Journal of Clinical Practice in Speech-Language Pathology

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Clinical education

In this issue:

The development of effective reflective practice

Frameworks for managing ethical dilemmas

The process of becoming a clinical educator

New graduates' readiness to work in the area of dysphagia

The success of particular clinical education models

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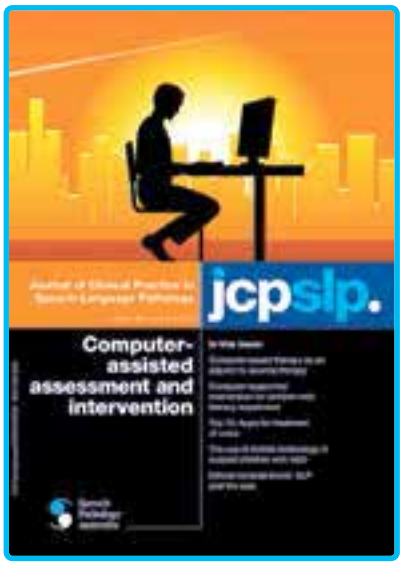

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From the editors

Anna Copley and Jane McCormack

The latest iteration of the *Competency-based Occupational Standards for Entry-Level Speech Pathologists* from Speech Pathology Australia places a strong emphasis on clinical education (or workplace learning) in Unit 6 – Professional and Supervisory Practice. The capacity to understand and engage in effective supervisory practice is considered an important, or indeed an essential, skill for speech pathologists.

Participating in clinical education and supervision is a challenging, stimulating, and fulfilling experience, which has as many valuable outcomes for clinical educators as it does for the students they supervise. As McAllister and Lincoln noted in 2004, benefits of clinical education include: continuous development of clinical knowledge and skills, development of knowledge and skills in education, development of personal and interpersonal skills and development of cognitive skills.

We are delighted to present this issue of *JCPSLP*, which focuses on clinical education. Papers within the journal have been written by practising speech pathologists, university clinical education staff, researchers in the field of clinical education and students undertaking workplace learning. Thus, this issue of the journal examines the topic of clinical education from a range of perspectives.

Papers focus on the development of effective reflective practice (Lewis), frameworks for managing ethical dilemmas during workplace learning (Bourne and colleagues, Quail and colleagues), the process of becoming a clinical educator (Stewart), the process of becoming proficient in speech pathology skills (Olwen Smith and colleagues), and the success of particular speech pathology and clinical education programs (Hill and Cardell; Johnson and colleagues; McAllister and colleagues).

Within this issue of *JCPSLP*, regular columns such as "Webwords" also focus on clinical education, and final-year speech pathology students from Charles Sturt University contribute their list of "Top Ten" resources for successful workplace learning experiences.

We hope you enjoy this issue of *JCPSLP* and gain some valuable information and strategies to assist in future clinical education experiences!

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Student-delivered intensive smooth speech programs for adolescents and adults who stutter

A preliminary exploration of student confidence, anxiety, and interest

Elizabeth Cardell and Anne Hill

KEYWORDS
COMPETENCIES
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STUTTERING

THIS ARTICLE HAS BEEN PEER-REVIEWED

Elizabeth Cardell (top) and Anne Hill

Gaining clinical competencies in the assessment and management of stuttering is challenging for speech pathology students in many university programs. Lack of local expertise in fluency management and funding shortfalls have resulted in a paucity of quality services in public and private health facilities and schools for adolescents and adults who stutter (AAWS). One method of developing competencies and capacity to support student learning and the needs of AAWS is through student-led intensive smooth speech programs. This study investigated 38 students' perceptions of their anxiety, confidence, and interest levels in working with AAWS. This information was collected prior to and immediately following participation in 5-day intensive programs. Results indicated that students' reported levels of anxiety decreased and that their confidence and interest levels in working with AAWS increased following the program. The benefits of student-delivered intensive programs in clinical education and elements that contribute to their success are discussed.

Stuttering affects approximately 4–5% of children and 1–2% of the adult population (Craig, 1998) and has the potential to have marked negative educational (e.g., Anderson & Conture, 2000; Ribbler, 2006), social (e.g., Linn, 1998; Messenger, Onslow, Packman, & Menzies, 2004), and vocational (e.g., Hayhow, Cray, & Enderby, 2002; Klein & Hood, 2004) consequences for the individual. Recent reviews and studies support the growing view that there is a strong relationship between stuttering and anxiety and/or social phobia in adulthood (Blumgart, Tran, & Craig, 2010; Iverach et al., 2009; Iverach, Menzies, O'Brian, Packman, & Onslow, 2011), and that overall quality of life can be compromised for people who stutter (Yaruss, 2001; Craig, Blumgart, & Tran, 2009). Therefore, it is imperative that services for individuals who stutter are available.

For some time in Australia, access to services for adolescents and adults who stutter (AAWS) has been somewhat problematic due to the specialist nature of the disorder and the lack of local expertise in many parts of the country. However, the last decade has seen an even greater decline in services due to reductions in public funding, a pattern which has led to increased access through private practice or university clinics. Services for AAWS remain limited, despite recurring and continuing strong evidence of the efficacy of speech restructuring treatment programs (e.g., Andrews et al., 1983; Bernstein Ratner, 2010; Boethe, Davidow, Bramlett, & Ingham, 2006; Craig, 1998; O'Brian, Onslow, Cream, & Packman, 2003; Onslow, 2000). Lack of services has resulted in limited clinical placements for speech pathology students in the area of adolescent and adult stuttering, with some universities developing in-house placements to accommodate this need.

Research has shown that the level of student confidence in areas of practice has strong links to the areas in which they seek to practise upon graduation (Yaruss, 1999). Unfortunately, research also has shown that many speech pathologists are uncomfortable treating adults who stutter (Yaruss, 1999; Yaruss & Quesal, 2002) and that this discomfort relates to their clinical experiences as a student. Fewer practitioners who are confident in their ability to manage stuttering leads to fewer opportunities for students to gain clinical experience, resulting in fewer future clinicians who are competent in the area. The cycle continues, leading to diminishing services and fewer advocates for services when funding cuts are imminent or have occurred.

To address issues related to professional preparation for stuttering management and delivery of best-practice treatments for people who stutter, Block, Onslow, Packman, Gray, and Ducakis (2005) reported a student-led model for intensive treatment for AAWS using the evidence-based speech restructuring technique of smooth speech. Smooth speech generally incorporates programmed instruction to modify some or all of the parameters of breathing, phonation, articulation, and prosody in order to promote continuous speech flow and airflow and eliminate muscle tension (Cardell, 2012). The cumulative outcomes from Block and colleagues' (2005) research at La Trobe University demonstrate that the student-driven model has comparable efficacy outcomes to clinician-run programs, as measured by reduction in stuttering behaviours. However, while this program has reported general success in up-skilling speech pathology students, specific short-term and longer term student outcomes (including their confidence and interest) have not yet been reported in

the literature. It could be argued that students' improved confidence, knowledge and skills in stuttering management may have positive effects on their seeking employment and/or advocating for services for people who stutter, and thus build capacity in an area of practice that is currently lacking in many communities.

The current study aimed to evaluate students' confidence and perceived competence, and interest in managing AAWS pre- and post-participation in an intensive smooth speech program. It is acknowledged that longitudinal investigation is important to fully determine the impact that such student training models have on the workforce. The present investigators have undertaken this enquiry as part of a larger study. However, this paper will focus on and present data from the first round of this study. Specifically, the present investigation aimed to:

1. determine students' perception of their confidence across generic skills (e.g., rapport, interviewing) and stuttering-specific skills (e.g., measurement, using smooth speech), and knowledge about stuttering (e.g., behaviours, management)
2. determine students' perceived level of anxiety about interacting with AAWS
3. ascertain students' interest with working with AAWS after graduation.

Method

Ethical clearance was obtained through the University of Queensland Human Research Ethics Committee. In total, data has been collected from five 5-day intensive fluency programs (2009–12). Four of these programs implemented the La Trobe University Smooth Speech Program (S. Block, personal communication, 21 July 2008), and one program followed the intensive smooth speech program model developed by the Mater Health Services, Brisbane, based on the Prince Henry Smooth Speech Program (Ingham & Andrews, 1973; also see Craig et al., 1996).

Participants

Fifty students from The University of Queensland, Division of Speech Pathology, volunteered to participate in five intensive fluency programs. All students consented to participate in this phase of the study. All students were in the final year of their undergraduate or Masters speech pathology program, and had completed the academic course in fluency disorders which included practical clinical skills development in stuttering identification, speech rating, and treatment planning. All participants were female.

In order for their data to be included, the students must have attended four or five days of the intensive smooth speech program, which ran for five consecutive days from 8.30am to 6.00pm. In addition, students must have completed pre- and post-clinic questionnaires. Twelve students were subsequently excluded from this study because they did not meet these criteria. There were 38 final participants. Participation in the intensive smooth speech program was voluntary and students' performance was not formally assessed, although extensive clinical feedback was provided. Students were invited to participate in the research study but were informed that non-participation would not limit their involvement in the intensive program. In addition, students were advised that they were free to withdraw from the research at any time.

Procedure

The intensive smooth speech program comprised two stages which facilitated students' development of clinical skills in fluency management. In the week prior to the start of the program, students attended a half-day briefing session with two staff in order to review theoretical and practical requirements for the program. The structure of the program and their roles as students were clearly outlined, along with expectations of their preparation for the program, such as reviewing theoretical perspectives in stuttering management. Within this session, students also engaged in practical activities – observing videos of clients to identify stuttering behaviour, practising their measurement skills (e.g., fluent and stuttered syllable counting at different speech rates), and practising smooth speech skills. Students were instructed to practise their measurement and smooth speech and skills from audio exemplars provided in the days leading up to the program.

Students attended and delivered the 5-day intensive smooth speech program under the supervision of experienced speech pathologists. The main formats of the two intensive programs are summarised, as follows:

1. The La Trobe program generally takes AAWS who have had no previous treatment and systematically trains their smooth speech using criterion-driven progression across 10 stages (Block et al., 2005). Stages I to III teach smooth speech constructs across consonants, syllables, words, phrases, and short sentences. Stages IV to X comprise structured measurement sessions. Starting at 60 syllables per minute (SPM) clients engage in reading, conversation, and monologue tasks. From 60 SPM, clients advance to 80, 80–100, and 120 SPM where a 0 to 9 point naturalness rating scale is introduced. From there, 150 and 170 SPM are targeted, with Stage X representing the client's "comfort rate", that is, the speech rate at which the client is 100% fluent with natural sounding speech, while using all smooth speech parameters. In this study, we followed the La Trobe Intensive Smooth Speech Student Manual and program. Clients received this treatment with two student clinicians who rotated around the clients but still had a key responsibility for one client. Importantly, too, group activities were conducted each day, starting as clinical educator-led sessions and moving to student-led sessions as the week progressed. Transfer of fluency skills began on day 1, with transfer activities (including home-based activities) increasing as the week progressed.
2. The Mater Health Services intensive fluency program has its origins in the original Prince Henry Smooth Speech Program (Ingham & Andrews, 1973; also see Craig et al., 1996). Prior to participating in an intensive program, the AAWS will have received around 15 to 20 hours of therapy to instate the fundamentals of smooth speech. As such, clients enter the intensive program with some mastery of smooth speech skills at 50, 100, and 150 SPM. Therefore, the intensive program is part of a management continuum, and its goal is to consolidate smooth speech skills and enable transfer. Most of the sessions are conducted in large or small groups, with some individual treatment for specific problem-solving and transfer activities. In the group sessions, structured smooth speech measurement sessions, using a variety of activities, promote conversation and monologue at 50 and 100 SPM on day 1. Faster speech rates are targeted from day 2. While transfer activities are incorporated from day 1, these assume a large focus in days 3 to 5. In addition, formal self-evaluation,

relaxation, and cognitive restructuring sessions are undertaken on a daily basis. In this program, the students participated largely in an observational capacity on the first day. Over the week, the students gradually assumed greater responsibility for running the group sessions, overseeing individual sessions, and mentoring transfer tasks. Student pair mentors were assigned to specific clients and maintained a support relationship with them for all transfer and home-based tasks and problem-solving.

Under both intensive program formats, students were supervised in their practice at all times by clinical educators with specialist fluency skills and, as previously stated, students had the opportunity to engage with all clients across the week, both in individual and group sessions, in order to gain a breadth of skills in fluency management and to facilitate transfer for the clients.

Data collection tools

Two questionnaires were used to determine the students' confidence in clinical skills and perceptions when managing AAWS, along with their perceived anxiety and interest pertaining to working with AAWS. Students completed the first questionnaire at the start of the briefing session. The second questionnaire was completed at the end of the final day of the smooth speech program.

The two questionnaires were developed by the authors and were based on Kirkpatrick's (1994) learning and training evaluation theory to target aspects of student skills and knowledge in managing people who stutter. The first questionnaire (pre-clinic) contained 21 items, all rated using 5-point Likert-type scales. One item sought students' perceptions of their level of anxiety in working with clients with fluency difficulties, with another item seeking students' level of interest in working in this area following graduation. In these items, a rating of 0 represented *not anxious/ interested* and a rating of 4 indicated *extremely anxious/ interested*. Students' reported levels of confidence in their clinical skills were evaluated by asking students to rate their extent of agreement with 13 statements, where 1 indicated *strongly disagree* and 5 indicated *strongly agree*. Three items were focused on generic clinical skills such as establishing rapport and interacting with clients and 10 items were specifically related to skills in working with clients who stutter, for example, calculating stuttering frequency and providing smooth speech treatment. In addition, the questionnaire evaluated students' perceptions of their level of knowledge about stuttering as a disorder and its impact. The second questionnaire (post-clinic) contained the same 21 items as the first questionnaire, plus four open-ended questions specifically related to students' views of operational aspects of the intensive program.

Data analysis

Descriptive statistics were used to determine means and standard deviations of students' self- ratings pre-and post-clinic. The Wilcoxon Signed Rank test was used to determine whether changes observed in ratings were significant. This non-parametric test is considered appropriate for investigating the difference between data from distribution-free matched samples (Howell, 2010). All statistical analyses were carried out using the Statistical Package for the Social Sciences (SPSS) version 19. Responses to open-ended questions in the post-clinic questionnaire were not analysed in this phase of the study.

Results

Confidence

In line with Kirkpatrick (1994) and our interest in questions related to students' perceptions of competency development, separate analysis was undertaken for generic skills, specific skills, and knowledge areas. Confidence in all skills increased from pre- to post-clinic to a significant level. Table 1 details students' reported confidence levels in the generic clinical skills. Mean pre-clinic ratings ranged from 3.421 (interviewing skills) to 4.237 (professional interaction) on the 5 point rating scale, while post-clinic ratings ranged from 4.579 to 4.684. These changes represented significant increases for rapport development ($z = –4.894$, $p = .000$), interviewing skills ($z = –4.454$, $p = .000$), and professional interaction ($z = –3.441$, $p = .001$).

Students' reported confidence levels in skills specifically related to the disorder of stuttering are shown in Table 2. Mean pre-clinic ratings ranged from 2.132 (mentoring others inexperienced in fluency management) to 3.132 (identifying and classifying stuttering behaviours) on the 5-point scale, while post-clinic measures ranged from 3.342 (reporting management for a client who stutters) to 4.447 (providing smooth speech treatment). Significant increases in confidence post-clinic were noted for the skills of assessment ($z = –5.316$, $p = .000$), identifying and classifying stuttering behaviours ($z = –4.743$, $p = .000$), measurement and calculating stuttering frequency ($z = –4.880$, $p = .000$), selecting a suitable fluency treatment ($z = –4.725$, $p = .000$), using smooth speech ($z = –5.417$, $p = .000$), providing smooth speech treatment ($z = –5.376$, $p = .000$), teaching on error ($z = –5.295$, $p = .000$), and mentoring others ($z = –5.256$, $p = .000$). An increase approaching significance (with "significant" conservatively defined by the authors as $p < .01$ due to the use of nonparametric statistics) was noted for the skill of reporting management for a client who stutters ($z = –2.429$, $p = .015$).

The pre- and post-clinic confidence levels perceived by students in relation to knowledge are reported in Table 3. Mean pre-clinic ratings ranged from 2.421 (smooth speech technique) to 3.61 (impact of stuttering) on the 5-point scale, while post-clinic measures ranged from 3.947 (service delivery formats for stuttering intervention) to 4.632 (impact of stuttering).

Statistically significant increases were reported by students in relation to their knowledge of the disorder of stuttering ($z = –4.068$, $p = .000$), assessment ($z = –5.062$, $p = .000$) and treatment ($z = –4.888$, $p = .000$) practices, the impact of stuttering ($z = –54.572$, $p = .000$), the technique of smooth speech ($z = –5.396$, $p = .000$), and service delivery formats for stuttering intervention ($z = –5.054$, $p = .000$).

Anxiety

Students' self-reported level of anxiety about working with AAWS was evaluated on a scale from 0 to 4 where 0 represented *not anxious* and 4 indicated *extremely anxious*. Significant decreases ($z = –4.932$, $p = .000$) from pre-clinic ratings ($M = 2$, $SD = 0.52$) to post-clinic ratings ($M = 0.21$, $SD = 0.49$) were found.

Interest

Students reported their interest in working with AAWS following graduation on a scale from 0 to 4 where 0 represented *not interested* and 4 indicated *extremely interested*. Their interest significantly increased from pre-clinic ratings ($M = 2.74$, $SD = 0.08$) to post-clinic ratings ($M = 3.42$, $SD = .07$) ($z = –4.32$, $p = .000$).

Table 1. Students' (n = 38) mean pre-post ratings of generic skill levels in working with clients who stutter

Questionnaire statements	Pre-clinic ratings*		Post-clinic ratings*		Wilcoxon Signed Rank Test values
"I feel confident in my ability to …."	Mean	SD	Mean	SD	
Establish rapport with a client who stutters	3.921	0.428	4.684	0.471	$z = -4.894$, $p = .000$**
Interview a client who stutters about personal information	3.421	0.889	4.579	0.5	$z = -4.454$, $p = .000$**
Interact in a professional manner with a client who stutters	4.237	0.59	4.632	0.489	$z = -3.441$, $p = .001$**

* Responses were obtained on an ordinal scale of 1 to 5 where 1 = *strongly disagree* and 5 = *strongly agree*.
** = statistically significant result $p < .01$. p values are two-tailed.

