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From the editors

Jane McCormack and Anna Copley

This issue of the *Journal of Clinical Practice in Speech-Language Pathology* focuses on "Interprofessional practice". As such, it showcases the abilities of speech-language pathologists (SLPs) to collaborate with different disciplines to address their client's needs. Never has the need for collaboration between professionals been as great as the present time, as we face social, political and population changes which are putting significant pressure on health and education services that are already stretched to their limits.

In light of the recent policies for inclusion of children with special needs within general classroom settings, Hersh, O'Rourke and Lewis explored the interprofessional learning opportunities for education and speech-language pathology students. Forty-nine students took part in their study, 19 of whom evaluated the program and reported positive experiences. Overall the program promoted education and SLP student collaboration and inclusion.

Another study exploring interprofessional student collaboration was completed by Ciccone, Hersh, Priddis, and Peterson. Their study examined the experiences of SLP and counselling psychology students in a role-emerging, interprofessional clinical placement. The students who took part in this study provided a program to facilitate the development of a healthy mother–child relationship in a pre-release detention centre. The results of their study showed that despite being a challenging experience, the interprofessional placement strengthened students' collaborative problem-solving, advocacy skills and clinical competence.

In their "Clinical insights" paper, Byrne and Lyddiard provide an overview of strategies for working with children in out-of-home care who may have experienced trauma or abuse. They identify considerations for SLPs as part of a larger team of individuals working to care for and support these children.

Other papers in this issue do not fit within the interprofessional practice theme, but cover topics of interest and value to SLPs. Two studies (Wilkinson and colleagues, and Lynham and colleagues) explore aspects of clinical education in the areas of communication partner training and international placements respectively. In addition, Munro and colleagues provide an overview of the speechBITE™ database, which is a valuable resource for clinicians in the provision of evidence based practice.

Within this issue of *JCPSLP*, regular columns focus on interprofessional practice. In the "Ethical conversations" column, Bradd, Smith, Muller and Wilson explore ethical factors relating to interprofessional practice that need to be considered when SLPs work as part of a clinical team in the provision of care to their clients. In the "What's the evidence?" column, Sanderson and Whitworth focus on research investigating interprofessional education and practice in education and health settings, while Limbrick provides her "Top 10 resources" for working in transdisciplinary practice with children with developmental delays and disabilities. Bowen provides a description of websites relevant to interprofessional education and practice in her "Webwords" column.

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CLINICAL PLACEMENT
COUNSELLING PSYCHOLOGY
INTER-PROFESSIONAL PRACTICE
QUALITATIVE
ROLE-EMERGING

THIS ARTICLE HAS BEEN PEER-REVIEWED

Natalie Ciccone (top) and Deborah Hersh

This paper examines the experience of a speech pathology and a counselling psychology student in a role-emerging, interprofessional clinical placement. Qualitative descriptive analysis was used to explore student and staff perceptions of the placement which took place within a pre-release detention centre, housing up to six women and their young children, within the Department of Corrective Services. Student reflections were obtained before, during and post placement completion. Reflections from academic staff involved in the project were gathered following placement completion. The analysis of these sources of data revealed that, while challenging, this placement strengthened students' collaborative problem-solving, advocacy skills and clinical competence.

Pedagogical debate frequently centres on the blending of theory and practice, where professional skills become further developed through the application of theoretical understanding within a clinical context (Sheepway, Lincoln & Togher, 2011). In recent times pedagogy has taken a direction that encourages students of different professions to participate in joint clinical education experiences; a change that has demonstrated value and is argued by some to become routine practice (Davidson, Smith & Stone, 2009). Published research specifically identifies that interprofessional experiences increase students' positive attitudes towards, and knowledge of, other professions as well as their ability to communicate and work collaboratively (Curran, Sharpe, Flynn & Button, 2010). In addition, evidence is reported that these opportunities strengthen and increase awareness of students' own professional knowledge (Ciccone, Priddis, Lloyd, Hersh, Taylor & Standish, 2012). Oandasan and Reeves (2005) also advocate for interprofessional education (IPE) programs to go beyond the classroom and involve a practical learning experience in which students are involved in a clinical placement. Such exposure is thought to increase students' learning through observing the relevance of interprofessional collaboration to their own professional practices. Further research is needed to investigate the development of clinical skills within interprofessional clinical placements (Sheepway et al. 2011) and the challenges to developing and implementing these experiences.

Literature on role-emerging placements is found predominantly in discussions on the clinical education of occupational therapy (OT) students. Role-emerging placements are described as placements that occur:

> *in a setting that: does not have an established program or staff person hired to fill the role; is coordinated and supervised by an off-site licensed therapist who is not employed by the setting and has students assigned to a site staff person as a contact for site concerns. (Solomon & Jung, 2006, p. 60)*

The term "non-traditional' is also used to describe role-emerging placements (Overton, Clark & Thomas, 2009; Solomon & Jung, 2006). Previous research suggests role-emerging placements have the potential to lead to role development in areas in which the profession has not previously worked as well as facilitating personal and professional growth (Bossers, Cook, Polatajko & Laine, 1997; Overton et al., 2009). Specifically role-emerging placements may promote a deeper level of learning as students explore their role within a new setting (Fieldhouse & Fedden, 2009), provide students opportunities to work more independently due to the absence of an on-site supervisor (Rodger et al., 2009), develop confidence in their problem-solving (Cooper & Raine, 2009), help them to see the client as a person and work within expanded roles (Bossers et al., 1997). Overton et al. (2009) commented on the similarities between the perceived benefits of role-emerging placements and those of interprofessional education (IPE), namely patient or client-centred practice, gaining personal and professional confidence, developing an understanding of other health professionals' roles and collaborative team work.

Although used in the clinical education of OT students, role-emerging placements are not widely reported in the clinical education of students from other health professions. In an international survey of speech pathology programs, seven out of the 45 participating programs reported using role-emerging placements (Sheepway et al., 2011). Additionally, few studies have reported on the development and use of role-emerging placements within interprofessional clinical placements. Solomon and Jung

(2006) reported on a placement involving an OT student and a physiotherapy student within a community health centre in which students developed rehabilitation services for people with human immunodeficiency virus (HIV). The students found the placement to be challenging but exciting and reported that the lack of clearly defined roles led to collaboration and problem-solving.

In this study, we aimed to add to the body of research on role-emerging interprofessional placements by examining the experience of other allied health students, specifically a speech pathology (SP) student and a counselling psychology (CP) student, within such a placement. The placement took place in a low security residential institution in the Department of Corrective Services in which the students worked with female offenders and their young children. Within a paediatric clinical context, parent-focused early intervention is a priority for speech pathology and counselling psychology as both professions work to facilitate healthy parent–child interactions (Ciccone et al., 2012). The two professions complement each other as speech pathologists encourage good communication between parents and their children to foster language development and counselling psychologists focus on the parent–child relationship and building interpersonal resilience through developing parental awareness and appropriate responsiveness to the mental states of their children (Slade, 2005). Within this placement, the students' intervention aimed to build the relationship between mother and child by promoting a responsive, interactive style of communication and facilitating each mother's awareness of her child's mental state.

In this paper, we detail the process behind the placement, the reflections of the staff involved and the influence of the role-emerging, interprofessional nature of the placement on the students' experience both at the time and 18 months later.

Method

Background to the clinical placement

The role-emerging placement described here took place within a low security residential institution in the Department of Corrective Services. The institution aims to rehabilitate female offenders as well as reintegrate them into the community. Facilities exist for a small number of offenders, who are mothers of young children, to have their children live in with them. At the time of this placement up to six women had their children, aged 0–4 years of age, living with them. The context of the current placement is described in detail in Ciccone et al. (2012).

The role of the students

The placement provided a 20-week practical experience, one day per week. The students planned and facilitated a 90-minute, weekly group session for the mothers and their children, as well as providing the option for individual therapy sessions for mother–child dyads as required. All mothers who had their children living with them were expected to attend the group. The group structure included: song time, a craft activity and a period of book sharing. Throughout each activity mothers were encouraged to interact with their child. While a not-for-profit organisation had originally been running the group, the students took on responsibility for the joint planning and running of all the sessions and modified the activities completed within the group from the original format.

Clinical supervision, placement planning and ongoing communication

In line with the nature of role-emerging clinics, clinical supervision was provided remotely by academic staff as the site did not employ a SP or CP. However, the students were supported on-site by a staff member from the not-for-profit organisation.

The following discussions and meetings were conducted in the process of establishing and running the placement:

- supervisor discussions: prior to the start of the placement the clinical supervisors met on four occasions to discuss and plan the placement. Within the meetings, the roles of the two professions and the professions' approaches to clinical practice were discussed.
- supervisor and student discussions: the supervisors and students met, as a group, twice before the placement, once after the first week and then twice more during the placement. Additionally the CP supervisor visited the institution on two occasions and the SP supervisors visited five times. Discussions during visits included points of commonality between the professions, the placement's clinical procedures and problem-solving any issues that emerged. The students also met individually with their profession-specific supervisor regularly across the placement and maintained weekly email contact to allow feedback on session planning and encourage self-reflection on the preceding week's sessions.

Participants

The SP and CP students were in the final semester of their programs. For each student, this placement was the final placement prior to graduation. Both students had achieved their course-specific clinical competencies and were offered the opportunity to attend the placement to expand their range of clinical experience. The supervisors were two SP academic staff and a CP academic staff member.

Data collection

Interview data were collected from the students on four occasions: prior to commencing the placement, after attending the placement for four weeks, immediately after the placement ended and 18 months post-placement completion. At the time of the 18-month follow-up interview both students had been working within their professions for 16 months allowing time for the students to gain the clinical experience needed to reflect back on the placement.

The pre- and immediately post-placement reflections were written questionnaires focused on the students' expectations for the placement (six questions in the pre-placement questionnaire) and their learning during the placement (seven questions in the post-placement questionnaire). The questions are detailed in Ciccone et al. (2012). The information collected four weeks into the placement was from a presentation the students gave at a university-based interprofessional conference. The students reflected on the lessons they had learned and what they thought was important for other students to think about in an interprofessional clinical placement. Finally, the 18-month follow-up was a face-to-face semi-structured interview between the first author and both students. Interviewing the students together encouraged their reflections and the expansion of their ideas.

The supervisors participated in a semi-structured focus group, facilitated by the second author 19 months after the placement had ended. The focus group was conducted

Lynn Priddis (top) and Amanda Peterson

after the interview with the students to allow for reflection on the comments made by students during their follow-up interview. The second author was not involved in the organisation or running of the clinical placement.

The follow-up interviews with students and staff were audio recorded and transcribed verbatim. The transcripts were read by all participants to check for accuracy. The university's Human Research Ethics Committee provided ethical approval for this study.

Data analysis

The study employed a qualitative, descriptive analysis (Sandelowski, 2000) of all transcripts. This involved multiple readings of all data and initially coding line by line. The first and second authors then merged similar codes into categories and then into broader themes. All sources of information were analysed independently by the first and second authors (both SPs) and triangulation occurred through comparing all sources of data. To enhance rigour, the students and supervisors checked the interview transcripts and resulting themes for accuracy.

Results

Student experience

As described in Ciccone et al. (2012), analysis of the students' pre- and post-placement questionnaires and their student presentation suggested four key themes in relation to their interprofessional learning: that they developed an increased confidence in their own professional knowledge, a growth in understanding of the other's role, a clearer sense of collaborative practice, and recognition of the importance of learning by doing. Their responses on the influence of the *role-emerging* element of the placement were categorised into three further themes: being distanced from supervisors, being challenged by the novelty and nature of the service and developing "soft skills". For example, having to rely more on each other, the students identified the value of peer learning opportunities and peer support as well as their own capacities for self-directed learning:

> *[we] have planned and reflected over our sessions, hypothesising what was going on with clients during group sessions, brainstorming and sharing our own clinical insights... (CP student)*

In particular, the students developed a strong advocacy role for the mothers and children whom they viewed as underserviced and overly constrained. For example, in the post-placement interview, the CP student commented:

> *The population that we're working with are particularly marginalised… they're the lowest of the low within even the prison hierarchy.*

From this perspective the students challenged the current policies in the unit, for example, by requesting that the mothers be allowed to take photographs of their children (previously denied for security reasons), by changing the original format of the mother-child group to include more interactive, language-based play, and requesting more resources. The role-emerging nature of the placement, the requirement for more independent problem-solving and the flexible approach to clinical reasoning taken by the students, enhanced the development of their interprofessional relationship and collaboration. In the post-placement interview they reflected on this:

> *Yeah, probably because it was us against the world (CP student)*

> *Yeah, yeah, I think it probably definitely brought us closer and more as a team so we could work together (SP student)*

During the follow up interview, both students commented on the lack of opportunity in the placement to use their 'direct' skills, meaning their discipline-specific clinical skills. Instead, they recognised that they had learned a significant amount through the placement in relation to what the SP student called "soft skills" such as being assertive, the ability to run groups, joint problem-solving, being able to deal with grief, having empathy, building rapport with a new client group, advocacy skills and being tolerant. Indeed, the experiences of the placement had a long-term impact on the way in which both students were managing their current work.

> *I think a lot of the stuff that we learnt actually has helped me where I work now so for example like the advocating for clients… they all have disabilities, our constant role is to advocate… And then I'm working in a transdisciplinary model now so we used to have psychologists work with us so yeah, I had a bit of that experience and background knowledge… (SP student)*

Supervisor experience

Three main themes from the focus group with the supervisors were identified: the nature of the placement and the importance of advanced planning, the need to select students carefully, and having open and honest relationships at all levels. For example, the unique nature of the placement setting, in an institution which was part of the Department of Corrective Services, and the combination of students was felt by all supervisors to be both unusual and highly valuable. The supervisors described the experience of the placement as "evolving", because they had not really known what to expect, and in fact, much of the early planning and proposed goals had to be re-evaluated as supervisors and students learned more about what was feasible. Supervisors also described the process as *very time intensive*, *expensive* and *challenging*, particularly in relation to the negotiations between the institution, the not-for-profit agency, the university, and even the students, all of whom had quite different agendas. The placement necessitated challenges to the status quo of "the system" in order to advocate for an environment conducive to a healthy mother–child relationship. Overall, the supervisors were positive about the placement but recognised that it requires heavy resourcing and commitment from all agencies.

Second, they noted that the placement was successful because the students were "handpicked", reflecting a similar approach taken by Solomon and Jung (2006). Both students were in their final year, had demonstrated high levels of competency in other placements, and had a good understanding of their own professional identity and role. They were viewed as resilient, quietly assertive, and mature, as the following excerpt from the focus group demonstrates:

> CP supervisor: *Plus capacity to take a risk and go into the unknown.*
>
> SP supervisor 1: *She was confident but she wasn't overconfident so she was willing to learn and just be open to the experience... she was fairly laid back... seemed to be a little more worldly than some of our students and she was very mature and emotionally mature…*

The confidence that the supervisors had in the students meant that they were not surprised by the students' passion to support very disadvantaged mothers and infants/young children as far as they were able:

> *They became united in a cause really, didn't they? I think it was a combination of elements and combination of their personalities, their skill level, their compassion and the environment they were in and the system that they were up against so I think all of that together sort of united the two students in this cause... (SP supervisor 1)*

Third, they talked about the importance of open and honest relationships, between the three supervisors, between the two students and between supervisor and students. All supervisors had an open attitude to the fact that they were learning alongside the students, learning about the placement itself as well as learning more about the other profession and the way in which the two professions could work together:

> *Look we're learning this at the same time, you know, we're going to be learning this together. (SP supervisor 1)*

The CP supervisor also noted:

> *There was a lot of richness in the observations that the students brought to the supervision...*

Frequent communication was noted as being important to support the process of working together and establish expectations of the placement:

> *whoever's setting up, before there's any students involved, the actual people doing it need a lot of time together to discuss, plan, you know, common language (SP supervisor 2)*

> *And discuss expectations and you know a set of requirements so everybody's on the same page (SP supervisor 1)*

In this way the supervisors had the opportunity to model collaborative working to the students. Finally, they suggested that the fact that they were also learning and supervising a novel placement "did actually shift… that power level" (SP supervisor 1) such that there was a degree of partnership between supervisors and students in trying to achieve the best outcome for the clients within a limited time.

Discussion

This research extended the concept of interprofessional role-emerging clinical placements from OT and PT students (Solomon & Jung, 2006) to a speech pathology/counselling psychology context, incorporating both student and supervisor data and a longitudinal perspective. The findings support those of Solomon and Jung (2006) in relation to attending to the process of student selection, allowing time for planning, the role of peer learning and support, and having realistic expectations for the placement. Our results suggest that the role-emerging nature of the placement facilitated students' development of a range of professional skills that they were explicitly aware of using within their clinical work, once qualified. Supervisors found it to be a learning experience that required an open mind and ongoing communication.

Student selection

Solomon and Jung (2006) identified that the success of their placement was due to the quality of the students who were on the placement. They stated "it is important to select students who are confident, open-minded, adaptable and able to communicate well with a wide variety of health professionals and clients" (p. 63). In keeping with this, supervisors in the current study also selected students who were confident, resilient, assertive and clinically competent.

Communication, planning and realistic expectations

All participants noted the importance of frequent communication. Within this placement, communication facilitated the development of collaborative relationships, establishing placement expectations and professional roles and the ongoing development of the clinical service provided. Prior to commencing the placement, discussion was needed to manage the expectations of staff and students to ensure that the clinical processes and working relationship were realistic (Fieldhouse & Feddon, 2009; Rodger et al., 2009; Solomon & Jung, 2006). Once the placement had commenced, communication between all parties was required to develop the clinical goals and processes and the supervisors' and students' understanding of their collaborative roles within the clinical setting. Molyneux (2001) commented on the importance of communication to facilitate the shift in thinking from more traditional professional roles to a more flexible, client-centred approach while still maintaining professional boundaries.

Peer learning

This role-emerging placement required the students to be collaborative, creative and adaptable in their clinical planning. Solomon and Jung (2006) also concluded that role-emerging placements facilitated collaboration and problem-solving for their students. Remote supervision required the students to trust and learn from each other rather than relying on immediate access to academic or clinical staff on-site.

The principle of peer learning applied to the supervisors, as well as the students, who learned more about the clinical processes of the other profession. Through this parallel process the supervisors modelled IP collaboration, creativity and problem-solving to the students within meetings. Clark (2006) has suggested that faculty should model teamwork behaviour to students rather than just provide lectures on it and act as a resource to support student learning.

Development of "soft skills"

In line with current research (Howell, Wittman & Bundy, 2012; Overton et al., 2009), the students within this study were initially focused on the development of their direct clinical skills with less recognition placed on the interprofessional element of the placement. Within the current study, the follow-up interview conducted once the students had joined the workforce provided an important opportunity for reflection on their interprofessional learning. The students took this opportunity to identify their greater appreciation of the experience, their role within the placement and benefits for their current clinical work.

This paper encourages the use of role-emerging interprofessional placements for the development of interprofessional learning and collaboration. However, we recognise the limitations of research with a small number of participants in one clinical placement and so agree with the call by Solomon and Jung (2006) that further research is needed into the learning facilitated through different models of interprofessional practice. Particularly, we suggest that

work needs to be done to explore the costs (in supervisors' time) of establishing and maintaining role-emerging placements of this type. In addition, while we suggest that role-emerging placements stretch the boundaries of professional practice into new spheres, we also note that these opportunities may not be recommended for students who are more dependent on close direction and on-site supervision. This raises issues of equity in opportunities for clinical education – an issue that continues to be debated (Cooper & Raine, 2009).

In conclusion, role-emerging interprofessional placements offer training courses with an opportunity to challenge certain students beyond regular clinical placements by expanding services into new ground. They also give educators a chance to model good interprofessional collaborations and have the potential to encourage creative, client-centred and reflective practice.

References

Bossers, A., Cook, J., Polatajko, H., & Laine, R. (1997). Understanding the role emerging placement. *Canadian Journal of Occupational Therapy*, *64*(1), 70–81.

Ciccone, N., Priddis, L., Lloyd, A., Hersh, D., Taylor, A., & Standish, G. (2012). Interprofessional clinical placement involving speech pathology and counselling psychology. *Journal of Clinical Practice in Speech-Language Pathology*, *14*(1), 7–11.

Clark, P. G. (2006). What would a theory of interprofessional education look like? Some suggestions for developing a theoretical framework for teamwork training. *Journal of Interprofessional Care*, *20*(6), 577–589.

Cooper, R., & Raine, R. (2009). Role-emerging placements are an essential risk for the development of the occupational therapy profession: the debate. *British Journal of Occupational Therapy*, *72*(9), 416–418.

Curran, V. R., Sharpe, D., Flynn, K., & Button, P. (2010). A longitudinal study of the effect of an interprofessional education curriculum on student satisfaction and attitudes towards interprofessional teamwork and education. *Journal of Interprofessional Care*, *24*(1), 41–52.

Davidson, M., Smith, R., & Stone, N. (2009). Interprofessional education: Sharing the wealth. In C. Delaney & E. Molloy (Eds.) *Clinical education in the health professions* (pp.70–91) Sydney: Churchill Livingstone/ Elsevier.

Fieldhouse, J., & Fedden, T. (2009). Exploring the learning process on a role-emerging practice placement: A qualitative study. *British Journal of Occupational Therapy*, *72*(7), 302–307.

Howell, D. M., Wittman, P., & Bundy, M. B. (2012). Interprofessional clinical education for occupational therapy and psychology students: A social skills training program for children with autism spectrum disorders. *Journal of Interprofessional Care*, *26*(1), 49–55.

Molyneux, J. (2001). Interprofessional teamworking: What makes teams work well? *Journal of Interprofessional Care*, *15*(1), 29–35.

Oandasan, I., & Reeves, S. (2005). Key elements for interprofessional education. Part 1: The learner, the educator, and the learning context. *Journal of Interprofessional Care*, *19*, 21–38.

Overton, A., Clark, M., & Thomas, Y. (2009). A review of non-traditional occupational therapy practice placement education: A focus on role-emerging and project placements. *British Journal for Occupational Therapy*, *72*(7), 294–301.

Rodger, S., Thomas, Y., Holley, S., Springfield, E., Edwards, A., Broadbridge, J., ... Hawkins, R. (2009). Increasing the occupational therapy mental health workforce through innovative practice education: A pilot project. *Australian Occupational Therapy Journal*, *56*, 409–417.

Sandelowski, M. (2000). Whatever happened to qualitative description? *Research in Nursing and Health*, *23*, 334–340.

Sheepway, L., Lincoln, M., & Togher, L. (2011). An international study of clinical education practice in speech-language pathology. *International Journal of Speech-Language Pathology*, *13*(2), 174–185.

Slade, A. (2005). Parental reflective functioning: An introduction. *Attachment and Human Development*, *7*(3), 269–281.

Solomon, P., & Jung, B. (2006). An interprofessional role-emerging placement in HIV rehabilitation. *International Journal of Therapy and Rehabilitation*, *13*(2), 59–64.

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Collaboration towards inclusion

An interprofessional learning opportunity for education and speech pathology students

Deborah Hersh, John O'Rourke and Abigail Lewis

In order to support the policy of inclusion, where children with special educational needs are catered for within general education classrooms, teachers and speech pathologists need to develop close collaborative practices. This paper reports on an interprofessional learning opportunity for education and speech pathology students to explore and learn about each other's role and work through cases. Reports on interprofessional learning opportunities between these two professions have been published but are relatively sparse at the undergraduate level. An evaluation completed by 19 students revealed a positive response to the experience but also suggestions for change. It is suggested that encouraging students to consider collaboration and inclusion early in their training may help to develop positive and flexible attitudes to the challenges of collaboration in practice.

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COLLABORATION
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STUDENT TEACHERS

THIS ARTICLE HAS BEEN PEER-REVIEWED

In Australia, there is an increasing trend towards the policy of inclusion in which students with special educational needs are catered for within mainstream classrooms (Ashman & Elkins, 2012; Foreman, 2011; Lindsay & Dockrell, 2002; and, for example, the Western Australia's Department of Education "Building Inclusive Classrooms" initiative: http://www.det.wa.edu.au/inclusiveeducation/detcms/navigation/building-inclusive-learning-environments/building-inclusive-classrooms/). With this trend, there is also more awareness of a role for speech pathologists in mainstream schools because of a growing body of knowledge around the links between oral language skills and literacy (Roth & Troia, 2006; Speech Pathology Australia [SPA], 2011b; Walsh, 2007). Effecting these policy changes involves close interprofessional collaboration between teachers, education assistants and speech pathologists, and challenges alternative models of service delivery such as "pull-out" or withdrawal models where children are removed from the classroom for their speech pathology sessions (Hartas, 2004). McCartney (1999) argued that such an approach allowed "peace and privacy" (p. 436), reduced distractions for children and was more manageable for individual or small group work. However, the withdrawal model could also lead to a mismatch between the curriculum focus of the classroom and the language therapy provided, a lack of communication between teacher and therapist, and a reinforcement of segregation, rather than inclusion, of the child from his or her peers (Hartas, 2004; McCartney, 1999).

Despite barriers to collaborative practice, such as the above example of the withdrawal model reducing opportunities for interprofessional communication, or the speech pathologist's position as a "visitor" to the school (Baxter, Brookes, Bianchi, Rashid & Hay, 2009; Hemmingsson, Gustavsson, & Townsend, 2007; McCartney, 1999), a number of approaches have been reported to promote the interdisciplinary collaboration required to assist children with communication problems. For example, O'Toole and Kirkpatrick (2007) used the Hanen program "Learning Language and Loving It" (Weitzman, 1992) as the basis for their training for 16 teachers, special needs assistants and therapists working with children with language delay. They found that attitudes to collaboration were positive even before the training but that participants' skills and understanding about how to support these children improved. Wright, Stackhouse and Wood (2008) ran a "Language and Literacy: Joining Together" program for participants of varying professional backgrounds in the UK and found that the majority valued the opportunities, not just to learn about the links between language and literacy, but also to explore the role of other professionals and interdisciplinary work. Bauer, Iyer, Boon and Fore (2010) also summarised some practical strategies for speech pathologists and classroom teachers to work together. These strategies included valuing the expertise of one another on an equal basis, being flexible and keeping channels of communication open.

