Professional Preparation in Augmentative and Alternative Communication in Canadian Speech-Language Pathology Training Programs

La préparation professionnelle en matière de communication suppléante dans les programmes canadiens de formation en orthophonie

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Abstract

This paper presents information on how Canadian universities with speech-language pathology training programs have responded to the need for professional preparation in augmentative and alternative communication (AAC). Canadian universities with speech-language pathology training programs were surveyed regarding the AAC content of their programs. Information was compiled about both required and elective coursework on AAC, the availability of AAC-focused student clinical placement opportunities, and any continuing education opportunities offered. This information is compared to information gathered in similar surveys of speech-language pathology training programs in the United States and discussed in terms of Canadian training programs’ ability to address the AAC component of the foundations of clinical practice for speech-language pathology outlined by CASLPA.

Stere que caseloads and responsibilities for AAC

Many if not most speech-language pathologists (SLPs) provide augmentative and alternative communication (AAC) services as part of their clinical caseload. In 1989, 54% of Canadian speech-language pathologists surveyed reported that their clinical caseload included clients requiring AAC (Rubin, 1989). This figure is similar to information obtained in surveys in other parts of North America. Ratcliff and Beukelman (1995) cite two surveys in the United States: a 1990 survey by Gorenflo and Gorenflo which found that 60% of speech-language pathologists in Michigan served clients who were nonspeaking, and a recent survey by Simpson (in preparation) which found that 44% of the speech-language pathologists in the Nebraska school system had at least one client who used AAC on their current caseload. Furthermore, the percentage of clinicians who have at least some clients using AAC systems may be increasing as segregated institutions are phased out, and individuals with severe disabilities are included in integrated settings.

Individuals who could benefit from AAC are found on the speech-language pathologists’ caseloads in almost every conceivable work setting, including schools, rehabilitation centres, acute care hospitals and long term care facilities. Potential AAC users can be from virtually any age group, from infants (e.g., Swinth, Anson, & Deitz, 1993) to adults (e.g., Beukelman & Garrett, 1988). Beukelman and Mirenda (1992) cite a 1990 ASHA survey of facilities in the United States offering speech-language pathology services and found that 49.9% of these offered AAC services as part of their clinical services. Therefore, it appears likely that most speech-language pathologists will be required to provide augmentative and alternative communication (AAC) services at some point in their professional careers.
Typically, AAC services are provided by multidisciplinary or interdisciplinary teams, and the speech-language pathologist is an important participant in these teams. In addition to their expertise in communication sciences, normal and disordered language and communication, development and disorders, and management of communication interventions, speech-language pathologists are expected to bring expertise in alternative and augmentative aids, symbols, techniques and strategies to the AAC team (Beukelman & Mirenda, 1992; Yorkston & Karlan, 1986).

The Canon of Ethics of the Canadian Association of Speech-Language Pathologists and Audiologists states that “members must not attempt to provide diagnostic or treatment services for which they have not been adequately prepared” (CASLPA, 1992). This same document prohibits clinicians from prescribing augmentative devices “where benefit cannot reasonably be expected to accrue”. Speech-language pathologists whose job responsibilities include the assessment and/or support of AAC users and potential AAC users must avail themselves of formal or informal professional preparation in AAC in order to be in compliance with CASLPA’s Canon of Ethics.

AAC is a foundation of clinical practise

In 1992 the Canadian Association of Speech-Language Pathologists and Audiologists (CASPA) published a revised version of their publication Assessing and Certifying Clinical Competence. The subtitle of this publication was changed from “Scopes of Practice for Audiology and Speech Language Pathology” to “Foundations of Clinical Practice for Audiology and Speech-Language Pathology.” This change was made to emphasize the intent that the contents represent “knowledge essential to clinical competence that is shared by all those entering into the profession of speech-language pathology” (p.iii). In this document, AAC is specifically identified as one of the twelve content areas which form the foundation of clinical competence for speech-language pathologists. According to CASLPA, entry level speech-language pathologists are expected to be able to demonstrate knowledge of augmentative and alternative methods of communication, match clients with appropriate AAC systems, understand the impact of handicapping conditions on AAC use, and understand the impact of AAC systems on the social, academic and vocational areas of their clients’ lives. They are also expected to understand the role of the speech-language pathologist in an AAC assessment, and to demonstrate knowledge of intervention resources for potential and current AAC users (CASLPA, 1992).