Table 2. Students' (n = 38) mean pre-post ratings of stuttering-specific skill levels in working with clients who stutter

Questionnaire statements	Pre-clinic ratings*		Post-clinic ratings*		Wilcoxon Signed Rank Test values
"I feel confident in my ability to …."	Mean	SD	Mean	SD	
Conduct an assessment with a client who stutters	2.395	0.679	4.342	0.534	$z = -5.316$, $p = .000$**
Identify and classify stuttering behaviours	3.132	0.811	4.290	0.460	$z = -4.743$, $p = .000$**
Calculate stuttering frequency	2.684	0.775	4.108	0.567	$z = -4.880$, $p = .000$**
Accurately rate the speech of a client who stutters	2.368	0.675	4.316	0.620	$z = -5.380$, $p = .000$**
Select the appropriate treatment programme for a client who stutters	2.658	0.745	3.919	0.759	$z = -4.725$, $p = .000$**
Use smooth speech skills effectively to assist treatment	2.316	0.62	4.421	0.500	$z = -5.417$, $p = .000$**
Provide smooth speech treatment to a client who stutters	2.316	0.612	4.447	0.555	$z = -5.376$, $p = .000$**
Teach on error when smooth speech is incorrect	2.474	0.762	4.395	0.595	$z = -5.295$, $p = .000$**
Write a report outlining assessment and treatment for a client who stutters	2.892	0.966	3.342	0.669	$z = -2.429$, $p = .015$
Mentor other clinicians who are inexperienced in stuttering management	2.132	0.811	4.000	0.771	$z = -5.256$, $p = .000$**

* Responses were obtained on an ordinal scale of 1 to 5 where 1 = *strongly disagree* and 5 = *strongly agree*.
** = statistically significant result $p < .01$. p values are two-tailed.

Table 3. Students' (n = 38) mean pre-post ratings of level of knowledge

Areas of knowledge	Pre-clinic ratings*		Post-clinic ratings*		Wilcoxon Signed Rank Test values
	Mean	SD	Mean	SD	
The disorder of stuttering	3.395	0.718	4.053	0.517	$z = -4.068$, $p = .000$**
The assessment of stuttering behaviours	2.79	0.664	4.132	0.578	$z = -5.062$, $p = .000$**
The treatment of stuttering	2.79	0.704	4.132	0.529	$z = -4.888$, $p = .000$**
The impact that stuttering has on a person	3.61	0.823	4.632	0.541	$z = -4.572$, $p = .000$**
The technique of smooth speech	2.421	0.642	4.421	0.642	$z = -5.396$, $p = .000$**
The service delivery formats for stuttering intervention	2.447	0.686	3.947	0.655	$z = -5.054$, $p = .000$**

* Responses were obtained on an ordinal scale from 1 to 5 where 1 = *limited knowledge* and 5 = *very good knowledge*.
** = statistically significant result $p < .01$. p values are two-tailed.

Discussion

The results from the study indicated that student-delivered intensive smooth speech programs increased students' perceptions of confidence when managing AAWS across generic and stuttering-specific competencies and knowledge. Furthermore, participation in the clinics significantly reduced students' anxiety about the caseload and fostered greater interest in working with AAWS. While these results were not unexpected, they nonetheless reinforce the proposition that the student-delivered intensive smooth speech clinical education model seems to be providing appropriate experiences for students that are difficult to gain in the current workforce.

Pre-testing of students' confidence in generic skills such as establishing rapport, interviewing, and professional interaction revealed levels well above the neutral 3 rating. This result suggested successful, cumulative development of these skills from prior clinical and academic experiences. Even so, immediately following the program, confidence significantly increased to yield mean ratings above 4.5. Not surprisingly, students' confidence about specific skills related to stuttering was lower than for the generic skills prior to the program. Here, most ratings were below 3, which is indicative of less-than-neutral confidence. That all except one area averaged 4 or above post-clinic, illustrates that the clinical experience was a powerful facilitator for developing stuttering-specific skill sets in which students reported confidence. The area of report writing did not show the same increase as other stuttering-specific areas, and it must be noted that students did not write an evaluation report as part of their placement. Clearly, report writing needs to be incorporated in future programs. Of note, the largest increases in confidence were seen for (a) conducting stuttering assessment, (b) measurement, (c) using smooth speech, (d) teaching smooth speech to AAWS, (e) teaching on error, and (f)

mentoring inexperienced clinicians. If students' perceptions of confidence translate to *actual* clinical competencies, the present results are very encouraging. However, an important consideration in relation to students' perceived increase in confidence levels is that such perceptions are not always justified (Eva & Regehr, 2005), nor do they automatically lead to or correlate with increases in competence (Schunk, 1995). In consideration of this possibility, some data have been collected on actual competence change as part of our larger study, in order to look at relationship between perception and ability.

Gains in students' reported knowledge about stuttering were also significant. Pleasingly, our students entered the clinic with "some" to "quite a bit" of knowledge about assessment, treatment, the smooth speech technique, and service delivery, along with "quite a bit" to "good" knowledge of the disorder of stuttering and the impact of stuttering in the individual. Therefore, it appears that the academic program had been successful in providing students with a solid foundation of specific theoretical and practical knowledge in the areas of stuttering. However, participating in the intensive clinic boosted students' knowledge significantly across all areas, such that all ratings were around or above "good". The value of intensive clinical models for developing perceptions of competence and their confidence, particularly in needed practice areas, seems to be considerable.

Students demonstrated moderate levels of anxiety about working with AAWS prior to the clinic, but these decreased significantly to a very low level which was slightly above "not anxious", post-clinic. Chan, Carter, and McAllister (1994) stated that anxiety affects the nature and quality of clinical education experiences for speech pathology students. Our finding that anxiety levels related to the stuttering caseload decreased markedly by the end of the clinic suggest that the intensive clinical environment was conducive to student learning. Factors that may have contributed to a reduction in anxiety included that students worked in pairs, had readily available clinical supervision and clinical demonstrations, had clear timetables, therapy programs and clinical expectations, and engaged in regular briefing and debriefing sessions. In combination, these factors created a scaffolded learning environment that facilitated performance along with a sense of being in control, which has been found to be critical to performance success (Hanton & Connaughton, 2002). Indeed, it is well known in the stress research literature that feeling in control of a situation is related to lower levels of stress and/or anxiety (Barlow, 2002). The intensive programs were structured to engender this sense of control in our students. Perhaps too, the students' reports of reduction in anxiety were related to the positive increases that students showed in their confidence and knowledge, such that students believed that they knew more and could do more by the end of the clinic. Further investigation of the complex relationships surrounding students' confidence, sense of control, and knowledge in clinical settings is warranted.

Lastly, the students' interest in working with AAWS started with relatively high pre-clinic levels (i.e., 2.74 on a 4-point scale) indicating that the students were "quite" to "very" interested. As the program was a volunteer clinic, this initial figure was expected. Nonetheless, post-clinic interest levels were significantly raised, with the students' mean response falling between "very interested" and "extremely interested". This measure of interest was important as it not only validates the intensive smooth speech program as a model that appears to be positively enhancing clinical learning, but suggests that these students might contemplate being future practitioners in the area now that they are equipped with knowledge and skills that they feel very confident about (Yaruss & Quesal, 2002). Hence, the intensive programs are currently building capacity in the profession by providing future practitioners with clinical competencies in the much-needed area of stuttering. Hopefully, this endeavour will translate to future increases in services for AAWS. Already, we have seen positive impact from the intensive clinics in building more stuttering services through some graduating students. The complete results from this longitudinal phase of our study will be reported in the near future.

In conclusion, the student-delivered intensive smooth speech programs provided students with valuable clinical experiences that otherwise would have been difficult to attain. The results of this study suggest that tracking of competencies through evaluating students' perceptions of confidence and skill demonstrated the value of this type of enquiry, irrespective of the area of practice, and we feel that the questionnaires were sensitive to key areas and change. It is acknowledged that a limitation of the data reported in this study is that students' perceptions of confidence and knowledge may differ from actuality. This provides an avenue for further investigation through application of behavioural and competency measures. Nonetheless, that the outcomes were overwhelmingly positive across all areas in this study indicates that intensive clinical student models cannot be underestimated in terms of the multi-layered experiences that they provide students in preparing them to be confident practitioners.

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Developing speech pathology clinical competency

Are there predictors for success?

Robyn Johnson, Alison Purcell and Emma Power

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THIS ARTICLE HAS BEEN PEER-REVIEWED

Robyn Johnson (top), Alison Purcell (centre) & Emma Power

Learning the necessary skills to become a speech-language pathologist is a complex task. It involves academic and clinical learning as well as the students' own personal characteristics (e.g., learning, health, thinking, gender, age). However, there is little published research worldwide regarding student skills that will predict clinical success in speech language pathology (SLP). We present a summary of the literature regarding the impact of clinical failure for SLP students and the potential predictors to success or failure in this development. Variables that may influence student clinical performance are discussed with specific emphasis on the student characteristics. We conclude that further research into early predictors of clinical success is warranted.

Learning the necessary skills to become a speech-language pathologist is a complex task. Speech-language pathology (SLP) students spend several years acquiring the theoretical knowledge needed to be competent across the areas of practice identified by Speech Pathology Australia (Speech Pathology Australia, 2003). Graduating SLP students must also demonstrate competency in both discipline-specific and more generic clinical skills common to all health professionals (Clouten, Homma, & Shimada, 2006). A proportion of students have difficulty acquiring the required level of clinical competency and identifying these students early in the first years of SLP study is extremely challenging. Failing clinical placements can have serious ramifications for these students. Early identification of those at risk of clinical failure would allow time for additional specific learning support to take place before starting clinical placements. It would also allow additional support to be provided over longer periods of time. This support would aim to minimise the number of students who experience clinical difficulties and failure.

There is little published research regarding predictors of clinical success in SLP. Indeed, Ho and Whitehill (2009) identified that SLP clinical education as a whole is under-researched. A handful of studies have examined variables that may influence or predict academic and clinical success (Forrest & Naremore, 1998; Halberstam & Redstone, 2005; Kjelgaard & Guarino, 2012; Shapiro, Ogletree, & Dale Brotherton, 2002). For the most part, studies of clinical education in SLP (and other fields) have examined variables that are in the control of the universities themselves, i.e., the provision of academic and clinical education (including the skills of the clinical educators). Further, this research has predominantly concentrated on predictors of academic success. Very few studies examine predictors of clinical success, e.g., Shapiro et al. (2002) and Dowling (1985).

Surprisingly, there has been little research into the thinking and learning skills health sciences students bring to their tertiary education. This may be due in part to differing priorities of university staff and students. The differences were described by Alhaqwi, Molen, Magzoub, and Schmidt (2010), who examined opinions on effective clinical learning in medical students and educators in Saudi Arabia. They found that students focused on opportunities for clinical learning and "their own strengths and weaknesses as learners" (p. 12), while educators focused on "creating the learning environment" (p. 13). It may be that student factors are less represented in the literature because the researchers (who are mainly educators) have focused more on understanding their own area of interest, the learning environment.

SLP studies have recognised academic success as a contributor to students successfully developing competent clinical skills (McAllister, Lincoln, Ferguson, & McAllister, 2011). Thus, providing additional academic support may be one way to improve clinical competency for struggling students. However, the success of providing additional academic support may be limited if the students' clinical difficulties exist at least in part due to issues with their clinical education placement and/or their own characteristics. In Figure 1, we provide a simple representation of the way features (broadly represented in the literature) may contribute to development of a competent entry-level clinician. These features include tertiary academic education, clinical education and the students' characteristics. Further investigation of the impact of these three features is necessary to ensure appropriate assistance for SLP students experiencing difficulties in the acquisition of clinical competency.

This paper presents a narrative summary of the literature regarding the impact of clinical failure on SLP students and the potential predictors of success or failure in their development. The variables that may influence

a student's clinical performance, as shown in Figure 1, will be discussed with specific emphasis on student characteristics.

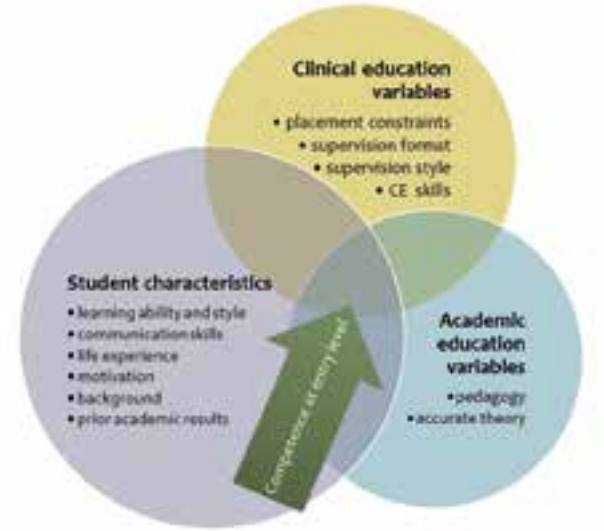

Figure 1: Variables in clinical skills development

Literature search method

To conduct this narrative review, the initial search strategy was developed by identifying relevant keywords and searching Ovid, ProQUEST and Google Scholar. Search terms included: student learning, clinical success, clinical education, allied health, SLP, physiotherapy, occupational therapy, health, students, medicine and nursing. The articles were scan-read by the first author and excluded if they did not address SLP clinical education or predictors of clinical success in any of the health sciences fields noted. In addition, further articles were identified through review of reference lists.

Impact of clinical failure on students

Failing a clinical placement may have a number of consequences for students. These consequences have not been widely explored in the literature. However, our team has observed that failure may impact on students in a variety of ways (outlined in Figure 2). Failing a placement is usually distressing for the student and may lead to personal consequences, such as loss of confidence or family censure. Students may experience negative financial consequences from this failure. For example, they may be required to pay for the subject again if it is repeated or may risk losing a scholarship if its continuance is dependent on both academic and clinical success. It some cases, students may need to extend the length of their studies or even to consider an alternative career. There may also be intense family pressure to succeed or maintain high standards of success. Failing a final-year clinical placement when the student "should be better" or are "nearly there" is observed to be particularly difficult, and leaves little time for improvement. Dowling (1985) also observed "the agony experienced by clinicians who have had successive clinical failures and then have to select an alternate career late in their academic and clinical programs" (p. 54).

Despite this range of negative consequences, SLP students have differing responses to clinical failure (Nemeth & McAllister, 2010). Nemeth and McAllister (2010) observed that some students are ready to learn from failure and go on to do so with the support of their clinical educator (CE).

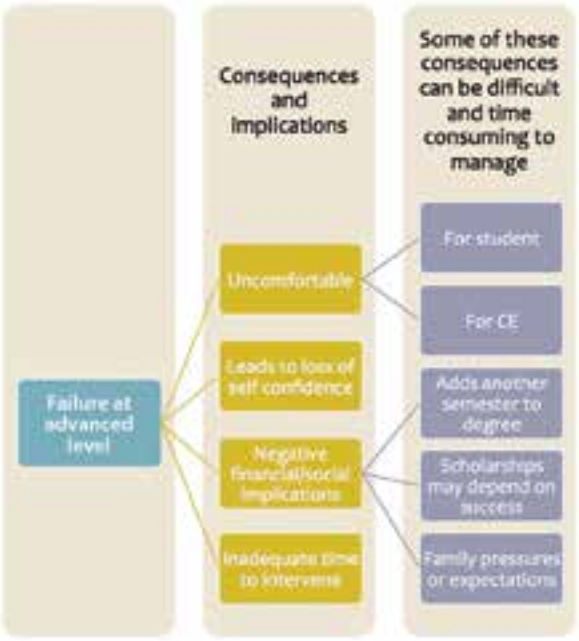

Figure 2: Consequences of failure

In contrast, other students lack awareness or insight into their difficulties, may be angry at their failure and are not ready to use it as a learning experience. It is likely that the personal characteristics and skills students bring to each placement influence whether they are ready or not to learn, whether from failure or success.

Minimising the number of students failing clinical placements, particularly in their final year, would help reduce the number of students who suffer these negative consequences. As noted by Dowling (1985), one way to achieve this goal is the early identification of students at risk of clinical failure.

Predictors

The development and assessment of clinical skills of SLP students on clinical placements have been more widely researched (McAllister, Lincoln, Ferguson, & McAllister, 2010; McAllister et al., 2011) than the impact of clinical failure on the students. Ideally, we need to assist students as early as possible to allow time for development. However, to do this we need a greater understanding of predictors of success or failure to develop clinical skills. Presently there is little research in this area available in the field of SLP. There are some broader studies in medicine, nursing and allied health fields that may provide some guidance on important factors for success and failure.

Figure 3: Themes among predictors of success

Studies from Nottingham University in the UK (Yates, 2011, 2012; Yates & James, 2006, 2007, 2010) have described in increasing detail a range of predictors of "struggling" medical students who have significant academic and/or clinical difficulties. These predictors can be categorised into three main areas: prior academic performance, the students' background and learning skills as shown graphically in Figure 3.

1. Prior academic performance

The Nottingham Medical School studies (Yates & James, 2006, 2007) identified significant predictors of poor performance to be lower school leaving exam results, negative comments in academic references and late offer of a place. In their 2007 study, they identify that the students with lower school leaving results were indeed at greater risk of failure in the first two "preclinical" years.

The limited amount of information available in SLP comes from a small number of studies undertaken in the USA. These studies were driven by the oversubscription of accredited graduate programs and their need to select the candidates most likely to develop into competent clinicians (Forrest & Naremore, 1998). As in the Nottingham studies, prior academic performance was identified as a predictor of overall success for SLP students. For instance, Forrest and Naremore (1998) sampled a small number of students (n = 45) from four cohorts in the 1990s and reported that the best predictor of success in a postgraduate SLP course was undergraduate grade point average (GPA). Somewhat surprisingly, SLP students with a major in a subject that was not speech, language and hearing were more successful. Halberstam and Redstone (2005) also found that the strongest correlation associated with both academic and clinical success was undergraduate GPA, and that letters of recommendation were also significant indicators. Additionally, there were weak and non-significant correlations in the areas of age (also suggested by Forrest and Naremore (1998) and a first language other than English, with Halberstam and Redstone reporting that these students were "more likely to be rated as weak" in the research process (p. 269). Halberstam and Redstone (2005) did not observe or describe clinical skills development in detail, as their focus was on overall academic and clinical success outcomes. Kjelgaard and Guarino (2012) reviewed the records of several cohorts of students and also found that undergraduate GPA was a strong predictor of success.