While there are papers, such as those mentioned above, reporting ways to enhance collaborative practice between teachers and speech pathologists, there is some evidence that more could be achieved at an undergraduate level to prepare these professionals to work together (Law et al., 2001). For example, Sadler (2005) surveyed 89 teachers in the UK who were working in mainstream classrooms with children with moderate or severe speech/language impairment, about their training, knowledge, confidence and beliefs around supporting these children. She found that "few of these mainstream teachers had received any information on speech and language impairment as part of their initial training" (p. 157). Serry (2013) found that

Deborah Hersh (top), John O'Rourke (centre) and Abigail Lewis

eight of her nine speech pathology study participants felt insufficiently prepared by their university training to work with low-progress readers in schools, one of a number of reported barriers to collaborative practice with teachers. Indeed, despite a growing recognition of the value of interprofessional education (Barr, Koppel, Reeves, Hammick & Freeth, 2005), relatively little has been written about interprofessional learning opportunities between student speech pathologists and education students. One case study reported by Peña and Quinn (2003) involved two student speech-language pathologists working over an academic year with classroom teachers and their assistants. The authors describe an evolving process of team development but note the status imbalance in their study of using pre-professional speech-language pathology students with qualified teaching professionals.

Therefore, the rationale behind the study reported in our paper is that it would be useful to explore issues around collaborative practice, not only through continuing professional development but also during undergraduate training. Davidson, Smith and Stone (2009) report that interprofessional learning within undergraduate training promotes a commitment to diversity in practice and is one way to challenge the persisting idea that interprofessional work undermines each profession's knowledge base and identity. They view interprofessional practice as a core competency for professionals. Certainly, this reflects the fourth "range of practice" principle of the Competency-Based Occupational Standards (SPA, 2011a) which states that "interprofessional practice is a critical component of competence for an entry-level speech pathologist" (p. 9). Likewise, this sort of initiative clearly connects with Dimension Five of the Competency Framework for Teachers (WA Department of Education and Training, 2004) "forming partnerships within the school community". Davidson et al. (2009) suggest building on already existing interprofessional learning opportunities in undergraduate training to expand and strengthen notions of collaborative teaching and learning, both within the university and fieldwork settings. Therefore, the aim of this study was to gather initial evaluation data on an interprofessional learning opportunity for both speech pathology and education students at Edith Cowan University in Western Australia.

Method

Collaborative session

Twelve second-year speech pathology students attended one of two 3-hour sessions, held over two campuses, with 37 third-year education students (in groups of 20 and 17 in each site) working towards qualifying as secondary teachers. These sessions comprised an initial lecture on inclusion, given by the second author, outlining relevant theoretical background and legislative underpinnings, and then tutorials to discuss some of the practical implications of an inclusion policy for teachers and speech pathologists in schools (see Table 1, a list developed from the authors' professional experience in combination with research findings from, for example, Baxter et al., 2009; Ehren, 2000; Hartas, 2004; McCartney, 1999). The students then worked in small interprofessional groups to introduce themselves and share information about their perceptions of their role supporting children with special educational and communication needs in mainstream classes. They also worked through two video case studies of school students with disability in the classroom, two 12-year-old boys, one with Down syndrome and one with Duchenne muscular dystrophy. This process involved establishing possible educational, communication and social goals for these children, and discussing hypothetical strategies for meeting those goals together. These cases were drawn from the resource "Count Us In" (http://www.disability.wa.gov.au/Global/Publications/Understanding%20disability/middle%20childhood%20booklet%203.pdf) created to raise awareness of managing disability in mainstream schools.

Table 1 Practical discussion points relevant to collaboration for teachers and speech pathologists in mainstream schools

Discussion points	
Teachers	**Speech pathologists**
• Time constraints • Inflexibility of classroom curricula & timetabling • Large class sizes and multiple classes • Multiple children with issues involving professionals • Lack of support and classroom assistants • Understanding roles and responsibilities • Desire to involve other professionals in classroom • Attitude and leadership of principal	• Time constraints • Lack of knowledge of teacher role and responsibility • Larger caseloads across multiple schools • Travel required to provide services • Meeting with teacher in DOTT time • Excessive paperwork • Dissatisfaction with "pull out" model • Expansion of speech pathology role into literacy • Resourcing and funding

Logistics and preparation

This was the second year that this interprofessional opportunity had been run at Edith Cowan University. It involved a great deal of advanced planning including timetable switching in order to secure an opportunity for the two groups of students to meet, and requiring half of the speech pathology students to travel to a different university campus for one of the sessions. For the education students, the topic of collaboration formed an assessable part of their course whereas for the speech pathology students, the session was part of a unit covering principles underlying intervention, including teamwork, collaborative and interprofessional practice. While highlighted as important, inclusion in schools was not part of their assessment for the unit.

Evaluation

As part of the usual practice of evaluating students' perceptions of the quality of the session, all the students present were given the option to complete a "3-2-1" evaluation one week later asking for written comments on three things they enjoyed about the session, two things they would change or did not enjoy, and one concrete suggestion to promote collaboration between teachers and speech pathologists. The information on the forms was collated into the three 3-2-1 categories and within each category, the data was analysed thematically. To do this, all comments were read carefully and similar comments were grouped together. The evaluation forms were de-identified and voluntary and classed by the University Ethics Committee as a quality assurance process. The students were aware that this evaluation would be written up for publication.

Results

Completed evaluations were obtained from ten of the education students and nine speech pathology students. The main themes, within the 3-2-1 format, are highlighted below with illustrative quotes to provide expansion on these ideas.

Things students liked

The first and most frequently mentioned point the students liked related to learning about each other and about each other's professional roles. For example:

It was interesting talking to the teachers; they got me thinking about and considering things I'd not thought about before… (SP student)

I liked that we were able to share with the teachers what SPs actually do as most of them didn't know. (SP student)

Simply knowing what they do and networking with them. (Ed student)

The comments were useful in highlighting how university teaching can be relatively compartmentalised and that, without deliberate effort, networking with students on other courses is often limited. Some of the speech pathology students were within a couple of years of leaving school themselves and found meeting future teachers interesting. Many of the education students had little idea of the breadth of speech pathology practice (for example, including swallowing or voice), and had not specifically considered connections between speech and oral language skills and educational achievement. Although not mentioned specifically in the evaluations, the case discussions in the interprofessional sessions also included mention of the roles of other potential professionals to support students with special educational needs such as audiologists and psychologists.

Secondly, there were comments which revealed how respondents valued collaboration and team work:

Learning how SLPs can aid me as a teacher in the classroom. (Ed student)

Sharing what we each learn and using the knowledge in a team to work towards a goal. (SP student)

These concepts were embedded in training from the start for both groups with a strong recognition that professionals could not function alone. Involving parents and the school students themselves in decisions was also recognised as an important backdrop to these discussions.

Thirdly, students evaluated the process of the session and how the learning was organised: students liked the small group work, discussions, the integration of speech pathology and education students into groups, and the use of case studies as a focus for learning:

I liked that we were able to work on a case study with the teachers as it was nice to get the perspective of someone that is looking at it from a different angle. (SP student)

Was a good insight to interprofessional learning. (SP student)

Several of the education students also noted that the session helped with their assignment – an issue clearly at the forefront of their priorities.

Things students did not like or would do differently

A key point was that students felt the session was too short and wanted more interaction time:

Spend more time interacting with the SP students. More time to discuss. (Ed student)

I really like the idea but we didn't get enough. (SP student)

Several education students also suggested that there could have been more preparation and background information provided in previous weeks including handouts on speech pathology or websites to explore in advance:

A little bit of preparation in week 3 [previous week] directed at how our professions can collaborate. (Ed student)

Students also wanted more reciprocal learning. For example, the speech pathology students were "hosted" by education but a few commented that they wanted student teachers to attend speech pathology lectures too:

To have a lecture on SP so the teaching students walk away with more information about what we do. (SP student)

Have the student teachers sit in on one of our lectures rather than vice versa as I believe this would be better than us just telling them what we do (i.e., have a generalised lecture for them). (SP student)

A number of students wanted to change the nature of the information such as adjusting the chosen case studies, offering more examples or scenarios to discuss and by focusing more on planning and goal setting within the cases:

Providing ways in which teachers and speechies can communicate and work together (making plans, setting goals); list the positives of good teacher/SP relationships and what both occupations can provide. (SP student)

Finally, a few of the speech pathology students reported that the session should have been with primary rather than secondary school student teachers. Part of this related to their difficulty seeing how student teachers specialising in particular areas such as sport or drama were relevant collaborative partners for speech pathologists:

To have a session with primary rather than secondary teachers as most early intervention happens in primary school age children. (SP student)

I think maybe the session would have been more beneficial to use 3rd–4th year students who are going to be primary school teachers… give us more insight. (SP student)

One concrete suggestion towards collaboration

While there was some overlap between suggestions towards collaboration and proposals on how to do things differently, the suggestions built on, and extended the ideas in the session, particularly around the use of the case study and opportunity for interaction:

Show case study where this collaboration is healthy/positive and effective. (Ed student)

More background for ed students about the content and course structure of speech path students. (Ed student)

Less lecture time and more interaction. (SP student)

Providing information for how teachers and SPs can work together in the classroom setting (e.g., having an activity where we make plans together for how treatment should proceed). (SP student)

Discussion

Overall, the students involved in this interprofessional learning opportunity felt that it raised awareness of the importance of teamwork and collaboration, and was worthwhile. In line with the findings of relevant research discussed earlier in this article, this work demonstrated that barriers to collaboration, such as being unaware of each other's role, need to be actively addressed early (Law et al., 2001), and that students of both education and speech pathology need, and value, opportunities to meet and learn about each other. Discussions are ongoing around the types of cases used, the timing, preparation and the feasibility of including student primary teachers. Originally, the idea of working with education students studying for high school work was considered valid because it countered the idea that speech pathology was only relevant at primary level. The need for ongoing collaboration between speech pathologists and teachers into secondary education is being demonstrated as increasingly important (Snow et al., 2013). For inclusion to work well, school students require services which respond to their developmental needs rather than only their chronological age and the cases chosen for discussion included managing disabilities in a high school setting. Certainly, there is the need to extend this opportunity to primary education students and the logistical and university timetabling issues will need to be addressed to achieve this. Further, discussions have been raised in regard to the pros and cons of offering this session to second-year speech pathology students who, at times, lack confidence in explaining their role and responsibilities to students from another discipline. By this point in the course, second-year students have undertaken placements observing mainstream classrooms but have not yet had much hands-on practical experience as this occurs more in the third and fourth years of the course. However, the results of the evaluation demonstrated that, even at this relatively early point in the course, the opportunity to meet student teachers helps in the development of positive attitudes to interprofessional collaboration and awareness of inclusion policies and strategies.

The evaluation also revealed a lack of knowledge by student teachers about the scope of speech pathology practice in relation to supporting literacy development as well as intelligibility, oral language, voice, fluency and swallowing. Similarly, speech pathology students had not considered the legislative and political background to the curriculum and were less aware of the funding options and support systems available to teachers and teacher assistants.

While this report and evaluation represents the views of a relatively small number of students, we suggest that interprofessional learning opportunities at undergraduate level may be important in influencing attitudes towards inclusion and collaboration early. Considering the many practical barriers to collaboration in the workplace (Bauer et al., 2010; Baxter et al., 2009; McCartney, 1999), the opportunity to highlight the advantages and increase opportunities for networking, discussion and the sharing of skills and ideas during undergraduate training is worth grasping. Future research could address the views of larger numbers of students, follow their learning as they progress through their respective undergraduate training programs, and explore the value of pre-professional collaborative work in placement contexts rather than in the classroom. There is room for change and improvement in the way these sessions are run but the results of this evaluation suggest that interprofessional collaboration at a pre-professional level may help equip our graduates to plan for, expect and embrace any possible challenges together.

References

Ashman, A. & Elkins, J. (2012). *Education for inclusion and diversity* (4th ed.). Frenchs Forest, NSW: Pearson.

Barr, H., Koppel, I., Reeves, S., Hammick, M., & Freeth, D. (2005). *Effective interprofessional education: Argument, assumption and evidence*. Oxford: Blackwell.

Bauer, K.L., Iyer, S.N., Boon, R.T., & Fore, C. (2010). Twenty ways for classroom teachers to collaborate with speech-language pathologists. *Intervention in School and Clinic*, *45*, 333–337.

Baxter, S., Brookes, C., Bianchi, K., Rashid, K., & Hay, F. (2009). Speech and language therapists and teachers working together: Exploring the issues. *Child Language Teaching and Therapy*, *25*, 215–234.

Davidson, M., Smith, R., & Stone, N. (2009). Interprofessional education: Sharing the wealth. In C. Delaney & E. Molloy (Eds.), *Clinical education in the health professions* (pp. 70–91). Sydney: Churchill Livingstone/ Elsevier.

Ehren, B.J. (2000). Maintaining a therapeutic focus and sharing responsibility for student success: keys to in-classroom speech-language services. *Language, Speech and Hearing Services in Schools*, *31*, 219–229.

Foreman, P. (2011). *Inclusion in action* (3rd ed.). South Melbourne, Victoria: Cengage Learning.

Hartas, D. (2004). Teacher and speech-language therapist collaboration: being equal and achieving a common goal? *Child Language Teaching and Therapy*, *20*, 33–54.

Hemmingsson, H., Gustavsson, A. & Townsend, E. (2007). Students with disabilities participating in mainstream schools: Policies that promote and limit teacher and therapist cooperation. *Disability and Society*, *22*, 383–398.

Law, J., Lindsay, G., Peacey, N., Gascoigne, M., Soloff, N., Radford, J. & Band, S. (2001). Facilitating communication between education and health services: The provision for children with speech and language needs. *British Journal of Special Education*, *28*, 133–37.

Lindsay, G. & Dockrell, J. (2002). Meeting the needs of children with speech, language and communication needs: A critical perspective on inclusion and collaboration. *Child Language Teaching and Therapy*, *18*, 91–101.

McCartney, E. (1999). Barriers to collaboration: An analysis of systemic barriers to collaboration between teachers and speech-language therapists. *International Journal of Language and Communication Disorders*, *34*, 431–440.

O'Toole, C., & Kirkpatrick, V. (2007). Building collaboration between professionals in health and education through interdisciplinary training. *Child Language Teaching and Therapy*, *23*, 325–352.

Peña E.D., & Quinn, R. (2003). Developing effective collaboration teams in speech-language pathology: A case study. *Communication Disorders Quarterly*, *24*, 53–63.

Roth, F.P., & Troia, G.A. (2006). Collaborative efforts to promote emergent literacy and efficient word recognition skills. *Topics in Language Disorders*, *26*, 24–41.

Sadler, J. (2005). Knowledge, attitudes and beliefs of the mainstream teachers of children with a pre-school diagnosis of speech/language impairment. *Child Language, Teaching and Therapy*, *21*, 147–163.

Serry, T. (2013, early online). Capacity to support young low-progress readers at school: Experiences of speech-language pathologists. *International Journal of Speech-Language Pathology*.

Snow, P.C., Sanger, D.D., Childers, C., Pankonin, C. & Wright, S. (2013, early online). Response to intervention in secondary settings: Speech-language pathologists' perspectives. *International Journal of Speech-Language Pathology*.

Speech Pathology Australia (SPA). (2011a). *Competency-based occupational standards for speech pathologists: Entry level*. Melbourne: Author.

Speech Pathology Australia (SPA). (2011b). *Clinical guideline: Speech pathology services in schools*. Melbourne: Author.

Walsh, R. (2007). Why is the knowledge base of SLPs not more widely accessed to enhance literacy outcomes? *Talkabout*, *20*, 2–10.

Weitzman. E. (1992). *Learning language and loving it*. Toronto: The Hanen Centre.

Western Australian Department of Education and Training. (2004). *Competency framework for teachers*. Retrieved from http://det.wa.edu.au/policies/detcms/policy-planning-and-accountability/policies-framework/guidelines/competency-framework-for-teachers.en?oid=com.arsdigita.cms.contenttypes.guideline-id-3738620

Wright, J.A., Stackhouse, J. & Wood, J. (2008). Promoting language and literacy skills in the early years: Lessons from interdisciplinary teaching and learning. *Child Language Teaching and Therapy*, *24*, 155–171.

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Addressing the challenges of clinical education

Conversation partner training for speech-language pathology students

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KEYWORDS
ADULT COMMUNICATION DISABILITY
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THIS ARTICLE HAS BEEN PEER-REVIEWED

Louise Wilkinson (top) and Tracy Sheldrick

This paper describes a collaborative partnership between the Royal Talbot Rehabilitation Centre and La Trobe University to provide speech-language pathology students with a one-day experiential communication skills workshop. The workshop focused on the development of student knowledge, confidence and the communication skills required to effectively interact with adults with communication disabilities. The program, outcomes, challenges and future directions of the program are described.

Effective communication skills are a fundamental professional competency for all entry level healthcare profession students (McAllister, 2005) because communication is the medium through which quality health care is provided (Burns, Baylor, Morris, McNalley, & Yorkston, 2012). Entry level speech-language pathology (SLP) students need to develop exceptional communication skills as many of their clients also require specific conversational support to communicate effectively. La Trobe University (LTU) SLP students have often reported challenges conversing with adults with communication disabilities. They have found it difficult to use age-appropriate communication strategies to support both social and therapeutic interactions effectively. These observations have been supported by a recent study that examined the confidence and knowledge of SLP students prior to clinical placement about communicating with people with aphasia. This study found SLP students were not confident about communicating with people with aphasia and demonstrated limited knowledge about the range of communication strategies they could use despite having completed academic coursework on aphasia (Finch, Fleming, Brown, Lethlean, Cameron & McPhail, 2013). This should not be surprising as research suggests conversing effectively with someone who has a communication disability such as aphasia is not an intuitive behaviour, but requires skill and experience to acquire (Kagan & Gailey, 1993; Parr & Byng, 1998). Research in experiential learning also supports the need for students to engage in learning situations that enable them to integrate their knowledge, perceptions, experiences and behaviour in order to achieve transformational learning (Best, Rose, & Edwards, 2005). LTU wanted to provide their SLP students with an experiential learning opportunity in order to acquire the communication skills they would need to be able to communicate effectively with adults with communication disabilities.

Simmons-Mackie, Raymer, Armstrong, Holland and Cherney (2010) describe communication partner training (CPT) as an intervention directed at the conversation partners of the person with aphasia, with the intent of improving the language, communication, participation and/or well-being of the person with aphasia. Communication partners are the people who interact with the person with aphasia. They are often family members, friends, health care providers or volunteers (Simmons-Mackie et al., 2010). According to the World Health Organization's (WHO) International Classification of Functioning, Disability and Health framework (ICF; WHO, 2001), CPT is a form of environmental intervention because it focuses on enhancing the skills and abilities of people in the person's communicative environment.

Simmons-Mackie et al. (2010) conducted a systematic review of 31 CPT intervention studies. The majority of studies involved directly training communication partners and integrated role plays or actual interactions with people with aphasia into the training. Sessions were typically 1 to 2 hours in length, up to four times per week. Early intervention studies tended to focus on providing training to family and friends, whereas interventions from the late 1990s onwards reflected an increased focus on training service providers such as health care professionals and volunteers to enhance the participation of the person with aphasia in the wider community. Despite the fact that the intervention studies were of variable methodological quality, Cherney, Simmons-Mackie, Raymer, Armstrong and Holland (2013) were able to conclude that conversation partner training was an effective way of improving the conversation partner's communication skills in supporting communication of people with aphasia and that these skills are maintained over time. CPT was considered appropriate and highly relevant for SLP students who are regular communication partners for people with aphasia and other communication disabilities.

This paper describes a collaborative partnership between Royal Talbot Rehabilitation Centre (RTRC) Austin Health and the Department of Human Communication Sciences at LTU to provide undergraduate and master's SLP students with a one-day experiential CPT workshop. The objectives of the workshop were for students to:

- reflect on the impact communication impairment can have on health care delivery and life participation for people with communication disabilities and their families;
- understand and describe appropriate communication strategies to support people with communication disabilities in conversation;
- apply effective use of communication skills to conversations with people with communication disabilities; and
- report increased confidence communicating with people with communication difficulties.

Details about establishing the program, its resources, and evaluating the program are provided below to assist others who may be interested in developing a similar program.

The program

Establishment

The first step in establishing this program was to identify a conversation partner training program to run with the students. The Supported Conversation for Adults with Aphasia (SCA™; The Aphasia Institute, 2013) was selected because there was research evidence that this program was effective in improving the communication skills of conversation partners of people with aphasia (Kagan, Black, Duchan, Simmons-Mackie, & Square, 2001) and it included resources and a train the trainer program. The SCA™ framework teaches communication partners skills to acknowledge the inherent competence of people with aphasia respectfully and to reveal their competence through use of strategies and resources to get the message in, out and verified (Kagan, 1998).

An RTRC SLP received a Quota scholarship (QUOTA, 2013) to attend the Aphasia Institute in Toronto and complete the full institute training program including the 'Train the trainer' module in October 2008. The SLP then delivered this training to SLP students on placement at RTRC and to rehabilitation staff with very positive feedback. This experience prompted RTRC to develop a proposal to provide this training to all LTU SLP students.

Outline

A full-day workshop was developed based on the SCA™ training (The Aphasia Institute, 2013). The Aphasia Institute training consists of a 3-hour workshop focused on teaching the SCA™ framework, with opportunities for experiential practice using communication strategies via increasingly complex role plays. Simple role plays were created that required students to take the role of a person with aphasia who needed to communicate a message that could be easily gestured such as "I am having trouble communicating, can I draw it for you?" Then students attempted more complex role plays where they were required to convey emotions and discuss plans for the future, such as "I am worried I will have another stroke" and "After rehabilitation is finished I would like to move to WA to be close to my family". The original Aphasia Institute workshop was developed further into a full one-day training program to provide greater opportunities for student learning. A timetable for a typical one-day workshop is set out in Table 1.

Although the SCA™ framework is taught in the context of aphasia, the principles of SCA™ are applicable to supporting conversation with people with a range of different communication disabilities; therefore, this program was used without specific modifications to teach students communication strategies and skills that could be applied to people with a range of different communication disabilities.

The workshop was also expanded to include an experiential session and a reflection session to support students with different learning styles. For example, the one-day workshop provided the opportunity for students to hear about communication strategies, practise these strategies with scaffolding and feedback in role plays with one another, and then experience using communication

Robyn O'Halloran (top) and Rachel Davenport

Table 1. Outline of full day workshop

Workshop outline	Description	Duration
Introduction	Students were provided with an introduction to the life participation approach for people with communication disabilities using video clips and group discussion (Chapey et al., 2008; Kagan et al., 2008)	30 mins
SCA™ workshop – Part 1	As developed by the Aphasia Institute and delivered by Aphasia Institute trained SLP.	90 mins
Break		15 mins
SCA™ workshop – Part 2		90 mins
Break for lunch		
Tour of rehabilitation facility	Students were given a tour of the rehabilitation facility and services by RTRC SLP.	30 mins
Experiential session	Students participated in an experiential session practicing communication strategies with educators who have acquired communication disabilities. Groups of four students talked to one person with a communication disability for about 15–20 minutes. The student group then moved to another table to meet another person with a communication disability. Students had a total of three conversations in the course of an hour. Some educators brought along communication supports, therapy or education material to share with the students. Others chose to converse in a more open-ended manner so the conversation topics were very different from group to group.	60 mins
Reflection	Students had an opportunity to reflect as a group on the experience of conversing with people with communication disabilities and discuss application of SCA™ to conditions other than aphasia using a case study. Facilitated by Aphasia Institute trained SLP.	30–45 mins
Debrief session for educators	Educators were offered the opportunity to feedback, reflect and debrief about their experience working with students. Facilitated by RTRC SLP.	

strategies in conversation with people with communication disabilities. The workshop also provided the opportunity for students to learn about the life participation approach in action, as they experienced people with communication disabilities in the role of educator. Reflective practice was embedded throughout the training to further enhance learning through shared reflection (Mann, Gordon, & McLeod, 2009). As a group, students discussed their reflections about video clips of people with aphasia speaking with conversation partners, their experiences performing role plays with one another and conversing with people with communication disabilities during the training.

A workshop proposal and costs were submitted to the Curriculum Reference Group at LTU in 2009. At the time, the speech pathology course at LTU was undergoing major curriculum renewal and this provided the opportunity for open discussion about how a one-day workshop could fit within a new curriculum. The proposal was well received and a pilot was arranged for October 2010 for the final year Masters of Speech Pathology cohort.

The pilot program was delivered in 2010 and evaluated. The evaluation included information about students' knowledge and confidence communicating with adults with communication disabilities. It also included detailed information about the time commitments required of RTRC SLP staff, RTRC management and administration staff, and the time required for recruitment, training and support of adults with communication disabilities to teach in this program. This information was provided to LTU in a final submission. The proposal was approved and the workshop was integrated into the curriculum in 2011. The workshop forms part of the clinical education subject "Introduction to Speech Pathology Practice". All third-year undergraduate students and all first-year Masters students participate in the workshop. To accommodate all students, RTRC runs five workshops. Four workshops are delivered in Melbourne at RTRC and the fifth workshop runs in Bendigo for students studying at the LTU Bendigo campus. Each workshop consists of 20–25 students. To date 390 students have participated in the workshops.

Resources

An LTU student coordinator, SLP workshop coordinator, two clinical SLPs, administrative support and six people with communication disabilities are required to run a workshop for a group of 20–25 students. The role of each participant is described below.

The LTU student coordinator is responsible for organising student attendance at workshops and payments to RTRC SLP staff and educators with communication disabilities. Educators receive an hourly wage plus taxi vouchers to attend the centre if required. A university staff member also attends the experiential training sessions to provide students with support and guidance as required.