In summary, students of speech-language pathology must have knowledge of AAC in order to meet minimal competencies as outlined by CASLPA. Most speech-language pathologists have responsibilities related to the provision and support of AAC, and the CASLPA Code of Ethics requires that members be adequately prepared to offer the services which they provide. It is also important that employers of speech-language pathology graduating students and clinical supervisors of practica placement be aware of the nature of the professional preparation in AAC that has been provided to students. Employers must make appropriate plans for continuing education, and clinical supervisors must adjust their activities with students accordingly. The nature and amount of professional preparation in AAC for speech-language pathology students is therefore of interest.

Surveys of professional preparation in AAC

There have been two recent published surveys of professional preparation in AAC in the United States. Koul and Lloyd (1994) surveyed 437 American universities and colleges which offered ASHA accredited speech-language pathology training programs or personnel preparation in special education. Although this was published in 1994, the survey was conducted approximately two years earlier (L. Lloyd, personal communication). Information was collected on AAC course work, the content of AAC courses, and opportunities for continuing education. Results for these two types of programs were reported separately, and only the results from the speech-language pathology training programs will be discussed here. These programs had a return rate of 77.6% (131/169 programs). A separate course in AAC was offered by 62% or 81 of the respondents. As some programs offered more than one course in AAC a total of 122 courses in AAC were offered. Almost one third of these courses (40/122) were required for the fulfillment of a degree in speech-language pathology. In addition, all 131 responding programs reported other courses that included some AAC content, including 18 courses with more than nine hours of AAC-related content. Over half of the programs (57%) also offered opportunities for continuing education in AAC. Koul and Lloyd compared these results to an 1982 unpublished survey by the American Speech-Language-Hearing Association which had found only 32.5% of speech-language pathology training programs offered at least one course in AAC. They concluded that in the ‘0 years between 1982 and 1992 the number of AAC courses in speech-language pathology training programs had approximately doubled.

Ratcliff and Beukelman (1995) also addressed the question of professional preparation in AAC through a survey of 204 academic departments offering graduate training in communication disorders in the United States. Their questionnaire elicited not only information about course work, but also about clinical practice, issuance of departmental plans, and student outcome measures. The return rate
for this survey was 58% (119 respondents). Seventy-one percent offered at least one course devoted to AAC, and 48% of these courses were required. The average percentage of students per program who obtained at least some clinical practica hours in AAC was 28%, and of these hours, 35% were obtained at an AAC centre. When asked about future plans, 30% of the programs reported plans to add AAC-related course work and 23% reported plans to add faculty with expertise in AAC within the next five years. Of the current faculty teaching AAC courses less than half (46%) identified AAC as primary area of expertise. Several questions were asked to probe the faculty's perception of the expertise of their graduating students. Most respondents rated students' level of expertise in AAC on graduation as similar to their expertise in voice and fluency, and somewhat lower than their expertise in child language, child articulation, and adult neurogenic disorders. On average, programs estimated that 42% of their students would be prepared to carry AAC clients on their caseload on graduation.

Based on these results, Ratcliff and Beukelman divided the respondents into four groups. The "intensive training group" (15% of the sample) was described as having made a "commitment to excellence in AAC training." Programs in this group offered more than one course devoted to AAC. Their AAC courses devoted more time to lab activities, and were more likely to be interdisciplinary. Their students were more likely to obtain a greater number of clinical practice hours in AAC, and were rated most favourably when their clinical competency levels in AAC were compared to other areas. These programs were responsible for most of the AAC-related research (i.e., theses, dissertations, and articles). The "concentrated training group" was the largest group, including 67% of the respondents. These programs offered one course devoted to AAC, and it was not likely to be interdisciplinary. More of their students obtained AAC practica hours than the average of the total sample, but less than in the intensive group. On average, almost half of their students were judged to be capable of carrying AAC clients on their caseload upon graduation. Some AAC-related research was occurring in these institutions. The "infused training group" (8% of the sample) included smaller amounts of AAC content within other courses in the curriculum. Their students were unlikely to have any lab work in AAC, and were less likely to have obtained clinical practica hours in AAC. Their students were also less likely to be considered capable of carrying AAC clients on graduation. There were no AAC-related theses or dissertations reported in this group but there were published and in progress articles. This group was also less likely to report plans to add faculty and courses in the next five years. Of the current faculty teaching AAC courses less than half (46%) identified AAC as primary area of expertise. Several questions were asked to probe the faculty's perception of the expertise of their graduating students. Most respondents rated students' level of expertise in AAC on graduation as similar to their expertise in voice and fluency, and somewhat lower than their expertise in child language, child articulation, and adult neurogenic disorders. On average, programs estimated that 42% of their students would be prepared to carry AAC clients on their caseload on graduation.