It is difficult to apply these results to Australian SLP programs, where selection does not generally include letters of recommendation and there are dual entry pathways to the profession (under- or postgraduate degrees), while the USA has postgraduate only. It is also difficult to compare a postgraduate program with an undergraduate program due to the very different starting points of the students, even though the outcome of both is qualification as a speech-language pathologist. It may be that the results are more applicable to SLP masters programs, depending on admission processes. In any case, these results seem to indicate that those students with high tertiary entry scores are more likely to succeed overall in the degree than their peers with lower scores.

2. Student background

The effect of students' background on their learning has been more widely studied in medicine than SLP and other allied health professions. This includes their gender, age, ethnicity/culture and life experience among other areas (including physical and mental health). At Nottingham Medical School, the less significant risk factors were being male, lower science grade at school and "not being white". They found that in the clinical portion of the course "non-white ethnicity" was the most consistent predictor of "struggling". The researchers found these unsurprising, "being the opposite of those factors that have been reported to predict success" (p. 1011). They did not assess factors such as cultural influences or communication ability but acknowledged these as important issues in medical education. Kay-Lambkin, Pearson, and Rolfe (2002) aimed to observe the relationship between student background information and academic success in the first year of medicine at the University of Newcastle, NSW. Aboriginal, Torres Strait Islander or overseas students had increased academic difficulty in the first year. The need for additional support for these students was identified. Kay-Lambkin also recommended following the progression of these students in later years of the course. Chew-Graham, Rogers, and Yassin (2003) discussed the underreporting of mental health issues by medical students. It is likely that this is also common in other health sciences students.

Recently, many universities have made commitments to social inclusion, including widening participation in further education (University of Sydney, 2012). Students from more varied backgrounds may have problems developing their clinical competencies (Attrill, Lincoln, & McAllister, 2012), which may in turn be due to weaker oral and written communication skills as well as cultural differences. These students may be more likely to require supplementary placements or additional support on placement in order to develop the required competencies.

3. Students' own learning skills

The learning skills of students in the health professions have not been widely researched. Zoghi et al. (2010) surveyed the learning style preferences of Australian health science students; however, there were no SLP student respondents identified.

Sharby and Roush (2009) reviewed the literature on allied health university students with disabilities. They identified that the most common disabilities reported by university students, including those of allied health disciplines (specifically physiotherapy), were learning disabilities. These included language-based learning disabilities such as "acquisition and use of listening, speaking, reading, writing [and] reasoning … skills" (p. 55). As most learning at university is language based, these students tend to struggle, particularly in the rigorous environment of allied health professional education. Sharby and Roush (2009) reported that language-based learning disabilities are deeply concerning to university staff, who feel that accommodating specific learning needs will "diminish academic integrity" or "compromise patient safety" (p. 55). They listed a range of behaviours of students with learning disabilities, many of which can also be seen in SLP students struggling to develop their clinical skills: verbal problem-solving difficulties, over-focusing on details, difficulty distinguishing important from less important information, ineffective written expression including narrative disorganisation, and cognitive inflexibility. Luhanga, Yonge, and Myrick (2008) described similar difficulties in "unsafe" nursing students, who were either providing unsafe care or having "marked deficits in knowledge and psychomotor skills, motivation, or interpersonal skills" (p. 214).

There are no published studies to date regarding language-based learning disabilities in SLP students. Given the high level of verbal and written communication skill required to be a competent speech pathologist, it may be that such language-based learning disabilities would present a more significant barrier to achieving clinical competence in our field. Further research in this area is warranted to discover if this is the case.

Shapiro et al. (2002) described the prevalence of marginal students in American Speech Hearing Association accredited graduate programs as around 8% and discussed the significant impact this small proportion of students has on the process of clinical education. The prevalence of these difficulties in undergraduate prequalification SLP courses is not known nor are the markers identifying such students known. A small number of studies (Dowling, 1985; Nemeth and McAllister, 2010) have described a range of characteristics of marginal SLP students. These characteristics include interpersonal, written/verbal communication and cognitive difficulties and reflect those of students with language learning disabilities described by Sharby and Roush (2009).

There is a consensus that all health professionals need effective communication skills (Australian Physiotherapy Council, 2006; Clouten et al., 2006; Sharby & Roush, 2009). For SLPs, there is arguably an even greater requirement of proficiency in both verbal and written communication skills (Speech Pathology Australia, 2011) as they need to be able to communicate clearly with others about communicating – and many of these others are clients who may have significant communication difficulties. In clinical interactions, speech language pathologists must be able to 1) understand and synthesise information which may not be presented clearly, 2) quickly compare this with literature and their own clinical experience, then 3) translate essential points into language the client will understand. All speech-language pathologists must be able to use these very high-level communication skills in order to be competent as clinical specialists in the area. The first author worked with communication impaired adolescents for many years and now works as a full-time clinical educator (CE). Her clinical impression is that some SLP students fail clinical placements due to high-level communication difficulties. We need to understand whether these difficulties do in fact contribute to poor performance on clinical placements. This would provide a useful addition to a toolkit aiming to identify students who are likely to struggle in clinic as early as possible.

Skills of educators/supervision styles

There is a wide range of literature discussing the skills of clinical educators in nursing and SLP literature. In SLP, this makes up a large proportion of the current literature around clinical learning.

Luhanga et al. (2008) referred to the distressing (to both CE and student) nature of providing clinical teaching to "unsafe" nursing students. As in SLP, these marginal students were identified through observation and close monitoring by the CE, usually early in the placement. The CE then sought additional support from academic staff at the university and from colleagues, and the concerns were discussed with the student. Hopkins (2008) described the importance of early identification of potential barriers to learning in an associate nursing degree and monitored the students closely during one first-semester subject (of a four-semester degree). Both of these papers discuss strategies to facilitate learning rather than identifying early predictors of difficulties.

Ho and Whitehill (2009) researched the effectiveness of two different models of supervision: immediate verbal feedback in a group and delayed individual written feedback (self-reflection and from the CE). Some students in their study identified that their spoken language was superior to their written language, which had impacted on their feelings about and success in the written feedback group. Joshi and McAllister (1999) also discussed supervision styles of CEs within SLP, and mention that most studies in the area identify that CEs do not alter their supervisory style in response to the needs of the student (including learning style level of experience or dependence) even when prompted by self-critiques.

The possibility that students have learning difficulties rather than simply different learning styles was not considered in these studies. Further research in this area is essential to fully understand the underlying needs of these vulnerable students and to plan effective support mechanisms for them where possible.

Identification of students with marginal clinical skills

The underlying communication, reasoning and thinking skills of SLP students have rarely been researched. Most of the literature discusses both clinical and academic learning. It seems that it has been assumed that all prequalification SLP students have excellent skills in these areas. This is unlikely to be the case for "traditional" students and with present university commitments to social inclusion it is less likely.

Yates (2011) described a "toolkit" of predictors to identify these marginal medical students – these are: failure in three or more academic modules, a low overall pass mark in the early years, poor attendance at meetings or compulsory teaching, unprofessional behaviour, health or social problems and failure to complete compulsory vaccination schedules on time. They suggest that using a combination of markers is likely to give a more accurate prediction of overall success on the course than academic results alone. We believe that this approach would be easily transferable to identifying similar predictors in SLP students.

Limitations

This paper highlights the lack of research into the influence of student characteristics on clinical success or failure. It is possible that a systematic review may identify further studies. However, this was beyond the scope of this review and our search was comprehensive. Further investigation and research in the areas discussed is clearly warranted.

Conclusion

There is a range of literature regarding clinical education in SLP and other health sciences. This material mainly addresses the academic and clinical education variables that are in the control of the universities. The literature rarely discusses the students' own skills or attempts to identify predictors of successful clinical learning. Early identification of students at high risk of failing clinical placements would allow their learning to be better supported. It is hoped that the additional learning support will reduce the number of students who fail clinical placements. In addition, the interventions used with these students could be reviewed and their efficacy assessed. Further research is needed to help SLP programs identify and support these marginal students.

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Speech and language therapists learning to be clinical educators

Julia Stewart

This paper considers the factors which might be important to speech and language therapists (SLTs) as they learn to be clinical educators. It draws on an interpretative study that asked ten SLTs in the UK to explain how they felt they had developed the skills necessary to supervise students' learning. The themes of talk, collaboration, reflective practice and experiential learning were central to the stories told by the participants and highlight the diverse range of skills which SLTs draw on to support the limited formal clinical education training they receive.

KEYWORDS
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THIS ARTICLE HAS BEEN PEER-REVIEWED

Julia Stewart

Over a decade ago, McAllister (2001) suggested that clinical education was underresearched in the United Kingdom. This paper addresses this gap. It explores the professional development of SLTs as clinical educators, specifically focusing on how clinicians learn to be clinical educators (CEs) once they have qualified as SLTs and are ready to supervise students themselves.

Recent research in the area of clinical education has considered how language is used by both students and CEs in student–supervisor conferencing (Ferguson, 2010); the use of different placement and supervisory models in current clinical practice (Sheepway, Lincoln, & Togher, 2011) and issues and innovations in clinical education (Cruice, 2005; McAllister, 2005; Stansfield, 2005). The focus in all of these articles is typically directed towards student learning and professional development or to the teaching and assessment methods employed, rather than on the CE's development.

Within two years of graduating SLTs are often asked to act as CEs and supervise student SLTs. The role of the CE is to supervise, teach, support and assess the student in the clinical environment. As such, it is recognised as a complex and demanding role. CEs in the UK typically attend a short preparatory training day before supervising their first student. However, some previous research has suggested that the training and support provided to developing CEs does not adequately prepare them for the role (Higgs & McAllister, 2005; Stansfield, 2001). While both physiotherapists and occupational therapists in the UK have introduced accredited clinical educators' schemes: the Accreditation of Clinical Educators Scheme (ACE) (physiotherapy) and the Accreditation of Practice Placement Educators' Scheme (APPLE) (occupational therapy) (Chartered Society of Physiotherapy, 2004; British Association of Occupational Therapists, 2008), there are no similar schemes in place for SLTs. Training for the latter remains unaccredited, despite recognition that this would improve the status of CEs (McAllister & Lincoln, 2004).

The study

The doctoral research presented in this paper used an interpretative approach, based on narrative inquiry, to explore the experiences of 10 SLTs from the south of England. The participants were SLTs who support students on clinical placement. An open invitation for participants was sent to local placement coordinators. Purposive sampling was then used to recruit participants who brought diversity through a range of factors such as: age, clinical experience and location. Each participant was given a pseudonym (see Table 1). Ethical approval was provided by Exeter University. Due to the nature of the purposive sampling all of the participants knew of the researcher and her role as a university tutor with responsibility for clinical education.

Table 1. The participants

Participant	Years experience as a SLT	Years experience as a clinical educator
Aida	32	29
Amy	21	12
Ann	18	10
Justine	7	5
Paula	5	0
Rose	3	2
Marie	15	13
Beatrice	25	21
Lucy	5	3
Jane	14	10

Participants told their stories during semi-structured interviews which took place in a quiet room either at participants' place of work or the researcher's university. Interviews lasted approximately an hour and were audio recorded for later transcription. The interviewer opened the conversation with "Tell me how you learned to be a clinical educator" and then allowed each participant to tell their story as they wished with minimal prompts or further questions.

A thematic analysis approach was used by the author to identify key concepts both within and across these stories.

An inductive coding process, where codes emerge from the data (Coffey & Atkinson, 1996), was used in analysis. Initial coding for each participant's data noted apparent themes and subthemes. These themes were then compared to, and collated with, themes from all interviews. The super-ordinate themes were then created, re-worked and refined and examples included from across the whole data corpus. Thus, a process of analysis and interpretation that worked both within and across all of the data sets was employed. In this type of thematic analysis the identification of themes and their categorisation is used to develop a conceptual understanding of the experience being explored (Butler-Kisber, 2010).

Due to the small-scale, interpretative nature of this research, the findings are not claimed as generalisable and the subjectivity of the interpretation is acknowledged (Pring, 2000). However, it is hoped that the reader will find that themes and ideas discussed here will resonate with their own experiences and offer a space for critically reflective practice.

What was important to these ten SLTs learning to be clinical educators?

Thematic analysis of the participants' stories yielded six over-arching themes, each of which is characterised by a number of subthemes (Table 2). These themes have been further distilled for discussion here into three super-ordinate themes:

- learning through reflection on their own experiences as both a student and as a CE
- a community of practice that offers opportunities for discussion with, and observation of, colleagues at work
- drawing on existing clinical skills to support the supervision and education of students.

Table 2. Learning to be a clinical educator: Themes and subthemes identified in the data

Themes	Subthemes
Reflecting on one's own experience as a student	Critical incidents Role models Learning on placement Impact on planning as a clinical educator
Learning and growing through experiences as a clinical educator	Critically reflective practice Feedback from student "Honing skills" Learning from challenging experiences The clinical context
Drawing on SLT skills	Transferable skills Being a critically reflective practitioner Advanced beginner to professional artist Imposter syndrome?
Learning through peers/colleagues	Observation of colleagues in the CE role Peer support
Formal learning	Clinical education training Post-graduate study/self-directed learning Transferable skills
Further growth and role models	Lifelong learning Being a clinical educator as CPD Being a role model as a clinical educator Professional artistry/burnout?

Learning to be a clinical educator through reflecting on experience

Key to the learning of participants was reflection on their experiences as both students and as CEs. As a starting point CEs reported learning from having been students themselves. Their own CEs and clinical placements were the role models and learning opportunities on which these participants based their own behaviour.

> *I guess initially your formative sort of influences are the clinical educators that you had, or that I had, as a student.* (Beatrice)

> *And I have really entrenched memories of some of my clinical educators full of their very, very good style or their very, very poor style.* (Marie)

The role models to whom the participants referred had both a positive and negative impact but certainly shaped the participants' perceptions of how a CE role should be performed. This finding is common in the clinical education literature (Bluff & Holloway, 2008) and is illustrative of how educators can shape the professional development of the student through the model they provide (Chivers, 2010).

The participants referred to specific incidents in their own experience and reflected on how these had shaped them both as clinicians and later as CEs themselves. There were often challenging or critical incidents that had had a lasting impact on the participants:

> *Horrible memories of it now unfortunately. Five years on, I can't believe that these ladies are still impacting me.* (Paula)

It is notable that the majority of stories centred on negative experiences that both shook the participants' confidence at the time and had a lasting impact on their memories of being a student. An underlying message was that, as students, the participants were left perplexed or upset when they felt things had not been explained to them clearly and rationally; this they felt undermined their confidence and their learning. As CEs themselves now, they asserted that they would act differently in working with students.

The participants in this study also linked their own student learning experiences and preferences for learning explicitly to their current approach to supporting students themselves:

> *I felt as a student I learned best when I wasn't being watched so I always make sure that I give students some time on their own with clients to kind of relax and make their own mistakes rather than always be watched.* (Aida)

Marie described how as a student she valued a reflector type approach with her CE that allowed them to discuss the clients in a way that enabled them to learn together. Contemporary literature on adult learning in the professional placement setting recognises the value of both the CE and student engaging in a learning partnership in which the student's contribution is valued (Ryan, 2005).

The practical aspects of being a student on placement also impact on the learning experience and were identified as important factors. Participants remembered how tired

they were, the demands of travelling, and the time needed to research and prepare for the following session. This gave them an appreciation of the pressures on students and the need to consider these in the support they offered.

The stories of learning through reflection suggest that those involved in SLT student education should not underestimate the lasting impact of early experience in the professional development of the CE. This aspect might be included more explicitly in undergraduate and postgraduate programmes, linking students' reflection on placement experiences with their future role as CEs.

"Learning to be a clinical educator through being a clinical educator" was also a common strand in the participants' stories. The importance of reflection on one's own practice as a CE has been highlighted as fundamental to continuing development in that role (Higgs & McAllister, 2007). The participants described how they had developed in the CE role across time, recognising that they had changed their approach in the light of on-going experiences.

Ann described her development as a CE as on-going and gradual; she saw learning in the role and from the role as very important to her:

> *I suppose a lot of it's by as you go along honing your skills … yeah my learning has come mostly through having had students. But it's been a real learning curve for me and it's mostly from having had students that I've been able to hone the process.*

The individual may feel a dichotomy between their level of skill as a clinician and as a CE. While an expert in her clinical field, she might be a beginner in the area of clinical education. This was reflected in participants' discussion of challenge and continuing development. Rose compared her early CE self to her current self and recognised how she changed her perception of what constitutes a 'good student':

> *I think that as I've had more students, I've kind of been able to gauge what's a good student and what's not a good student … as I've met better students, I've realised that actually maybe, the ones that I've thought were really good weren't so good.*

It would seem that Rose is recognising specific changes in her perspective as she develops from novice to advanced beginner (Dreyfus and Dreyfus, 1986; McAllister & Lincoln, 2004) and becomes a more experienced member of the community of practice (Lave & Wenger, 1991). She is using comparisons between different students as one method of learning to rate competence and her expectations of student levels of performance have increased as her own confidence and skill has developed in her clinical role.

Participants also spoke at length of the impact of working with students whom they had found challenging in some respect, often because the student was at risk of failing the placement. As a result of working with these students, some participants questioned their own skills as a CE while others were able to identify that such challenges might contribute to their own development. Where the participant had been involved in this type of placement experience it dominated their story:

> *I think the biggest challenges are the failing students or the difficult students and the ones that really make you soul-search and reflect as to actually, am I delivering what this person needs? What can I do differently?* (Marie)

Learning through a community of practice

Reflection on these CEs' own student and clinical experience was also combined with learning both from and through their colleagues. The participants described how they developed their educator skills through both watching and talking to their peers enacting the role:

> *I'm thinking about what my colleagues went through when they were clinical educators and what they said or complained about or not.* (Paula)

Central to this theme is learning through observation and discussion, which might be either formal or informal. Learning through colleagues is central to Lave and Wenger's (1991) concept of communities of practice which foregrounds learning through participation and interaction with others.