The SCA™ workshop is delivered by an SLP who is an SCA™ qualified trainer. The Aphasia Institute stipulates that SLPs must complete this training before they can deliver the SCA™ program. In order to ensure students receive adequate feedback and support, a second clinical SLP with experience in neurological rehabilitation is also present during role plays. SLPs provide students with feedback, guidance, and demonstration of SCA™ techniques. They also give students a site tour, provide support to the lead facilitator during the experiential sessions and lead a debrief session for educators after their session with the students.

To ensure the smooth running of the workshops the administrative duties are delegated between the SLP running the workshop and clerical support staff. Tasks include recruiting and corresponding with people with communication disabilities, preparing materials and room bookings as well as organising RTRC SLPs to run site tours, providing support during the workshop and offering debriefing to the people with communication disabilities and working with management regarding the budget.

Six people with communication disabilities participate in each workshop. Given the principles of SCA™ and CPT apply broadly to the communication partners of people with different kinds of communication disabilities, recruitment is not limited to people with aphasia.

People with communication disabilities as educators

The participation of people with communication disabilities as educators is an integral part of the workshop because it provides students with the opportunity for real-world experiential learning. The involvement of people with communication disabilities can drive student motivation as it provides a personally relevant, meaningful context for learning (Le Var, 2002). It can result in improved student participation, the development of a more client-centred approach and professional self-reflection skills (Le Var, 2002). Experiential learning from people with communication disabilities may also improve students' communication skills and knowledge (Finch et al., 2013). Given the importance of the people with communication disabilities to the program, the selection of educators needs to be considered carefully (Le Var, 2002). Selection criteria include the person's ability to consent, general health, ability to tolerate up to 1.5 hours of conversation in a group, access to the rehabilitation facility as well as an interest in teaching students. The educators vary each year, and attempts are made to ensure that the educators include both men and women, and that there is a wide range of ages of people with acquired or developmental communication disabilities, across a range of severities. While most of the educators involved in the workshops had acquired neurogenic communication disorders including aphasia, dyspraxia and/or dysarthria, one participant had dysarthria secondary to cerebral palsy. A person's suitability as an educator is considered before they are invited to attend and some educators elected to attend the sessions with a support person.

Educators were recruited in a range of ways. Past and present clients and members of the rehabilitation centre's long-term communication group who were known to members of the department and considered appropriate for participation in the program were approached informally. Staff also promoted the program through local networks including the Victorian branch of the Australian Aphasia Association. Educators involved in the Bendigo workshop were recruited by the LTU student coordinator in consultation with speech pathologists in the local community.

Prior to the workshops all interested educators participated in a pre-workshop group training session. This is a 1-hour session enabling educators to meet each other, become familiar with the aims of the workshop and their role and, with SLP support, identify, list and discuss the communication strategies that best facilitate them. Some educators bring this list along to the workshops to share with the students. Most educators reported feeling nervous before their first session with the students. Getting to know others helped them to relax and feel more comfortable.

Educators are free to use their time with the students in any way they considered appropriate. They were encouraged to consider sharing information about their experience of living with a communication disability with the aim of helping the students develop their understanding of what this is like.

Evaluation and outcomes

Questionnaires were given to students to assess their knowledge of communication strategies and confidence communicating with people with communication disabilities before and after the workshop. To assess knowledge students were asked to list as many communication strategies as they knew. To rate their confidence, students rated their confidence on a 5-point Likert scale, ranging from "not at all confident" to "very confident". No evaluation of skill development or of the educators was undertaken. As this evaluation was designed to inform the program organisers and was not part of a research study into the knowledge, skills and confidence of students, further details of these results cannot be reported. However, the CPT workshop for SLP students did appear to provide a number of benefits from the perspective of the SLP students, the educators, RTRC and LTU Clinical Education that warrant further investigation.

Students

When reflecting on their academic year feedback collated by LTU suggests, most students reported that the workshop was the highlight of their "Introduction to Speech Pathology Practice" subject. Students consistently reported that the workshop was one of the major two or three aspects of the subject that contributed most to their learning. They valued the opportunity to visit a rehabilitation setting, to meet with people with communication disabilities, and to learn and practise communication skills for conversation. While many students reported feeling nervous prior to the workshop, they greatly appreciated the opportunity to develop their skills, and meet and talk to someone with a communication disability without the pressure of being formally assessed. The student reflections also indicated that many students were excited to "connect" with a sense of what their day-to-day working lives might be like and were greatly moved by the experience they had communicating with someone with a communication disability. They acknowledged this experience as a significant point in their training as an SLP and something they would never forget. The evaluations collated by RTRC also indicated that students improved in their knowledge of communication strategies and increased in their confidence communicating with people with communication disabilities. Students were also observed using SCA™ skills in action.

Educators

The educators considered the opportunity to teach the students about living with communication disability as an important and valued contribution towards the students learning. For some, teaching the students signalled an important milestone, where they were able to offer something back to the health care system that had previously supported them. It was also an important occasion to reflect on how their lives were affected by a communication disability and to share their experience and insights with a receptive audience. Initial nervousness was replaced with a strong sense of achievement. The workshops also boosted the confidence in what some of the educators felt was possible. Some educators went on to speak about their involvement in the workshops at the Australian Aphasia Association conference in 2012.

Welsh and Szabo (2011) noted the psychological benefits for people with aphasia who participated in an education program for nursing students about aphasia. They acknowledged the unique and expert knowledge that people with aphasia can offer to education programs. Research also suggests that people with aphasia who take on the role as an educator may improve in terms of their language abilities and life participation as well (Avent, Patterson, Lu, & Small, 2009).

Royal Talbot Rehabilitation Centre

RTRC has welcomed the opportunity to host the workshops. The centre has benefitted from the students visiting the centre and developing some familiarity with its services. It is hoped that this exposure will help to promote the centre's reputation and services, and positively influence staff retention and recruitment. The members of the SLP department also benefitted from being involved in the workshops. Apart from the SLPs who have been able to attend the Aphasia Institute personally, other members of the department have gained increased exposure to the Aphasia Institute's training approaches and content as well. Many have reflected on the value of observing previous clients as educators, and this has prompted them to consider other opportunities for their existing clients. The partnership formed between RTRC and LTU has fostered greater staff interest and engagement in clinical education. More staff are now involved as clinical educators since the pilot began in 2010.

La Trobe University Clinical Education

The workshop gives the students a valuable learning opportunity in addition to academic content prior to their first clinical placement. It also provides the opportunity to demonstrate the link between theory and clinical practice in a very clear and practical way. Students are also able to see that the university and clinical settings are not mutually exclusive as university staff and RTRC staff are observed working together throughout the day.

Challenges

Running the CPT workshop on an ongoing basis does present some challenges. The workshops need to be run by a SLP who has attended the Aphasia Institute training. The training is offered in Canada twice a year, and it is difficult to fund staff members to attend the training on an ongoing basis. Changes in SLP personnel over time and the lack of local training opportunities are challenges that need to be addressed on an ongoing basis.

Recruitment and retention of educators to participate in the workshop is influenced by variables such as workshop dates and the health of the educators. Due to the demands of the student calendar, five workshops are typically run over a 3-week period. Attending up to two workshops per week can be difficult for many. As a result, a larger pool of educators is required. Educators with health concerns or other conflicting commitments were unable to attend as planned. Consideration of these issues in the pre-training workshop would assist SLPs to minimise these difficulties. The workshops also rely on the commitment and availability of staff to perform administrative tasks and support roles, described previously. The successful delivery of these workshops will also continue to rely on the ongoing

support of both RTRC and the Department of Human Communication Sciences at LTU.

Future directions

Research is required to evaluate the benefits of the workshops from the perspectives of students and educators who have a communication disability. Although student feedback has been very positive, stronger evidence is needed to support this as an effective approach to student learning. Direct observation or more detailed conversation analysis of students communicating with people with a communication disability before and after the workshop would be ways to demonstrate the impact of the training on SLP student skill development. Secondary outcomes in terms of the impact of the training on educators with communication disabilities could be explored qualitatively through in-depth interviews.

It would also be very beneficial if SCA™ training was more accessible to SLPs in Australia, ideally through the development of Australian-based training resources and access to local trainers. More research and improvements in the accessibility of SCA™ training would provide opportunities for such workshops to be incorporated into other SLP and allied health courses.

Conclusion

The CPT workshop for SLP students focuses on the development of the knowledge, confidence and communication skills that are required to effectively communicate with adults with communication disabilities. As universities and clinicians strive for best practice, this form of teaching SLP students is supported by a growing body of literature advocating the value of CPT and experiential learning for training students. The workshop provides a number of benefits from the perspective of the SLP students, people with communication disabilities, RTRC SLPs and LTU Clinical Education. While there are challenges in providing the workshops and further research is needed to understand the effects of CPT on both student SLPs and people with communication disabilities, our experience suggests that CPT for SLP students has great potential for developing the skills that are needed for their clinical placements and as clinicians of the future.

References

The Aphasia Institute. (2013). *Health care professionals*. Retrieved 5 March 2013 from http://www.aphasia.ca/health-care-professionals/ai-training/

Avent, J., Patterson, J., Lu, A., & Small, K. (2009). Reciprocal scaffolding treatment: A person with aphasia as a clinical teacher. *Aphasiology*, *23*(1), 110–119.

Best, D., Rose, M., & Edwards, H. (2005). Learning about learning. In M. Rose & D. Best (Eds.), *Transforming practice through clinical education, professional supervision and mentoring* (pp. 121–142). Sydney: Churchill Livingstone Elsevier.

Burns, M. I., Baylor, C. R., Morris, M. A., McNalley, T. E., & Yorkston, K. M. (2012). Training healthcare providers in patient–provider communication: What speech-language pathology and medical education can learn from one another. *Aphasiology*, *26*(5), 673–688. doi: 10.1080/02687038.2012.676864

Chapey, R., Duchan, J., Elman, R., Garcia, L., Kagan, A., Lyon, J., & Simmons Mackie, N. (2008). Life participation approach to aphasia: A statement of values for the future. In R. Chapey (Ed.), *Language intervention strategies in aphasia and related neurogenic communication disorders* (5th ed., pp. 279–289). Philadelphia PA: Lippincott Williams & Wilkins.

Cherney, L. R., Simmons-Mackie, N., Raymer, A., Armstrong, E., & Holland, A. (2013). Systematic review of communication partner training in aphasia: Methodological quality. *International Journal of Speech-Language Pathology*. doi: 10.3109/17549507.2013.763289

Kagan, A., Black, S., Duchan, J., Simmons-Mackie, N., & Square, P. (2001). Training volunteers as conversation partners using "supported conversation with adults with aphasia" (SCA): A controlled trial. *Journal of Speech, Language, and Hearing Research*, *44*, 624–638.

Kagan, A., & Gailey, G. (1993). Functional is not enough: Training conversation partners for aphasic adults. In A. Holland & M. Forbes (Eds.), *Aphasia treatment: World perspectives* (pp. 199–225). San Diego, CA: Singular Publishing Group.

Kagan, A., Simmons-Mackie, N., Rowland, A., Huijbregts, M., Shumway, E., McEwen, S., … Sharp, S. (2008). Counting what counts: A framework for capturing real-life outcomes of aphasia intervention. *Aphasiology*, *22*(3), 258–280.

Le Var, R. M. (2002). Patient involvement in education for enhanced quality of care. *International Nursing Review*, *49*(4), 219–225.

Mann, K., Gordon, J., & McLeod, A. (2009). Reflection and reflective practice in health professions education: A systematic review. *Advances in Health Sciences Education*, *14*, 595–621.

Parr, S., & Byng, S. (1998). Breaking new ground on familiar territory: A comment on "Supported conversations for adults with aphasia" by Aura Kagan. *Aphasiology*, *12*(9), 847–850.

QUOTA. (2013). *QUOTA SPAS Scholarship*. Retrieved 14 February 2013 from http://www.quotaspas.org.au/

Simmons-Mackie, N., Raymer, A., Armstrong, E., Holland, A., & Cherney, L. (2010). Communication partner training in aphasia: A systematic review. *Archives of Physical Medicine and Rehabilitation*, *91*, 1814–1837.

Welsh, D., & Szabo, G. (2011). Teaching nursing assistant students about aphasia and communication. *Seminars in Speech and Language*, *32*(3), 243–253.

World Health Organization. (2001). *International classification of functioning, disability and health*. Geneva: Author.

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A bird's eye view of speechBITE™

What do we see?

Natalie Munro, Emma Power, Kate Smith, Melissa Brunner, Leanne Togher, Elizabeth Murray and Patricia McCabe

speechBITE™ is a freely available online database of published intervention studies (currently n = 3550) sourced from eight research databases (e.g., Medline, CINAHL). It is designed to provide better access to the growing intervention research relevant to speech pathology practice. In this paper, the contents of the research studies contained in speechBITE™ have been synthesised to describe the scope of the database. This paper presents the frequency of research studies across target areas of intervention, intervention type, service delivery method, research design/method, client subgroup/etiology and age group using the search heading categories of speechBITE™. The authors also consider the changing profile of research design in intervention studies across time. The findings provide clinicians with an overview of the scope of the intervention research literature relevant to speech pathology practice.

Evidence based practice (EBP) involves clinical decision-making that incorporates the most current and relevant evidence published in the peer-reviewed literature, clinical expertise/data, client expectations and values and organisational context (Hoffmann, Bennett & Del Mar, 2010). Being confident that a selected intervention works is a primary concern for the evidence based clinician. Key components to undertaking EBP include accessing and critiquing an ever-increasing number of intervention studies (see Dollaghan, 2007 for an outline of the EBP process) and understanding the relative strength of the evidence presented with different methodologies. This can be a difficult and time-consuming responsibility for clinicians (Togher et al., 2009).

speechBITE™ is a freely available online EBP resource that can assist clinicians with both accessing and critiquing intervention studies. It is a database of published intervention studies sourced from a variety of research databases (e.g., Medline, CINAHL) relevant to the scope of speech pathology practice (see Smith et al., 2010). The database received over a million hits in 2012 and was accessed by individuals in 120 countries, with the top five being Australia, USA, UK, Germany and Canada.

Intervention studies within speechBITE™ are categorised according to a range of parameters. These include;

1. the target area of speech pathology practice (speech, language, voice, fluency, swallowing and literacy). These areas mostly reflect the Speech Pathology Australia competency-based occupational standards (CBOS; Speech Pathology Australia, 2011). Multimodal was not a target area at the inception of speechBITE™ and is therefore not currently catalogued while literacy was included to enhance usability for private practitioners;
2. the intervention type (e.g., language therapy). For a full listing of intervention types, see the speechBITE™ website (www.speechbite.com) or Table 1 in Smith et al. (2010);
3. the service delivery method (e.g., individual/consultation-collaboration);
4. the research method or design (e.g., randomised control trial);
5. the client subgroup, or etiology (e.g., cerebral palsy); and
6. the age group of participants in the study (e.g., school-aged children).

These index categories allow clinicians to perform individual customised searches relevant to their clinical practice. Papers are included in speechBITE™ if they meet four criteria: the paper needs to be a full-length paper in a peer-review journal; the populations must have or be at risk of having a communication or swallowing disorder/s; treatment is part of speech pathology practice or could become part of speech pathology practice but need not be carried out by speech pathologists; and the paper needs to include the evaluation of at least one intervention which contains empirical data regarding treatment efficacy. Following the application of these inclusion criteria (see Smith et al., 2010 for more details) the paper is indexed according to a protocol by speechBITE™ staff.

When a clinician searches the speechBITE™ database, their search will reveal a list of relevant articles with author, study title and year of publication. This list is organised by research design/method and rating score. The range of research designs includes systematic reviews (SRs), randomised controlled trials (RCTs), non-RCTs, single-case experimental designs (SCEDs) and case series (CSs) (see http://www.speechbite.com/about.php for a description of these research designs). Clinicians can draw some conclusions about the relative strength of intervention studies from the research design used in the paper.

KEYWORDS
EVIDENCE BASED PRACTICE
INTERVENTION
SPEECH PATHOLOGY
THERAPY
TREATMENT

THIS ARTICLE HAS BEEN PEER-REVIEWED

Natalie Munro (top), Emma Power (centre) and Kate Smith

Additionally, RCTs and non-RCTs are rated for methodological quality by a team of trained raters using the Physiotherapy Evidence Database – PsycBITE™ (PEDro-P) scale (Perdices, Savage, Tate, McDonald, & Togher, 2009). These ratings further assist clinicians to appraise the methodological quality of research studies (for example, whether or not the study randomly allocated participants or had a blinded assessor for the pre and post intervention assessment tasks). Recently, Murray et al. (2012) conducted a reliability study on the first 100 RCTs and non-RCTs methodological ratings and showed that these ratings were reliable.

speechBITE™ uniquely provides a comprehensive database of intervention studies across our scope of practice. While other databases focus on specific areas of practice (e.g., PsycBITE™: Acquired brain injury, Togher et al., 2009), to date, there has not been a broader database to examine the speech pathology profession's evidence base. Additionally, because speechBITE™ includes a wider variety of research designs (e.g., single case experimental designs), it represents a broader collation of intervention research than other databases (e.g., Cochrane Library: http://www.thecochranelibrary.com). Therefore, examination of the content of the speechBITE™ database offers the opportunity to describe the scope and extent of the current state of play of intervention research relevant to the speech pathology profession.

This paper provides a bird's eye view of the landscape of speech pathology intervention research. Descriptive data is presented for the 3550 research papers contained within speechBITE™ according to the following parameters: target area across our scope of intervention practice; intervention type, service delivery method, research method or design, major etiologies and client age. In order to assist clinicians to contextualise the current state of research within their main area of practice, research design has then been cross-tabulated with target area, etiology, intervention type over time. Given the ever-increasing number of studies being published each year (Bastian, Glasziou & Chalmers, 2010), trends in the type of research designs being published over the last 10 years are examined to determine the nature of this increase in the speech pathology evidence base.

(Top to bottom) Melissa Brunner, Leanne Togher, Elizabeth Murray and Patricia McCabe

Gaining a bird's eye view of speechBITE™

The following descriptive analysis is based on all 3550 indexed research papers that had been added to the speechBITE™ database since its inception in May 2008 until 7 Nov. 2012. This included studies that were published from 1951 to 2012. References for the database are stored and managed utilising FileMaker Pro (Version 11) software and all references were retrieved from the database and exported into a Microsoft Excel™ worksheet. Each retrieved reference was accompanied by data on each of the indexing parameters identified above (e.g., target area, etiology) and also year of publication. Descriptive statistics including frequency counts and percentages were then calculated to provide an understanding of the relative frequency of categories within the parameters, for example, the number and percentage of studies that represented each type of target area (speech, language, voice, fluency, literacy, swallowing). As some papers may investigate more than one area (e.g., language *and* speech) or several service delivery types (e.g., individual compared to group), in some sections of this overview, the total number of speech pathology intervention areas exceeds the total number of listed papers examined (n = 3550).

What does speechBITE™ look like?

Target areas across our scope of intervention practice

Of the papers contained in the speechBITE™ database, language was the most reported area of intervention research (*n* = 1717, 43%). The number of papers indexed for developmental versus acquired language impairment was comparable. The next most researched area was literacy (*n* = 822, 21%), followed by speech (*n* = 494, 12%), voice (*n* = 377, 9.6%), swallowing (*n* = 402, 10%) and fluency (*n* = 100, 3%).

Intervention type

The most common types of intervention were: language therapy (*n* = 1378, 41%), literacy and pre-literacy intervention (*n* = 780, 23%), assistive devices and technological interventions (*n* = 412, 12%), speech/articulation/phonological therapy (*n* = 391, 11%), and voice therapy (*n* = 345, 10%). Table 1 reports the number and frequency of other intervention types.

Table 1. Number of intervention papers per intervention type listed in speechBITE™

Intervention type	Number	%
Language therapy	1,378	41
Literacy and pre literacy intervention	780	23
Assistive devices and technological interventions	412	12
Speech/articulation/phonological therapy	391	12
Voice therapy	345	10
Swallowing/feeding intervention	335	10
Surgical	337	10
Augmentative/alternative therapy	310	9
Computer based intervention	263	8
Pharmacological	236	7
Other	214	6
Education	105	3
Fluency/stuttering therapy	102	3
Complementary therapies	61	2
Aural habilitation	58	2
Counselling	27	1

Service delivery trends

Individual intervention was the most frequent service delivery option reported. Seventy percent (*n* = 2988) of the intervention papers described individual service delivery and 16% (*n* = 671) described group service delivery. Educator/parent/caregiver or peer intervention was reported in 12% of studies (*n* = 521) while consultation/collaboration models were identified in 2% (*n* = 83) of papers. Distance (or telehealth) models of intervention represented just 0.5% of papers (*n* = 23).

Types of research design

Overall, the majority of studies in speechBITE™ were SCEDs (*n* = 1487, 42%) followed by CSs (*n* = 778, 22%), RCTs (*n* = 645, 18%), and non-RCTs (*n* = 395, 11%) while SRs were the least represented (*n* = 245, 7%).

The major etiologies

The range of etiologies represented in intervention papers within speechBITE™ is presented from largest to smallest in number (see Table 2). Common client etiologies represented within speechBITE™ included: stroke/cerebrovascular accident (CVA) (*n* = 743, 17%), autism spectrum disorders (*n* = 438, 10%), intellectual disability (*n* = 305, 7%) and traumatic brain injury (TBI) (*n* = 201, 5%). However, "other/not specified" etiologies represented the largest group (*n* = 1276, 30%). The high proportion of the "other/not specified" client etiology occurs as several target areas including developmental disorders of speech and language have no known cause and as such cannot be indexed in this parameter. The larger numbers within this category compared to autistic spectrum disorders for example, also reflect the inclusion of studies where the participants being treated are "at risk". This occurs more frequently in the areas of early literacy and language, voice disorders and fluency disorders.

Table 2. Number of intervention papers per etiology listed in speechBITE™

Etiologies	Number	%
Other/not specified	1,276	30
Stroke/CVA	743	17
Autistic spectrum disorders	438	10
Intellectual disability	305	7
Traumatic brain injury	201	5
Cerebral palsy	167	4
Degenerative disorders/diseases	162	4
Congenital syndromes	161	4
Hearing and visual impairment	160	4
Neurological conditions	133	3
Cancer	117	3
Alzheimer's and other dementias	111	3
Cleft lip/palate and craniofacial abnormalities	72	2
Attention deficit disorder	55	1
Neonatal conditions	44	1
General medical	42	1
Gastrointestinal conditions	39	1
Mental health	38	1
Laryngectomy	27	1
Gerontology	15	<1
Tracheostomy	10	<1
Respiratory conditions	8	<1

Age

Forty percent (*n* = 1770) of intervention studies targeted adults, while children aged between 5–12 years represented 30% (*n* = 1327) of the research. Intervention studies of children under 5 years of age (*n* = 656, 15%) and studies involving adolescents (*n* = 513, 11%) followed. The proportion of treatment studies for children less than two years of age was limited (*n* = 176, 4%).

Number of publications by year

Publication numbers are increasing over time, with 595 (16%) publications collected from between 1951 and 2000, 378 (10%) publications for the period 2000–03, 980 (26%) for 2004–07, and 1619 (44%) for 2008–11. At the time of analysis, 141 (4%) publications had been added for 2012. However, further studies from 2012 were still to be uploaded at the time.

Investigation of research design

The most common research design used within speech, language and literacy interventions was single case experimental design (SCEDs) (47%, 54% and 36% respectively). The most common research design utilised in the remaining target areas of voice, fluency and swallowing was case studies (CS) (49%, 38% and 32%). Table 3 outlines research designs for studies listed in speechBITE™ by main target area, etiology, intervention type and publication year.

In terms of etiology, SCEDs dominated the top five client etiologies (intellectual disability: *n* = 206, 68%; ASD: *n* = 262, 60%; stroke/CVA: *n* = 435, 59%; TBI: *n* = 100, 50% and other: *n* = 361, 28%). The remainder of client etiologies was dominated by either SCEDs or CSs designs. There were exceptions to the predominate use of SCEDs and CS in neonatal conditions and tracheostomy client etiologies. These etiologies had a high proportion of RCTs and non-RCTs respectively, in addition to SCEDs.

In terms of research design and intervention type, Table 3 identifies SCEDs as the most frequently reported design for four of the five top intervention types (language therapy: *n* = 753, 55%; speech/articulation/phonological therapy: *n* = 197, 50%; assistive devices and technological interventions: *n* = 214, 49%; literacy and pre-literacy intervention: *n* = 286, 37%) with the exception of voice which had mostly CSs (*n* = 165, 48%). The remainder of intervention types was either SCEDs or CSs. The exception for intervention type was complementary therapies and education (of clients/staff), with RCTs the largest proportion of research designs for these two groups in addition to SCEDs and CSs.

Finally, chronological change and research design is reported in Figure 1. All types of study designs increased in frequency over the time period. Visual inspection of the yearly data specifically for the period 2000–11 revealed a number of trends (Figure 1). Across all designs, publication rate was stable during 2000–05, with each design increasing in relative frequency from 2006. SRs increased during 2006–09 but appeared to plateau from 2010; RCTs increased from 2006 onwards and overtook SCEDs in 2011 in frequency; non-RCTs increased in the period 2005–11; CSs plateaued from 2007 and SCEDs increased substantially until a peak and subsequent drop off from 2008.

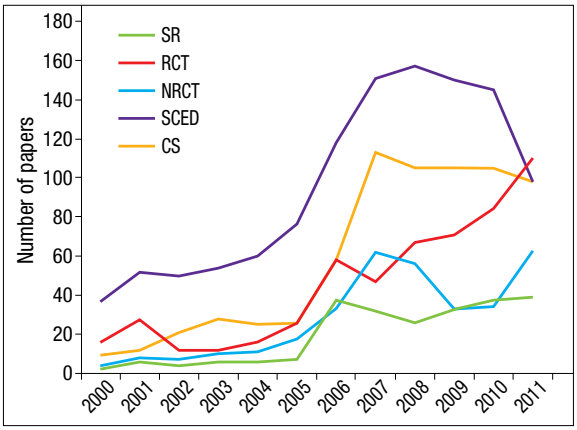

Figure 1. Number of papers listed in speechBITE™ according to year of publication from 2000–2011 and research design

Note: SR = systematic review, RCT = randomised controlled trial, NRCT = non-randomised controlled trial, SCED = single-case experimental design and CS = case series.