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These two surveys indicate that in the United States some professional preparation in AAC is offered by most speech-language pathology training programs, and there appears to be a trend toward more programs providing training in this area. We know of no published information on professional preparation in AAC offered by Canadian programs. The purpose of this survey was to identify how Canadian speech-language pathology training programs are meeting the need for professional preparation in the area of AAC.

Method

The questionnaire for the present survey was designed with reference to the form used by Koul and Lloyd (1994), but specific changes were made to modify and expand some content areas. Following recommendations made by Koul and Lloyd, questions were added on the amount of clinical training students receive in AAC, and on the status of the instructors of dedicated AAC courses. Koul and Lloyd's survey included questions about specific content areas of AAC courses, and most respondents indicated that their courses included all of the listed content areas. Koul & Lloyd also asked for a list of any journals or books that were commonly assigned as required reading. As the present study surveyed significantly fewer programs, it was felt that asking programs to include course outlines and reading lists would provide more useful information on course content and assigned readings and that the total number of courses was likely to be small enough to make analysis of this information feasible. The questionnaire used in this study is presented in the appendix.

In addition to the questions on AAC, program directors were asked to give permission for their program to be identified by name in the presentation of the survey results, and were informed that unless all program directors agreed to be identified by name, none would be so identified. Respondents were also invited to include additional comments about AAC training or about the questionnaire itself.

The questionnaire was mailed to the program directors of all eight Canadian universities that offer a speech-language pathology training program. Those programs whose primary language of instruction is French were first contacted by telephone to determine if it was necessary to translate the questionnaire into French. Both of these programs indicated that an English form was satisfactory.
Results

Of the eight university programs contacted, seven returned the questionnaire (88%). The remaining program reported that AAC content was highly integrated into the program as a whole and therefore they felt that the information asked for in the questionnaire would not accurately reflect the AAC content of their curriculum. Two respondents indicated that they did not wish to have programs identified by name. Therefore, general survey results will be presented for seven programs.

Of the seven respondents, six (85%) offer a separate course focusing on AAC. The program that currently does not offer an AAC course reported that they planned to do so as early as 1996. One program offers two courses in AAC, an introductory course and a more specialized course. Of the seven programs, three (43%) offer compulsory courses in AAC and three (43%) have elective AAC courses only. All AAC courses are offered to students at the graduate level.

When asked about AAC content in other courses, five of the seven respondents (71%) reported that they offered information about AAC in non-AAC courses at either the graduate or undergraduate level. All five of these programs include AAC information in compulsory speech and language courses, while the two programs that do not report AAC content in other courses both have compulsory AAC courses in their curricula. Therefore, all seven programs responding to the survey require that their students receive some classroom instruction in AAC as part of their training.

To summarize the amount of classroom instruction in AAC for each program, the number of class/lab hours offered in AAC courses was combined with the number of class hours focusing on AAC in non-AAC courses. For non-AAC courses, respondents had been asked to report the number of class hours within specific ranges by checking the appropriate box on the questionnaire (refer to appendix). For summary purposes, these responses were given the median value of the category checked (e.g., if a non-AAC course offered four to six hours instruction in AAC, a value of five was assigned). These results, which indicate the number of compulsory hours of instruction in AAC (compulsory plus elective) are presented in Table 1.

Looking at the information on dedicated AAC courses, three (43%) of the seven AAC courses are compulsory. AAC courses were designated as "introductory" if they covered a broad range of topics in AAC, or "advanced" if they covered specific topics or populations in more depth, and presumed general knowledge about AAC. Six (86%) of the AAC courses are introductory, with only one more advanced course available. All but two of the courses (both of which were offered by the same program) are taught by sessional lecturers as opposed to members of faculty.

Table 2 summarizes more specific information on class hours, lab hours, and duration for the seven dedicated AAC courses offered by six programs.

Of the seven dedicated AAC courses, five (71%) listed a required textbook. In all five instances, the required text is *Augmentative and Alternative Communication: Management of Severe Communication Disorders in Children and Adults* (Beukelman & Mirenda, 1992).

Respondents provided reading lists for five (71%) of the seven AAC courses. The reading lists were reviewed to determine if any books or articles appeared on all five lists, on four of five lists, or on three of five lists. No book or
article appeared on four of five lists; those readings that appeared on three of five lists are shown in Table 3.