Lucy reflected on the value of peer observation to her as a novice CE valuing the second opinion of a more experienced colleague:

> *I definitely saw [colleague's name] in action a bit. We used to quite often take peer placements and then do quite a lot of joint feedback especially when I was starting out, so it was nice to know I sort of had a second pair of eyes, that I wasn't getting it drastically wrong.*

While the practicalities of arranging peer observation may prove challenging, talking to colleagues about clinical education experiences is more easily achieved. The participants described how discussions with their colleagues provided a valuable opportunity for learning and development of their own skills as well as a forum for problem solving when necessary. It is often failing or challenging students that initiate the CE's search for peer support:

> *The most useful thing was actually talking to my speech therapy colleagues and saying, you've had that student, oh my word! How did you deal with her?* (Paula)

Rose also talked about coping with failing students by seeking support from her colleagues:

> *I can usually turn to my peers. So, you know, if I feel like I've got a lot on my plate, I can turn to a colleague and say something.*

While a challenge, these difficult situations may engender further learning for the CE as they examine what is happening and it is perhaps unsurprising that as a 'talking profession', the opportunity to talk with colleagues is highly valued.

The importance of observation is recognised in the student clinical learning experience (McAllister et al., 1997), and peer review, group discussions and receiving mentoring are all specifically identified as contributing to continuing professional development (Health Professions Council, 2011). There have also been calls for increased peer support for CEs (McAllister & Lincoln, 2004). However, it appears that some of the SLTs in this study rarely had opportunities to observe their colleagues working with students. The opportunity to share stories and learn about

being a CE through that sharing (Cortazzi, 1993), was, for these CEs, in the main part limited to informal chance discussions rather than through formal peer or supervisory support meetings. Yet all of the participants reported that they valued opportunities to share stories and hence reflect and learn from their experiences with their colleagues.

Drawing on speech and language therapy clinical skills

As skilled communicators in a clinical role that includes elements of both counselling and teaching, the SLT has specific skills that are readily and obviously of benefit in the role of the CE. These skills may be the core interpersonal and communication skills that are used in everyday clinical practice or be related to formal therapy techniques that are used with clients, for example Brief Solution Focused Therapy (Macdonald, 2007). It may be that certain techniques learnt to support clients' communication may be transferable to the student learning situation. The most obvious of these are techniques such as scaffolding learning, modelling language use and identifying achievable goals. The participants were able to identify how they drew on those core skills in developing as CEs. They talked about using behaviours with students that they used with their clients:

> *They [students] need more time and building up of confidence but it's part of being a therapist. It's part of what you have to do with all your clients, isn't it? It's the same sort of set of skills* (Ann)

> *In terms of developing those skills, I think most clinicians probably have them. We structure and we scaffold and we do that naturally with our clients.* (Marie)

Another concept, transferred from working with clients, is that of the philosophy of errorless learning (Baddeley, 1992) which was described as also being effective in supporting students' learning:

> *I tend to sort of take the same approach as I do with patients which is things like errorless learning and I don't really like to allow students to flounder around and make mistakes. (Beatrice)*

The participants spoke of how, in supervising students, they drew on and applied the professional and clinical skills routinely used by a SLT in practice. It would seem therefore that the theory and skills learned as an under-graduate as preparation for clinical practice also contribute to preparing SLTs for the role of CE and this should perhaps be made more explicit to both students and CEs at an early stage.

In summary

Learning through their own experiences as both student and CE; drawing on a range of resources such as tacit clinical skills, peer support and formal training; and engaging enthusiastically with the concept of continuing professional development were core themes in these SLTs' stories of learning to be clinical educators. The importance of experiential learning and reflection, collaboration, and talk as important factors underpinning each of these themes was also apparent. The findings of this study highlight the importance of all stakeholders in clinical placements, Higher Education tutors, CEs and the students themselves, acknowledging the lasting impact of early student placement experience and recognising the value of critical reflection in making sense of it. The significant impact of early challenging situations on the participants in this research highlights this aspect as an area that must be fully considered both in the training of CEs and also when facilitating students' reflective practice. Reflection on early critical incidents could perhaps be used as a tool during CE training to facilitate discussion and identify potential learning points with developing CEs.

The participants' stories also suggest that university placement organisers and other SLT colleagues should be alert to any CEs who have had challenging experiences while supervising students and should offer them follow up support. This might be in the form of a debrief meeting that allows for a critical evaluation of their experience or through the inclusion of clinical education issues as a matter of routine in peer or mentor support sessions. This might prevent de-motivation and even burnout in those CEs who otherwise would be left feeling unsupported and without an avenue for other peer discussion. However, while formal training for CEs continues to be limited in the UK, these SLTs' stories also demonstrate that this does not mean clinicians are poorly equipped for the role. On the contrary, they are highly skilled, reflective practitioners who develop the necessary skills by drawing on a diverse range of experiences.

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Reflective practice

What is it and how do I do it?

Abigail Lewis

KEYWORDS
COMPETENCE
EXPERTISE
REFLECTION
REFLECTIVE PRACTICE
TOOLS FOR REFLECTION

THIS ARTICLE HAS BEEN PEER-REVIEWED

Abigail Lewis

An unexamined life is not worth living.
Socrates

Reflective practice holds importance for health and education practitioners in Australia, as demonstrated by increased prominence in the revised Competency-based Occupational Standards for speech pathologists. This paper explores the topic of reflective practice, in the clinical context, by addressing the following questions: What is reflective practice? Why is it an important skill for speech pathologists? What is the evidence base for reflective practice? How do practitioners and students engage in the process of reflection? In addressing the final question, four methods of facilitating reflection are outlined: journal reflection, reflection on a critical incident, reflection following professional development, and reflection on a clinical encounter.

As early as the 1930s, the educator Dewey stated "there can be no true growth by mere experience alone, but only by reflecting on experience" (cited by Lincoln, Stockhausen & Maloney, 1997, p. 100). However, it was not until the 1980s that reflective practice (RP) started to be widely discussed, following the publication of Schön's seminal books (Schön, 1983; 1987) and Boud and colleagues' widely used model of reflection, described below (Boud, Keogh & Walker, 1985). There is now a growing body of literature supporting the importance of RP across a number of fields although there is only limited research in speech pathology (for example see Freeman, 2001; Geller & Foley, 2009; Hill, Davidson, & Theodoros, 2012). This paper aims to describe the evidence base and the importance of RP for speech pathologists, as well as to describe four different ways that students and practitioners can facilitate their own reflection throughout their lifelong learning journey.

What is reflective practice?

RP is "a generic term for those intellectual and affective activities in which individuals engage to explore their experiences in order to lead to a new understanding and appreciation" (Boud et al., 1985, p. 19). Reflection involves a number of skills (such as observation, self-awareness, critical thinking, self-evaluation and taking others' perspectives) and has the outcome of integrating this understanding into future planning and goal setting (Mann, Gordon & MacLeod, 2009).

Reflection may occur at different times. Schön (1987) describes two occasions of reflection: reflection-in-action (occurring simultaneously during an experience) and reflection-on-action (occurring after an experience). Boud (2001) adds to this list reflection-in-anticipation, where a practitioner would reflect in order to make a thorough preparation for a future experience.

There are different models of reflection described in the literature which are usually iterative (a particular experience triggers reflection and results in a new understanding or decision to act differently in the future) or vertical (describing depth of reflection from a surface level to a deeper critical synthesis level resulting in changes in behaviour) (see Mann et al., 2009 for a full description). Boud and colleagues' comprehensive model of reflection includes both dimensions (Boud et al., 1985) and this has led to its wide use in a number of fields (for example, Chirema, 2007; Wong, Kember, Chung & Yan, 1998) including in speech pathology (Lincoln et al., 1997).

In Boud and colleague's model, the practitioner:

- returns to a situation or event (e.g., spends time thinking about a prior interaction with a client, response to a workshop or strong reaction to a colleague);
- attends to their feelings about the experience;
- re-evaluates in light of their previous experiences (so making meaning); and
- has an outcome or resolution for the situation.

The indicators of depth of reflection are: making associations with previous experiences, knowledge or feelings; integrating the new information with current knowledge; validating the new information; changing future behaviour (appropriation); and finally, setting an outcome for the future (Boud et al., 1985).

Why is RP an important skill for speech pathologists?

The focus on developing RP has increased across teaching, nursing, medicine and allied health professions in the last twenty-five years (Mann et al., 2009). In this time the workplace has become more complex and RP is seen as a

skill that assists practitioners to manage increasingly "messy, confusing problems which defy technical solution" (Schön, 1987, p. 28). Within speech pathology courses in Australia, students develop the knowledge, skills and attitudes required of an entry-level speech pathologist (Speech Pathology Australia [SPA], 2011) and RP supports the link between the curriculum and their clinical practicum experiences (Lincoln et al., 1997). Reflection on practice is a key component of the clinical reasoning process, enabling the student/practitioner to appropriately consider the multiple factors involved in making appropriate clinical decisions (Higgs & Jones, 2008). Students and graduate practitioners are also expected to be supervised (SPA, 2011) and RP is a key component of the supervisory process (Driscoll, 2007).

Once in the workforce, a practitioner receiving appropriate supervision and professional support will continue to develop knowledge, skills and attitudes beyond entry-level (SPA, 2011) on a continuum of competency leading to expertise (King, 2009; Mann et al., 2009). New graduates as well as experienced practitioners are increasingly expected to deal with complex cases (Mann et al., 2009), and engaging in meaningful reflection enables them to learn from experience and become more efficient, effective and skilled practitioners (King, 2009). King (2009) argues expertise is developed via working through complex cases which involve much thinking and puzzling. That is, "experts learn experientially, through engagement (deliberate practice), feedback and reflection" (King, 2009, p. 186).

SPA recognised this increased focus on RP in the revised Competency-based Occupational Standards for Speech Pathology (CBOS; SPA, 2011), launched in 2011. In the revised CBOS, a new unit of competency entitled "Lifelong learning and reflective practice" replaces the previous unit of "Professional development" (SPA, 2001) and states:

> *Reflective practice enables the entry-level speech pathologist to consider the adequacy of their knowledge and skills in different work place and clinical contexts. Reflective practice requires the individual to take their clinical experiences and observe and reflect on them in order to modify and enhance speech pathology programs and their own clinical skills.* (SPA, 2011, p. 36)

Although RP was not specifically mentioned in earlier iterations of CBOS (e.g. SPA, 2001), the ability to reflect on performance is assessed as a generic competency in the Competency Assessment in Speech Pathology (COMPASS®), a nationally adopted tool for assessing students' development of competency and readiness for entry-level practice (McAllister, Lincoln, Ferguson, & McAllister, 2006). In COMPASS® it is expected that, as part of the clinical process, a student "reflects on and evaluates performance against her/his own goals, or relevant standards of performance … identifies a range of possible responses to insights developed through reflection" (p. 13) and "monitors his/her reasoning strategies through reflection on the accuracy, reliability and validity of his/her observations and conclusions" (McAllister et al., 2006, p. 21).

In the revised CBOS (SPA, 2011), there is also an increased emphasis on evidence based practice (EBP). Mantzoukas and Watkinson (2008) state RP and EBP supplement each other. SPA (n.d.) recommends Dollaghan's definition of EBP be used:

> *the conscientious, explicit and judicious integration of 1) best available external evidence from systematic research, 2) best available evidence internal to clinical practice, and 3) best available evidence concerning the preferences of a fully informed patient.* (Dollaghan, 2007, p. 2)

In order for these strands to be integrated and applied appropriately, reflection is essential.

Reflective practice, then, is claimed to be a key component of clinical reasoning (Higgs & Jones, 2008) and supervision (Driscoll, 2007); part of the process of implementing evidence based practice (Mantzoukas & Watkinson, 2008); and key to the ongoing lifelong learning journey towards the expert practitioner (King, 2009).

What is the evidence base for RP?

A systematic literature review by Mann and colleagues (2009) aimed to explore the evidence that "reflective capacity is … an essential characteristic for [health] professional competence" (p. 596). They identified 29 research studies from a range of disciplines including nursing, medicine and physiotherapy. Although the literature base was small, they found evidence that health professionals engage in reflection. They also found a number of tools available to assess RP and evaluate the level of reflection (Mann et al., 2009). The authors highlighted the association between RP and learning approach with deep reflectors also using deep rather than surface learning approaches. Deep approaches to learning involve being interested in the subject, searching for meaning both in the task and as related to one's own experiences in order to form a theory or hypothesis, whereas surface learners rely on rote memory, do not see links between parts of the subject and see the task simply as a demand to be met (see Dunn & Musolino, 2011; Leung & Kember, 2003). When compared to students, experienced practitioners were more able to reflect-in-action and tended to reflect-on-action only with new, complex or challenging situations (Mann et al., 2009). Mann and colleagues also described a variation in depth of reflection (for example, descriptive, reflective or critically reflective) among students and practitioners with both groups experiencing difficulty achieving the deeper levels.

Supportive supervision facilitated reflection, as did reflecting in a supportive peer group, and a positive outcome of reflection was improved relationships with colleagues. As a result of the systematic review, Mann and colleagues identified a need for authentic context and relevance for reflection (important for students), support for different learning styles and adequate time allowed for reflection. Finally, they concluded that RP could be taught when specific tasks and questions were given (Mann et al., 2009).

There is a need for further research in the area of reflective practice as the links between reflection and deep approaches to learning are not clearly understood, and nor is the link between reflective practice and clinical reasoning. As yet, there is little evidence to support the idea that reflection improves self-awareness or outcomes in clinical practice or client care (Mann et al., 2009).

How do we engage in the process of reflection?

Students and practitioners alike have different abilities to reflect and "without some direction reflection can become

diffuse and disparate so that conclusions or outcomes may not emerge" (Boud & Walker, 1998, p. 193). Researchers have identified that reflection is a difficult skill that needs to be explicitly taught and modelled (Baird & Winter, 2005) and it is only possible in an environment that is safe, respectful and where confidentiality is assured (Sumsion, 2000). Students and practitioners need to know why reflection is valued, be prepared for reflection and know what to reflect on (Baird & Winter, 2005).

A number of methods of facilitating reflection, designed to support the process of reflection across a range of different contexts, have been outlined in the literature including journal writing, self-appraisal and portfolio preparation (Mann et al., 2009). Students and practitioners reflect more deeply when given specific prompts and coaching (Roberts, 2009; Russell, 2005) so the following activities have been designed to support this process.

Written reflection

Keeping a diary, journal or blog is frequently mentioned in the literature (e.g. Chirema, 2007; Hiemestra, 2001; Phipps, 2005) as a way of looking back at experiences in detail in order to learn from them and alter future behaviour accordingly. Specific prompts or cues (usually a series of questions) can support the practitioner or student to move from describing experiences to analysing, making meaning and setting goals for the future (e.g., Boud, 2001; Findlay, Dempsey & Warren-Forward, 2011; Freeman, 2001; Roberts, 2009). Chapman, Warren-Forward and Dempsey (2009) developed a checklist of cues for practitioners to use to facilitate their written reflections and to evaluate their own journal entries (shown in Figure 1). The levels and cues are based on Boud and colleagues' (1985) model of reflection.

Figure 1. Guide to reviewing reflective workplace diaries

Level of reflection	Cue
Describing the event or experience	Recollect the experience and replay it in your mind or written format, allowing all the events and reactions, of yourself and those involved to be considered.
Defining your reaction and feelings	Acknowledge the emotions that an experience evokes. This may involve harnessing the power of positive emotions or setting in abeyance the barriers that may accompany negative emotions.
Assessing whether this varies from what you already know	Feelings or knowledge from the experience are assessed for their relationship to pre-existing knowledge and feelings of a relevant nature.
Can this new knowledge be integrated?	This involves assessing whether the feelings and knowledge are meaningful and useful to you, bringing together ideas and feelings.
Question yourself	Are the new feelings that have emerged authentic or the new knowledge accurate?
Is this going to change anything?	Describe if the new knowledge will change your practice and how. Alternatively, have the feelings and knowledge from the experience changed any of your attitudes or perspective on a topic?

Note: adapted from Chapman, N., Warren-Forward, H., & Dempsey, S. (2009). Workplace diaries promoting reflective practice in radiation therapy. *Radiography*, *15*, 169, with permission from Elsevier.

Reflection on a critical incident

Mann and colleagues (2009) suggested experienced practitioners are more likely to reflect-in-action and so it could be suggested that experienced speech pathologists may not find processes designed to facilitate reflection-on-action, such as journal keeping, as beneficial or feasible within a busy work life. Setting aside time to reflect only on critical incidents, a situation "that provoked surprise, concern, confusion or satisfaction" (Baird & Winter, 2005, p. 155) is more practical. Findlay and colleagues (2011) developed a number of reflective inventories for use by radiotherapists which provide a set of prompts to guide the practitioner through a reflective writing. Using a reflective inventory resulted in a deeper level of reflection than a freeform reflection in a journal as measured by Boud and colleagues' model (Findlay et al., 2011) and one of these (Figure 2) can be used to support deep reflection following a critical incident.

Figure 2: Significant event entry

- Type of event
- Persons present
- Describe the event
- Why did it happen and what was your initial reaction to the event?
- Have you ever had these feelings before?
- What is your understanding of the outcome of this experience or your feelings about it?
- Are these feelings valid and why?
- How would you approach this situation if it arose again?

Note: adapted from Findlay, N., Dempsey, S. & Warren-Forward, H. (2011). Development and validation of reflective inventories: Assisting radiation therapists with reflective practice. *Journal of Radiotherapy in Practice*, *10*, 8.

Reflection following professional development

A second reflective inventory (Figure 3) uses reflection to support deep learning following professional development or any other kind of learning activity such as reading an article or book chapter (Findlay et al., 2011). This reflection encourages the practitioner to apply the new knowledge so encouraging deep learning as well as deeper levels of reflection (Findlay et al., 2011).

Figure 3: Reflection following professional development

- Who facilitated the course or workshop and what was the subject area?
- What were the three main things you learnt from the event?
- Does this differ from your previous knowledge of these areas?
- Do you see any value in the knowledge gained, is it accurate and why?
- Will this new knowledge change your practice?
- Should you take this clinical knowledge back to your department and assess its relevance in your clinical setting?

Note: adapted from Findlay, N., Dempsey, S. & Warren-Forward, H. (2011). Development and validation of reflective inventories: Assisting radiation therapists with reflective practice. *Journal of Radiotherapy in Practice*, *10*, 7.

Reflection on a clinical encounter

Student practitioners are less able to reflect-in-action than more experienced practitioners (Mann et al., 2009) and need more structure to support deep reflection on their

experiences. The author of this paper along with speech pathology students developed a series of scaffolding questions (Figure 4) to support students' ability to answer the clinical educator's question "how did that session go?" Students use this series of questions to reflect on their clinical experiences (whether an assessment, intervention or consultation), making brief notes before then discussing with their clinical educator or peers. This tool could also be used by new graduate practitioners to support their reflections with their supervisor.