Table 3. Research design of papers listed in speechBITE™ by target area, etiology and intervention type and year of publication

Variable	Systematic reviews (SRs)		Randomised controlled trials (RCTs)		Non-RCTs		Single case experimental designs (SCEDs)		Case series (CSs)	
Main target area	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Speech	38	8	51	10	54	11	**233**	**47#**	118	24
Language	113	7	276	16	145	8	**933**	**54#**	250	15
Voice	19	5	50	13	52	14	71	19	**184**	**49#**
Fluency	4	4	16	16	9	9	33	33	**38**	**38#**
Swallowing	54	13	101	25	40	10	77	19	**130**	**32#**
Literacy	42	5	217	26	146	18	**300**	**36#**	117	14
Etiology (Client subgroup)										
Alzheimer's and other dementias	7	6	34	31	12	11	**41**	**37#**	17	15
Attention deficit disorder	3	6	6	11	7	13	**28**	**52#**	10	19
Autistic spectrum disorders (3)	45	10	59	13	30	7	**262**	**60#**	42	10
Cancer	9	8	25	21	23	20	11	9	**49**	**42#**
Cerebral Palsy	23	14	15	9	8	5	**87**	**52#**	34	20
Cleft lip/palate and craniofacial abnormalities	9	13	8	11	13	18	11	15	**31**	**43#**
Congenital Syndromes	13	8	19	12	12	7	**93**	**58#**	24	15
Degenerative disorders/diseases	24	15	29	18	10	6	34	21	**65**	**40#**
Hearing and visual impairment	10	6	12	8	19	12	**64**	**40#**	55	34
Gerontology	0	0	1	7	1	7	4	27	**9**	**60#**
Intellectual disability (4)	23	8	23	8	20	7	**206**	**68#**	33	11
Laryngectomy	2	7	4	15	8	30	4	15	**9**	**33#**
Mental health	2	5	2	5	1	3	**26**	**68#**	7	18
Neurological conditions	18	14	8	6	11	8	**61**	**46#**	35	26
Gastrointestinal conditions	3	8	9	23	1	3	7	18	**19**	**49#**
Respiratory conditions	1	13	**3**	**38#**	1	13	0	0	**3**	**38#**
Stroke/CVA (2)	42	6	87	12	40	5	**435**	**59#**	139	19
General medical	3	7	3	7	4	10	14	33	**18**	**43#**
Neonatal conditions	8	18	**14**	**32#**	3	7	13	30	6	14
Tracheostomy	0	0	1	10	**4**	**40#**	2	20	3	30
Traumatic brain injury (5)	23	11	22	11	14	7	**100**	**50#**	42	21
Other/not specified (1)	85	7	319	25	209	16	**361**	**28#**	302	24
Intervention type										
Speech/articulation/phonological therapy (4)	31	8	41	10	40	10	**197**	**50#**	82	21
Language therapy (1)	89	6	210	15	121	9	**753**	**55#**	205	15
Fluency/stuttering therapy	3	3	16	16	8	8	37	36	**38**	**37#**
Swallowing/feeding intervention	47	14	82	24	31	9	71	21	**104**	**31#**
Voice therapy (5)	19	6	47	14	46	13	68	20	**165**	**48#**
Literacy and pre literacy intervention (2)	41	5	208	27	136	17	**286**	**37#**	109	14
Computer based intervention	16	6	58	22	29	11	**111**	**42#**	49	19
Augmentative/alternative therapy	37	12	15	5	13	4	**214**	**69#**	31	10
Assistive devices, technological interventions (3)	23	5	61	14	40	9	**214**	**49#**	103	23
Surgical	28	8	34	10	51	15	49	15	**175**	**52#**
Pharmacological	27	11	67	28	15	6	42	18	**85**	**36#**
Counselling	6	22	3	11	3	11	**9**	**33#**	6	22
Complementary therapies	7	11	**27**	**44#**	5	8	6	10	16	26
Education	6	6	**32**	**30#**	14	13	25	24	28	27
Aural habilitation	1	2	9	16	10	17	12	21	**26**	**45#**
Other	23	11	50	23	40	19	**55**	**26#**	46	21
Publication period										
pre 2000 (earliest publication 1951)	14	2	75	13	56	9	**357**	**60#**	93	16
2000–03	18	5	68	18	29	8	**193**	**51#**	70	19
2004–07	82	8	147	15	125	13	**405**	**41#**	221	23
2008–11	136	8	332	21	188	12	**550**	**34#**	413	26

Note: Numbers in bold with # indicate the largest percentage design. In the first column, the most common client subgroups and interventions are indicated in **bold** with their ranked number listed in brackets (**number**). A glossary of client subgroup terms can be found on the search page within speechBITE.com

What does our bird's eye view tell us about intervention practice research?

This overview of the landscape of speechBITE™ revealed some interesting data. First, the major target areas of intervention and client etiology generally reflect areas of scope of practice identified in the Speech Pathology Australia (2011) CBOS document (e.g., speech, fluency, swallowing). Each area is represented by a body of research that clinicians can access to support their evidence based practice. While the new CBOS (Speech Pathology Australia, 2011) area of multimodal communication is not identified as a major target area for intervention within the target area search options, clinicians can access relevant intervention studies by searching under intervention type for augmentative/alternative therapy and assistive devices/technological interventions.

Second, at the end of 2012, the types of intervention and client etiologies reported appear to reflect the major areas of contemporary speech pathology intervention practice. Language and literacy intervention were most common, followed by assistive devices/technological interventions, speech/articulation/phonological therapy and voice and swallowing intervention. However, the higher percentage of language and literacy intervention studies indicates areas where multiple professions are contributing to the evidence base. For example, interventions in literacy for children come from a range of professions including education, psychology, and occupational therapy as well as speech pathology (e.g., Miller, Connolly and Maguire, 2012). Therefore, clinicians using speechBITE™ can gain information to support their practice about the efficacy of interventions from a wide range of practitioners.

Third, the major etiologies represented included stroke/CVA, ASD, intellectual disability, TBI, cerebral palsy, degenerative disorders/diseases and others. Perhaps the least informative result for etiology was the large percentage of "other/not specified" category. Given that language and literacy interventions were the most common intervention types contained in speechBITE™, it is likely that some studies are not coded with a specific etiology, such as studies that include children with language-based learning difficulties. In this situation clinicians could search the language target sub area of "specific language impairment" or they can search using the language intervention category and combine that with a keyword or age category. The website for speechBITE™ is currently being upgraded so that this issue will be rectified by removing the "other" category and replacing this with more specific terms to reflect etiologies being investigated (e.g., "at risk" populations).

Fourth, in terms of service delivery, individual service delivery predominated (70% of sample) relative to other service delivery options such as group interventions (16%), and educator/parent/caregiver or peer intervention models (12%). The predominance of individual service delivery intervention studies is perhaps not surprising. It could reflect the phase of research whereby intervention efficacy is still being established before effectiveness studies are completed that then address alternate service delivery options (Fey & Finestack, 2009).

Fifth, the number of published intervention studies each year is increasing. This indicates an increasing evidence base that speech pathologists are challenged to find, critique, interpret and disseminate to members of our own profession, other health professionals, clients, carers, and the public. There are also interesting trends over the period of 2000–11. For instance, RCTs increased in frequency (from 2006>) so much so that they surpassed the number of SCEDs for the year 2011. In a recent study, Hoffmann, Erueti, Thorning and Glasziou (2012) identified that the growth in research is evident in both the sheer number of articles and also in the number of journals. To illustrate this, they evaluated the number of journals required to locate 50% and 100% of RCTs and SRs, published in 2009 across a number of medical specialties. For neurological diseases, 114 journals were needed to identify 50% of RCTs while 896 journals were needed to locate 100% of RCTs. Fifty-three journals were needed to locate 50% of published SRs while 292 journals would locate 100% of SRs published that year. They identified that new developments are "increasingly scattered" and this "continuing expansion is both a blessing and a curse" (p. 1). Among their suggestions for managing this scatter, the authors call for "systems that cover sufficient journals and filter articles for quality and relevance". speechBITE™ searches eight databases, filters articles according to inclusionary criteria relevant to speech pathology practice and currently reports on the methodological quality of RCTs and non-RCTs, thus benefitting speech pathology clinicians and researchers alike. Hoffmann and colleagues (2012) also suggest the use of social media to highlight new research as another way for clinicians to keep abreast of developments. To this end, speechBITE™ utilises Twitter to share results (@speechBITE) and currently has approximately 1,200 followers and 1,000 tweets.

Future directions for speechBITE™ and evidence based practice

It is interesting to observe that SCEDs represented the most frequent research design for the main intervention target areas of speech, language and literacy intervention. While users of speechBITE™ can be confident in the methodological ratings supplied for RCTs and non-RCTs (see Murray et al., 2012), there is also a pressing need for rating the methodological rigour of SCEDs. In response to this, speechBITE™ will commence rating SCEDs using the risk of bias in N-of-1 trials (RoBIN-T) scale (Tate et al., in press) in the latter half of 2013. This will inform clinicians about the methodological rigour of SCEDs within their area of practice which in turn can assist them in making evidence based practice decisions. There is also a plan to analyse and publish on the quality of treatment research across the scope of intervention practice by evaluating and reporting on the methodological ratings of RCTs, non-RCTs and SCEDs across our target areas of intervention.

The current study revealed that while SCEDs are the most frequent research design in the areas of speech, language and literacy intervention, for the practice areas of voice, fluency and swallowing, CSs were utilised more often. Intervention research often progresses in phases associated with differing research questions and increasing research rigour (Fey & Finestack, 2009). SCEDs and CSs are often used for pre-trial, feasibility and early efficacy studies. Well-designed SCED methodology provides the opportunity for controlled treatment studies, which can represent the highest level of evidence (i.e., Level 1) when randomisation is incorporated into the design of the N-of-1 trial (OCEBM Levels of Evidence Working Group, 2011). CSs designs (e.g., pre-post studies) instead represent a relatively weak form of research evidence. The problem with these designs is the lack of experimental control. The trend of higher numbers of CS research identified within voice, fluency and swallowing suggests a call for further methodological rigour and research development in these

areas of practice. It will also be interesting to observe future trends in research design particularly in light of the debate concerning levels of evidence, and how this reflects intervention research and rigour across various clinical populations. Traditionally, RCTs are considered more methodologically robust compared with SCEDs and CSs as portrayed in the National Health and Medical Research Council of Australia (NHMRC, 1999) guidelines, for example. However, SCEDs are gaining traction as a valid alternative methodology for efficacy and effectiveness research with various populations (e.g., Hegde, 2007; Kearns & de Riesthal, 2013; Tate et al., 2008). Indeed, N-of-1 trials are listed in equal standing to RCTs in the Oxford Levels of Evidence (OCEBM Levels of Evidence Working Group, 2011). The high rate of SCEDs used for etiologies such as autism spectrum disorder may also be related to the considerable heterogeneity across clients in such groups.

Compared to some other health and education professions, speech pathology is a relatively "new" field. However, the scope of intervention practice research listed on speechBITE™ is encouraging and future work will continue to improve the identification and reporting of the quantity and quality of intervention studies. Speech pathologists, be they clinicians and/or researchers, can utilise this resource which should contribute to our clinical decisions and evidence based practice.

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References

Bastian, H., Glasziou, P., Chalmers, I. (2010). Seventy-five trials and eleven systematic reviews a day: How will we ever keep up? *PLoS Med*, 7, e1000326.

Dollaghan, C. A. (2007). *The handbook for evidence-based practice in communication disorders*. Baltimore, MD: Paul H. Brookes.

Fey, M. E., & Finestack, L. H. (2009). Research and development in child language intervention: A 5-phase model. In R. G. Schwartz (Ed.), *Handbook of child language disorders* (pp. 513–529). New York, NY: Psychology Press.

Hegde, M. N. (2007). A methodological review of randomized clinical trials. *Communicative Disorders Review*, *1*, 15–36.

Hoffmann, T., Erueti, C., Thorning, S. & Glasziou, P. (2012). The scatter of research: Cross sectional comparison of randomized trials and systematic reviews across specialties. *British Medical Journal*, *344*, e3223.

Hoffmann, T., Bennett, S., & Del Mar, C. (Eds.). (2010). *Evidence based practice: Across the health professions*. Sydney: Elsevier.

Kearns, K. P., & de Riesthal, M. (2013). Applying single-subject experimental research to inform clinical practice. In L. A. C. Golper & C. Frattali (Eds.), *Outcomes in speech-language pathology* (2nd ed., pp. 279–297). New York: Thieme Medical Publishers.

Miller, S., Connolly, P. & Maguire, L. K. (2012). The effects of a volunteer mentoring programme on reading outcomes anong eight- to nine-year-old children: A follow-up randomised controlled trial. *Journal of Early Childhood Research*, *10*(2), 134–144.

Murray, E., Power, E, Togher, L., McCabe, P, Munro, N. & Smith, K. (2012). The reliability of methodological ratings for speechBITE using the PEDro-P scale. *International Journal of Language and Communication Disorders*, *48*(3), 297–306.

National Health & Medical Research Council. (1999). *A guide to the development, implementation and evaluation of clinical practice guidelines*. Retrieved from http://www.nhmrc.gov.au/guidelines/publications/cp30

Oxford Centre for Evidence-Based Medicine (OCEBM) Levels of Evidence Working Group. (2011). *The Oxford 2011 levels of evidence*. Retrieved from http://www.cebm.net/index.aspx?o=5653

Perdices, M., Savage, S., Tate, R. L., McDonald, S., & Togher, L. (2009). *Rater's manual for between-group studies (RCTs and nonRCTs): Introduction to the Physiotherapy Evidence Database (PEDro) Scale for rating methodological quality, adapted for PsycBITE (Pedro-P)*. Sydney: University of Sydney.

Smith, K., McCabe, P., Togher, L., Power, E., Munro, N., Murray, E. & Lincoln, M. (2010). An introduction to the speechBITE database: Speech pathology database for best interventions and treatment efficacy. *Evidence-Based Communication Assessment and Intervention 4*(3), 148–159.

Speech Pathology Australia. (2011). *Competency-based occupational standards for speech pathologists*. Retrieved from http://www.speechpathologyaustralia.org.au/library/Core_Assoc_Doc/CBOS_for_Speech_Pathologists_2011.pdf

Tate, R. L., McDonald, S., Perdices, M., Togher, L., Schultz, R., & Savage, S. (2008). Rating the methodological quality of single-subject designs and n-of-1 trials: Introducing the Single-Case Experimental Design (SCED) Scale. *Neuropsychological Rehabilitation*, *18*(4), 385–401.

Tate, R., Perdices, M., Rosenkoetter, U., Wakim, D., Godbee, K., Togher, L., & McDonald, S. (In press). Revision of a method quality rating scale for single-case experimental designs and n-of-1 trials: The 15-item Risk of Bias in N-of-1 Trials (RoBiNT) Scale. *Neuropsychological Rehabilitation*.

Togher, L., Schultz, R., Tate, R., McDonald, S., Perdices, M., Smith, K., … Savage, S. (2009). The methodological quality of aphasia therapy research: An investigation of group studies using the PsycBITE™ evidence-based practice database. *Aphasiology*, *23*(6), 694–706.

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Challenges and practical strategies for speech pathologists working with children in out of home care (OOHC)

Nicole Byrne and Tania Lyddiard

This paper pertains to a specific vulnerable group of children who have experienced maltreatment and as a result, have been removed from the care of their parents into out of home care (OOHC). OOHC includes both foster and kinship care. In this paper, the challenges associated with working with children in OOHC in a community-based speech pathology service are identified. The strategies that have been implemented within OOHC are outlined in order to provide speech pathologists working with children who have been maltreated and their carers with practical strategies to consider implementing within their own setting.

KEYWORDS
CHALLENGES
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THIS ARTICLE HAS BEEN PEER-REVIEWED

Nicole Byrne (top) and Tania Lyddiard

Many children within Australia, for various reasons, are unable to live with their parents. Factors such as poverty, level of parent education, family size, parent mental health, substance abuse, housing/mobility issues and parenting practices often contribute to increased stress within households and may subsequently contribute to child maltreatment (COAG, 2009; McIntosh & Phillips, 2002, Stone, 2007). The term child "maltreatment" is used as the umbrella term to incorporate five maltreatment subtypes: physical abuse, emotional maltreatment, neglect, sexual abuse and witnessing family violence. Children who have suffered maltreatment may be removed from the care of their parents and placed into government-regulated out of home care (OOHC). In Australia, from 2010 to 2011 there were over 40,466 substantiated child protection notifications and 37,648 children placed in OOHC. This suggests a high likelihood that children in care have suffered from some form of maltreatment, most commonly emotional abuse and neglect (AIHW, 2012).

There is strong evidence that a child's maltreatment impacts their development across many domains, including language, cognitive, social-emotional and academic, and that these difficulties may extend into the long-term (Hwa-Froelich, 2012; Stone, 2007). A lack of stimulation, parental support and interaction, and parental withdrawal has a significant impact on a child's receptive and expressive language development. Research has indicated that children who have been maltreated have less flexible problem-solving abilities, poorer self-regulation, fewer social interactions, poorer syntactic development, reduced receptive and expressive vocabulary, delayed receptive language development, delayed cognitive development and delayed speech skills than other children (Allen & Oliver,1982; Culp et al., 1991; Eigsti & Cicchetti, 2004; Hwa-Froelich, 2012).

Some researchers consider it to be the early impoverished environment rather than the length of time in that environment that impacts most significantly on speech and language development (Croft et al., 2007). However, other researchers suggest children who enter into foster/adoptive care at a later age take longer to catch up to expected developmental milestones, indicating length of time in impoverished environment does contribute to outcomes (Glennen & Masters, 2002; Roberts et al., 2005). Crucial time periods for removal from maltreatment have been identified as 6 months after maltreatment onset for maintaining an equivalent IQ (Castle et al., 1999) and 15 months for maintaining receptive and expressive language skills (Windsor et al., 2011).

Children in out of home care are more likely to have significant health needs, including speech, language and hearing disorders (Hoff, 2003; Royal Australasian College of Physicians, 2006). Australian researchers have indicated that 45% of children under the age of 5 years who have been maltreated had speech delay and 20% of older children had language delay (Nathanson & Tzioumi, 2007) as compared to the general population rate of 12% (children aged 5–18 years) (McLeod & Mckinnon, 2007) to 14.3% for children aged 5;4 to 6;10 years (Jessup, Ward, Cahill & Keating, 2008). These results are supported by Snow and Powell's (2011) identification of young offenders in jail who presented with a language impairment, and had also had an OOHC placement, thus highlighting the increased incidence of communication difficulties in children in OOHC. Similarly, Golding, Williams and Leitão (2011) found that 55% of foster carers had taken a child in their care to a speech pathologist.

Aboriginal children are at a higher risk of communication disorders due to cumulative factors such as being in OOHC and having a higher incidence of otitis media than non-Aboriginal children, which may result in hearing loss and associated language delay (Couzos, Metcalf & Murray, 2001). In Australia, Aboriginal children are overrepresented in OOHC. In 2011, the rate of Aboriginal children in OOHC was 10 times higher than that of non-Aboriginal children (AIHW, 2012).

Child protection in Australia

In recent years there has been a significant change in child protection policy. In 2009, the Wood Inquiry announced a detailed package of reforms to the child protection system in NSW that were applicable to government and non-government organisations (NGOs) (NSW Department of Premier and Cabinet, 2009). The *Keep Them Safe Report* (2009) identified that child protection was everyone's collective responsibility; that government agencies should expand their role in supporting children who have been maltreated while government would increase investment in prevention and early intervention. The *Keep Them Safe Report* (2009) recommended that children in OOHC receive adequate health treatment and that services, such as speech pathology, should prioritise these children.

There has been little research into speech pathology and children in OOHC in Australia. An Australian study by Golding and colleagues (2011) considered the importance of education of foster carers regarding identification of speech/language disorders in children. Their study showed that foster carers had a sound understanding of the benefits of speech pathology and were aware of the impact of environment and biological factors on speech and language development. Foster carers included in the study wanted the children to receive a comprehensive medical/developmental/psychological assessment upon entering foster care and requested further information on speech, language and disability.

This paper aims to highlight the challenges associated with working with children in OOHC in a community-based speech pathology service setting. It aims to add value to clinical services by providing an increased awareness of this vulnerable population, while also identifying practical strategies that have been implemented successfully in one setting when working with children who have been maltreated and their carers.

Referral to the Kaleidoscope speech pathology service

The Kaleidoscope community-based speech pathology service is a community-centre-based service within the Hunter New England Local Health District (HNELHD) (New South Wales, Australia), which has seven sites across three local government areas (Newcastle, Lake Macquarie and Port Stephens). This is a public health service for children aged 0–18 years with approximately 12 staff receiving 1,200 referrals per year. Referrals, which can be made by carers or professionals (with carer's consent), are received through a central intake and are allocated to the closest of the seven community health centres. Clients need to meet eligibility criteria for this service and there are limits to the numbers of sessions provided. All client information, appointments and medical record documentation occur through the centralised electronic medical notes system. Demographic data pertaining to clients for this paper, including living arrangements (i.e., OOHC) and Aboriginality, were also gathered retrospectively from this system.

In 2010, 31 children (3% of total referrals) referred to the speech pathology service were in OOHC. In the 12-month period from December 2011 to November 2012 (Table 1), 70 children (6% of total referrals) referred to speech pathology were in OOHC (note these numbers do not include children who entered OOHC while already in speech pathology services or on the waiting list). Thus, the referral rate has doubled in less than two years. The speech pathology service identified that children in OOHC appeared to be a growing group of clients and that there were specific challenges associated with this group.

The increase in referrals to the speech pathology service is likely to have been influenced by a number of factors, including an increase in the number of children entering OOHC (AIHW, 2012). In addition, implementation of *Keep Them Safe* recommendations (NSW Department of Premier and Cabinet, 2009), which requires children entering OOHC to receive a primary and/or comprehensive health screen, would facilitate the identification of speech and language problems, and thus referrals to speech pathology services. Further, the service has increased reliability in identifying and documenting that children are in OOHC as part of the referral intake process. The increase in referral numbers may also be partly attributed to education of foster carers, NGOs and caseworkers regarding appropriate referrals, referral processes and normal speech and language development.

It should be noted that the referral figures reported in this paper may be an underrepresentation of the actual figures, as they do not include children in the care of their grandparents/other family members, but not under the direction of the courts, nor do they include children who enter OOHC after the referral to speech pathology has been made. Additionally, Sedlak (2001) reports there is a large number of children who are recognised as maltreated by professionals but are not investigated by child protection services, thus indicating that the reports that have been substantiated may be the "tip of the iceberg".

Table 1. Demographics of children in out of home care referred to Kaleidoscope community-based speech pathology service (December 2011 to November 2012).

Gender	Male	50 (71%)
	Female	20 (29%)
Age at referral	0–4 years	35 (50%)
	5–8 years	24 (34%)
	9+ years	11 (16%)
	Average	5.7 years
	Range	1–15 years
Aboriginality	Aboriginal	14 (20%)
	Non-Aboriginal	56 (80%)

For the entire service, approximately 67% of referrals are children aged 4 years and under, while 27% are children aged between 5 and 8 years; with less than 6% of referrals for children aged over 9 years. Whereas for children in OOHC, only 50% were referred aged 4 years and under and 16% were referred over 9 years, suggesting children in OOHC were more likely to be referred later to the service than children not in OOHC. Nine percent of referrals for children who were not in OOHC were Aboriginal, compared to 20% for children in OOHC (the authors consider this statistic may indicate under identification of Aboriginality). These results suggest children in OOHC were referred later and were more likely to be Aboriginal. Furthermore, 9% of children in OOHC had been referred to the same service at some stage previously.

In line with the COAG National Framework which mandates that child protection is not solely the realm of statutory agencies and with local health district directions, the service committed to improving links with key stakeholders to support families, coordinate planning

and share information (COAG, 2009). Hwa-Froelich (2012) indicates that speech pathologists should consider "working closely with other professionals who may be involved with the child".

The impetus for the strategies described in this paper came from the identification of steadily increasing referral numbers of children in OOHC and that as a group they posed many challenges for speech pathologists. It was recognised that support systems and processes needed to be in place to facilitate client attendance at therapy, to maintain consistency of service across the different sites and consistency of documentation, and to provide support for staff when dealing with this unique population. The theoretical tenets of appreciative inquiry methodology were adopted (Cooperrider & Whitney, 2005), whereby the staff and key stakeholders were engaged through one-to-one discussions to identify strengths (i.e., "what's working well?") of current processes and then identify how these could be further developed from the research literature to identify optimal practice. Literature review and stakeholder feedback informed the development of the documentation of the processes into a clinical practice guideline as per local health district requirements.

The purpose of this discussion paper is to provide some practical clinical strategies for speech pathologists to consider when working with children in OOHC.

Challenges when working with children in OOHC

This section outlines some of the challenges that have been identified, as well as some of the strategies that have been successfully implemented to address these challenges, within the Kaleidoscope service. The strategies were implemented in discussion with the speech pathology team and stakeholders, and as a response to policy development. The evidence of success of these strategies is anecdotal and based upon feedback received from stakeholders. The OOHC coordinator within the team has also reported better communication between speech pathologists, caseworkers and foster carers as a result of the implementation of the strategies.

There are a number of key stakeholders in relation to OOHC. In the following sections, the challenges related to each group have been addressed separately, although they often are interrelated and impact upon multiple stakeholders. The key stakeholder groups are: the child, the foster carer, the caseworker, the speech pathologist and the speech pathology (SP) service.