Table 3. Four readings in AAC common to three of five reading lists for dedicated AAC courses in Canada

<table>
<thead>
<tr>
<th>Reading</th>
<th>Course 1</th>
<th>Course 2</th>
<th>Course 3</th>
<th>Course 4</th>
<th>Course 5</th>
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<tbody>
<tr>
<td>Reading 1</td>
<td>X</td>
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<td>Reading 2</td>
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<td>Reading 4</td>
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</tbody>
</table>

For five (71%) of the seven AAC courses, course outlines were provided. It was observed that major content areas (e.g., assessment, graphic symbols, vocabulary selection, alternate access) were covered in all outlines, which is to be expected as these courses were primarily introductory-level AAC courses. Because of this, and because course outlines were not available for all courses, no further attempt was made to formally summarize course content.

In response to a question about continuing education opportunities in AAC, six (86%) of the seven respondents indicated that they have offered continuing education in some form within the last three years. Four have allowed community speech-language pathologists to attend existing AAC courses, one has offered a workshop in partnership with their provincial association, and one program offers a summer course in AAC.

In addition to specific clinical training in AAC, programs were asked to what extent students received clinical exposure to AAC as a part of more general practica. Six (86%) of the seven programs indicated that students “sometimes” received such exposure, and one program indicated that students “usually” received exposure to AAC. One program volunteered that the majority of students enrolled in its elective AAC course received three to four hours of observation and clinical work with AAC clients.

Discussion

The results of this questionnaire provide information about the professional preparation in AAC for speech-language pathologists in Canadian training programs in the 1994-95 academic year. One program did volunteer information about future plans to expand AAC content in course work and practica, and to instigate a separate course in AAC in 1996. However, the survey did not specifically ask for information about future plans, or for historical information about AAC-related training. Therefore, no comments can be offered about trends in professional preparation in AAC, although the results do provide a snapshot of the status of professional preparation in AAC in Canada at this time.

It is heartening to note that all of the programs responding to this survey offer some information on AAC in their compulsory course work, but disappointing that the amount of time devoted to AAC content is quite limited in some cases. In three programs, compulsory AAC-related instruction consisted of less than 12 hours of class time and these hours were embedded in several courses on other topics. It is difficult to imagine that students with only this amount of limited, fragmented instruction could meet the AAC-related criteria of clinical competence for entry level speech-language pathologists outlined in CASLPA's Assessing and Certifying Clinical Competency: Foundations of Clinical Practice for Audiology and Speech-Language Pathology. However, all three of the programs with very limited compulsory AAC instruction did offer their students the opportunity to take an elective course in AAC, and so some of their students may obtain the required knowledge through that avenue.

The expertise that speech-language pathologists are expected to bring to AAC assessment and intervention was reviewed above. Although some areas (i.e., knowledge of normal language development, and disorders) would almost certainly be covered in other courses in speech-language pathology training programs, other areas (i.e., augmentative and alternative aids, symbols, techniques, and strategies) are fairly specific to the topic of AAC, and are likely to be systematically covered only in a course on AAC. As noted above, six of the seven responding programs (86%) offer a separate course in AAC, and the seventh program intends to...
start offering a separate course in 1996. As there are only eight existing programs in Canada this indicates that at least 75% of the existing Canadian programs recognize the specificity of some of the AAC-relevant information by offering a separate course on the topic. This compares favorably with the 71% figure in the United States found by Ratcliffe and Beukelman. However, only three programs recognize the importance of AAC by making the course in AAC compulsory. This is similar to the 48% of the AAC courses in American universities that were compulsory.

Only two of the seven AAC courses included formal lab hours. Two other programs volunteered that “laboratory” activities were integrated into class time and also covered in student assignments. Ratcliffe and Beukelman identified the small amount of lab time in their American survey as an area of concern, because they felt it indicated that students may not have sufficient knowledge of the AAC technology. Given the limited amount of time available for AAC instruction, the large number of AAC devices available, and the quickly changing nature of technology, instructors may prefer to give students overview information on device characteristics and device evaluation rather than spending excessive time on labs to establish operational competence on specific pieces of technology.

The content areas covered in Canadian courses on AAC appears to be relatively consistent across programs, and in fact the same textbook is used in five of the seven courses. Different instructors place different relative emphasis on certain areas, and of course the depth of coverage varies considerably, given the large differences in the time available.

An apparent difference between Canada and the United States lies in who teaches the AAC courses. In five of the six responding Canadian universities offering course work in AAC, these courses were taught by sessional lecturers rather than by permanent faculty. In the United States, 41% of the programs indicated that faculty teaching in AAC had only minimal expertise in the area. In our survey we did not specifically ask about the areas of expertise of the instructors of the AAC courses, but presumably sessional lecturers have been brought in because of their knowledge and expertise in AAC. This could indicate that Canadian students are more apt to be taught AAC by individuals with expertise in the area, compared to students in the United States.