Figure 4. Reflection after a clinical encounter

Quick summary

- Were your goals for the session achieved?
- 3 things that went well and why
- 3 things that didn't go well and why

Reflection in relation to your client

- Were your goals for the session achieved?
- What improvements were built on from previous feedback?
- How would you describe the client's experience of the session?
- How would you describe the level of rapport/your relationship?
- How did the individual activities go? What did the client respond to?
- Evaluate client responses with evidence
- Steps up/down – did you need them, did you need more?
- Instructions – were they adequate, if not why not?
- How would you describe your feedback to client?
- Outcome measures – did they work?
- What do you need to find out before the next session? (information, evidence)
- What could you aim for in the next session in the light of today's performance?

Reflection in relation to your own performance

- How did you feel in the session?
- Compare your performance with the client's performance and participation in the activity
- What would you improve next time?

Reflection in relation to the client's significant other – family, other stakeholders (whether present or not)

- How did significant others engage in the session if present?
- How could significant others be engaged in the activities if not present?
- How would you summarise/represent today's session to a significant other?
- What improvements could you make for future sessions?

Further ideas for reflective practice

A range of other reflective practices have also been identified in the literature including telling stories or narratives (Watson & Wilcox, 2000). This less structured approach to reflection often occurs in the lunch room or hallway and helps practitioners make sense of complex or challenging experiences. Discussion in a supportive small group increases the depth of reflection and therefore learning that occurs when sharing these stories (Mann et al., 2009).

Another approach focuses on developing a personal statement of philosophy or code of personal ethics (Sumsion, 2000) which could be revisited each year as part of an annual appraisal. This annual reflection allows the practitioner to re-evaluate the way in which their current work practices align with their overall philosophy and ethics as a practitioner.

Creative ideas for reflection include using art, visuals (such as reflective photos), relaxation and visualisation, mind maps and drawings (Sumsion, 2000) and poetry, collage and sculpture (Newton & Plummer, 2009). These different ideas may support reflection in practitioners and students with different learning styles.

Conclusion

Reflective practice has been highlighted as an area of importance for the student, the entry level practitioner and throughout the learning journey to expert practitioner (King, 2009). This paper reviewed the literature in relation to reflective practice and the areas for further research. Some useful tools and processes that practitioners and students could use to support their reflective practice were described.

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Viet Nam's first qualified speech therapists

The outcome of a collaborative international partnership

Lindy McAllister, Sue Woodward, Marie Atherton, Nguyen Thi Ngoc Dung, Claude Potvin, Huynh Bich Thao, Le Thi Thanh Xuan and Le Khanh Dien

Viet Nam's first qualified speech therapists graduated on 21 September 2012. Eighteen graduate health professionals (nurses, physiotherapists and medical practitioners) completed a two-year speech therapy course made possible by a partnership between Pham Ngoc Thach University of Medicine, the Ear Nose and Throat Hospital of Ho Chi Minh City (HCMC), Australian Volunteers International and Trinh Foundation Australia. These 18 pioneering graduates have now returned to their hospitals and disability services in HCMC and Hue to establish speech therapy services. This paper describes the roles of the major partners in this significant international development activity, overviews the course content, structure and challenges, changes for the second intake of students in the course, and highlights future developments in speech therapy in Viet Nam.

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An estimated 15.7% of the 87 million people in Viet Nam have a disability (Mont & Cuong, 2011) and between 17–27% of these people may have problems with speech and hearing (Kane, 1999). A range of internal drivers (e.g., health, education and social policy reforms, decreasing rates of poverty and increasing survival rates) coupled with external drivers such as the Millennium Development Goals (United Nations Development Program, 2000), improved access to information technology and awareness of rehabilitation trends internationally have created a demand and climate supportive of speech therapy[1] service developments in Viet Nam. This paper describes the partnership between Vietnamese and international organisations to develop and successfully conduct the first speech therapy course in Viet Nam. It briefly overviews the speech therapy course, and concludes with the views of some graduates about the course and the future of speech therapy in Viet Nam.

Course partners

Ear, Nose and Throat Hospital HCMC

The Ear, Nose and Throat (ENT) Hospital provides inpatient and outpatient services to hundreds of thousands of patients each year from the south of Viet Nam. Professor Nguyen Thi Ngoc Dung is director of the ENT Hospital in Ho Chi Minh City (HCMC), professor of ENT at Pham Ngoc Thach University (PNTU) of Medicine, and as of January 2013 Rector of PNTU. She spent time as an ENT intern in Lyon, France, where she learned about speech therapy. On her return to HCMC, Professor Dung provided training in speech therapy to nurses at the ENT Hospital and sought opportunities for further training from visiting medical specialists and speech therapists. Her dream of starting a speech therapy training course was enabled through meeting Sue Woodward (now a director of the Trinh Foundation Australia) in HCMC in 2007. The ENT Hospital has been a major clinical education site for the speech therapy training course. Professor Dung provided advice on the recruitment of students, approval of curriculum content and development of clinical education sites for the first course.

Pham Ngoc Thach University of Medicine

Pham Ngoc Thach University of Medicine is a municipal university of HCMC offering courses in medicine, nursing, midwifery, physiotherapy and medical laboratory sciences. It was receptive to approaches in 2008 from Professor Dung to host a two-year training course in speech therapy. Since the course was established, PNTU has managed admission of the speech therapy students, payment of local lecturers, and through Dr Vo Hoang Nhan, liaison between the course and local hospitals and clinics for clinical education, with other Vietnamese agencies, and the local People's Committee who allow the course to be delivered.

Trinh Foundation Australia

Trinh Foundation Australia (TFA) was created in response to a request from Professor Dung for assistance to develop speech therapy training in Viet Nam. The founding directors of TFA had all worked in hospitals and institutions across Viet Nam as orthodontists or SLPs so were aware of the urgent need for such training programs in order to improve the quality of life of Vietnamese people with communication and swallowing disorders. Steps were undertaken in 2008 to establish TFA and meet Australian government requirements to operate as a non-government organisation, to manage, fund and resource this endeavour. A key priority was to gain approval through the People's Aid Coordinating Committee and the HCMC Union of Friendship Organisation to operate in Viet Nam. TFA initiated partnerships, both within Australia and in Viet Nam,

Lindy McAllister (top), Sue Woodward (centre) and Marie Atherton,

to support the course, wrote numerous submissions and provided advice on course structure, future course planning and evaluation. By presenting to potential supporters the vision for the program and aligning it with the broader objective of improving the health and well-being of the Vietnamese people, TFA has secured funds from diverse sources to support the program and other activities to develop speech therapy in Viet Nam. The Australian Global Development Group has assisted TFA with satisfying all governance requirements for Australian overseas aid organisations.

TFA supplied laptops, printers, photocopiers, a library of key speech therapy texts, audio-visual and other resources for the course. The original curriculum outline provided by TFA was further developed by the Australian Volunteers International (AVI) supported SLPs Marie Atherton and Janella Christie, and TFA directors Lindy McAllister and Alison Winkworth in consultation with Vietnamese stakeholders, to ensure the course content was relevant and appropriate to the Vietnamese context. Interviews with the Vietnamese stakeholders and students at the half-way point of the program in 2011 yielded valuable information regarding achievement of course objectives and meeting the students' and other stakeholders' needs. The interviews informed future planning and continuous improvement in the course content and means of curriculum delivery. A full evaluation of the course outcomes from the perspectives of all stakeholders was undertaken in late 2012 and will be reported in forthcoming publications.

TFA funded a full-time course administrator/translator position at PNTU and also supported many Vietnamese interpreters and translators who, up to September 2012, provided almost 2000 paid hours of translation of teaching materials and lectures from English into Vietnamese, and interpreting of lectures and clinical education sessions. TFA provided a scholarship for a staff member of the Office of Genetic Counselling and Disabled Children in Hue to complete the speech therapy course, thus providing the first steps to capacity building in this very poor region of Central Viet Nam. Plans are also in place to fund an Australian mentor to provide ongoing support to the otherwise professionally isolated course graduate now working in Hue, and clinical education for the second scholarship holder from Hue.

Nguyen Thi Ngoc Dung (top), Claude Potvin (centre) and Huynh Bich Thao

Underpinning this entire course has been the support of the speech-language pathology profession as a whole, primarily from within Australia but also from SLPs internationally. While the course used local Vietnamese staff whenever possible (e.g., to teach anatomy, physiology, developmental behavioural psychology and linguistics), there were no qualified speech therapists in Viet Nam and so expertise for the speech therapy subjects had to be sourced from abroad. TFA enlisted the help of AVI and Australian Business Volunteers to support long- and short-term assignments respectively of Australian speech pathologists to Viet Nam. AVI in particular provided invaluable on-the-ground support in Viet Nam to the volunteers and to the project in general. A successful submission by Marie Atherton to the Direct Aid Program of the Australian Consul General in HCMC enabled Australian SLPs with specialties in medical speech pathology to deliver intensive short-term teaching blocks in HCMC. In addition, TFA provided some financial assistance and briefing/debriefing to more than 30 volunteer clinical educators who in total contributed in excess of 470 days of voluntary clinical education work over the two years of the course, and to 17 volunteer lecturers who contributed over 100 days of teaching. These volunteers' dedication represents the best our profession has to offer. Not only did they willingly share their knowledge and skills as clinical educators and lecturers, but many contributed in other ways such as helping to develop treatment and assessment materials and a Vietnamese/English glossary of speech therapy terms which TFA will publish in 2013. Several acted as mentors, using Skype and email, for the students for their professional projects.

Australian Volunteers International

Australian Volunteers International has a vision of a peaceful and just world; a sustainable world, where all people have access to the resources they need, the opportunity to achieve their potential, the right to make decisions about the kind of development they want and to participate in the future of their own communities. When TFA approached AVI to introduce the speech therapy course, there was an obvious match between PNTU's needs, TFA's vision and AVI's program in Viet Nam. The initiative fitted perfectly under AVI's priorities for Viet Nam: human resource development as well as an ever-present focus on helping people with disabilities. However, with two Vietnamese stakeholders and two participating organisations from Australia, the challenges to working effectively together towards a shared but ambitious goal were obvious; but so were the potential benefits for Viet Nam.

The first volunteer under the AusAID-funded AVI program – Marie Atherton – commenced work at PNTU in June 2010, with the goals of developing and coordinating the course while delivering some academic teaching. In May 2011, a second volunteer – Janella Christie – joined as clinical educator. Near the end of these two assignments, a third long-term volunteer (Libby Brownlie) took over, with a fourth hopefully following soon.

As relationships strengthened and partners learned to work with each other, solid foundations are now in place for a long-term commitment from all involved stakeholders. AVI intends to pursue its involvement until the program can finally rest entirely in the hands of Vietnamese institutions.

Overview of the speech therapy course

The speech therapy course was run over two years, with students alternating between three months full-time at PNTU for lectures, tutorials and clinical education sessions, and three months back in their workplaces to continue in their substantive positions and implement what they had learned at PNTU under the clinical supervision of visiting speech therapists. Biopsychosocial constructs of disability, as utilised in the International Classification of Functioning, Disability and Health Framework (World Health Organization, 2010) were explicitly embedded throughout the curriculum. Health promotion, research and advocacy were also built into the program. For more detail on the course see Atherton, Dung and Nhan (2013). For clinical education terms, students were provided with clinical education blocks from visiting, volunteer SLPs. As many students were already providing limited speech therapy services as part of their work (as doctors, nurses or physiotherapists) before entering the course, they were required to maintain a log of speech therapy casework in these terms. Expectations of students with regard to their

level of clinical performance and competencies for each block of clinical education reflected those of the Speech Pathology Australia Competency-based Occupational Standards (CBOS; Speech Pathology Australia, 2001). Clinical competence was targeted in the key speech therapy domains of speech, language, fluency, voice, and swallowing. However, during the clinical education blocks students were not expected to demonstrate clinical competence in all of the components of these key domains. This was because the unique working arrangements of the students (having to continue practising in their jobs as physiotherapists, nurses or doctors), and difficulty accessing clinical education opportunities outside their individual workplaces limited students' ability to access clients reflecting all the key speech pathology domains. Competency in those domains not assessed during the clinical education blocks was assessed via completion of a clinical portfolio, assignments, clinical case studies, and viva exams. Further, students were expected to demonstrate their ability to access relevant literature via various means to develop their understanding of less familiar client groups, and be able to identify colleagues and experts to whom they may refer or from whom they may seek further information.

Many challenges emerged during the establishment of the speech therapy course, foremost of which was managing cultural differences. Whether it be identifying and working with key stakeholders both internal and external to PNTU when negotiating course design and subject content, when assisting local lecturers to develop their understanding of speech therapy, or when working with members of the PNTU IT Department to establish reliable IT services, the subtleties and nuances of culture interacted and on many occasions collided. It was of the utmost importance to build meaningful relationships that would enable an understanding of different perspectives, culturally, linguistically, personally and professionally, and the ability to acknowledge and then discard preconceptions and assumptions. Being aware of the potential to "impose" rather than collaborate, and working actively against this was critical to developing relationships that fostered collegiality and forged successful partnerships. Flexibility and learning to accept what could and could not be controlled was important.

The knowledge of PNTU staff and other key stakeholders as to what speech therapy was and could offer the people of Viet Nam was limited, so significant time was devoted to educating stakeholders, and developing culturally relevant subject content and teaching materials. Sourcing Vietnamese lecturers for subjects such as linguistics, psychology, anatomy and physiology was important in ensuring cultural relevance and sustainability of the course, but these staff required briefing about speech therapy in order for their content to be appropriate and support for their teaching approaches to be congruent with the educational approach of the course. From its inception, emphasis within the speech therapy program was upon students as "active learners". However, observation of students undertaking classes with local lecturers at PNTU revealed a more didactic approach to teaching. To introduce an interactive style of teaching, opportunities were created for local lecturers to observe the teaching of visiting lecturers and to participate in joint teaching sessions. Students reported this interactive learning to be an aspect of the program they particularly enjoyed. Vietnamese staff also commented on the novelty and value of this educational approach.

The provision of clinical education was particularly challenging. In addition to the typical problems of preparing students and sites for placements, managing timetables and learning goals, clinical educators needed to be sourced from abroad. They required orientation and support to understand students' prior knowledge and experiences and match these to the available patients and learning opportunities. Further, the students had to juggle their paid work roles in their hospitals with their student roles while on placement in the same site.

The future of speech therapy in Viet Nam

The future of speech therapy in Viet Nam will require ongoing collaboration between all stakeholders, and the graduates of the course. Identified needs in the short-term include refinement of the speech therapy course, capacity building of the host university to manage the curriculum and the course, and ongoing professional support of the 2012 graduates to lead the emerging profession through establishment of a professional association and development of a continuing professional development program, and acquire the academic skills and qualifications needed to lead the course in the future.

Le Thi Thanh Xuan (top) and Le Khanh Dien

Course changes for the second cohort of students

A comprehensive program of evaluation has indicated the need for revisions to the course in its second offering which commenced in September 2012. Revisions include moving foundational knowledge to term 1, threading Multimodel Communication (as the sixth area of competency for entry-level clinicians in the revised CBOS; Speech Pathology Australia, 2011) throughout the course, and creating opportunities for more interprofessional interaction for the speech therapy students.

As students had been practising in health-related fields for varying periods of time, it was anticipated that they would possess therapeutic skills that reflected this experience. However, observation of students in clinical practice during term 2 revealed the level of basic therapeutic skills (such as session planning, goal setting and treatment evaluation) generally to be that of novice clinicians as defined in the most recent CBOS (Speech Pathology Australia, 2011). Further, students' ability to utilise theoretical knowledge to inform their clinical practice, to plan, problem-solve and to undertake reflection so as to facilitate changes to clinical practice was limited. Consequently, clinical education will begin earlier in the 2012–14 course and the amount will be significantly increased. Further, the last two weeks of every on-campus term will be spent in tutorials applying the term's theory to clinical scenarios to assist the development of clinical reasoning. Clinical educators will be better prepared to build on coursework and previous clinical blocks to maximise learning outcomes in the clinical education sessions.

Capacity building the future leaders of the profession

TFA and former course director Marie Atherton assisted two future leaders – Mrs Xuan (see below) and Mr Dien (see below) – to successfully apply for scholarships from the Hoc Mai Foundation, an Australian organisation providing

bilateral support to the development of health services in Viet Nam. They spent three months in Sydney from July to September 2012 observing clinical practice and participating in a research and leadership development program. It is hoped that more graduates will have the opportunity to undertake postgraduate studies in Australia to build local capacity to lead the speech therapy course at PNTU and the profession in Viet Nam. Below we hear from key people and stakeholders who will shape and support the growth of speech therapy in Viet Nam.

Establishing a professional association and continuing professional development

Mr Dien Le Khanh (head of Physiotherapy Department and speech therapist, An Binh Hospital, HCMC): We, the first 18 graduates, are starting a new period of our working life with the role of qualified speech therapists. To become highly skilled speech therapists and provide the best quality services to – and advocacy for – people with communication and/or swallowing disorders, we must commit to learn further through continuing professional development (CPD). For us we hope there will be participation in further training courses, conferences and workshops, as well as self-directed activities such as keeping contact with our former lecturers or experienced speech pathologists to ask for consultation or mentoring when necessary, reading, and discussions with peers. To facilitate CPD, the establishment of a professional association is necessary to organise conferences and workshops, discussion forums, case discussions and journal clubs. The association will have other important roles including advocating for the needs of clients with communication and/or swallowing disorders, promoting the profession and influencing government policy-making in public education and social care policies.

Professor Nguyen Thi Ngoc Dung (director of the ENT Hospital, HCMC, and new rector of PNTU): On 24 September 2012, PNTU accepted another 16 students into the two-year program while working towards the establishment of a speech therapy Bachelor degree. During the second course, the first graduates will assist with the clinical education program. While waiting for the organisation of the professional association, the graduated and the new students should aim to meet together every three months to discuss patient cases and the challenges in setting up speech therapy services in their work places. We encourage them to consider exchanging knowledge via a website or Facebook.

Sue Woodward (director, TFA): A recurring theme from the return-to-Australia debriefs conducted with volunteer clinical educators and lecturers has been the strong work ethic and enthusiasm they have observed in the first cohort of students. All the students expressed their desire to effectively assist their patients with communication and swallowing difficulties. TFA plan to assist these students in the future by providing them with professional development opportunities. We welcome the support of our colleagues in the provision of continuing professional development sessions in Viet Nam.