The child

Child maltreatment and potential exposure to other related risk factors, such as prenatal alcohol, residential safety, and cleanliness, may compound the effects of maltreatment, impacting upon language, memory, attention and behaviour (English, Thompson, Graham, & Briggs, 2005). Research has indicated that children in OOHC may experience developmental delays across a number of domains, but particularly with communication (Nathanson & Tzioumi, 2007). In the Kaleidoscope service, the child's speech/language problems are considered within the context of maltreatment and the subsequent medical, emotional, behavioural and education needs of the child. The child may not have received medical services (e.g., treatment of ear infections) so the speech pathologist refers to relevant services (e.g., audiologists for a hearing assessment). Foster carers are linked into relevant services and are given the option to postpone appointments for an agreed amount of time, while accessing other pertinent services. Although the child's medical and/or family history is typically unknown or fractured (Webster, Temple-Smith & Smith, 2012), the speech pathologist is able to identify likely and potential risk factors from the foster carer as well as utilising other sources of information (e.g., information on siblings, centralised information systems, caseworkers) to get a more comprehensive picture of the child.

Frequently, the child may have had previous referrals to SP services but due to the transient nature of the family and waiting lists, may not have actually received intervention. The Kaleidoscope SP service liaises with other SP departments to maintain original referral dates and/or continuation of therapy, and reviews centralised medical notes to prevent further disadvantage to these children. Similarly, regular liaison between the OOHC SP coordinator and health case manager allows tracking of children who move while they are on the SP waiting list. Table 2 identifies the challenges and strategies this service has implemented to support children in OOHC.

The foster carer

Foster carers face a number of challenges when accessing services for the child, including a lack of background information on the child in their care (e.g., medical history, history of maltreatment; Henry, Sloane & Black-Pond, 2007), a lack of knowledge of child development and the impact the maltreatment may have on development and behaviour (Table 3). To increase their knowledge of development, an education package was developed (Lyddiard, 2012a) which provided information on developmental milestones, expectations of speech and language development and strategies to support speech and language development in the home environment. This package, made available to carers through attendance at a 3-hour presentation, focused on enhancing the carers' knowledge of speech and language development and stimulation.

Foster families are complex and heterogenous with recent data indicating 51% of foster and 36% of kinship carers had multiple children in their care (AIHW, 2012). The service also identified that foster families often have multiple children in their care, with multiple siblings requiring SP intervention. As such the service provides the option of combining appointments, particularly if a key aim is education/training of the carer. In order to facilitate attendance, foster carers are encouraged to bring a support person with them to appointments and a phone call/SMS reminder is also used.

The caseworker

There are some key strategies that speech pathologists have implemented to promote more effective working relationships with caseworkers (Table 4). The service has worked closely with NGOs to provide education to foster carers and to emphasise to all case management agencies that children placed in OOHC after 15 months are at high risk of speech and language delays (Windsor et al., 2011) and require referral to services. A clinical pathway was established for children in OOHC, a key component of which includes providing the caseworker with regular information as to the clients' status within the service. Incidental speech and language education of the caseworker regarding specific clients continues to occur.

Table 2. Challenges and strategies regarding the child

Challenges	Strategies
Child may have had a previous SP referral, but poor attendance or follow-up while in the care of their parents may have led to their discharge	Child is not to be disadvantaged based on previous failures to attend service under differing circumstances Hunter New England Local Health District Clinical Priority Tool is applied to all referrals; children in OOHC typically have multiple risk factors placing them at a higher priority (HNELHD, 2012) Work with OOHC health case manager to provide assistance regarding active follow up
Child may not have had previous access to toys/ books/age-appropriate items, impacting upon development of play skills	HNELHD play therapist provided a training workshop to SP team regarding the importance of play, play stages and skills and relationships between play, interaction and communication Speech pathologists work with childcare providers
Child may have difficulties with trust, building relationships and rapport	Initial appointment is an opportunity to gain trust and build rapport with the foster carer (FC) and the child, rather than a formal SP assessment Education provided to SP team (e.g., attachment, managing complex behaviours)
Child's speech and language ability on initial placement may be not representative of abilities once they have settled into their foster family and are in a stimulating environment	Detailed discussions occur with FC about the child's communication skills, including child's length of time with that foster family, the problems they were experiencing in speech/ language when they entered into their care, any changes they have noticed (i.e., improvements) since coming into care Monitoring the child's communication development may be the most appropriate intervention.
Child may not respond well to new environments and people	Visits may be conducted in familiar environments (e.g., preschool) Families are encouraged to bring some of the child's familiar toys/ books to the appointment Where possible child maintains the same speech pathologist through intake, screening, assessment and intervention Provide a calm environment, introducing one activity at a time

Table 3. Challenges and strategies for the foster carer (FC)

Challenges	Strategies
FC does not typically have information on child's: • prenatal history (e.g., alcohol exposure) • developmental milestones • related early developmental factors (e.g., feeding problems) • family history of speech and learning disorders • medical history (e.g., ear infections) • maltreatment	Speech pathologist accesses information from centralised medical systems Consent from caseworker or non-government organisation (NGO) representative as "parent of the child" to engage with other health/education professionals Presume child likely has recognised risk factors
FC may not be privy to information regarding the maltreatment of, and the potential impact on, the child	Phone call follow-up with caseworker to discuss maltreatment, to ensure accuracy and appropriateness of sharing this information
FC may not have had links to early intervention or support services (e.g., carer support, playgroups)	Referral to relevant service (e.g., Early Childhood Information Team) to assist families to access services
FC may be unaware of length of placement	Ongoing liaison with caseworkers
FC may have difficulties working with child who has concurrent behavioural issues, i.e., separation anxiety, trauma, aggression	Liaison with OOHC SP coordinator regarding referral to appropriate services to access other allied health/multidisciplinary teams

Table 4. Challenges and strategies for the caseworker

Challenges	Strategies
Caseworkers are increasingly situated in NGOs	Educate speech pathologists on caseworkers' roles The clinical pathway identifies when there is a need to contact caseworker
Caseworkers may have varying exposure or knowledge regarding speech pathology	Incidental education of the caseworkers surrounding specific clients Provision of generic information on identification of speech/language delays and referral mechanisms (Lyddiard, 2012b)
Caseworkers' contact with FC may vary	Ensure contact details of caseworkers are current Provide regular feedback on intervention (e.g., through the development of family services/support plans)

Table 5. Challenges and strategies for the speech pathologist	
Challenges	**Strategies**
During the intervention the speech pathologist may become privy to information that is outside their comfort zone, especially for inexperienced staff	Managers have ensured support mechanisms (e.g., information on employee counselling services, confidential debriefing) are in place
Imbalance of caseload numbers of children in OOHC based on different sites' geographical locations	Support is offered to speech pathologists at sites with large numbers of OOHC children on their caseload Ensure even distribution of cohort across SP staff
Child protection training may be confronting and distressing for staff.	Staff are prepared regarding the content of child protection training
SP service does not operate within a multidisciplinary service model which has implications for cross-referral, multidisciplinary goal-setting and of the speech pathologist potentially being asked questions related to other professions (e.g., psychology)	Developed links with relevant multidisciplinary services and discuss appropriate streamlining of referrals, goal setting

The speech pathologist

Speech pathologists are increasingly required to provide intervention to children in OOHC. The issues arising with these children are typically complex given the nature of their family situation, history and severity and complexity of their speech/language delays (Allen & Oliver,1982; Culp et al., 1991; Eigsti & Cicchetti, 2004; Hwa-Froelich, 2012). Speech pathologists have varied levels of self-confidence and experience working with vulnerable groups, including OOHC. For new staff, working with children in OOHC may be an unfamiliar caseload. This has been addressed by the service through establishment of a designated SP OOHC coordinator position. This position provides staff with a key contact for support, mentoring, clinical supervision, orientation of new staff to the challenges of working with this caseload, provision of education related to working with maltreated children, and supports staff regarding the content of child protection training. This service implemented a number of strategies to engage and upskill all SP staff in this area (see Table 5).

The speech pathology service

Children with speech and language delays are at greater risk of abuse, neglect or trauma (Westby, 2007). Fox, Almas, Degnan, Nelson and Zeanah (2011) suggested it may be more challenging to care for children with a mild language delay than for children without a language delay, and their limited language abilities may make interactions with them unsuccessful and unrewarding, thus raising a greater exposure to maltreatment. Sullivan and Knutson (2000) reported that parental expectations may be unrealistic and are influenced by heightened levels of stress. As a result, in some cases it may be difficult to ascertain whether the language delay or the maltreatment occurred first.

The Kaleidoscope SP OOHC coordinator maintains a centralised database of all children in OOHC referred across seven service sites and tracks the child's journey through SP services, including ensuring follow-up (e.g., if child fails to attend) occurs. In endeavouring to ensure consistency of SP services across the seven sites, a number of strategies have been implemented (see Table 6).

Conclusion and future directions

The steady increase in referrals to this service over the past two years suggests that the number of referrals of children in OOHC as a result of maltreatment will likely see continued growth. The speech pathologists identified a number of unique challenges that were common to children who were in OOHC, suggesting they are a discrete and vulnerable group. The key themes in relation to linking in with internal and external partners to support families (COAG, 2009) ensure children in OOHC maintain links with services, despite placement/caseworker changes.

It is acknowledged that this discussion paper provides an overview of the strategies that have been implemented in a single SP service and thus may not be transferable to all SP services. The challenges identified herein are the most common ones for this service, and other services may face different challenges and/or have differing solutions for working with these clients. The strategies identified in this paper as successful are based on anecdotal reports and stakeholder feedback; the authors note there are future opportunities to conduct a formal evaluation of these strategies.

It is also acknowledged that the identification of challenges and strategies to overcome them is not complete. There are many opportunities for the service to continue to develop and improve the intervention provided to children in OOHC. For the current service the ongoing work with this vulnerable group includes:

- increasing the speech pathology staff's understanding of the impact of different types of maltreatment on predicting speech/language delays (Culp et al.,1991) (to support appropriate diagnostic/prognostic planning and management); staff will continue to be provided with education from a multidisciplinary perspective, guidance as to professional development opportunities in this field and current relevant research;
- improved mechanisms to support speech pathologists such as providing ongoing clinical support and education, and maintaining OOHC as a regular agenda item in service meetings;
- linking in to other multidisciplinary services for this client group (Hwa-Froelich, 2012);
- ensuring intervention is based on current evidence-based practice principles;
- the development of standardised assessment protocols in order to develop a thorough picture of the types of communication disorders these children present with and to tailor intervention to meet their needs.

The authors have highlighted that speech pathology caseloads are seeing an increase in the number of children in OOHC as a result of maltreatment, and there needs to be discourse within the speech pathology profession regarding this vulnerable group. It is hoped that this paper will raise awareness of the needs of this client group and encourage similar services to document their challenges and strategies

Table 6. Challenges and strategies for the speech pathology service

Challenges	Strategies
Children in OOHC need to be considered separately as a vulnerable group and this challenged the beliefs of some clinicians	NSW Health, Kaleidoscope children services and SP team's commitment to care for these children as a vulnerable group
Speech pathologists have different knowledge and experience regarding working with children who have suffered maltreatment	Education of the SP team regarding the social, emotional, physical and behavioural implications of maltreatment
Consistency in the way in which SP services are provided across 7 sites	SP team developed and implemented OOHC clinical pathways to ensure coordinated and supported access to services
Timely exchange of information between SP service and stakeholders	Developed links between SP service and key services within HNELHD, including OOHC clinics, child protection, and HNELHD health case managers
FC may change if child was in short-term or emergency care	At referral or at the first appointment, the speech pathologist ensures they have the correct contact details of the current FC and caseworker
HNELHD identification of the need for priority services to children in OOHC, due to their high-risk situation and potential inability to access/complete services	HNELHD district-wide clinical priority tool for paediatric community speech pathology services acknowledges this as a discrete group and provides additional weighting for prioritisation
Ensure speech pathologists are aware of referral for child in OOHC	Centralised intake sends an email alert to the SP team leader, which is forwarded to the SP OOHC coordinator and entered onto database
Higher representation of Aboriginal children in OOHC	HNELHD encourages identification of Aboriginality and has a commitment to reducing health disadvantage (NSW Ministry of Health, 2012) Information on the number of Aboriginal clients helps support the identification of the need for culturally appropriate resources Cultural awareness training available to all staff Culturally appropriate resources are being purchased Staff education provided regarding HNELHD commitment to reducing Aboriginal disadvantage, and communicating effectively with Aboriginal clients Liaise with available internal and external Aboriginal staff in local area in the provision of services
Consistency and clinical support for less experienced clinicians or those with specific interest in working with vulnerable groups	HNELHD clinical supervision policy requires monthly supervision which may incorporate case management, review and discussion of children in OOHC
Child may not be ready for intervention when service identifies it is their turn (i.e., child's name at top of waiting list)	Flexibility to provide therapy when family situation is conducive to intervention – FC may hold off therapy while other services are provided (e.g., psychology); child is not disadvantaged if not accessing services at that time Clients are put on hold and offered next available therapy appointment when they are ready to access services
Many children in OOHC have been living in other geographical locations (outside of the referral area) and may have either been on a speech pathology waiting list or accessing services elsewhere	Implemented a referral transfer system that back dates referral from entry to previous SP service; enables transfer at an equivalent level and eliminates multiple waits for service
Child may not fit into typical service parameters for session caps	Increased flexibility in number of appointments available and cognizant that greater time may be required to build trust and rapport

for comparison. Increased knowledge sharing across speech pathology and other disciplines will benefit all key stakeholders, but in particular maltreated children, through improved service delivery, tailored to their individual needs and circumstances.

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References

Allen, R., & Oliver, J. (1982). The effect of child maltreatment on language development. *Child Abuse and Neglect*, *6*(3), 299–305.

Australian Institute of Health and Welfare (AIHW). (2012). *Child protection Australia 2010–11*. Child Welfare series no. 53. Cat. no. CWS 41. Canberra: Author.

Castle, J., Groothues, C., Bredenkamp, D., Beckett, C., O'Connor, T., Rutter, M., & the ERA study Team. (1999). Effects of qualities of early institutional care on cognitive attainment. *American Journal of Orthopsychiatry*, *69*(4), 424–437

Child Family Community Australia (CFCA). (2012). *What is child abuse and neglect?* Retrieved from www.aifs.gov.au/cfca/pubs/factsheets/a142091/index.html

Cooperrider, D., & Whitney, D., (2005). *Appreciative Inquiry: A positive revolution in change*. San Francisco, CA: Berrett-Koehler Publishers.

Council of Australian Governments (COAG). (2009). *Protecting children is everyone's business: National Framework for Protecting Australia's Children 2009–2020*. Retrieved from http://www.fahcsia.gov.au/sites/default/files/documents/child_protection_framework.pdf

Couzos, S., Metcalf, S., & Murray, R. (2001). *Systematic review of exisiting evidence and primary care guidelines*

on the management of Otitis Media in Aboriginal and Torres Strait Islander populations. Canberra: Office of Aboriginal and Torres Strait Islander Health, Commonwealth Department of Health and Aged Care.

Croft, C., Beckett, C., Rutter, M., Castle, J., Colvert, E., Groothues, C., ...Sonuga-Barke, E.J. (2007). Early adolescent outcomes of institutionally-deprived and non-deprived adoptees. II: Language as a protective factor and a vulnerable outcome. *Journal of Child Psychology and Psychiatry*, *48*(1), 31–44.

Culp, R., Watkins., R, Lawrence, H., Letts, D., Kelly, D., & Rice, M. (1991). Maltreated children's language and speech development: Abused, neglected, and abused and neglected. *First Language*, *11*(33), 377–389.

Eigsti, I., & Cicchetti, D. (2004). The impact of child maltreatment on expressive syntax at 60 months. *Developmental Science*, *7*(1), 88–102

English, D., Thompson, R., Graham, J., & Briggs, E. (2005). Toward a definition of neglect in young children. *Child Maltreatment*, *10*(2), 190–206.

Fox, N., Almas, A., Degnan, K., Nelson, C., & Zeanah, C. (2011). The effects of severe psychosocial deprivation and foster care intervention on cognitive development at 8 years of age: Findings from the Bucharest Early Intervention Project. *Journal of Child Psychology and Psychiatry*, *52*(9), 919–928.

Glennen, S., & Masters, M., (2002). Typical and atypical language development in infants and toddlers adopted from Eastern Europe. *American Journal of Speech-Language Pathology*, *11*(4), 417–433.

Golding, S., Williams, C., & Leitão, S. (2011). Speech and language development: Knowledge and experiences of foster carers. *ACQuiring Knowledge in Speech, Language and Hearing*, *13*(1), 12–19.

Henry, J., Sloane, M., & Black-Pond., C. (2007). Neurobiology and neurodevelopmental impact of childhood traumatic stress and prenatal alcohol exposure. *Language, Speech, and Hearing Services in Schools*, *38*(2), 99–108.

Hoff, E. (2003) The specificity of environmental influence: Socioeconomic status affects early vocabulary development via maternal speech. *Child Development*, *74*(5), 1368–1378.

Hunter New England Health Local Health District (HNELHD). (2012). *HNELHD Community Paediatric Clinical Priority Tool*. Newcastle, NSW: Author.

Hwa-Froelich, D. (2012). Childhood maltreatment and communication development. *Perspectives on School-Based Issues*, *13*(2), 43–53.

Jessup, B., Ward, E., Cahill, L., & Keating, D. (2008). Prevalence of speech and/or language impairment in preparatory students in northern Tasmania. *International Journal of Speech-Language Pathology*, *10*(5), 364–77.

Lyddiard, T. (2012a). *Speech and language development in children – Education package*. Newcastle, NSW: Hunter New England Local Health District.

Lyddiard, T. (2012b, August). *Kaleidoscope Out of Home Care – Speech and language education package: Poster presentation*. Association of Children's Welfare Agencies conference, Sydney.

McIntosh, G., & Phillips, J. (2002). *Who's looking after the kids? An overview of child abuse and child protection in Australia [E-Brief]*. Retrieved from http://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/Publications_Archive/archive/ChildAbuse

McLeod, S., & McKinnon, D.H. (2007). The prevalence of communication disorders compared with other learning needs in 14,500 primary and secondary school students. *International Journal of Language and Communication Disorders*, *42*(S1), 37–59.

Nathanson, D., & Tzioumi, D. (2007). Health needs of Australian children living in out-of-home care. *Journal of Paediatrics and Child Health*, *43*(10), 695–699.

NSW Department of Premier and Cabinet. (2009). *Keep them safe report: A shared approach to child wellbeing*. Retrieved from http://www.dpc.nsw.gov.au/__data/assets/pdf_file/0004/57145/Keep_Them_Safe.pdf

NSW Ministry of Health. (2012) *NSW Aboriginal health plan 2013–2023*. Retrieved from http://www.health.nsw.gov.au/publications/Pages/nsw-aboriginal-health-plan-2013-2023.aspx

Roberts, J., Pollack., K., Krakow., R., Price., J., Fulmer., K., & Wang., P. (2005). Language development in preschool-age children adopted from China. *Journal of Speech, Language, and Hearing Research*, *48*(1), 93–107.

Royal Australasian College of Physicians. (2006). *Paediatric policy: Health of children in out-of-home care*. Retrieved from http://www.racp.edu.au/index.cfm?objectid=7315DC15-D37F-8CFB-1D4E3507F6617DD6

Sedlak, A. J. (2001). *A history of the National Incidence Study of Child Abuse and Neglect*. Retrieved from US Department of Health and Human Services website https://www.nis4.org/NIS_History.pdf

Snow, P., & Powell, M. (2011). Oral language competence in incarcerated young offenders: Links with offending severity. *International Journal of Speech-Language Pathology*, *13*(6), 480–489.

Stone, S. (2007). Child maltreatment, out-of-home placement and academic vulnerability: A fifteen year review of evidence and future directions. *Children and Youth Services Review*, *29*(2),139–161.

Sullivan, P., & Knutson, J. (2000). Maltreatment and disabilities: A population-based epidemiological study. *Child Abuse and Neglect*, *24*(10), 1257–1273.

Webster, S., Temple-Smith, M. & Smith, A. (2012). Children and young people on out-of-home care: improving access to primary care. *Australian Family Physician*, *41*(10), 819–822

Westby, C., (2007). Child maltreatment: A global issue. *Language, Speech and Hearing Services in Schools*, *38*(2), 140–148.

Windsor, J., Benigno, J., Wing, C., Carroll, P., Koga, S., Nelson, C., Fox, N., & Zeanah, C. (2011). Effect of foster care on young children's language learning. *Child Development*, *82*(4), 1040–1046.

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"How my clinical placement in Australia helped me to become the clinician I am today"

Stephanie Lynham, Naomi Cocks, Emma Phillips, Aimee Mulae, Helen Fletcher and Lauren Smith

KEYWORDS
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INTERNATIONAL PLACEMENT

THIS ARTICLE HAS BEEN PEER-REVIEWED

Stephanie Lynham (top), Naomi Cocks (centre) and Emma Phillips

In the global society in which we live the graduate speech-language pathologist needs to be prepared for working with a culturally diverse client group and for the possibility that they may work in a country other than the one in which they trained. International clinical placement opportunities are a common method for many Australian speech-language pathology programs to prepare students for an international career and for working with a culturally diverse client group. There have been many reported benefits for students taking part in these placements. But what are the benefits for overseas students who participate in a placement in Australia? This clinical insights article asked five clinicians who had trained in the UK and who had completed a placement in Australia during their training to reflect on this experience. They reported many benefits both personally and professionally. They felt that their Australian placement experience prepared them to work with a culturally diverse client group and shaped who they are as clinicians. There were also additional benefits for the service in which they now worked.

With increased international mobility, the health professional graduate of today needs to be prepared for working with a culturally diverse client group and the possibility of an international career. One way of preparing students for this is by providing students with international clinical placement opportunities.

While international clinical placement opportunities are available in many speech-language pathology programs, few have been described in the literature. Those that have been described have often focused on the experience of Australian students doing a cross-cultural placement abroad (e.g. McAllister, Whiteford, Hill, Thomas, & Fitzgerald, 2006; Stevens, Peisker, Mathisen, & Woodward, 2010; Trembath, Wales, & Balandin, 2005). There have been many immediate benefits for students who have taken part in these overseas placement opportunities, including a global perspective on speech pathology, increased self-confidence, increased empathy, increased cultural competency, greater interdisciplinary team participation, flexibility, adaptability, and increased communication skills (Stevens et al., 2010). So what about students from other countries who travel to Australia for their overseas experience? What are the immediate and long-term benefits for these students?

This clinical insights paper discusses the experience of five clinicians who participated in an international placement exchange. The clinical exchange program ran between Curtin University in Perth, Australia and City University London in London, in the UK, between 2007 and 2010. During this time eight students from Curtin University did a placement in London organised by City University London and eight students from City University London did a placement in Perth organised by Curtin University. Two students from each university participated each year.

In 2012 the second author, who managed the placement at City University London, asked five of the past City University London exchange students (the remaining authors of this paper) who were by then working as clinicians, to reflect on their Australian placement experience by answering five questions. Some of the comments made by the clinicians in response to these questions are listed in the next section.

Five clinicians

Clinician A

My exchange experience was the most interesting and varied placement of my course. At Therapy Focus I was interested to learn that the team consisted of Australian therapists, British therapists and South African therapists. This led me to consider SLT (speech-language pathology) much more as a worldwide profession and it was great to see that skills learnt in studying in one country were transferable to delivering therapy on the other side of the world.

The exchange was my first experience of really working as part of a multidisciplinary team. SLTs, OTs (occupational therapists) and physiotherapists were all based in the same office and had the same manager. I felt that MDT (multidisciplinary team) working was expected as the norm, compared to in my previous placements where SLTs seemed to struggle to liaise with other professionals.

A key aspect of my placement was the focus on "family-centred practice". This was not a term I had really heard before this placement. I knew it was best practice to ensure families were involved as much as possible in the decision-making process, but had not really seen this in practice. I recall asking a therapist if she could tell me what the likely intervention targets for a child would be given his difficulties. I was shocked when she told me that she didn't know yet as the goals would depend on which aspects of communication the family wanted to focus on. I was used to the idea that the therapist decided the goals, liaising with the family where possible but in reality often very little … I try to remember this in my current clinical work.

I was reassured that my clinical educator had only fairly recently moved from working in the UK to working in Australia, so was still aware of training expectations in the UK. I felt that links between the placement provider and City University were strong, ensuring that my learning experience was enhanced rather than hindered by accessing this unusual placement opportunity.

I find it difficult to identify any disadvantages of the exchange. I had wondered if it was negative to miss out on an opportunity for a "typical" NHS [National Health Service] paediatric placement, given that that was the area I eventually hoped to work in. However, I feel that all of the skills I developed on the exchange were fully transferable to my current role in the NHS.

Clinician B

The clinical exchange program was extremely well organised and provided me with a fantastic variety of learning opportunities with access to support from my supervisors in Australia and my clinical tutor in England. In my current practice, I try to bring the same level of organisation that the exchange had and plan placement activities so that the students placed with me can experience the kinds of exciting and challenging activities which I had access to during the exchange.

The exchange required me to quickly adapt to a number of new challenges. These included living in a new country, navigating an unfamiliar transport system, familiarising myself with different systems of working (my previous placements were all within the NHS), and having to build working relationships quickly with my new colleagues, including the children I was working with and their families. My placement was across different bases and I received supervision and guidance from a number of different senior therapists. As a result of these experiences, I am more flexible and am better able to adapt to new teams and ways of working.

I learnt the importance of considering a client's cultural differences and ways that you could adapt to these. This increased knowledge has definitely improved my skills as a clinician. I currently work in a culturally diverse area where the children I work with speak a wide range of languages and come from different cultural backgrounds. Many of the materials in my clinic are designed to reflect English cultural values. My experience on the exchange has highlighted my awareness as a clinician of the importance of using culturally appropriate materials, for example using a narrative sequence that would be familiar to the specific child and testing vocabulary that would be found within their cultural environment.