However, if the logical assumption is made that the use of sessional lecturers indicates an absence of faculty with expertise or interest in AAC, there are at least two potential disadvantages to the Canadian tendency to employ sessional lecturers rather than faculty members. Firstly, if there are no permanent academic faculty with expertise in AAC there is likely to be less effective representation of AAC concerns and advocacy for AAC content in the process of university training program planning and development. It is not surprising to note that the only program to offer more than one course in AAC had a faculty member who taught these courses. This program also offered by far the largest number of compulsory and elective course work hours devoted to AAC. Secondly, there is a possibility that the apparent lack of faculty teaching AAC courses also indicates a lack of academic faculty-led research initiatives in AAC-related topics in Canada.

Another vital component of professional training is clinical practice. It is worrisome that six of the seven programs judged that students only sometimes received exposure to AAC assessment and/or intervention as part of more general placements, and that overall, only 14% of students experienced a practicum placement focussing specifically on AAC. This suggests that it is possible that many if not most students graduate from Canadian speech-language pathology training programs without having been involved in any clinical practicum involving an AAC user.

Six of the seven universities offered continuing education opportunities in AAC to clinicians in their communities within the last three years. Thus, if clinicians failed to take elective course work in AAC when they were students, or if such course work was not available to them, university programs have made attempts to meet their need for information about AAC. Given that over half of Canadian speech-language pathologists are required to provide AAC services, continuing education opportunities in this area would appear to be important for practising clinicians.

In summary, all Canadian speech-language pathology training programs responding to this survey (that is seven of the eight programs in Canada) include at least minimal amounts of AAC-related content in their compulsory course work, and most programs offer a separate course in AAC. There is considerable disparity however, in the amount of AAC-related training Canadian speech-language pathology students have received on graduation, and it is doubtful that students from all of these programs would be able to meet the minimal criteria of competence in AAC considered by CASLPA to be part of the foundations of clinical competence. Clinical practice opportunities in AAC appear to be limited, and this too is a cause for concern. Most AAC courses are taught by sessional lecturers, and although this may be a reasonable strategy for ensuring that the instructor has expertise in AAC, it may have negative implications for AAC representation in university training program planning and development, and for faculty-led research initiatives in AAC-related topics in Canada.
References


Appendix: Survey of Professional Preparation In Augmentative and Alternative Communication at Canadian Speech-Language Pathology Training Programs

University: ______________________

1. Do you currently offer a separate course in the area of augmentative and alternative communication (AAC)?

   yes __

   no __

2. For each and any courses you offer specifically in AAC, please fill in a course information sheet (attached).

3. Do you include AAC content as part of other course(s)?

   yes ____ (go to question #4)

   no ____ (go to question #5)

Continued on page 248
4. Please list the dept/course number and course title of any course which contains AAC content.

- In the second column put "G" for a graduate course or "U" for an undergraduate course.
- In the third column put "R" for a required course or "E" for an elective course.
- Check the number of hours of class time spent on AAC.

<table>
<thead>
<tr>
<th>Dept/course #</th>
<th>Course title</th>
<th>Graduate or Undergrad</th>
<th>Required or Elective</th>
<th>Number of hours of class time on AAC</th>
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5. Which of the following continuing education opportunities have you offered within the last three years which focuses on AAC content (check all that apply).

- seminar
- workshops on campus
- symposium
- summer course
- inservice training
- other (please specify)  

6. Does your program offer clinical practicum placements specifically focusing on AAC, i.e., at specialized AAC clinics or services? Yes ___ No ___

If yes, please name the AAC service(s):  

How many students per year receive such training?  

How many speech-language pathology students per year (on average) graduate from your program?  

Do students in your program receive exposure to AAC assessment and/or intervention as a part of more general placements? (Check one)

- Always
- Usually
- Sometimes
- Never
Would you like to offer additional comments on augmentative and alternative communication training in your program, or on the topic of augmentative and alternative communication training more generally?

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**COURSE INFORMATION SHEET**

Please fill out one course information sheet for each course on augmentative and alternative communication offered in your program.

1. Dept/course # __________ Course title: __________

2. Check one: This is a(n)... Required course __________ Elective course __________

3. Students' time in class:
   - Lectures: ______ weeks @ ______ hours per week.
   - Labs: ______ weeks @ ______ hours per week.

4. Who teaches this course?
   - Faculty member ______
   - Sessional lecturer ______
   - Other (describe) ______

5. List the author and title of any textbooks assigned as required reading:

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<thead>
<tr>
<th>Author</th>
<th>Title</th>
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6. If possible, please attach a course outline and list of required reading for the course.
   - course outline attached: ______
   - reading list attached: ______