All the partners will continue to collaborate in order to implement the strategic plan which has the ultimate goal of enabling the Vietnamese to independently run courses in the future. Key elements of this capacity building initiative include assisting Vietnamese nationals to obtain post-graduate qualifications, assisting with the implementation of the first undergraduate program by 2015, supporting further professional development of graduates through their own professional body, and supporting the development of courses in other educational institutions across Viet Nam. Ultimately this will enable TFA to adopt a more indirect role centred around mentoring and professional development in the future.

Conclusion

In concluding this paper, we hear the perspectives of two graduates of the first course. Both women are emerging leaders of the speech therapy profession in Viet Nam.

Dr Huynh Bich Thao (medical doctor and speech therapist, Physiotherapy and Rehabilitation Department of Cho Ray Hospital, HCMC): I was a 2-year-graduated medical doctor, working at the physiotherapy and rehabilitation department of Cho Ray Hospital HCMC before starting the speech therapy course. Cho Ray Hospital is a major acute care hospital for adults from the south of Viet Nam. I wanted to study speech therapy for my own interest and because of a lack of services in my workplace. During the course, from the lectures to clinical practice, I gained more knowledge, skills and methods than I expected. I vividly remember the first time seeing a patient with persistent swallowing problems, 6 months after having a stroke. He could walk and communicate normally but could not swallow his own saliva. Previously, I saw inpatients with stroke in the acute phase or outpatients coming to have physiotherapy for mobility. I realised more deeply how quality of life is affected by swallowing or communication difficulties and the role of speech therapy for patients, their families and the community. As it is the first speech therapy course in Viet Nam, establishing speech therapy services within the current medical settings and local contexts and traditional settings is challenging, particularly with regards to how to communicate with doctors, nurses, physiotherapists, patients and family members about speech therapy.

Mrs Le Thi Thanh Xuan (speech therapist, Hospital for Orthopaedics and Rehabilitation, HCMC): I am an experienced physiotherapist. During the speech therapy training course, we encountered many difficulties and barriers of language, new terminology about speech therapy and different learning styles. In our clinical education terms, we were limited to practising at our own hospitals and did not easily see how to implement practice in other settings. Moreover, there were no Vietnamese speech therapists to instruct students and share their experiences, knowledge and skills. In terms of paediatric speech therapy, there are few resources for Vietnamese children's language and speech development. In addition, Vietnamese data on methods and interventions for speech, communication and feeding are very modest.

Though we met many difficulties and barriers, we made great efforts to learn and to finish graduation projects with invaluable support from Australian lecturers and supervisors. We achieved broad-ranging knowledge of speech therapy and every graduate has specific experience to carry out the speech pathology mission at their hospital of employment. Establishing speech therapy services is a big challenge. But with knowledge, clinical and communication skills I have learnt and experienced, I strongly believe that I can set up an official speech therapy unit at my hospital for treatment of patients and for clinical education for speech pathology students at PNTU.

Speech pathology is a new area in Viet Nam. We are the Vietnamese pioneering speech therapists and we are proud of it.

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1 Speech therapy is the preferred term in Viet Nam.

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Are new graduate speech and language therapists ready to work with swallowing disorders?

Trudy Olwen Smith, Nicola Bessell and Ingrid Scholten

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DYSPHAGIA
NEW GRADUATE
SPEECH-LANGUAGE PATHOLOGY

THIS ARTICLE HAS BEEN PEER-REVIEWED

Trudy Olwen Smith (top), Nicola Bessell (centre), and Ingrid Scholten

Irish speech-language pathology (SLP) graduates were recently required to have dysphagia competency. Five experienced dysphagia clinicians from a variety of settings were interviewed using semi-structured interviews regarding their expectations of new graduates and the best ways to prepare them for practice. Significant issues identified by the clinicians included the perceived fear associated with dysphagia management, new graduate competency, requisite personal qualities, taking a holistic client view, assessment of competence, and the need for support systems in the workplace. Continued collaboration between universities, professional bodies and working environments could facilitate successful fostering of professional confidence and optimum client care.

Speech-language pathologists (SLPs) are expected to be proficient in dealing with feeding, eating, drinking and swallowing disorders across the lifespan in addition to having expertise in communication disorders (Broniatowski et al., 1999). A rise in demand for dysphagia services in all settings has resulted in higher percentages of SLPs routinely providing services for individuals with feeding and swallowing disorders (American Speech-Language-Hearing Association [ASHA], 2001; Pettigrew & O'Toole, 2007; Pownall, 2004; Rossiter & Marks, 2004). University programs in Australia, the USA, Canada, the UK and more recently the Republic of Ireland, have therefore responded to the education and training demands implicit in this addition to the scope of practice by providing students with "knowledge and skills required to effectively evaluate and treat dysphagia across a variety of populations and practice settings" (ASHA, 2001, p. 1). Likewise, systems and procedures have been established to provide workplace dysphagia programs (Hutchins & Giancarlo, 1991; Johnson, 2004; Miller & Krawczyk, 2001), ideas for quality improvement (Halper & Cherney, 1991; Musson, 1994), staff development programs (Arsenault & Atwood, 1991; Davis & Copeland, 2005; Harding, Smith, Harrison, Cocks, & Vyas, 2011; O'Loughlin & Shanley, 1998) and ways to support students on placement (Cocks & Harding, 2011, 2012; Gasgcoine & Marks, 2001). There is some evidence to show that where dysphagia services have a longer history, clinicians are more confident of their skills in dysphagia management, but where SLP education and services are less well developed (as in Malaysia) "significantly lower levels of knowledge, skills, and confidence" are observed (Kamal, Ward, & Cornwell, 2012, p. 569).

Workforce shortages, fiscal restraint, complex health care organisations, increasing patient acuity, an increasing emphasis on knowledge and technology, and the ever-expanding role of health care professionals have reinforced the importance of new graduates arriving in the workplace with the ability to move seamlessly into all areas of SLP practice (Wolff, Pesut, & Regan, 2010). New SLP graduates are expected to take responsibility for a caseload, and to work in a variety of contexts, many of which are complex and frequently changing. Therefore, they need not only professional skills, but also the capacity to function successfully in the workplace, to work effectively within interprofessional teams, deal with ever-increasing administrative and organisational aspects of the professional role and provide a comfortable "fit" into the job (Brumfitt & Hoben, 2004).

As noted, SLP education aims to produce graduates who not only achieve basic competence, but who also have the tools for lifelong learning and who can regulate practice throughout their professional life (Stansfield, 2004). The recent introduction of compulsory dysphagia competence for SLP graduates in Ireland (Irish Association of Speech and Language Therapists; IASLT, 2012) provided a unique opportunity to investigate the nature of these "tools" and examine what knowledge, skills and attitudes experienced SLP clinicians expected of new graduates working in the challenging field of dysphagia, considered to be one of the most contentious conditions managed by SLPs (Anderson, 2005; Dawson, 1996; Parr & Dobinson, 1991).

This study considered the opinions of specialist SLPs in the area of dysphagia regarding what they expect from new graduates, how their practice setting facilitated the involvement of graduate SLPs and the best ways to prepare a new graduate for the complexities and challenges of working in this field.

Method

Participants

Participants were required to be SLPs with more than 5 years of experience working with dysphagia or currently in a

dysphagia supervisory position with graduates with less than two years of dysphagia experience. Five participants were recruited from a variety of practice settings in the Munster region of Ireland. Participants were a mixture of senior SLPs and SLP managers, whose experience working with swallowing disorders ranged from 7 to 19 years, and whose exposure to supervisory positions with new graduates spanned 5 to 16 years.

Table 1. Participant details

Participant identifier code	Participant setting	Years experience
SLT1	Complex disabilities	19
SLT2	Intellectual disability and autistic spectrum disorder	10
SLT3	Acute care	15
SLT4	Acute care	8
SLT5	Acute care	10

Ethics and confidentiality

Ethical approval for this study was granted by the Clinical Research Ethics Committee of the Cork Teaching Hospitals, Ireland. Participants were fully informed of the procedures and could withdraw from the study at any time. Participants were identified by a generic code. As work setting may influence participant responses, the interviewees' coding in relation to setting is provided: SLP1 – Complex disabilities; SLP2 – Intellectual disability and autistic spectrum disorder; SLP3-5 – Acute care (predominantly adult).

Procedure

Convergent semi-structured interviews were undertaken, allowing for collection of broad information as well as permitting probing for specific information (Dick, 1998). Interviews took place in the participants' work premises, at a time of their choosing, for up to an hour. The interviews were audio-recorded and transcribed verbatim for later analysis. In keeping with this semi-structured interview approach there were no predetermined questions; rather the interviewee established the information to be gathered. However, there were certain key areas of interest, such as skill levels and departmental guidelines, which were intentionally targeted during the interviews (Brumfitt, Enderby, & Hoben, 2005). Field notes were prepared immediately after each interview by the first author. Once collected, all material was de-identified and participants were referred to via code. Transcriptions were returned to participants for their consideration and agreement that they contained a true and accurate account of the interview.

Following transcription of the digital recordings, broad concepts and categories were inductively generated by the first author, and checked by the research supervisor (NB), using content analysis (Graneheim & Lundman, 2004). See Table 2 for an example of content analysis.

Decisions were made on the main themes as they emerged during the analysis. Emerging data were then compared to current literature in dysphagia regarding SLP education, practice and regulation.

Results and discussion

Four main themes permeated the data: perceived new graduate feelings about dysphagia, the importance of taking a holistic and client-centred view, the importance of a requisite skill base for dysphagia practice, and interviewees' recommendations for improving new graduate SLP readiness for practice.

Perceived new graduate feelings about dysphagia

In keeping with the literature (Anderson, 2005; Dawson, 1996; Parr & Dobinson, 1991), lack of confidence and fear were the dominant themes arising throughout these interviews (see Figure 1). Participants mentioned these in relation to how prepared new graduates were by their pre-professional education to deal with clinical situations, complex ethical, legal and moral issues, family-centred care, support systems within the clinical settings and the need to structure the learning environment to reduce new graduates' fear.

> *I think EDS [eating, drinking, and swallowing], because it is potentially life-changing, people are very anxious about getting involved in it and I think it needs to be kept in perspective, so that it doesn't become the focus of therapy and we don't forget about communication and other aspects of clients too.* (SLP1)

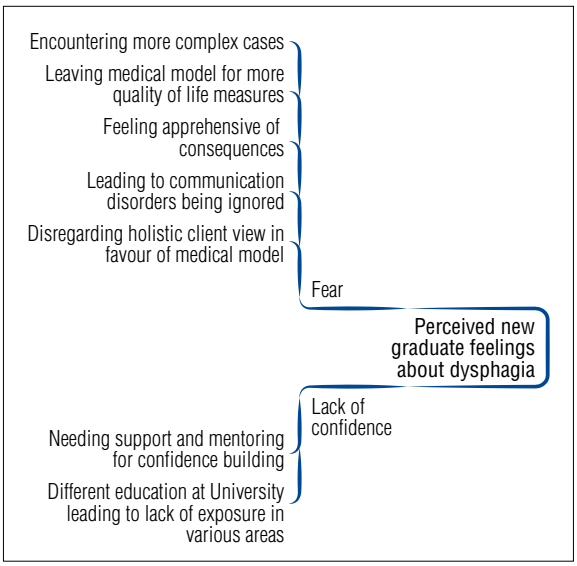

Figure 1. Perceived new graduate feelings about dysphagia

Table 2. Example of content analysis

Meaning unit	Condensed meaning unit (description close to the text)	Condensed meaning unit (interpretation of underlying meaning)	Sub-theme	Theme
...I think EDS [eating, drinking, and swallowing], *because it is potentially life-changing, people are very anxious about getting involved in it...*(SLP1)	Because of the connection between EDS and mortality, new graduates can be afraid to get involved in the area	New graduates are apprehensive of dealing with the ethical/moral issues associated with dysphagia, e.g. mortality.	Fear	(Perceived) new graduate feelings about dysphagia

Naturally, the variation in university education may differentially affect new graduate preparation and accompanying levels of anxiety. However, regardless of the preparation received, participants acknowledged that given an appropriate level of theoretical knowledge and transferable generic skills, new graduates could be supported to learn the foundations of dysphagia assessment and management across the lifespan as per their departmental guidelines:

> *I think there certainly should be some sort of a mentoring period, or an internship if you want to put it that way, when they do start working in the area, because as I said, I think a lot of your knowledge is gained when you are actually working in the clinical setting and where you are coming across these patients.* (SLP5)

Overall, it was felt that the format and quantity of continual support, guidance and supervision for new graduates was important in their transition into the workplace, particularly in the complex area of dysphagia practice. Professional confidence is an ever-maturing concept which begins as a student and continues throughout professional life (Holland, Middleton, & Uys, 2012). As education and health care are continually evolving areas, alliance within the education, practice and regulatory sectors is vital to produce new graduates adept in meeting these dynamic conditions (Wolff, Regan, Pesut, & Black, 2010).

Ethical issues regarding a holistic client view, quality of life and palliative care issues, discussed below, were also major sources of fear for new graduates.

Holistic client view

Many of the participants were eager to impart that dysphagia does not occur in isolation. The presence of swallowing disorders can impact upon more than the medical status of a patient. A bio-psycho-social model of health care as proposed by the World Health Organization (WHO) ICF (2001) and ICF-CY (2007) suggests that health and illness are affected by biological, psychological and social factors, promoting a more client-centred approach (Krawczyk, 2005). The theme of treating dysphagia in a holistic and individualised manner arose in relation to consideration of desirable skills as well as ethical, legal and moral issues, and working effectively with carers and families (Figure 2):

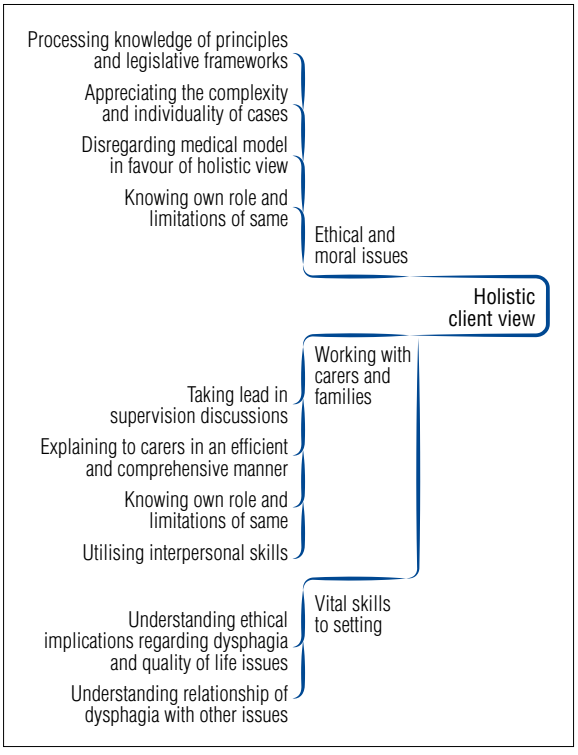

Figure 2. Holistic client view of managing dysphagia

> *There can be a misunderstanding that dealing with dysphagia and dealing with aspiration is more important than their [palliative patients] quality of life needs, so I think sometimes there can be a bit of misunderstanding there and it's not until you've been dealing with it for a few years that you can say, yes it is ok to feed someone and to let them aspirate and there can be resistance to that by new graduates.* (SLP3)

Tension between an individual's conscience and the requirements of the profession is to be expected in dysphagia practice (Body & McAllister, 2009). As Sharp and Bryant (2003) stated, for a real choice of feeding decisions, there must be an option of non-treatment. At times, a decision may be made which is contrary to the evidence of effectiveness or may be potentially harmful to the client's medical status, but could provide a more desirable outcome for the client him/herself (Pownall, 2004). New SLP clinicians need time and the opportunity to develop confidence in their clinical reasoning and decision-making skills (Weiner, 2004). The interviewees reiterated this view:

> *I think a lot of new grads would feed this back to me; they come out of college and they feel 'this is what I have to offer this client, so here are my swallowing recommendations, here's what I can do'-but it is really putting that in the context of the bigger picture for an adult or a child, who in terms of quality of life, in terms of family decisions, whether or not to go down the route of alternative feeding.* (SLP2)

All interviewees noted the difficulties new graduates can have in knowing their own professional and personal boundaries, especially in recognising when they need assistance and feeling comfortable requesting help from colleagues with more experience and skill. Perhaps the most important but potentially difficult skill for a new graduate to acquire is knowledge of the limitations of their own role and when to ask for guidance (Dawson, 1996). It may be easier for experienced clinicians to ask for help, whereas for new graduates there may be feelings of inadequacy, lack of knowledge and concerns about being viewed as unable to cope with their caseload (Pownall, 2004). All participants were adamant that adequate support should be provided to new graduates, and that it is a commendable attribute of new graduates to know their role and their boundaries within it; for example, giving their opinion on an individual's swallow safety, but knowing that decisions on any methods of non-oral feeding would ultimately be made by the interprofessional team:

> *You need to be very flexible and open to taking on perspectives from other team members and family members as well and that our role is always to be cognisant of the patient's quality of life and what their wishes are as well.* (SLP5)

Participants acknowledged that while the process of becoming a competent and confident SLP would take time, additional experience and support, the use of generic professional skills along with theoretical knowledge are vital for a client-centred approach.

While the value each of the interviewees placed on skill sets differed depending on their clinical setting, five skills were mentioned by all participants: academic skills, personal skills, ability to take a holistic view, self-awareness of own abilities and limitations, and observational skills (see Table 3).