The exchange placement in Australia involved differing administrative systems and ways of working compared to the UK. The exchange placement was with a private company that had been contracted by the health service to provide services. Since the NHS is currently exploring different models of administration and organisation, it is helpful to have had first-hand experience of a different service delivery model, working within different operational models and using different systems. The exchange placement had a "paperlight" system where all notes were electronic and joint case notes were easily shared with other professionals in the team (e.g. occupational therapist, clinical psychologist, physiotherapist). My current place of work has paper files and is considering going "paperlight". The experience of the exchange has allowed me to understand first-hand the advantages and disadvantages of a "paperlight" system of working.

Clinician C

The trust I have started working in have two types of service offered; an enhanced service which works with the school to tailor therapy that works for them and core service which offers assessment and recommendations. Therapy Focus worked within a consultative model[1], because of my experience of working in the model I am able to think of SMART targets and how the targets fit into everyday situations. Using strategies learnt on the exchange e.g. goal routine matrix I believe I have a strong understanding of how targets can fit into the school day. The message of Therapy Focus "Learning everywhere" is a philosophy I believe I bring to my discussions with parents and teachers.

On the exchange there was an emphasis on reflective practice. This helped me develop my practice and be more reactive in therapy sessions. This has proved useful since starting my job, as it was a while from graduation to getting a post, being able to reflect means I am able to learn from my mistakes and benefit from supervision discussions about how I manage certain situations.

Clinician D

I feel that the exchange has heightened my awareness of other cultures and as a result I am very keen to learn about the countries my patients are from and their relevant customs. I believe this ensures I am able to provide a person centred and holistic approach to therapy.

Overall it was an exciting experience which will never be forgotten.

Clinician E

Before I went on the exchange I was shy and found it difficult to also assert my opinions and thoughts in a clinical setting. Being on the clinical exchange, for me felt on many occasions like I had been thrown in the deep end and I very quickly had to learn to overcome this shyness. I now would describe myself as a confident therapist who is not easily fazed.

Discussion

Overall, all five clinicians were very positive about their exchange experience. The clinicians listed six main reasons for choosing to take part in the exchange. These were to become a more skilled clinician, to learn more about the practice of speech pathology in another country or to determine whether clinical practice is different, to increase the possibility of being able to work abroad in the future, to increase the chances of getting a job in the UK post-graduation and to travel.

The questions required the clinicians to reflect on the benefits and disadvantages of the exchange. There were

Aimee Mulae (top), Helen Fletcher (centre) and Lauren Smith

seven themes that emerged. These were: cross-cultural competence; personal and professional development; professional network; career pathways and professional opportunities; levels of support; similarities and differences between training programs; and similarities and differences between practices.

Cross-cultural competence

Many of the clinicians felt that by taking part in the exchange their cross-cultural competence had improved. The clinicians, who had had the opportunity to work with indigenous clients in particular, discussed the gains in cross-cultural competence. They felt that by working with a different population from that that they were used to in London had heightened their awareness of other cultures and also affected the way they practice now.

Personal and professional development

The clinicians reported that the exchange helped them to grow personally and many reported that this growth has affected how they currently work. All of the clinicians reported a growth in confidence. This growth in confidence was in relation to a number of areas, including their own clinical skills, meeting new people and overcoming challenges.

The clinicians also reported that they had become more flexible, more adaptive and more reflective clinicians. They felt that the experience of taking part in the exchange has shaped who they are as clinicians today.

Professional networking

One of the clinicians indicated that the exchange allowed them to network with clinicians in another country and that they had maintained those networks. This clinician also reported that the clinicians she had met on the exchange had even visited her in the UK. Another clinician also felt that the exchange had allowed her to build new networks in the UK, as she found that a good way to build rapport with new Australian colleagues was to discuss her experience of their country with them.

At the time of the clinicians' placements, Therapy Focus had other clinicians from all over the world working at the service. The clinicians felt that meeting speech-language pathologists from all over the world and also participating in the exchange made them more aware that speech pathology was a worldwide profession and that clinicians had skills that can be transferred from county to country.

Career pathways and professional opportunities

Some of the clinicians felt that the placement had been a useful addition to their résumé and may have helped them gain employment after graduation. One clinician felt it meant that as a result of taking part in the exchange she had missed out on a "typical" National Health Service (NHS) placement. However, she indicated that the skills she had developed on the exchange "were fully transferable to [her] current role in the NHS".

Levels of support

The clinicians felt that there was a good level of support before and during the placement from the staff at Curtin University, at City University London and on the placement itself. The students maintained consistent contact with the staff at City University London throughout the placement via email. They felt that there were strong links between university and the placement that ensured that their learning experience "was enhanced rather than hindered by accessing an unusual placement opportunity". Access to either Curtin University library or placement resources also ensured students were able to complete university assignments and the work that was required on placement. The fact that the clinical educators had experience of working in the UK meant that they were aware of what was expected of the UK students. One of the clinicians felt that because the placement was so well organised and supported she was inspired to work with student clinicians.

Similarities and differences between training programs

The clinicians also reported that meeting Curtin University students was beneficial. It allowed them to find out about the differences and similarities between the two courses. They were reassured that many aspects of the course, including the process of being assessed on placement, were similar. There was, however, some disappointment and concern expressed. Due to differences in the structure of the academic year between the two universities, the students were unable to attend any lectures or tutorials at Curtin University. One clinician reported that although the Curtin University course was similar, the dysphagia competencies are included as part of the Australian undergraduate course and she wondered if this difference means that therapists in the UK are viewed as less fully qualified.

Similarities and differences between practices

All of the clinicians felt reassured that many aspects of speech pathology practice were similar between the two countries. They did however identify some differences. They reported learning about different assessments and therapy practices in Australia and also sharing their knowledge of UK therapy and assessment practices with the therapists on their Australian placement. They also identified that there were differences in both the health and education systems which may have affected the way speech-language pathology services are delivered and the relationship between the health and the education systems.

The clinicians also identified that the geographical isolation of Perth meant that some services were delivered differently, e.g., telehealth and "flying" speech-language pathology services.

A very strong theme to emerge from the answers of all of the clinicians who had been on placement at the not-for-profit organisation, Therapy Focus, was multidisciplinary working. All of them saw that the organisation had an excellent model of multidisciplinary team (MDT) working. They felt that by taking part in this experience they were able to initiate better MDT working in their current workplaces. However, some reported that they often felt disappointment that not all teams they worked with after graduation worked as well as the team they had experienced while on the placement exchange.

There were other strengths of the not-for-profit organisation (Therapy Focus) that the clinicians felt had influenced their current practice. They identified family-centred practice and the "learning everywhere" philosophy as particular strengths. However, again disappointment expressed was that this may be difficult to replicate in the UK.

Summary

The opinions of the clinicians involved in this exchange suggest that there were many immediate and long-term benefits both personally and professionally for the clinicians who came to Australia for an overseas placement experience when they were students. Some of the benefits were due to the overseas experience in general and were similar to previously published reports relating to the experiences of Australian speech-language pathology students doing a placement abroad (Stevens et al., 2010) and the experiences of other health professionals who have participated in cross-cultural placements (see Mutchnick, Moyer, & Stern, 2003 for review). These included increased confidence, a global perspective on the profession, increased cultural competence, greater interdisciplinary team participation, increased flexibility, and increased adaptability. But there were also powerful professional benefits. The participants felt that taking part in the placement opportunity had shaped who they had become as clinicians and may have helped them gain employment after graduation.

The themes that emerged from this study, and from previous reports (e.g., McAllister et al., 2006; Stevens et al., 2010; Trembath et al., 2005), suggest that international placement opportunities are an effective method for preparing clinicians for a world with increased international mobility. The clinicians felt better prepared for working with a diverse client group. While none of the participants in the current study have worked overseas since participating in the international placement, there was some evidence that the placement had prepared them to work in a range of different settings including the possibility of working overseas. The participants reported that the placement had made them aware that the skills that they had learnt at university were transferrable to an overseas setting. They also highlighted that the placement had helped them to be more confident, flexible, adaptable and reflective clinicians, who were willing to take on new challenges.

In additional to personal and professional benefits, the participants reported that some of the models of practice that they had learnt on their Australian placement had also benefitted the UK services in which they later worked. While previous studies regarding other health professionals have reported the benefits of cross-cultural exchanges for host populations (see Mutchnick et al., 2003 for review), the benefits for services that participants later work in has not been previously reported in the literature. While it is possible that these benefits were specific to the particular service in which the majority of the students were placed while on exchange and to the students returning to work in the UK and NHS context, it is an interesting and important benefit. This possible added benefit should be considered when designing overseas placement opportunities and should also be explored in more detail in future research. As a result of the positive feedback from students who participated in this exchange opportunity, it will continue in 2014.

1. Therapy Focus adopts a collaborative service model and consultation with a wide range of stakeholders (including but not limited to parents, family, carers, educators, community service providers) is a key element of the model.

References

McAllister, L., Whiteford, G., Hill, B., Thomas, N., & Fitzgerald, M. (2006). Reflection in intercultural learning: examining the international experience through a critical inciident approach. *Reflective Practice*, *7*(3), 367–381.

Mutchnick, I. S., Moyer, C. A., & Stern, D. T. (2003). Expanding the boundaries of medical education: Evidence for cross-cultural exchanges. *Academic Medicine*, *78*(10), S1–S5.

Stevens, E., Peisker, M., Mathisen, B., & Woodward, S. (2010). Challenges and benefits for students participating in the Working With Developing Communities (WWDC) (Vietnam) Program. *ACQuiring Knowledge in Speech, Language and Hearing*, *12*(2), 90–92.

Trembath, D., Wales, S., & Balandin, S. (2005). Challenges for undergraduate speech pathology students undertaking cross-cultural clinical placements. *International Journal of Language and Communication Disorders*, *40*(1), 83–98.

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What's the evidence?

Translating interprofessional education and practice into the education and health care setting: The speech pathology perspective

Brooke Sanderson and Anne Whitworth

Brooke Sanderson (top) and Anne Whitworth

Political, social and population changes over recent decades have culminated in placing unprecedented pressures on health care systems globally (Institute of Medicine, 2001; Wagner et al., 2001; WHO, 2010), putting greater demands on already stretched health services and systems (WHO, 2010). Against this backdrop, the World Health Organization (WHO) reports that the human resources required to deliver health care are in crisis. In 2006, WHO estimated a worldwide shortage of almost 4.3 million health workers, a figure which was projected to grow (WHO, 2006). In response to this, governments "are looking for innovative, system-transforming solutions that will ensure the appropriate supply, mix and distribution of the health workforce" (WHO, 2010, p. 12). WHO, in its 2010 report, declared that one of the most promising solutions to this crisis is interprofessional collaboration. There is now wide acceptance that interprofessional collaboration, evidenced in a shift towards more cohesive practice where professionals come from different disciplines to work together to address clients' health care needs, is critical to facilitate safe, effective and client-centred care (D'Amour & Oandasan, 2005; Goldberg, Koontz, Rogers & Brickell, 2012; Institute of Medicine, 2001; Reeves et al., 2009; Zwarenstein, Goldman & Reeves, 2009).

Policy and practice drivers in Australia

In line with global trends, drivers for health care reform in Australia are population growth, ageing population, burden of disease and shifting consumer expectations (National Health Workforce Taskforce, 2009). Compounding the situation are health workforce supply shortages and uneven geographical distribution of the workforce (McAllister, Paterson, Higgs, & Bithell, 2010; National Health Workforce Taskforce, 2009). As the Australian government has developed reform agendas to address the fore mentioned challenges, interprofessional collaboration (IPC), interprofessional education (IPE) and interprofessional practice (IPP) have emerged as key strategies to bring about necessary changes to health policy, systems and workforce (National Health Workforce Taskforce, 2009; Health Workforce Australia, 2011). See Table 1 for accepted definitions of these key terms.

Speech Pathology Australia (SPA) has responded to this, recognising IPP as a "critical component of competence for an entry-level speech pathologist" (SPA, 2011, p. 9). IPP has been incorporated into the accreditation standards for speech pathology education through its inclusion as a range of practice principle (SPA, 2011); this current edition of *JCPSLP* is an excellent exemplar of SPA supporting IPP and supporting its members to implement it. As clinicians working in health care, however, how does all this activity and focus translate into our daily practice?

Table 1. Key definitions

Interprofessional learning (IPL)	"The overarching term encompassing interprofessional education and interprofessional practice. It is a philosophical stance, embracing lifelong learning, adult learning principles and an ongoing, active learning process, between different cultures and health care disciplines" (AIPEN, n.d., para. 3)
Interprofessional education (IPE)	"Occasions where two or more professions learn with, from and about each other to improve collaboration and the quality of care" (CAIPE, 2002)
Interprofessional practice (IPP)	"Occurs when all members of the health service delivery team participate in the team's activities and rely on one another to accomplish common goals and improve health care delivery, thus improving patients' quality experience" (AIPEN, n.d., para. 4) *Synonym = interprofessional collaboration (IPC)*
Multidisciplinary practice	"Multidisciplinary health professionals represent different health and social care professions – they may work closely with one another, but may not necessarily interact, collaborate or communicate effectively" (AIPEN, n.d., para. 9)

Clinical scenario

You are a clinician; you could be working in any setting, from a large metropolitan hospital or regional health service through to a primary school. You have recently moved into a new role as the manager of the department. As part of your induction to this role, you attended an interprofessional (IP) leadership course. Following the course, you read extensively about the evidence for IPP and now have a good understanding of how working in this manner could advance services and outcomes within your setting. Through this process, it has also become clear that although you work within a multidisciplinary team with other professionals, the team could be collaborating more to bring about true IPP. Further, the service model and environment do not appear conducive to collaborative practice, but rather reinforce a siloed approach to managing your clients. Every day you begin to see

examples where increased collaboration would lead to better outcomes but you are really not sure about the best way to translate your new knowledge into practice.

Response to the scenario

In the clinical scenario above, the challenge is not "What is the evidence for IPE and IPP?" but rather, "How does one practically implement this in the real world setting?" The evidence you have engaged with is convincing and coalesces perfectly with your own clinical judgment; the issue now is one of translation. You are standing on the precipice, perhaps even without knowing it, asking yourself how to implement service change to meet global and national health care recommendations that will help to bridge the divide between IP evidence and IP practice in Australia. The critical point to emerge, therefore, is *how the drive towards IPE and IPP is actually interpreted and applied such that it can be translated into the professional practice of speech pathologists*.

Searching the evidence

In order to help answer this question about translation into practice, a systematic search was conducted, sourced from the health databases: ScienceDirect, Medline, ProQuest and the database of Cochrane reviews. The search was conducted using the search terms: (speech patholog* OR speech language patholog*) AND (collaborative practice OR interprofessional practice OR interprofessional education) AND (translation OR outcome). Each search was limited to records in English from 2000 – current. Abstracts were reviewed to determine the publications' relevance to the research question. The breadth of the search strategy was cross-checked using Google Scholar to confirm that all relevant records had been identified. The search revealed 19 key articles that directly addressed the question. Interestingly, most addressed the implementation of IPE within the university education context, with the search revealing few articles exploring IPE/IPP in the health care setting or the impact on client outcomes. Further, many of these studies do not represent robust levels of evidence but report exploratory, descriptive studies as health care teams and academics focus on developing models of IP practice, many of which are still waiting to be rigorously tested.

In addition to the systematic search of the health databases, Google was used to identify literature from Australian and overseas stakeholder groups. It would seem that in almost no other area has so much work been done to synthesise the literature and make it available in such a digestible form. This does mean, however, that the sources of evidence in this field are broader than what we might usually perceive as evidence; taking us beyond the usual stack of journal articles to the 'grey evidence' including reports, policy documents and commissioned literature reviews. Nicol (2013), Siggins Miller Consultants (2012), Nisbet, Lee, Kumar, Thistlethwaite and Dunston (2011), WHO (2006) and WHO (2010) are select examples of these. This material is a good start point for clinicians keen to "dip their toe" into this literature, but who find themselves feeling overwhelmed by the barrier that the myriad of papers, encompassing the different disciplines' cultures, perspectives and philosophies, can pose.

Clinical bottom line

The references set out in Table 2 list selected articles in the allied health literature that have reported on the translation of IPE into practice; not all of these involve speech pathology but the principles are viewed as applicable to our profession. A critically appraised evaluation of the study by McNair, Stone, Sims and Curtis (2005) is included in Table 3.

A thorough analysis of the literature yielded five key themes considered to be critical to driving the IP agenda forward, these are summarised in Table 4. These themes are further explored below, drawing out key practical strategies to facilitate successful translation of IPE and IPP into the workplace, providing the readership with ideas, resources and exemplars to assist them in overcoming the barriers to the implementation of IPE and IPP in their organisation.

Table 2: Articles that report on the translation of IPE into practice

Articles identified	Type/level of evidence	Summary
Copley, J. A., Allison, H. D., Hill, A. E., Moran, M. C., Tait, J. A., & Day, T. (2007). Making interprofessional education real: A university clinic model. *Australian Health Review*, *31*(3) 351–357.	Descriptive study	Provides an overview of a series of innovative community-based IPE placement opportunities based on a model from the social work literature. Methods, experiences and challenges are discussed.
Morrison, S. C., Lincoln, M. A., & Reed, V. A. (2011). How experienced speech-language pathologists learn to work in teams. *International Journal of Speech-Language Pathology*, *13*(4), 369–377.	Descriptive study	Outlines the result of a study exploring how practicing speech-language pathologists' learned to work in teams. Outcomes revealed *teamwork training with other disciplines during university is important,* supporting the integration of IPE within the curriculum.
Reeves, D., Perrier, L., Goldman, J., Freeth, D. & Zwarenstein, M. (2013). Interprofessional education: Effects on professional practice and healthcare outcomes (update) (Review). *Cochrane Database of Systematic Reviews*, *3.*	Level 1 – Systematic review	Presents the outcomes of a Cochrane review of 15 studies to assess the effectiveness of IPE intervention when compared to both professional-specific education and no education. Concludes with the need for more rigorous designs when evaluating IPE, larger sample sizes and the use of control groups.
Sommerfeldt, S. C., Barton, S. S., Stayko, P., Patterson, S. K., & Pimott, J. (2011). Creating interprofessional clinical learning units: Developing an acute-care model. *Nurse Education in Practice*, *11*, 273–277.	Descriptive study	Outlines an IP clinical learning unit set up in acute care (IPCLU) in Canada, designed to enhance the student experience and improve patient outcomes. Full of practical strategies for facilitating collaborative activity in the acute care setting and beyond.
Smith, A., & Pilling, R. (2007) Allied health graduate program: Supporting the transition from student to professional in an interdisciplinary program. *Journal of Interprofessional Care*, *21*(3), 265–276.	Level IV	Provides an account of a training program for new graduates in Victoria to facilitate the transition from student to professional. Methods, participant experiences and impacts for the health service are described.

Source: NH&MRC Levels of Evidence: http://www.nhmrc.gov.au/_files_nhmrc/file/publications/synopses/cp30.pdf

Table 3. Critically appraised article	
Article purpose	To evaluate an IPE intervention for undergraduate nursing and allied health students in rural Victorian health settings. This study presents the model and expands on the evaluation methods.
Article citation	McNair, R., Stone, N., Sims, J., & Curtis, C. (2005). Australian evidence for interprofessional education contributing to effective teamwork preparation and interest in rural practice. *Journal of Interprofessional Care*, *19*(6), 579–594.
Design	Quasi experimental design with pre- and post-questionnaires, and with 12-month follow-up. Statistical analysis was undertaken of the student sample and of self-report ratings of beliefs around IPE, knowledge and skills and attitudes.
Level of evidence	Level IV – Quantitative analysis of qualitative methodology without experimental control
Participants	91 third-year students from medicine, nursing, physiotherapy and pharmacy undertook the IPE placement and completed one or more of the questionnaires at the three time points (pre: 100%, post: 93% and at follow-up: 53%). Students were similarly distributed between urban and rural placements.
Intervention	The Rural Interprofessional Education (RIPE) intervention consisted of a two-week placement of mixed interprofessional groups of approx. 8–10 students incorporating a range of IPE categories. Students worked in small teams that encouraged shared goal-setting, observed a range of IP activities and engaged in an asynchronous on-line discussion forum that reflected on their IP experiences.
Results	Results are reported in three areas. 1) Learner's satisfaction: high levels of satisfaction were reported immediately and at 12 months post placement. Supervision from own and other professions were rated as equally effective. 2) Acquisition of competencies: knowledge and understanding of team roles improved, although respect for other professions and ratings of own knowledge reduced. No gender differences were seen. 3) Changes in IP behaviour: students perceived themselves as having significantly more active participation as a team member and were more confident towards IPP. 4) Intention to work rurally: this was high at pre- and post-time points, possibly reflecting initial interest in IP working, but declined at the 12-months follow-up (despite retained interest in IP).
Limitations	Students were self-selected and highly motivated, making them potentially non-representative of the main cohort and limiting generalisability. The absence of credit for the module may also have skewed recruitment. The sample size for the different professional groups restricted power and no control group was used to compare attitudes to IPE. The study involved students living and working together in a high level of immersion which may have influenced the positive findings. Supervision levels were also consistently high (1:1), along with high expectations and opportunities for reflection.
Summary	The IP experience was a highly positive experience for the students involved, reflecting their initial interest but also demonstrated high levels of satisfaction, knowledge, understanding and confidence in IP that was maintained at 12 months. The study was also viewed as successfully overcoming many logistical challenges and barriers that arise in implementing IPE placements across the curricula of multiple professions. The future challenge was viewed as extending the placement opportunity to more students.

Table 4. Themes identified as enablers to the translation of IPE and IPP

Shared understanding

Embedded interprofessional focus in all education and training

Cultural and organisational change

- The cultural shift
- Structures to enable collaboration
- Champions of change

Strategic partnerships and collaboration

Dissemination

Key themes

Shared understanding

One of the key themes to emerge was the lack of consensus in the terms used within the IP literature, where a wide range of terms are used with, at times, different interpretations. This brings into focus a very real challenge created by different education and health organisations using different terms – for example, IPL, IPP, IPE – leading to potential misunderstandings, team conflict, dysfunction and fragmentation (Stone, 2013). As clinicians, we need to therefore ensure that we understand each other by contextualising our language use, checking for meaning and paraphrasing to facilitate a shared understanding and form a foundation for dialogue and action (Stone, 2013).

Embedded interprofessional focus in all education and training

All health education courses prepare their students for professional health practice; this education can be thought to have a significant bearing on the quality of the health system as a whole. The rationale for the IPE agenda is that learning together facilitates future working together (Thistlethwaite, 2012). Figure 1 details the interdependency of IPE, collaborative practice and client outcomes (D'Amour & Oandason, 2005). Barr and Brewer (2012) present three models for the development of IPE initatives, these range from IPE within concurrent uniprofessional placements, within but external to concurrent clinical placements and within dedicated IP placements. Their chapter explores the resourcing, planning and implementation of this continuum of IP experiences (Barr & Brewer, 2012). There are numerous other examples of IPE initiatives within the allied health literature (Copley et al., 2007; McNair et al., 2005; Sommerfeldt, Barton, Stayko, Patterson & Pimott, 2011). While specific enablers to the development of IPE initiatives could be explored here, the theme that emerged from the literature is that it is not the development of IPE initiatives that is the main challenge, rather embedding and sustaining them (Matthews et al., 2011). Within this context, a cultural shift is identified as a key enabler to embedding IPE across Australia (Matthews et al., 2011).

Cultural and organisational change

The cultural shift

Organisational culture includes the values, beliefs and assumptions about the appropriate ways in which professionals think and behave within a particular organisation and as such, culture has a powerful influence in driving the IP agenda (Siggins Miller Consultants, 2012). The pedagogical shift from uni-professional or discipline-siloed education and practice and the systems that have

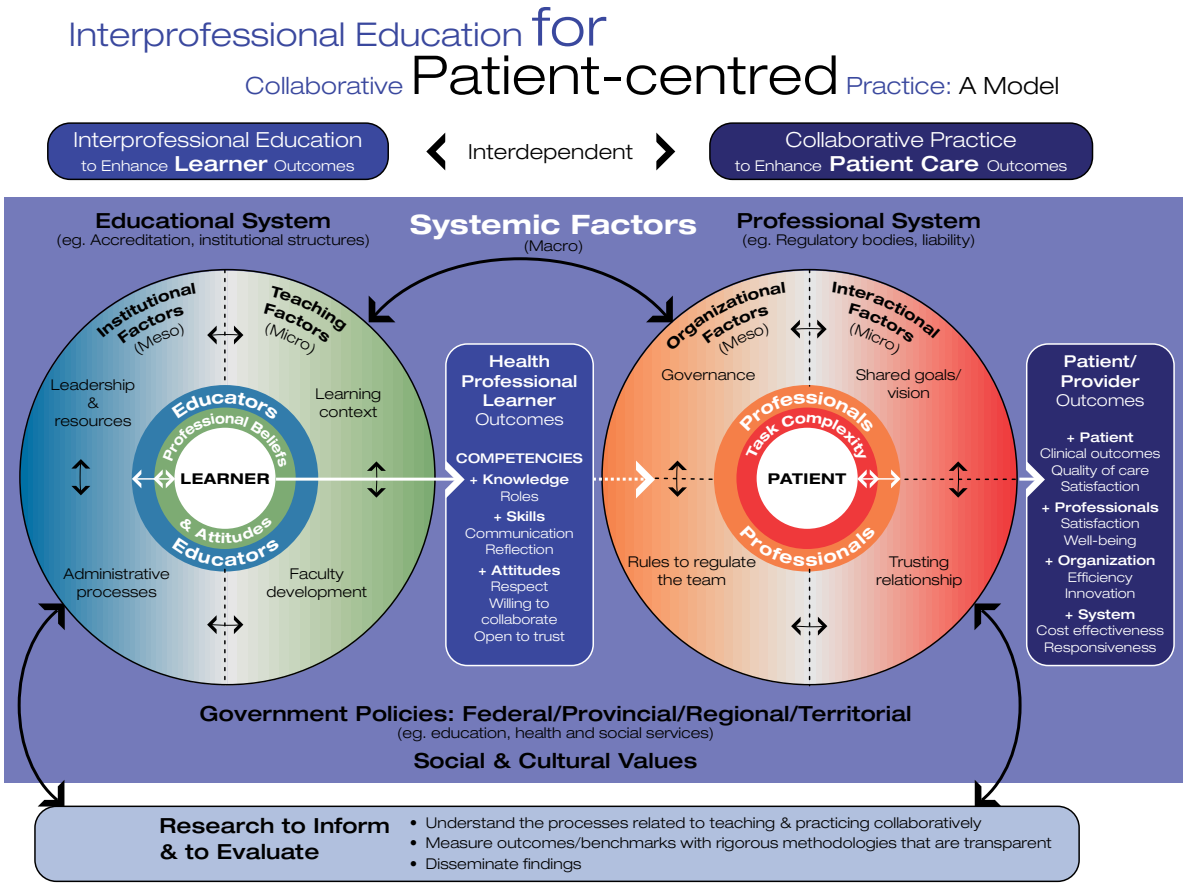

Figure 1. Interprofessional education for collaborative patient-centred practice: A model
(D'Amour & Oandasan, 2005). Reproduced with permission of Ivy Oandasan.

been developed around this represent very real challenges to the translation of IPE and IPP (Goldberg et al., 2012). Ginsburg and Tregunno (2005) highlight a range of issues from the organisational change literature that are relevant to IP initiatives, providing a set of recommendations relevant to individual clinicians and managers. Parker, Jacobson, McGuire, Zorzi and Oandasan (2012) present the Interprofessional Collaborative Organisational Map and Preparedness Assessment (IP-COMPASS), a quality improvement framework that provides a process to support health care organisations to understand and analyse the attributes of organisational culture that can inhibit or conversely enable IPE. This can be used to help guide cultural transformation by bringing people together to engage in a conversation – this dialogue being vital and the first step in culture change.

