have over 12,000 employees who support the diverse learning needs of over 100,000 children. The CBE is committed to life-long learning and the development of its employees. We offer a competitive compensation package as well as a stable work environment which facilitates professional development and work-life balance. We are currently recruiting for these exciting opportunities:

Speech Language Pathologist

Competitions # 08-0464 and # 08-0458

Various part-time, full-time, permanent and temporary positions.

These positions provide educational support to school based learning teams by providing assessments and recommending appropriate communication systems and programming for students with unique learning needs. The Speech Language Pathologist works in consultation and collaboration with families and teachers to develop program plans and provide expertise in speech and language development and disorders. The ideal candidate will have a completed Masters Degree in Speech Language Pathology, and will be a registered member with the Alberta College of Speech Language Pathologists and Audiologists (ACSLPA). Positions are available in Calgary, Red Deer, and Lethbridge.

Speech Language Pathologist Assistant

Competition # 08-1061

There are several part-time positions available.

The Speech Language Pathologist Assistant assists the Speech Language Pathologist in the implementation of intervention programs designed to improve students' communication skills. The position is accountable for: Conducting articulation and language therapy; providing speech and language therapy to individual students and groups of students; maintaining a patient, supportive and enthusiastic commitment to students. The ideal candidate will have a post-secondary Speech Language Pathologist Assistant Diploma, including demonstrated successful practicum experience working with students with special needs. A Diploma in Early Child Care/Development with at least three months experience carrying out programming directed by a Speech Language Pathologist in a classroom setting will also be considered. There are several positions available that will be working directly with preschool and kindergarten aged children.

For further information regarding these opportunities visit www.cbe.ab.ca. Please submit your resume and cover letter referencing the appropriate competition number to:

Mail: Talent Management and Sourcing, Human Resources

2nd Floor, 112 28th Street S.E. Calgary, AB, T2A 6J9

Fax: (403) 1-866-465-8547 E-mail: CBE.SupportStaffing@Telus.com



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