Table 3. Important skill sets for new graduates working with dysphagia

Academic skills	Basic theoretical knowledge of disorders, anatomical knowledge Exposure to adult and paediatric dysphagia cases (at undergraduate level)
Personal skills	Imparting information, team work, gaining rapport
Holistic client view	Flexible open thinking, bio-psycho-social view
Knowledge of own skills and limitations	Understanding role/limitations of SLP, understanding roles of MDT members
Observational skills	Learning from seniors/other MDT team members, gaining information about the client/carers

Interviewees' recommendations

The interviewees spoke favourably about the decision to include dysphagia education at professional entry level (as compared with postgraduate qualifications), endorsing the fact that Irish standards would match best practice in the international community. Interviewees frequently offered recommendations for improving university education and professional development (Figure 3). At professional entry level, participants advocated for the standardisation of university curricula and education provision, working towards eliminating the fear associated with dysphagia and giving students a greater understanding of their role and those of the team members through interdisciplinary learning. Interprofessional education enhances motivation to collaborate, changes attitudes and perceptions, cultivates interpersonal relationships and establishes common knowledge and values (Baxter & Brumfitt, 2008). Interprofessional learning at university was recommended by the participants as it could lead to greater collaborative practice in the clinical environment which should result in improved patient care and a reduction in anxiety about dysphagia practice as each team member would know what was expected of them:

> *So, I think there should be more of focus on that [interdisciplinary learning] at undergrad level and I think there is a huge opportunity there with the OT department being so close to you guys, to do a lot more work on training together...I think a lot more focus on that, on the practical side, would be really useful.* (SLP2)

As dysphagia practice involves issues of mortality, it is closely bound with bioethics. Hence there is a responsibility to ensure that knowledge of the policies and procedures surrounding this area is current and adequate, but due to the individuality and variation in cases it must be acknowledged that experience and support is also required (Body & McAllister, 2009). Ethical and clinical reasoning require careful deliberation and consideration of multiple viewpoints while being aware of one's own (Barnitt, 1993). Opinion was split regarding where best to acquire knowledge related to ethical, legal and moral issues regarding dysphagia. Some participants felt that this could be taught at university via case studies and problem-based learning, while others felt the majority of learning occurred in practice.

There was consensus regarding what education should be covered in the clinical environment. It was felt that new graduates needed a strong understanding of clinical policies and departmental guidelines, which could be obtained from their academic preparation but the skills and management of complex cases were best learnt "on the job":

> *We wouldn't be expecting the new grad to manage complex cases on their own or making life-changing decisions for clients etc. but I would be expecting that they'd come out of college having a good overall picture of what a client's needs were.* (SLP2)

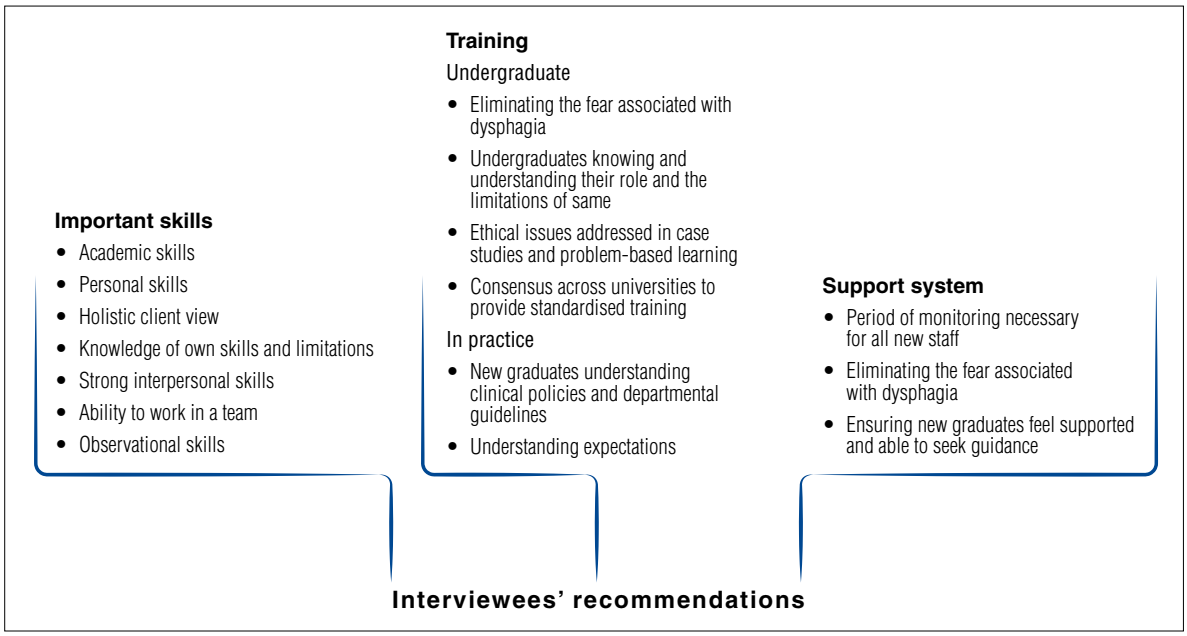

Figure 3. Interviewees' recommendations regarding the training of students in dysphagia

A reduction on the reliance on the "rules of therapy" is expected in the new graduate with the development of competence, as their focus turns to the integration of knowledge and skills (Stansfield, 2004). All participants agreed that knowing what was expected of them led to greater confidence levels among new graduates. Equally, interviewees felt that when graduates became more familiar with clinical policies and procedural guidelines, their clinical reasoning and self-reflections improved, leading to increased clinical effectiveness.

Interviewees felt that being comfortable with specific clinical frameworks could enhance decision-making in terms of understanding their duty of care, minimising risk and meeting clinical needs. The most successful way to maintain the integrity of such guidelines is to teach senior clinicians, who then impart this knowledge through networking within their own departments (Malcomess, 2005). As mentioned, *support* was seen as a key element in the transition for new graduates from student to base-grade clinician, particularly in the complex field of dysphagia practice. High expectations of SLPs in the assessment and management of swallowing disorders commonly resulted in feelings of inadequacy, especially amongst newly-qualified clinicians; reasons for this suggested by the participants were lack of education, sufficient time and adequate support as well as a deficit in policy structure. The Irish Association of Speech & Language Therapists is clear in its guidelines regarding clinical education for dysphagia, underlining the need for consultation with senior team members and onward referral when experience is limited, ensuring protection for all concerned and guaranteeing optimum service delivery and team support (IASLT, 2012). Interviewees were well aware that supporting a new clinician increased clinical competence in practice; this confidence should aid in dispelling the apprehension surrounding dysphagia practice and allow new clinicians to work more self-assuredly, knowing that they have adequate support when needed (Brumfitt & Hoben, 2004).

Limitations and future directions

While five participants represent a very small sample size, and data saturation was improbable, all participant opinions were coherent, albeit reflecting differences between the various clinical settings in which they worked. Participants in this study recognised the difficulties faced by new graduates entering the field of dysphagia across the lifespan. It was felt that while new graduates can be prepared to an entry-level competence in their university programs, some skills could only be mastered with increasing clinical practice. Similarly, all interviewees championed the importance of intra- and interdisciplinary team work. Team intervention is central to dysphagia practice; it should increase the confidence of newly qualified clinicians and ultimately reduce fear associated with swallowing management as they can learn from more experienced professionals. In addition, all participants mentioned the necessity of new graduates receiving a form of support (e.g., mentoring, meetings with managers, observational opportunities, etc.). While these measures were informally introduced within the departments, to date there do not appear to be standardised support systems in Ireland, unlike in other countries where this is more formalised.

The excellent affiliation between the professional body and Irish universities regarding curriculum content, standards of education and clinical competencies could extend to further specification of opportunities for team work and interprofessional experiences and guidelines for SLP managers and senior clinicians to follow with regards to the type and amount of ongoing support, guidance and supervision required for new graduates. This level of accord would help new graduates evolve from student to practising clinician in a structured and supported way. The process of becoming a clinician is ongoing with developing skills being honed in practice (Brumfitt, Hoben, Enderby, & Goddard, 2001; Toal-Sullivan, 2006; Wolff, et al., 2010). It is only through a robust supervisory system that new clinicians can be assisted in dealing with risk management for more uncertain cases and become more adept in the administration of the ambiguous elements of practice (Krawczyk, 2005), thus empowering new graduates to take a proactive role in swallowing disorders.

Conclusion

The findings of this study are particularly relevant as the subject of dysphagia practice is integrated into current university programs in accordance with professional body guidelines (IASLT, 2012). The results may also help reveal the importance of structure, support and mentoring in practicum opportunities for students and new graduates working with dysphagia in countries other than Ireland. In addition, these findings could provide insight for educators, students and clinicians alike into how best to develop professional education programs in order to produce new graduates who meet the standards expected by departmental guidelines and service management in regards to swallowing disorders across the lifespan. At the time of interview, participants felt that new graduates possessed unequal skills, education and clinical experience; however, the inclusion of swallowing as part of university curricula, with associated well-defined competencies, should lead to a greater standardisation of ability in new graduates in this area. As recommended by participants, and advocated by Meredith (2010), there is a need for further improvement in education provided to professionals at entry level and the provision of continuing education for clinicians already employed in the field to increase support and enhance confidence. The SLP profession has rapidly evolved in response to societal needs and development of therapeutic practice in dysphagia and is likely to continue to do so; how graduates are prepared to meet these changes is pivotal for client satisfaction and overall professional perception.

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1 All Irish SLP students must now demonstrate 25 different competencies in the area of dysphagia before graduation (see Appendix 1). These are determined by clinical educators to be either at novice (typically second year), transition (typically third year) or entry (typically fourth year) level. On graduation, the student must have any 21 of the 25 at entry level while the final four can be at transition level.

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Appendix 1. Entry-level feeding, eating, drinking and swallowing competencies specified by Irish Association of Speech and Language Therapists (IASLT, 2012)

Competent across a range of clinical contexts. Integrated knowledge and experience results in efficient performance in routine procedures. Specific direction and/or demonstration required for complex or novel presentations/conditions.

Assessment

1. Recognize signs and symptoms of feeding, eating, drinking and swallowing disorders
2. Identify social, cognitive, behavioural, and psychological factors contributing to feeding, eating, drinking and swallowing and/or feeding status
3. Identify atypical structure and function, medical conditions and medications which may be indicative of dysphagia
4. Obtain details related to client's current oral intake situation (e.g. positioning, feeding dependency, environment, diet modification, compensations)
5. Identify appropriate feeding, eating, drinking and swallowing assessment procedures
6. Conduct an oral examination to assess oral, pharyngeal, laryngeal and respiratory structures and functioning for speech and swallowing and relate it to neurological function
7. Administer, record and evaluate appropriate clinical feeding, eating, drinking and swallowing (FEDS) assessment
8. Identify potential aspiration risks
9. Identify need for objective/instrumental swallowing assessment
10. Communicate findings and recommendations to client, family and other health professionals orally and in writing
11. Identify values and attitudes of client/significant other to feeding and swallowing
12. Identify indicators for swallowing therapy and show awareness of non oral intake options

Management and intervention

13. Identify the need for consultation/referral to other team members (e.g. clinical nutrition/dietetics)
14. Support client and caregivers in decision-making
15. Recommend appropriate oral intake method(s) and quantities, taking into account the client's medical, swallowing, feeding, cognitive, and behavioural status and psychosocial factors
16. Set measurable short and long-term treatment goals targeting appropriate feeding and swallowing outcomes
17. Recommend appropriate postural, sensory, cognitive, visual and/or perceptual strategies to enhance feeding and swallowing function
18. Recommend appropriate food and fluid consistencies
19. Identify appropriate compensatory and/or rehabilitative management techniques to improve efficacy of feeding and swallowing
20. Provide effective education and/or training to clients and carers using selected management techniques
21. Maintain collaborative working relationships with other health professionals involved in the client's care
22. Select and modify appropriate assistive feeding utensils
23. Evaluate the client's response to treatment
24. Identify need for review assessment
25. Revise treatment/discharge plan as appropriate

Bilingual language sample analysis: Considerations and technological advances

John J. Heilmann and Marleen F. Westerveld

With the increasing cultural and linguistic diversity of speech-language pathologists' caseloads, there is a pressing need for assessments that enable accurate and authentic evaluations of the communication skills of children from diverse backgrounds. Language sample analysis (LSA) has many properties that make it an effective tool for the comprehensive evaluation of culturally and linguistically diverse (CALD) children's expressive language skills. Using LSA allows the clinician to assess language skills within naturalistic discourse, and as such, is more suitable for CALD children than most decontextualised norm-referenced assessments. Furthermore, LSA provides rich descriptive data and can be used within a dynamic assessment protocol to assist with the accurate identification of CALD children with language impairments. The goal of this paper is to summarise the complex issues that arise when completing LSA with paediatric CALD clients and describe how technological advances in computerised LSA have improved the accuracy and efficiency of the process.

KEYWORDS
LANGUAGE ASSESSMENT
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BILINGUALISM
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Throughout much of the world, speech-language pathologists' (SLPs) caseloads are becoming more culturally and linguistically diverse. This is particularly evident in Australia, where more than one fifth of the population speaks more than one language (Australian Bureau of Statistics [ABS], 2010). While most children speak English as their primary language, a substantial percentage (about 12%) has a different dominant language (McLeod, 2011). In addition to the linguistic diversity, SLPs need to consider their clients' concurrent cultural diversity; in the 2010 Census, Australians identified more than 270 different ancestral backgrounds (ABS, 2010).

Cultural and linguistic influences on language assessment

Even when clients have strong English skills, a mismatch between the SLP's and client's culture can impact clinical services. Hand (2011) documented breakdowns in communication between a group of SLPs and their clients who were English-speaking and from diverse cultural backgrounds which resulted in poor reviews of the clinical services. It is imperative that clinicians provide sensitive and appropriate care for their culturally and linguistically diverse (CALD) clients (Speech Pathology Australia [SPA], 2009). One of the biggest challenges for SLPs working with CALD clients is effectively identifying children who have true disorders and distinguishing them from those who have communication differences based on their cultural or linguistic background. While the need for sensitive and accurate assessment is clear, it can be difficult to execute. CALD children have a greater likelihood of being over- or under-identified with a language impairment when compared to mainstream monolingual peers (Bedore & Peña, 2008).

When assessing CALD children, SLPs need to consider a child's relative proficiency across the dominant language (L1) and second language (L2). Bilingualism is a complex and dynamic phenomenon that is distinct from monolingual language acquisition (Paradis, Genesee, & Crago, 2011). Children can be fluent bilinguals with typically developing language skills (L1 = L2), have limited proficiency in their second language (L1 > L2), experience loss of their first language (L1 < L2), or have a true language impairment (both L1 and L2 are below expected levels; Kohnert, 2010). Direct assessment of both L1 and L2 is difficult given the lack of normative data available for most of the languages spoken in Australia. Assessing non-English languages presents a challenge for most Australian SLPs, who are predominantly mainstream monolingual English speakers and/or do not speak the language of their clients (Williams & McLeod, 2012).

Professional associations, such as Speech Pathology Australia (2009), caution against the use of norm-referenced tests when working with CALD children. Most norm-referenced tests are laden with biases that discriminate against CALD populations; they do not account for the distinct language profiles of children learning multiple languages, often do not use CALD children in their norming samples, and frequently contain content and formatting that are unfamiliar to CALD children (White & Jin, 2011). Given these biases, CALD children who are proficient in English may still have significant difficulty with norm-referenced tests. For example, Hemsley, Holm, and Dodd (2006) found that bilingual 11-year-old Australian children who were fluent in English scored significantly lower than their

monolingual English-speaking peers on norm-referenced vocabulary tests, possibly due to limited experience with the testing format and/or limited exposure to the vocabulary items. Therefore, SLPs working with CALD clients are instead recommended to use comprehensive assessments incorporating a variety of data sources to describe the children's language functioning, including interviews, structured observation, criterion-referenced assessments, language samples, and dynamic assessment (SPA, 2009; White & Jin, 2011).

Language sample analysis: A powerful tool within the comprehensive assessment

Decades of research have revealed the value of language sample analysis (LSA) in describing children's language abilities and there is a general consensus that LSA should be part of SLPs' regular assessment protocol (e.g., Westerveld, 2011). When completing LSA, the SLP takes a sample of the child's language use in a functional context, such as telling a story or conversing with a parent. Language samples are typically recorded, transcribed, and analysed using measures that are intended to generalise to other contexts and serve as a general indicator of a child's expressive language ability (Miller, Andriacchi, Nockerts, Westerveld, & Gillon, 2012). In addition, multiple measures of language proficiency can be derived from a single sample, providing a rich description of a child's relative strengths and weaknesses. For example, Westerveld and Gillon (2010) documented three distinct linguistic domains that can be acquired from a single oral narrative language sample (content, grammatical ability, and grammatical complexity) and used to develop profiles of children's narrative ability. Most research on LSA has been completed with monolingual English-speaking children. Results from this research indicate LSA is effective in distinguishing children with language impairment from their typically developing peers (e.g., Heilmann, Miller, & Nockerts, 2010).

Naturalistic and descriptive criterion-referenced assessments, such as LSA, tend to be more appropriate and less biased for CALD populations than their norm-referenced counterparts (White & Jin, 2011). By using LSA, clinicians can minimise some of the format biases observed in norm-referenced language assessments. While most norm-referenced tests require children to perform decontextualised language tasks on demand, language sampling procedures simply require children to engage in naturalistic discourse. Typical language sample contexts, such as conversations and narratives, are present in some form across cultures and should be familiar to most clients (e.g., Bliss & McCabe, 2008).

There are many examples of successfully using LSA procedures to assess the oral language skills of CALD populations (e.g., Miller, Heilmann, Nockerts, Iglesias, Fabiano, & Francis, 2006; Ooi & Wong, 2012; Thordardottir, Rothenberg, Rivard, & Naves, 2006). However, most of these studies were completed where the language was spoken by the majority of the population, such as Chinese in Malaysia (Ooi & Wong, 2012), or by a large percentage of the population, such as Spanish in the United States (Miller et al., 2006) and French in Canada (Thordardottir et al., 2006). While these studies provide general support for the use of LSA with CALD children, the results do not fully generalise to the Asia-Pacific region and its wide range of languages and cultures, where clinicians are less likely to know the language of the client or have strong knowledge of the child's culture. Our goal is to present a framework for using LSA within the comprehensive assessment of CALD children in Australia, which is summarised in Box 1.

Using interview data to plan for collecting language samples

The first step in the comprehensive evaluation of CALD children is to consult with those familiar with the child and his/her culture, including family members, teachers, and cultural informants. By using interviews, SLPs have the opportunity to summarise concerns about the child, developmental milestones, and family history (Kohnert, 2010; Restrepo, 1998). Restrepo (1998) demonstrated the critical role of parent report in identifying the presence or absence of a true impairment by testing a group of predominantly Spanish-speaking CALD children using a battery of norm-referenced tests, language sample measures, and parent report. By comparing the sensitivity and specificity of various combinations of tests, Restrepo identified that parent report coupled with a language sample measure was most effective in identifying children with true language impairment.