Structures to enable collaboration

Another key theme to emerge was that policy and service changes are often necessary to facilitate the breakdown of structures (both physical and procedural) that inhibit collaboration. Stone (2006, p. 81) stated that advocacy is required "to bring interprofessional education (IPE) from the margins to the mainstream". While IPE and IPP are now advocated for in national policy documents in Australia (National Health Workforce Taskforce, 2009; Health Workforce Australia, 2011), translation into the health industry is thought to be "in its infancy" (Priddis & Wells, 2011, p. 154). It is therefore argued that advocacy within services will be a key enabler to translating IPE and IPP and should be the focus of clinicians seeking to advocate for changes in their workplace.

Champions of change

The culture of an organisation is inherently linked to leadership and the values, beliefs and assumptions of its leaders (Siggins Miller Consultants, 2012). We are all responsible for progressing the IPE and IPP agenda within speech pathology and thus contribute to the broader agenda across health within Australia. We all have the capacity to impact change within our organisations, regardless of whether we hold formal leadership positions. This might be through developing and implementation a new IP initiative, sharing knowledge with colleagues or lobbying for changes that will enable collaborative, client-centred care within your setting. As clinicians we need the resources and alliances to achieve this; engaging in partnerships and disseminating best practice are key strategies which clinicians must engage to position themselves as *champions of change* and are explored as their own themes below.

Strategic partnerships and collaboration

As detailed in Figure 1, the interface between the education and health sectors is the linkage point for IPE and IPP (D'Amour & Oandason, 2005). In this context, a key driver to change is strong collaboration between the education and health care sectors. There are many such partnerships reported across Australia (Nicol, 2013; The Interprofessional Curriculum Renewal Consortium Australia, 2013). The Office of Teaching and Learning (2012) funded project 'Creating a collaborative practice environment which encourages sustainable interprofessional leadership, education and practice' is an example of one such partnership. This cross-institutional project (Curtin University

and Charles Sturt University) develops cross-sectorial partnerships through the delivery of an IP leadership program for senior health staff, developing leadership and change management capacity of staff and thus building the capacity for IPE and IPE within the health care sector. Chesters and Murphy (2007) detail another such partnership, reporting how the ACT brought together educators, clinicians and government bodies to establish a strategic relationship to design and implement IPL at both the graduate level and the professional level in the ACT. Cross-sectoral relationships should also be strengthened through collaborative research (Matthews et al., 2011), which in turn addresses the need for further research in this field. As part of the HWA Clinical Training Reform (HWA, n.d.), Integrated Regional Clinical Training Networks (IRCTNs) have been developed across all Australian states to bring together individuals from the health, higher education and training sectors. These networks provide the opportunity for individual clinicians with a passion for clinical education and training to network and establish such cross-sectoral partnerships.

Dissemination

Outcomes of innovative IPE and IPP initiatives for the client, health workforce and health system as a whole need to be evaluated and disseminated; however, currently, there is limited research that systematically addresses these in the speech pathology field. Mathews et al. (2011) highlight the urgent need for further research to contribute to the evidence base for IPE and IPP. This sentiment is shared by Goldberg et al. (2012) who call for more rigorous studies into the multiple benefits of IPL. The Interprofessional Curriculum Renewal Consortium, Australia (2013) provides an overview of the evaluation framework regularly used in the IP literature. This framework can be used by clinicians to guide their program evaluation. Through the dissemination of good practice that overcomes historical constrains, clinicians can contribute to the body of literature in this area and individually contribute to this paradigm shift in health service delivery and workforce preparation.

Conclusion

This edition of "What's the evidence?" responded to a clinical scenario where a speech pathologist was not able to action IPP within their workplace. In this case, understanding the social, political and policy drivers towards IPE and IPP is not enough; clinicians need to know how to translate this call to action in the real world of speech pathology practice in Australia. To respond to the scenario, the column explored the evidence for the translation of IPE and IPP concepts and into practice in both the education and clinical practice settings. In doing so, the column draws out key themes identified to facilitate successful implementation of IPE and IPP in the workplace. Clinicians have an ethical responsibility to deliver services based on best evidence and as such, these strategies should be implemented by clinicians to contribute or lead to the implementation of IPE and IPP within their workplaces – be it the education, health, private or public sector.

References

AIPEN. (n.d.). *What is IPE/IPL/IPP?* Retrieved from http://www.aippen.net/what-is-ipe-ipl-ipp#ipl

Barr, H. & Brewer, B. (2012). Interprofessional practice-based education. In J. Higgs, R. Barnett, S. Billett, M. Hutchings, & F. Trede (Eds.), *Practice-based education* (pp. 199–212). Rotterdam, The Netherlands: Sense Publishers.

CAIPE. (2002). *Interprofessional education: The definition*. Retrieved from http//www.caipe.org.uk/resources/defining-ipe/

Copley, J. A., Allison, H. D., Hill, A. E., Moran, M. C., Tait, J. A., & Day, T. (2007). Making interprofessional education real: A university clinic model. *Australian Health Review*, *31*(3) 351–357.

Chesters, J., & Murphy, K. (2007). Stepping up to interprofessional practice: a health department promotes interdisciplinary learning. *Focus on Health Professional Education*, *8*(3), 8–15.

D'Amour, D., & Oandasan, I. (2005). Interprofessionality as the field of interprofessional practice and interprofessional education: An emerging concept. *Journal of Interprofessional Care*, *19*(Suppl.1), 8–20.

Ginsburg, L. & Tregunno, D. (2005). New approaches to interprofessional education and collaborative practice: Lessons from the organizational change literature. *Journal of Interprofessional Care*, *19*(Suppl. 1), 177–187.

Goldberg, L., Koontz, S., Rogers, N. & Brickell, J. (2012). Considering accreditation in gerontology: The importance of interprofessional collaborative competencies to ensure quality health care for older adults. *Gerontology and Geriatrics Education*, *33*(1), 95–110.

Health Workforce Australia. (n.d.). *Integrated regional clinical training networks*. Retrieved from http://www.hwa.gov.au/work-programs/clinical-training-reform/integrated-regional-clinical-training-networks

Health Workforce Australia. (2011). *National Health Workforce Innovation and Reform Strategic Framework for Action 2011–2015*. Retrieved from http://www.hwa.gov.au/sites/uploads/hwa-wir-strategic-framework-for-action-201110.pdf

Institute of Medicine. (2001). *Crossing the quality chasm: A new health system for the 21st century*. Washington DC: National Academy Press.

The Interprofessional Curriculum Renewal Consortium, Australia. (2013). *Interprofessional education: A national audit*. Report to Health Workforce Australia. Retrieved from http://www.hwa.gov.au/sites/uploads/IPE%20Audit%20report%20Jan%202013.pdf

Matthews, L. R., Pockett, R. B., Nisbet, G., Thistlethwaite, J. E., Dunston, R., Lee, A., & White, J. F. (2011). Building capacity in Australian interprofessional health education: Perspectives from key health and higher education stakeholders. *Australian Health Review*, *35*, 136–140.

McAllister, L., Paterson, M., Higgs, J., & Bithell, C. (Eds.). (2010). *Innovations in allied health fieldwork education: A critical appraisal*. Rotterdam, The Netherlands: Sense Publishers.

McNair, R., Stone, N., Sims, J., & Curtis, C. (2005). Australian evidence for interprofessional education contributing to effective teamwork preparation and interest in rural practice. *Journal of Interprofessional Care*, *19*(6), 579–594.

Morrison, S. C., Lincoln, M. A., & Reed, V. A. (2011). How experienced speech-language pathologists learn to work in teams. *International Journal of Speech-Language Pathology*, *13*(4), 369–377.

National Health Workforce Taskforce. (2009). *Health workforce in Australia and factors for current shortages*. Retrieved from http://www.ahwo.gov.au/documents/NHWT/The%20health%20workforce%20in%20Australia%20and%20factors%20influencing%20current%20shortages.pdf

Nicol, P. (2013). *Interprofessional education for health professionals in Western Australia: Perspectives and*

activity. Retrieved from http://www.ipehealth.edu.au/library/content/gateway/IPE_for_Health_Professionals_in_WA.pdf.

Nisbet, G., Lee, A., Kumar, K., Thistlethwaite, J., & Dunston, R. (2001). *Interprofessional health education: A literature review*. Retrieved from http://www.rilc.uts.edu.au/pdfs/IPEAUSlitreview2011.pdf

Office of Teaching and Learning. (2012). *Creating a collaborative practice environment which encourages sustainable interprofessional leadership, education and practice*. Retrieved from http://www.olt.gov.au/project-creating-collaborative-practice-environment-which-encourages-sustainable-interprofessional-l

Parker, K., Jacobson, A., McGuire, M., Zorzi, R., & Oandasan, I. (2012). How to build high-quality interprofessional collaboration and education in your hospital: The IP-COMPASS tool. *Quality Management in Health Care*, *21*(3), 161–169.

Priddis, L. E. & Wells, G. (2011). Innovations in interprofessional education and collaboration in a West Australian community health organization. *Journal of Interprofessional Care*, *25*, 154–155.

Reeves, D., Perrier, L., Goldman, J., Freeth, D., & Zwarenstein, M. (2013). Interprofessional education: Effects on professional practice and healthcare outcomes (update) (Review). *Cochrane Database of Systematic Reviews*, *3*.

Reeves, S., Zwarenstein, M., Goldman, J., Barr, H., Freeth, D., Hammick, M., & Koppel, I. (2009). Interprofessional education: Effects on professional practice and health care outcomes (Review). *Cochrane Database of Systematic Reviews*, *4*.

Siggins Miller Consultants. (2012). *Promoting quality in clinical placements: Literature review and national stakeholder consultation*. Adelaide: Health Workforce Australia.

Smith, R. A., & Pilling, S. (2007). Allied health graduate program: Supporting the transition from student to professional in an interdisciplinary program. *Journal of Interprofessional Care*, *21*(3), 265–276.

Sommerfeldt, S. C., Barton, S. S., Stayko, P., Patterson, S. K., & Pimott, J. (2011). Creating interprofessional clinical learning units: Developing an acute-care model. *Nurse Education in Practice*, *11*, 273–277.

Speech Pathology Australia. (2011). *Competency-based occupational standards for speech pathologists: Entry level*. Retrieved from http://www.speechpathologyaustralia.org.au/library/Core_Assoc_Doc/CBOS_for_Speech_Pathologists_2011.pdf

Stone, N. (2006). The Rural Interprofessional Education Project (RIPE). *Journal of Interprofessional Care*, *20*(1): 79–81.

Stone, N. (2013). Interprofessional learning in the field: Multidisciplinary teamwork. In K. Stagnitti, A. Schoo, & D. Welch, (Eds.), *Clinical and fieldwork placement in the health professions* (pp. 95–114). Melbourne: Oxford University Press.

Thistlewaite, J. (2012). Interprofessional education: A review of context, learning and the research agenda. *Medical Education*, *46*, 58–70.

Wagner, E. H., Austin, B. T., Davis, C., Hindmarsh, M., Schaefer, J. & Bonomi, A. (2001). Improving chronic illness care: Translating evidence into action. *Health Affairs*, *20*(6), 64–78.

World Health Organization. (2006). *Working together for health: The world health report 2006*. Geneva: Author.

World Health Organization. (2010). *Framework for action on interprofessional education and collaborative practice*. Geneva: Author.

Zwarenstein, M., Goldman, J. & Reeves, S. (2009). Interprofessional collaboration: Effects of practice-based interventions on professional practice and healthcare outcomes (Review). *Cochrane Database of Systematic Reviews*, *3*.

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The ethics of interprofessional health care

Considerations for speech pathologists

Trish Bradd, Helen Smith, Noel Muller and Christina Wilson

From top to bottom: Trish Bradd, Helen Smith, Noel Muller and Christina Wilson

Ethical practice is fundamental to the profession of speech pathology. This article explores ethical factors relating to interprofessional practice which may arise when speech pathologists work as part of a clinical team in the provision of care to patients/clients.

Upholding high standards of ethical practice is fundamental for health care professionals, including those within the profession of speech pathology (Speech Pathology Australia [SPA], 2010; Clark, Cott & Drinka, 2007). In health care settings, ethical issues can be described as "standards of practice linked to the dyadic responsibilities of individual providers towards their patients and with each other as professionals" (Clark et al., 2007, p. 591).

The Speech Pathology Australia Code of Ethics (2010) describes the values, principles and standards of practice that underpin the profession of speech pathology in Australia. Professional standards within this code (see 3.4.1) exhort us to work in cooperation with colleagues in order to meet client and community needs as well as those of the profession (SPA, 2010). According to Reeves et al. (2008), patient care is a complex activity which necessitates the effective coordination of health and social care professionals' work, thus there is a responsibility for providers of health care, such as speech pathologists, to work in collaboration with other professionals in the interest of enhanced patient care (Clark et al., 2007).

Interprofessional collaboration (IPC) has been defined as "two or more healthcare team members from different professions working together to provide more integrated care to patients" (Braithwaite et al., 2013, p. 8). In practice, this might include the management of a person with chronic disease with nutritional needs; a child who requires structured learning support at school or a young adult returning to work after a traumatic brain injury.

IPC is a process which positively impacts health care (Zwarenstein, Goldman & Reeves, 2009), and it collectively includes interprofessional learning and interprofessional practice (Braithwaite et al., 2013; Shulman et al., 2007). Speech pathologists participate as members of teams in many workplaces with interprofessional practice considered a core and critical competency for entry level clinicians (SPA, 2011). These teams may be multidisciplinary, interdisciplinary or transdisciplinary in nature (D'Amour, Ferrada-Videla, Rodriguez & Beaulieu, 2005; SPA, 2009) and many national and international guidelines now stress the fundamental nature of IPC to best practice intervention (National Stroke Foundation, 2010).

Interprofessional teamwork is characterised by a high degree of professional collaboration encompassing sharing, partnership and interdependency across health care professionals (D'Armour et al., 2005; Wright & Bratjman, 2011). In such teams, there is a common element of ownership and decision-making as well as an explicit integration of the knowledge and skills of each professional in order to address complex clinical problems (D'Armour et al., 2005).

Policymakers, clinicians, managers and researchers have reported that improved patient safety and quality of clinical care can be positively influenced by strong IPC (Braithwaite et al., 2013; Reeves et al., 2008; Wright & Bratjman, 2011). Other benefits of collaborative interprofessional care have been described as enhanced morale in the health care team, improved patient and family satisfaction and more efficient service provision (Wright & Bratjman, 2011).

Ethical challenges for interprofessional practice

There are a range of barriers to interprofessional practice which may impede effective collaboration at the level of service delivery (Irvine, Kerridge, McPhee & Freeman, 2002). In their Cochrane review of the literature, Zwareinstein et al. (2009) found when different professionals work together in IPC various issues can arise, such as challenging power dynamics, poor understanding of the roles and responsibility of self and others, problematic communication patterns and conflicts in approaches to patient care.

The barriers to interprofessional practice have been described as structural (which impede the development of working relationships at the level of service delivery) as well as cultural or "how things are done around here" (Boomer & McCormack, 2010, p. 636). Here are some examples, within these broad areas, of issues often encountered:

a) structural barriers
- professional divisions with variable authority and divisions of labour (Irvine et al., 2002)
- perceptions of boundary infringements (Reeves et al., 2008)
- medical dominance, including legal responsibility for patient care (Irvine et al., 2002)
- different frames of reference for prioritising clinical problems (Irvine et al., 2002)
- poor coordination of teamwork (Reeves et al., 2008)

b) cultural barriers
- profession-specific world views, where there may be differences in language, vocabulary, approaches to clinical care and different understanding of values and issues (Hall, 2005)
- intellectual and qualitative differences (Irvine et al., 2002)
- issues of professional identity (Braithwaite et al., 2013; Irvine et al., 2002)
- lack of understanding of others' roles (Reeves et al., 2008).

Thus, there is a need to develop and to clearly articulate a shared understanding of the role of the speech pathologist with respect to the interprofessional team in order to minimise the impact of interprofessional barriers. Such interprofessional discussions could include perspectives on moral reasoning and ethics (Wright & Bratjman, 2011). Indeed, professional ethics is one force which can drive the reform of interprofessional relationships in order to ensure greater team effectiveness (Irvine et al., 2002) and ultimately better health outcomes.

While there are a range of approaches to ethical critiques, understanding interprofessional care requires an appreciation of the diversity of subject viewpoints, including those between and within health care professions (Irvine et al., 2002). This, Irvine et al. (2002) suggest, necessitates an openness to concepts of practice ideology, such as understanding and accepting both the social and medical aspects to client care. In practice, this may take numerous forms, for example, how a clinical team incorporates the opinion of the speech pathologist when planning to discharge a patient from the ward.

Attitudes towards interprofessional collaboration

One factor in determining whether IPC is successful lies in the extent to which the attitudes of health professionals are aligned in support of IPC in practice (Braithwaite et al., 2013). In their recent longitudinal Australian study, Braithwaite et al. (2013) concluded that personnel from the major health professions (including speech pathology) generally value IPC, with allied health having the most favourable attitude towards interprofessional practice and doctors the least. More specifically, allied health professionals had more favourable ratings in relation to the quality of interprofessional care, teamwork and collaboration (Braithwaite et al., 2013).

In a practical sense, differences in attitudes may have ethical implications for speech pathologists working in interprofessional teams. Different views of IPC can lead to dilemmas in terms of the delivery of services to clients, for example in areas of confidentiality and privacy, and service provision where there may be differing views of how these are best approached. These differences may need to be explored, discussed and resolved locally in order to "provide clients with access to services consistent with their need" (SPA, 2010, p. 10). For example, negotiating which team members should attend a clinical outreach flight to a remote area community when only three of five members of a paediatric assessment team can be accommodated on the flight.

Ethical reflection in an interprofessional context

Reflective practice is a self-regulatory process that facilitates an enhanced understanding of both the self and the situation with the intention that future actions can be informed by this understanding (Sandars, 2009). Reflection promotes self-awareness, self-monitoring, self-regulation and mindfulness (Mann, Gordon & MacLeod, 2009). Stone, Groesbeck and Parham (2007) note that critical reflection is one of several principles that should underpin the work of community health workers, stating "it is ethically very important to examine practices, structures, and concepts that may maintain inequitable power imbalances" (p. 360). This notion could be extrapolated to speech pathologists working in health care and other team settings. Feedback from professional development activities, student teaching and research in speech pathology settings indicate that critical reflection is used as a tool more often by more experienced clinicians in order to identify and articulate ethical dilemmas. It becomes a part of daily professional practice.

Reflective questions might include:
- What specific knowledge or skills do I bring to the team?
- How could the functioning of the team be improved to benefit the needs of clients?
- Do I hold attitudes which may be restricting optimal teamwork?

Interprofessional practice and ethics as a moral issue

Ethics involves exercising our moral obligation and duty (Clark et al., 2007). In noting that a sole disciplinary perspective is inadequate to account for the diversity of a person's health care needs (biological, psychological, social and spiritual), Wright and Bratjman (2011) suggest that the impetus for health professions to work collaboratively is a moral one. As Zwarenstein et al. (2009) assert, how well different health care professionals work together can influence the quality of the health care provided. Thus, they suggest, if there are difficulties with how health care professionals communicate and interact with each other, problems in patient care can occur (Zwarenstein et al., 2009).

Interdisciplinary moral deliberations are required for reflective and balanced clinical decisions to be achieved in complex clinical scenarios. As health ethics may be viewed differently across disciplines (for example, medical ethics versus social work ethics), a patient-centred approach focused on how patients might be best treated should be taken (Wright & Bratjman, 2011). Wright and Bratjman (2011) also caution that, despite this intent, individual professions may have specific ideas in relation to their contributions in relation to what entails optimal care and how that care is delivered. Such an issue highlights the importance of giving patients and carers a voice in defining "good" health care outcomes.

Ethics and interprofessional practice – addressing the issues

Health care systems are complex entities characterised by competing demands, ongoing workplace reform and changing work environments (Firestone, 2010; McAlearney, 2008; Miller & Gallicchio, 2007). The complex dynamics of individual professionals and their health care team must function within this messy environment (Clark et al., 2007). Addressing the ethical issues which arise from interprofessional practice can similarly be challenging.

An interprofessional ethics framework

As described above, the effectiveness of an interprofessional team is influenced by a range of factors, including shared understanding of team roles and function,

views of the patient/client and their carers, and the strength, experience and limitations of individual disciplines. Teamwork efficiency is promoted by clear team and organisational processes which support teams in their efforts to be effective and efficient (Clark et al., 2007).

In reviewing teamwork within an ethical framework, the principles of beneficence, non-maleficence, truth, integrity, respect for autonomy and justice must be considered by the interprofessional team and should be reflected in how clinical decisions are made (Clark et al., 2007; SPA 2010). For example, an effective family meeting may involve a treating team "pre-meeting" to explore treatment options and ensure a shared understanding of the current clinical picture before presenting the realistic achievable options to patients and their families. It could also include discussion in relation to how team members can demonstrate mutual respect for each contribution to the patient's goals.

Clark et al. (2007) propose a conceptual framework to assist health care teams to understand the ethical parameters of interprofessional teamwork. This comprises three elements which function at individual, team and organisational levels:

- *Principles* – general guidelines for behaviour based on ethical concepts. For example, accepted practice standards of the professions in a team.
- *Structures* – formal and informal processes which include forms of knowledge and patterns of behaviour for individuals and collectively related to teamwork within an organisation. For example, shared awareness of the practice of other professionals on a team.
- *Processes* – procedural factors of interprofessional practice. For example, the development of open communication and dialogue.

The use of such a framework can assist speech pathologists and their teams to further the "discourse on interprofessional ethics" (p. 601) in order to better understand these issues and develop solutions to address them (Clark et al., 2007). Furthermore, collaboration should be understood as a human process as much as a professional one, encompassing both what we know and who we are (D'Amour et al., 2005).

An interprofessional ethic of care therefore may better facilitate patient-centred decisions, particularly if considered within a reflective framework such as the one described.

IPC practice-based interventions

IPC practice-based interventions are strategies put into place in health care settings to improve work interactions and processes between two or more types of health care professionals (Zwarenstein et al., 2009). In their review of the literature, Zwarenstein and colleagues (2009) describe a small number of promising activities which were shown, to varying degrees of robustness, to have positive effects on IPC. These included interprofessional rounds, interprofessional meetings and externally facilitated interprofessional audit processes.

Speech pathologists may have the opportunity to participate in these forms of interventions in their workplace and, where interprofessional skills are not practised, consider advocating for their adoption. For instance, they could reflect on how ward rounds and meetings may be adapted so that perceived power imbalances could be addressed allowing for more opportunities for shared goals and planning. In considering resource allocation, organisations may also need to empower health professionals with the necessary time to participate in IPC.

Interprofessional education

Interprofessional education (IPE) is also seen as one area which may offer a potential avenue for improved collaboration and patient care (Reeves et al., 2008). IPE facilitates an opportunity for different health professionals to engage in shared learning in order to improve collaborative practice and the health care of patients. It therefore has greater potential for improving IPC than multidisciplinary (where there are shared learning experiences but no interaction) or uniprofessional education (where professionals learn independently from one another) (Reeves et al., 2009). Further detailed information in relation to interprofessional health education can be found in the comprehensive literature review completed by the Learning and Teaching for Interprofessional Practice (LTIP) Australia project team (2011).

It is noted that application of an interprofessional approach is growing in student education by higher education providers (LTIP, 2011). A work culture that facilitates this practice is thus important so that students do not disengage when they enter the workforce.

Expanded scope of practice

Currently in Australia, there is much discussion about expanded scope of practice roles particularly for nursing and allied health practitioners; for example, see work undertaken by Health Workforce Australia (2013). These changes in understandings of professional boundaries may lend themselves to conflict and concerns both intra- and interprofessionally (Shulman et al., 2009). For instance, the concept of speech pathologists being credentialed to independently perform FEES or suction through a tracheostomy has led to much controversy in some work places in relation to competency and to issues of potential quality and safety impacts.

Implications for speech pathologists

As members of the health care team, speech pathologists play an important role in the successful application of interprofessional clinical and team-based care in practice. However, as we have endeavoured to demonstrate, interprofessional ways of working may result in speech pathologists facing a range of complex ethical challenges.

In updating and revising the 2002 SPA Ethics Education Package, the SPA Ethics Board has taken the approach of encouraging speech pathologists to integrate ethical decision-making into every day practice, including the way in which ethical dilemmas are viewed and the approaches taken to resolve them. To assist this process, the existing *Ethics Education Package* is being updated and revised to include additional protocols and tools designed to help clinicians to explore, better understand and resolve ethical issues.

These tools provide an excellent resource to assist speech pathologists grappling with issues in relation to interprofessional collaboration. Clinicians are encouraged to reflect on these issues as relevant to their own context and to explore ways to improve interprofessional practice in the interests of enhanced patient care.

Conclusion

As stated in the profession's Code of Ethics, speech pathologists observe the highest standards of integrity and ethical practice as a fundamental professional responsibility

(SPA, 2010). In undertaking this work, speech pathologists are obliged to consider our clients in a broad context and in the community in which they operate. Clients with multiple or complex needs will be increasingly engaging in interventions provided by a range of different practitioners using a range of treatment and care modalities. The profession as a whole as well as individual practitioners need to consider how we respect, collaborate and work with other professionals to improve clinical outcomes and enhance the seamless delivery of services. Interprofessional collaboration including interprofessional learning and practice offers a process with benefits and challenges for practitioners.

References

Boomer, C.A., & McCormack, B. (2010). Creating the conditions for growth: A collaborative practice development programme for clinical nurse leaders. *Journal of Nursing Management*, *18*, 633–644.

Braithwaite, J., Westbrook, M., Nugus, P., Greenfield, D., Travaglia, J., Runciman, W., ... Westbrook, J. (2013). Continuing differences between health professions' attitudes: The saga of accomplishing systems-wide interprofessionalism. *International Journal for Quality in Health Care*, *25*(1), 8–15.

Clark, P.G., Cott, C., & Drinka, T.J.K. (2007). Theory and practice in interprofessional ethics: A framework for understanding ethics issues in health care teams. *Journal of Interprofessional Care*, *21*(6), 591–603.

D'Amour, D., Ferrada-Videla, M., Rodriguez, L.S.M., & Beaulieu, M-D. (2005). The conceptual basis for interprofessional collaboration: Core concepts and theoretical frameworks. *Journal of Interprofessional Care*, Supplement 1, 116–131.

Firestone, D.T. (2010). A study of leadership behaviours among chairpersons in allied health programs. *Journal of Allied Health*, *39*(1), 34–42.

Hall, P. (2005) Interprofessional teamwork: Professional cultures as barriers. *Journal of Interprofessional Care*, Supplement 1, 188–196.

Health Workforce Australia. (2013). *Expanded scopes of practice program*. Retrieved 4 April 2013 from https://www.hwa.gov.au/work-programs/workforce-innovation-and-reform/expanded-scopes-of-practice-project

Irvine, R., Kerridge, I., McPhee, J., & Freeman, S. (2002). Interprofessionalism and ethics: Consensus or clash of cultures? *Journal of Interprofessional Care*, *16*(3), 199–210.

Learning and Teaching for Interprofessional Practice, Australia (LTIP). (2011). *Interprofessional health education: A literature review – overview of international and Australian developments in interprofessional health education*, 1–43. Retrieved 4 April 2013 from http://www.rilc.uts.edu.au/pdfs/IPEAUSlitreview2011.pdf

Mann, K., Gordon, J., & MacLeod, A. (2009). Reflection and reflective practice in health professionals education: A systematic review. *Advances in Health Science Education*, *14*, 595–621.

McAlearney, A.S. (2008). Using leadership development programs to improve quality and efficiency in healthcare. *Journal of Healthcare Management*, *53*(5), 319–33.

Miller, T.W., & Gallicchio, V.S. (2007). Allied health professionals with 2020 vision. *Journal of Allied Health*, *36*(4), 236–240.

National Stroke Foundation. (2010). *Clinical guidelines for stroke management 2010*. Melbourne: Author. Retrieved 4 April 2013 http://strokefoundation.com.au

Reeves S., Zwarenstein M., Goldman J., Barr H., Freeth D., Hammick M., & Koppel, I. (2008). Interprofessional education: Effects on professional practice and health care outcomes. *Cochrane Database of Systematic Reviews*, Issue 1. Art. no. CD002213. doi: 10.1002/14651858.CD002213.pub2

Sandars, J. (2009). The use of reflection in medical education: AMEE Guide No. 44. *Medical Teacher*, 31, 685–695.

Shulman B., Ducharme S., Lefton Grief M., Rosado G., Sancibirian, S., & McNeily, L. (2009). Role ambiguity and speech language pathology. *The ASHA Leader Online*, 15 Dec. 2009. Retrieved from http://www.asha.org/

Speech Pathology Australia (SPA). (2010). *Code of ethics*. Melbourne: Author. Retrieved from http://www.speechpathologyaustralia.org.au/library/Ethics/CodeofEthics.pdf

Speech Pathology Australia (SPA). (2011). *Competency-based occupational standards for speech pathologists: Entry level*. Melbourne: Author. Retrieved from http://www.speechpathologyaustralia.org.au/library/Core_Assoc_Doc/CBOS_for_Speech_Pathologists_2011.pdf

Speech Pathology Australia (SPA). (2009). *Transdisciplinary practice – a position statement*. Melbourne: Author. Retrieved from http://www.speechpathologyaustralia.org.au/library/position_statements/Transdisciplinary_Practice.pdf

Stone, J.R., Groesbeck P., & Parham, M.D. (2007). An ethical framework for community health workers and related institutions. *Family Community Health*, *30*(4), 351–363.

Wright, D., & Brajtman, S. (2011). Relational and embodied knowing: Nursing ethics within the interprofessional team. *Nursing Ethics*, *18*(1), 20–30.

Zwarenstein M., Goldman J., & Reeves, S. (2009). Interprofessional collaboration: Effects of practice-based interventions on professional practice and healthcare outcomes. *Cochrane Database of Systematic Reviews*. Issue 3. Art. no. CD000072. doi: 10.1002/14651858.CD000072.pub2

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Webwords 47

Interprofessional education and practice in SLP

Caroline Bowen

Caroline Bowen

The World Health Organization (WHO, 2010) says that interprofessional collaborative practice occurs "when multiple health workers from different professional backgrounds work together with patient, families, carers and communities to deliver the highest quality care". Observing that elements of collaborative practice include respect, trust, shared decision-making and partnerships, the WHO document goes on to say that interprofessional learning (IPL) exists, "when two or more health professionals learn about, from and with each other to enable effective collaboration and improve health outcomes".

One of the ways IPL can be achieved is through active interprofessional education (IPE), and the terms IPL and IPE are often used synonymously in the health workforce research literature. Integral to interprofessional collaborative practice are the skills of effective interprofessional communication, patient- client- family- community-centred care, role clarification, effectual team functioning, collaborative leadership and interprofessional conflict resolution.

SNAP!

By some strange synchronicity, the neatly plastic bagged 1 June 2013 issue of ***The ASHA Leader***[1] plummeted into Webwords' letterbox, and the ***ASHA Leader Live***[2] (feeless, always attention-grabbing, and anyone can subscribe) appeared in her inbox, at the precise moment that she was coming to grips with the theme for the November 2013 issue of our *JCPSLP*. Our topic? Interprofessional education and practice. ASHA's topic? The power of interprofessional education and practice: Full team ahead.

So, rather than reinventing the wheel, let's explore the bumper harvest of articles in this fascinating issue of the *Leader*, starting with Prelock (2013) and "The magic of interprofessional teamwork". Prelock (2013) deftly canvasses the relevant issues, proposing that communication sciences and disorders (CSD) curricula developers would do well to incorporate the IPE competencies established in 2011 by the **Interprofessional Professionalism Collaborative**[3].

Disdaining the unhelpfulness of institutional silos and divisive academic structures, she emphasises that the curricula of several health-related professions (such as audiology, nursing, nutrition, physiotherapy, social work and SLP) incorporate skill development in similar areas. The areas she names are advocacy, effective communication, ethics, evidence-based practice, family, client- or patient-centred care and teamwork. We could add counselling, health education, mentoring, professional writing, research methodology, student and peer supervision and more. Dr Prelock, who is a Dean of Nursing, Professor of Communication disorders and the 2013 President of ASHA, sees the presence of these curricular commonalities as an opportunity to bring pre-professionals together in the classroom or clinical education unit for IPL. Such a coming together in learning spaces might serve to break down potential professional competition, sticking points, rivalries and territorial and other conflicts, while promoting mutual understanding, cooperation and collaboration.

Warming to the policy aspects of the interprofessional collaborative practice topic, ASHA staffer McNeilly (2013) outlines the findings of ASHA's 2012 Health Care Landscape Summit, which highlighted IPE as a top priority. She notes that a new committee whose membership will include a physician, a nurse and a physiotherapist, will identify specific strategies and actions to help prepare ASHA members to be actively engaged in collaborative education and practice.

In a feature-length contribution entitled "So long, silos" Pickering and Embry (2013) argue the need for graduate programs to teach CSD students how to work with other professionals, suggesting how it might be done. In the course of their elucidation of 10 steps we can take to cultivate interprofessional collaboration in classrooms, clinics and communities, they link to the WHO (2010) discussion of the global significance of interprofessional collaboration in its Framework for Action on **Interprofessional Education and Collaborative Practice**[4].

Addressing the issue from the viewpoint of practising clinicians who did not learn about interprofessional collaboration as students, Fagan, Knoepfel, Panther and Grames (2013) review opportunities to learn about other disciplines that are provided by the many employers who recognise that "joint learning" can help break down interdisciplinary barriers.

Asserting that IPE leads to better patient outcomes, Rogers and Nunez (2013) perceive some of the challenges to making it happen. Stressing the need for interprofessional collaboration as a means of reducing duplication of effort, enhancing safety and delivering higher quality health care, the authors point to a 26-item behavioural assessment developed by ASHA in collaboration with 10 other professional associations. When it has been appraised and refined, clinical educators in a range of disciplines will be able to use this tool, called the "Interprofessional Professionalism Assessment", to rate supervisees on their professionalism when interacting with other health professionals. The assessment is being evaluated in terms of its validity and utility in a pilot project that is ongoing until June 2014.

A curious aspect of the *Leader*'s special issue on interprofessional education and practice is that all the authors were SLPs (though one of them had dual qualifications in audiology), meaning that none of the articles were prepared in collaboration with colleagues from other fields; and we don't hear from consumers who are integral to any transdisciplinary team. Just saying. Overall, the articles are imbued with an optimistic energy and enthusiasm for the topic, coupled with a sharpened awareness of the difficulties associated with implementing the policies and procedures that are presented.

Slim pickings

What do the other five Mutual Recognition of Professional Association Credentials (MRA) signatories have to say about interprofessional education and practice on their publicly available pages? Well, compared with ASHA's abundant offerings we find slim pickings. Starting at home, Speech Pathology Australia has a 2009 Position Statement on Transdisciplinary Practice. CASLPA's open access CJSLPA/RCOA journal includes a 2003 article "Knowledge of the roles of speech-language pathologists by students in other health care programs". Digging deep down into the depths of the IASLT site, Webwords discovered two relevant sentences in its Code of Ethics:

> *A member must share information, knowledge and skills with fellow professionals, students and support staff as appropriate. A member may liaise with other professionals as appropriate for the purposes of providing the best service to the client unless it is contrary to the wishes of the client.*

NZSTA models interprofessional collaboration by including links to Allied Professional Associations in New Zealand on its website (they are the Allied Health Professional Associations Forum AHPAF, Audiology NZAS, Occupational Therapy NZAOT, and Physiotherapy NZSP), while the **RCSLT**[5] has an interesting page on professionalism at work and another containing information about the Health and Care Professions Council (HCPC).

A view from medicine in Australia

Taking stock of interprofessional learning in Australia from a **medical standpoint**[6], Brooks, Greenstock, Moran and Webb (2012) aver that IPL is a debated topic in health professional education and in the related research literature, with those staunchly in favour pitted against those firmly opposed to it. The authors make six key assertions, slightly paraphrased below.

- Changes in health service delivery and issues of quality of care and safety drive interprofessional practice, and IPL is now a requirement for the accreditation of medical schools.
- There is international agreement that learning outcomes frameworks are required for the objectives of IPL to be fully realised, but debate over terminology persists.
- Interprofessional skills can be gained from formal educational frameworks, at pre- and post-registration levels, and in work-based training.
- Research suggests that many consider that IPL delivers much-needed skills to health professionals, while some systematic reviews show that evidence of a link to patient outcomes is lacking.
- Australian efforts to develop an evidence base to support IPL have progressed, with new research drawing on recommendations of experts in the area, and the focus has now (in 2012) shifted to curriculum development.
- The extent to which IPL is rolled out in Australian universities will depend on engagement and endorsement from curriculum managers and the broader faculty.

Professionals can acquire knowledge, learn important skills from each other, and gain valuable insights in IPL/IPE settings, possibly leading to enhanced client/patient/student care, more harmonious workplaces and enriched job satisfaction. Speech and language professionals can also learn much from the specific interprofessional collaborative practice experiences and research, including IPE and IPL, coming from other disciplines such as medicine. Can we look forward to reading, contributing to and citing a *Journal of Interprofessional Collaborative Practice* one day, crammed with articles co-authored by health practitioners from a range of professions, with consumers as transdisciplinary team members all infused with the IPL/IPE bug? Oh, as you were, Webwords, **there's this**[7]!

References

Brooks, P., Greenstock, L., Moran, M. & Webb, G. (2012) Taking stock of interprofessional learning in Australia. *Medical Journal of Australia 196*, 707. Available at https://www.mja.com.au/journal/2012/196/11/taking-stock-interprofessional-learning-australia

Fagan, E., Knoepfel, E., Panther, K. & Grames, L.M. (2013, 1 June). On-the-job cross pollination. *The ASHA Leader*.

McNeilly, L. (2013, 1 June). Health care summit identified need for interprofessional education. *The ASHA Leader*.

Pickering, J. & Embry, E. (2013, 1 June). So long, silos. *The ASHA Leader*.

Prelock, P. (2013, 1 June). From the president: The magic of interprofessional teamwork. *The ASHA Leader*.

Rogers, M. & Nunez, L. (2013, 1 June). From my perspective: How do we make interprofessional collaboration happen? *The ASHA Leader*.

World Health Organization. (2010). *Framework for action on interprofessional education and collaborative practice*. Geneva, Switzerland: Author. Available at http://www.who.int/hrh/resources/framework_action/en/index.html.

Links

1. http://www.asha.org/leaderissue.aspx?year=2013&id=2013-06
2. http://www.asha.org/Publications/enews/Leader-Live/
3. http://interprofessionalprofessionalism.weebly.com/
4. http://www.who.int/hrh/resources/framework_action/en/index.html
5. http://www.rcslt.org/speech_and_language_therapy/health_professions_council
6. https://www.mja.com.au/journal/2012/196/11/taking-stock-interprofessional-learning-australia
7. http://informahealthcare.com/jic

Webwords 47 is at www.speech-language-therapy.com with live links to featured and additional resources.

Top 10 transdisciplinary resources

Nicole Limbrick

Nicole Limbrick

I am a new graduate speech pathologist who recently commenced work as an Early Childhood Intervention Officer in Shepparton, Victoria. My practice follows the transdisciplinary model and our team consists of speech pathologists, an occupational therapist, physiotherapist and educational advisor. While my specialist knowledge is within the speech pathology realm, I take on a more generalist role as a key worker for families of children with developmental delays and disabilities. I also provide consultations for team members from other disciplines if children have communication or feeding needs.

Ultimately, thinking outside the square is essential when working in transdisciplinary teams because activities need to target broader goals – such as fine and gross motor skills as well as communication development. In my experience, working in a transdisciplinary team is supportive and there are many learning opportunities. However, the transdisciplinary model of practice can be challenging. The Top 10 resources listed have a paediatric slant and are frequently relied upon in our team. A big thank you to the colleagues who helped me compile this list!

1 Visuals

Never underestimate the power of visuals. Visuals are used by all members of our transdisciplinary team for a variety of purposes, including daily routines, schedules, social stories, regulation of emotions, and communication. For instance, visuals are essential for implementing the *Picture Exchange Communication System [PECS]* (by A. S. Bondy & L. Frost (1985); available from Pyramid Educational Consultants).

Boardmaker is an essential computer program (available from $589.00 from Spectronics, http://www.spectronicsinoz.com/) for generating visuals or symbols for a wide range of vocabulary items. If creating visuals from scratch is too time-consuming, *Boardmaker Share* is a handy website (http://www.boardmakershare.com/) where you can access thousands of ready-made *Boardmaker* resources (e.g., books, schedules, activities) for free. There are also online resources that contain ideas for incorporating visuals in practice. For instance, the *Getting Started* resources (http://carsonst.wa.edu.au/parent-info/getting-started-books/) by speech pathologist Dolly Bhargava outline strategies for using visuals to target communication, play and self-esteem development, positive behaviour and emotional management.

2 Key Word Sign resources

Key Word Sign (KWS) is used by our team to promote children's communication development and participation in daily life by enhancing their comprehension and ability to follow routines. KWS can positively impact children's well-being and overall development. Resources available from Key Word Sign Australia include books containing vocabulary and scripts for using signs in common activities, a CD-ROM, and a DVD (http://www.newcastle.edu.au/research-centre/special-education/key-word-sign-australia/signing-resources/). KWS workshops are held throughout Australia and are well worth attending.

Nursery Rhymes to Sing, See and Sign resources include visuals, KWS posters and song lyrics (e.g., "Wheels on the Bus", "Baa Baa Black Sheep") with corresponding KWS. These free resources are great for early language stimulation and encouraging emotional attachment between children and caregivers (http://www.scopevic.org.au/index.php/site/resources/nurseryrhymes).

3 Hanen resources

The Hanen resources are renowned among speech pathologists for their evidence-base, sought-after training workshops and parent-friendly manuals. Our entire team frequently turn to the *More than Words* and *It Takes Two to Talk* manuals for early communication strategies to combat the age-old question: "How do I get my child to talk?" The techniques fit well into families' everyday routines and are appropriate for use with children with language delays and autism spectrum disorder. The pictures, minimal speech pathology jargon and simple step-by-step strategies make the Hanen techniques suitable for implementation by other professionals under the guidance of speech pathologists. Hanen resources can be purchased online from Dart Products (www.dartproducts.com.au).

4 Developmental Occupational Therapy (WA) Inc. resources

Our occupational therapist introduced me to the DOT (WA) website (http://dotwa.org.au/play-and-early-learning-handouts/). There are play, motor skill and early language handouts that are suitable for parents and professionals.

They are print-friendly, contain plenty of photos and cover some key areas of development. Speech pathologists will find the handouts for book-sharing and playing with children particularly relevant. These can be provided to parents or professionals to support early language strategies. There are also handouts for teaching new skills and promoting motor skill development, which contain ideas for incorporating occupational therapy and physiotherapy goals in sessions and family routines.

5 iPad

Controversial? Yes. Useful? Absolutely. When used appropriately, the iPad is a great tool for targeting a range of holistic goals. The phenomenal range of apps currently available means there is an app for almost everything. Some apps (e.g., *Fluid*) are great for sensory stimulation, while other apps that involve tracing around letters and shapes can also be used to target phonological awareness, vocabulary development and fine motor skills. There are also social story and augmentative and alternative communication (AAC) apps available, including *Sonoflex*. These are available via the iTunes app store (https://itunes.apple.com/au/).

The camera feature on the iPad is great for taking photos of places, people and objects to make visuals and social stories for children. The video camera feature can be used to video children (with consent) to measure progress over time. If the iPad is connected to wi-fi, users can access the internet to search the web for visuals and information about services, as well as send emails when away from the office. This is essential for communicating with other team members.

6 One Step at a Time toileting resource

The majority of families referred to our service have concerns surrounding toilet training. Toileting tends to be an occupational therapist's area of specialty but there are a range of skills covered in the *One Step at a Time* booklet (available to download from http://www.continencevictoria.org.au/resources/one-step-time) that can benefit the practice of speech pathologists working as key workers. The booklet is designed to guide parents through each aspect of the toilet training process, including raising awareness of wet and dry. There are also tip sheets relating to common concerns for parents, such as bedwetting.

7 Feeding courses and resources

Holistic management of children with complex needs often involves management of children with feeding issues, particularly fussy eaters. Other team members will look to a speech pathologist for guidance. Feeding management tends to be a complex, specialist area for speech pathologists and typically postgraduate training is sought. Courses such as the *SOS Approach to Feeding*, run by Dr Kay Toomey and Dr Erin Ross, have a great reputation (http://www.feedingworkshops.com/); but if attending a course is not an option, there are other resources available. For instance, one of my colleagues recommended *Pre-Feeding Skills: A Comprehensive Resource for Mealtime Development* (2nd ed.) by S. E. Morris & M. D. Klein (2000; Pro-Ed, Austin, TX).

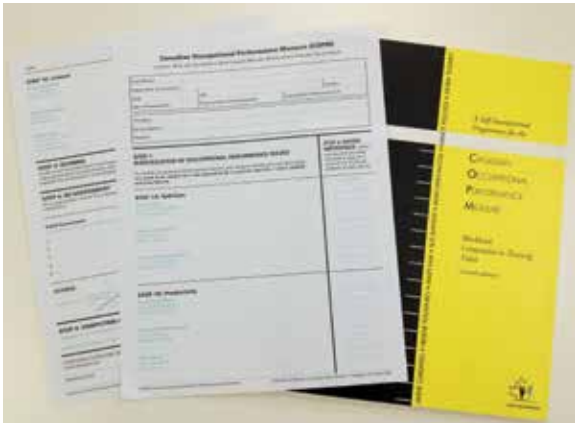
8 Raising Children Network

The Raising Children Network website (http://raisingchildren.net.au/) is bursting with parent-friendly information and online videos relating to children aged from birth to early teens. Information includes what to expect with children's physical, social, emotional and communication development within each age bracket. The website has tips and ideas for enhancing children's development and promoting positive parent–child interactions, such as providing play ideas (e.g., choosing toys) and encouraging good behaviour. These areas are relevant across a range of disciplines. The website also lists details of various Australian services and organisations, which can help with the service coordination aspect of the key worker role.

9 Canadian Occupational Performance Measure (COPM)

by M. Law, S. Baptiste, A. Carswell, M. A. McColl, H. Polatajko, & N. Pollock. (2005). *Canadian occupational performance measure [COPM]* (4th ed.). Ontario, Canada; available from Occupational Therapy Australia, www.otaus.com.au

The *COPM* is an outcome measurement and goal-setting tool developed by occupational therapists and used by our entire team. This tool helps to extract the key areas of concern for the family regarding the child. Goals can then be devised collaboratively between the professional and the family based on the identified issues. A caregiver is required to score the child's current performance, their level of satisfaction with the child's current performance, and the importance of the issue to them across each identified area of concern. Reassessment occurs six months



later to measure change. The COPM is a handy tool for prioritising family's goals or areas of concern across all areas of child development, including social skills, self-care, communication, physical mobility and behaviour. Therefore, it can be a useful tool for professionals in determining children's holistic needs and the potential need for team members from other disciplines to become involved.

10 Play dough

I never appreciated the many uses of humble play dough until I began working in a transdisciplinary team. There are plenty of opportunities for language modelling and vocabulary development (e.g., colours, shapes, animals, verbs) while also targeting fine motor skills (e.g., hand strength) and gross motor skills (e.g., reaching across the midline, maintaining upright posture). Moulding play dough into shapes of objects can also target symbolic play skills. Messy play with play dough, which is a wet firm texture, can help gradually expose children with sensory preferences to different textures. Although play dough is not a food, it can also be used in activities to desensitise children to wet textures in preparation for introducing new food types with fussy eaters. Plus, play dough is fun and lots of children love it!

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The top ten resources mentioned above are based on the author's personal opinions, not those of the Department of Education and Early Childhood Development.

JCPSLP notes to authors

The Journal of Clinical Practice in Speech-Language Pathology (*JCPSLP)* is a major publication of Speech Pathology Australia and provides a professional forum for members of the Association. Material may include articles on research, specific professional topics and issues of value to the practising clinician, comments and reports from the President and others, general information on trends and developments, letters to the Editor, and information on resources. Each issue of *JCPSLP* aims to contain a range of material that appeals to a broad membership base.

JCPSLP is published three times each year, in March, July, and November.

Issue	Copy deadline (peer review)	Copy deadline (non-peer review)	Theme*
Number 2, 2014	3 December 2013	1 February 2014	Policy and Practice
Number 3, 2014	12 April 2014	27 June 2014	Modes of research in clinical practice
Number 1, 2015	1 August 2014	14 October 2014	TBA

* articles on other topics are also welcome

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Articles will be checked by a copy editor to ensure consistent presentation and standard of English.

Length

Articles should not usually exceed 3500 words (including tables and references). This is equivalent to approximately 11 double-spaced pages. Longer articles may be accepted, at the discretion of the editors. For further information go to **http://www.speechpathologyaustralia.org.au**

Format

The article should be submitted electronically via email (as an attachment). One hard copy and a copy on disk (preferably in Microsoft Word) is required if the article contains symbols (e.g., phonetic font).

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Articles submitted to *JCPSLP* generally undergo a double-blind peer-review process. The article will be sent to two expert reviewers. The authors will be provided with information from the review process and will be invited to revise and resubmit their work if this is indicated. The sentence "This article has been peer-reviewed" will appear after the title for all peer-reviewed articles.

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