The SLP can also use information from the interview to estimate the child's relative proficiency in L1 and L2, which will assist in planning the types of direct assessments to administer (Kohnert, 2010). Knowing a child's relative proficiency across L1 and L2 assists the SLP in interpreting the assessment data. If a child has limited proficiency in a language, we would still expect age-level performance in the dominant language if there is no impairment. If, on the other hand, low performance is observed in both the dominant and non-dominant language, the child would have a true impairment. Gutiérrez-Clellen and Kreiter (2003) developed a questionnaire that document children's first and second language proficiency and is highly correlated with direct measures of language proficiency.

The SLP can further use the interview to identify the child's familiarity with the planned testing procedures. More accurate performance is observed in CALD children when they complete assessments in familiar formats. For example, Fagundes, Haynes, Haak, and Moran (1998) compared the performance of mainstream children (Caucasian) and CALD children (African-American) from the United States who completed a norm-referenced language test in two formats: standard procedures with line drawings (familiar to Caucasian but unfamiliar to African-American) and adapted procedures embedded into thematic activities (familiar to both Caucasian and African-American). Fagundes et al. (1998) found that there were significant differences between the groups for the standard procedures but no significant differences for the modified thematic procedures, suggesting that the African-American children's performance was more accurately captured with the familiar task. A variety of methods for eliciting language samples have been described in the literature, including play-based samples, conversations, interviews, narratives, and expository samples (see Westerveld, 2011). During the interview, the SLP can identify the most appropriate conversational partners for the child or determine the child's experience retelling stories.

Collecting and analysing language samples in English

For all clients with at least a basic level of proficiency in English, we recommend analysing English samples for use

Box 1. A multi-step process for assessing bilingual children's expressive language skills

Component of comprehensive assessment	Activity	Application to language sample analysis (LSA)	Additional considerations
Interviews with parents, teachers, cultural informants, and other stakeholders	Identify concerns of family and teachers; gather information not available due to biases in traditional testing	Determine if language sampling will assist with documenting areas of concern	Use interpreters and cultural informants to assist with collecting data
	Determine child's dominant language (if there is one)	Predict child's ability to complete language sampling tasks in L1 and L2 Use information to assist with diagnostic decisions	Look to the literature for validated parent questionnaires Interview
	Identify child's familiarity with language testing procedures	Determine which language sampling contexts are most familiar to the child	Consider developmental/ environmental appropriateness of sampling procedures
Analysis of descriptive and criterion-referenced language data	Collect and analyse data in dominant language (L1)	Elicit sample in child's dominant language Collect sample from peer who speaks the same language for comparison	Use caution in interpreting data if no norms are available in L1 Have team members familiar with the language judge the quality of the sample
	Collect and analyse data in nondominant language (L2)	Elicit sample in child's nondominant language	If child has low scores in L2, compare performance to L1 to ensure deficits aren't simply due to limited English proficiency
Dynamic assessment	Document child's ability to learn language skills, which is a more accurate reflection of language ability when compared to static assessment	Collect baseline data in English using LSA Implement intensive intervention focusing on relative weaknesses within the language sample Determine if child showed significant response to intervention (impairment less likely) or if the child continued to struggle (impairment more likely)	Identify a language sampling context that is meaningful to both the child and his or her functioning in the environment (e.g., related to the curriculum)

in the comprehensive assessment and as a baseline for dynamic assessment. After collecting the language sample, the recording of the sample will have to be transcribed and coded with the appropriate conventions. Transcription of language samples has been written about extensively (see Miller, Andriacchi, Nockerts, Westerveld & Gillon, 2012 for a review) and tutorials are publically available (e.g., www.saltsoftware.com). Transcripts are typically coded for the presence of inflectional morphemes, which are sensitive to development in Standard English (Brown, 1973). Clinicians can also document lexical and grammatical errors, which are prevalent in children with weak language skills (Heilmann, Miller, & Nockerts, 2010). In addition to microlinguistic features, SLPs are often interested in discourse-level features, such as reduplications and reformulations (i.e., mazes; Miller, Andriacchi et al., 2012), conversational discourse analysis (Damico, 1985), and narrative organisation skills (Westerveld & Gillon, 2010). See Miller, Andriacchi et al. (2012) for a full summary of language sample measures.

When reporting English results for a CALD child, the SLP must use caution and explain the results with significant caveats. If the child's English skills are reported as being considerably weaker than L1, the SLP should not interpret low English measures as being indicative of a language impairment; the low performance on the English sample could simply be a result of limited English proficiency. In this case, the SLP would want to acquire more data from LI and use the English data as baseline in a dynamic assessment. If, however, the child is judged to have English skills that are comparable to L1, the SLP can have greater confidence that weaker English skills are indicative of a true language impairment.

Collecting and analysing non-English samples

There are many situations where the SLP may be able to obtain a language sample in a language other than English. The examiner may speak the client's language or the family may elicit the sample under the SLP's guidance. A final option is to work with a well-trained interpreter, who may also be able to assist with elicitation and transcription of the sample. Heilmann, Miller, Iglesias, Fabiano-Smith, Nockerts, and Andriacchi (2008) showed that by using standardised transcription and coding procedures, separate transcribers who were fluent in the child's language could achieve strong inter-rater agreement values across two languages (i.e., English and Spanish). The literature should first be reviewed to identify if there is a precedent for transcription rules for that language and if norms exist (e.g., Ooi & Wong, 2012). If there is no guide for the child's other language in the literature, the general transcription rules can be followed, such as segmentation of utterances and coding of mazes. When limited norms are available, a detailed interpretation of language performance would be inappropriate. Rather, the SLP can refer to the major language milestones in English and look for any substantial deviations from age-level expectations. For example, the SLP could formulate a general interpretation of the child's mean length of utterance (MLU), which is a key measure that has been found to provide developmental information across multiple languages, including French (Thordardottir

et al., 2006), Spanish (Restrepo, 1998) and Chinese (Ooi & Wong, 2012). For example, if testing a 5-year old child in their dominant language and a mean length of utterance (MLU) of 2 is observed, there is a high probability that the child is having significant language difficulties. If, on the other hand, that same sample with a MLU of 2 was collected from a 2-year old who was observed to be combining many words, we have data suggesting that language skills are not significantly below age-level expectations. In addition, summarising the child's production of discourse-level variables, such as production of mazes, provides data on the child's formulation skills (Miller, Andriacchi et al., 2012). Such skills are important for communicating effectively and may be less influenced by the linguistic structure of the language. These interpretations should be made with caution and only used to complement additional data summarising performance in L1 as part of a comprehensive assessment.

Even if resources to acquire a fully transcribed sample in L1 are not available, the SLP can still work with a trained interpreter to elicit and record a sample. The SLP can also collect a sample from one of the child's age-matched siblings or peers for whom there is no concern of a language to use as a frame of reference (Wyatt, 1998). The SLP can guide a well-trained interpreter to compare the two samples and judge if they are equivalent or if one seems considerably more immature than the other. The SLP can query regarding the child's syntactic complexity (Did the child produced well-formed and complete sentences/utterances?), grammatical accuracy (Do you notice many errors?), lexical complexity (Does the child use overly simple vocabulary?), and discourse skills (Could you understand the main points the child was presenting?).

Using LSA data within a dynamic assessment in English

The SLP can more accurately interpret language ability in the child's non-dominant language by documenting how effectively children learn new English skills through *dynamic assessment*. When completing dynamic assessment, the clinician collects a baseline assessment, such as a language sample, and then provides intensive intervention on a target language skill. After the intervention, a subsequent assessment is completed to determine if there were notable gains. Peña, Iglesias, and Lidz (2001) used this *test–teach–retest* dynamic assessment procedure when assessing CALD children on a norm-referenced expressive vocabulary test. Peña et al. (2001) documented that all CALD children performed significantly below national norms on the norm-referenced test. After training the children how to accurately complete expressive vocabulary tasks, the CALD children without true impairments performed significantly better (and on par with national norms) while the children with true language impairments continued to score poorly on the test. In a subsequent study, Peña et al. (2006) documented that clinicians could accurately identify CALD children with language impairment using a narrative dynamic assessment protocol, where the examiner documented children's deficits in their narrative productions, completed intensive interventions in those areas, and determined if significant gains were made as a result of the intervention. Given the power of dynamic assessment for accurately identifying CALD children with speech and language impairments, Speech Pathology Australia (2009) recommends that dynamic assessments are included in all assessments with CALD children.

To successfully implement a dynamic assessment with a CALD child, the SLP will first need to identify a functional and meaningful elicitation context, which will be the focus of the intensive intervention. For example, if working with toddlers and young preschool-age children, the SLP may be most interested in conversational discourse, which is a critical skill for success in preschool classrooms. With older preschool-age children and young school-age children, personal narrative discourse becomes a critical component of the curriculum. With older school-age children, the increased demands of the curriculum require more technical language use, which can be addressed through expository or persuasive discourse (ACARA, 2012).

After collecting baseline data, Miller, Gillam, and Peña (2001) recommend identifying children's relative strengths and weaknesses by completing a comprehensive analysis of the initial sample. For example, in an analysis of a child's narrative, the SLP may identify that a child has relative strengths in the microlinguistic features of the narrative (e.g., relatively long MLU and minimal semantic and syntactic errors) but a relative weakness in narrative organisation. The SLP may choose to provide direct instruction on narrative organisation skills and collect an additional narrative after enough time has passed to see the effect of the intervention. If the child makes marked gains in narrative organisation skills, this could indicate that the child does not have a true language impairment. Rather, the child may have had limited experience telling stories or did not initially comprehend the expectations for the task. If the child fails to make notable gains in narrative organisation skills, despite intensive intervention and high examiner effort, the child is more likely to have a true impairment. See Peña et al. (2006) for a full review of dynamic assessment.

Miller et al. (2001) produced a packaged dynamic assessment program focusing on narrative discourse that assists examiners in collecting multiple samples and provides ideas for intensive interventions. If the SLP does not have access to these materials or if they are inappropriate for the client, clinicians can feel comfortable developing their own dynamic assessment protocols. We recommend that the elicitation contexts and interventions are meaningful to the child and that the interventions are clearly focused on the area(s) of deficit and implemented with a high enough of a dosage so that the examiner may expect a change in performance. When collecting follow-up language samples, the elicitation procedures should be consistent to ensure any gains observed are due to a true improvement in performance.

Technological advances to assist with language sampling

Technological advances have made the process of recording, transcribing, and analysing language samples more efficient and more accurate. SLPs may record their samples with an inexpensive digital audio recorder, which can then be downloaded to their computers. Most operating systems come with audio players preinstalled, or the SLP may use one of the many freely available audio players (e.g., www.audacity.sourceforge.com). It is recommended that clinicians use language analysis software when transcribing and analysing their samples. In his study of 256 students from America and Australia, Long (2001) identified that the use of software to analyse language samples was significantly more accurate and significantly quicker than completing analyses by hand. Popular software options include the Systematic Analysis of

Table 1. Performance of a child with language impairment pre- and post-intervention compared to a database of speakers with typical language development

	Time 1 Current age: 7;0 Database: NZ Retell 87 database participants		Time 2 Current age: 7;3 Database: NZ Retell 60 database participants	
	Time 1		Time 2	
Transcript length	**Score**	**± SD**	**Score**	**± SD**
Total utterances	10	–0.92	12	–0.78
Total words	97	–0.36	98	–0.5
Elapsed time	1.77	0.15	2.20	0.61
Syntax/morphology				
MLU in words	7.70	0.83	7.17	0.42
MLU in morphemes	8.00	0.66	7.33	0.10
Semantics				
Number different words	44	–0.58	49	–0.48
Number total words	77	–0.61	86	–0.56
Mazes & abandoned utterances				
Number maze words	21	0.85	13	0.11
% maze words	**21%***	1.55	13%	0.55
Verbal fluency & rate				
Words/minute	54.91	–0.74	**44.55***	–1.12
Within-utterance pauses	**3****	4.57	**2****	3.59
Between-utterance pauses	1	0.35	0	–0.55
Omissions & error codes				
Omitted words	0	–0.36	0	–0.30
Omitted bound morphemes	0	–0.15	0	–0.18
Word-level errors	**6****	3.82	2	0.68
Utterance-level errors	**3****	5.01	**1***	1.67

***** 1 SD below age-matched peers
****** 2 SD below/above age-matched peers
Note: Time 1 summarises baseline performance and Time 2 summarises data after an intensive intervention. "Score" columns summarise children's performance and "± SD" represent the difference (in standard deviations) between the child and mean scores of children in the database. NZ retell was elicited using the Westerveld and Gillon language sampling protocol (http://www.griffith.edu.au/health/school-rehabilitation-sciences/staff/dr-marleen-westerveld/language-sampling-and-other-resources).

Language Transcripts (SALT; Miller, Gillon, & Westerveld, 2012), Computerized Language Analysis (CLAN; MacWhinney & Snow, 1985), and Parrot Easy Language Sample Analysis (www.parrotsoftware.com). Differences between programs relate to the usability of the software, availability of customer support, and fee for use.

After entering a transcribed and coded transcript, the software programs automatically and accurately generate multiple measures to describe children's language skills, including measures of linguistic form (e.g., mean length of utterance, use of obligatory morphemes), content (e.g., number of different words), and use (e.g., percentage of words in mazes). Software programs typically summarise children's language sample measures in a chart that can be inserted into a clinical report and archived in the child's file (see Table 1 for an example). Each software program has unique features that facilitate interpretation of the language sample data. With the SALT software, for example, SLPs have the opportunity to compare their client's performance with typical speakers in one of the multiple databases. Clinicians can customise their comparisons based on the type of sample collected (e.g., conversation, narrative retells), population (e.g., mainstream Americans or mainstream New Zealanders), and length of the sample. While there is not a database specific to Australian speakers, Westerveld and Heilmann (2012) documented that measures from American and New Zealand samples were not significantly different; we expect that there would also be minimal differences when comparing those databases to samples from mainstream monolingual Australian children. Measures from the child's sample can then be compared to the normative comparison group and tracked over time. Table 1 shows an example with a 7-year-old child with a language impairment who completed two separate narrative retells. In the first columns (Time 1), it is evident that most aspects of the child's productive language were in the low-normal range compared to his age-matched peers. His lowest scores were associated with word-level and utterance-level errors. Further examination of the language sample revealed that he had significant difficulty with pronouns, past tense, and prepositions, which were addressed in an intensive intervention. The Time 2 columns summarise measures from a second narrative retell that was collected three months later. After the intervention, a marked reduction was observed in both word-level and utterance-level errors.

Summary and future directions

Our goal in writing this paper was not to provide a definitive protocol for assessing clients speaking multiple languages. Rather, our intent was to provide a narrative review of the pertinent literature, provide a general framework for assessing CALD children using LSA, and describe the technological advances that have been made to assist SLPs. When using any assessment technique, SLPs must use the evidence based practice framework by simultaneously considering the available empirical evidence, their own clinical expertise, and the values of the client and family (Dollaghan, 2004). For many of our CALD clients, there will be a limited empirical evidence base available specific to their language and culture. However, we can look to the existing literature on LSA for guidance in eliciting samples, transcription, and analysis. To fill the remaining gaps, SLPs can draw on their own experience of assessing children's language skills. Finally, it is critical to carefully consider the client's and family's cultural and linguistic background. Not only is this best practice, but it will also provide crucial information to allow the SLP to individualise the assessment and reduce potential biases, such as familiarity with the sampling procedure and language proficiency. SLPs can expedite the assessment process by utilising the available LSA tools, including digital recording systems, software to transcribe samples, and automated analyses. Using LSA data within the comprehensive assessment will assist with the accurate identification of children with language impairment and can provide rich descriptive data to assist with planning culturally and linguistically sensitive intervention.

Ultimately we must strive to gather more systematic information about the languages of our clients. From a research perspective this could include small-scale studies, eliciting spontaneous language skills in a group of participants, and describing the main features of that language. One such study investigating the oral language skills of 4-year-old bilingual Samoan children has just been completed by the second author and work is underway to determine how to code and analyse these samples, using SALT. This study will allow us to systematically document these bilingual children's expressive language skills across languages and help us understand cross-linguistic transfer in areas such as grammar and semantics. We would like to reiterate Williams' (2011) viewpoint about the importance of practitioner input in this process. Clinicians can assist by collecting language samples from their CALD clients following the procedures outlined in this article. It may be possible to collate these data and build on the resources we currently have available to aid our assessment of the language skills of children from culturally and linguistically diverse backgrounds in Australia.

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Ethical awareness in allied health students on clinical placements

Case examples and strategies for student support

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KEYWORDS
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ETHICAL DISTRESS
ETHICS

THIS ARTICLE HAS BEEN PEER-REVIEWED

Elizabeth Bourne (top), Lyndal Sheepway (centre) and Natalie Charlton,

This paper takes an interprofessional view of the types of scenarios allied health students, including those in speech pathology, may encounter on placement. The paper highlights that students are ethically aware and in some cases may experience ethical distress as a result of what they experience on placement. Sometimes the cause of this distress is the behaviour of the clinical educator, who cannot therefore be a support to the student in managing their ethical concerns. We suggest a structured approach to pre-placement preparation, support during placement, and post-placement for students, which provides a range of resources, personnel and educational strategies to assist them to develop their ethical reasoning and manage ethical concerns.

The goal of clinical education is to develop not just students' technical skills but also their professional attributes such as ethical practice in order to prepare them for entry into their chosen health profession (Physiotherapy Board of Australia, 2010; Speech Pathology Australia, 2010). To be good ethical practitioners, clinicians need to be ethically aware and proactive (McAllister, 2006). Practising clinicians continue to experience ethical dilemmas related to themes such as client management, professional relationships, service delivery and personal/professional identity (Kenny, Lincoln, Grono & Balandin, 2009). Therefore, it is important that all graduates are equipped with the ability to identify and manage *ethical tensions* (Kinsella, Park, Appiagyei, Chang & Chow, 2008) before they become dilemmas. Clinicians may experience different types of ethical tensions throughout their professional career, including ethical uncertainty, ethical distress or ethical dilemmas. Ethical uncertainty occurs "when an individual is uncertain about which moral principles apply or whether a situation is indeed a moral problem" (Kinsella et al., 2008, p. 177). Ethical distress occurs when an individual is aware of the right course of action but feels compelled to do otherwise by an institution. Ethical dilemmas occur when an individual "faces two or more equally unpleasant alternatives that are mutually exclusive" (Kinsella et al., 2008, p. 177).

As with any other area of competency, students' growth into ethical practitioners needs to be facilitated by both university staff and clinical educators in the workplace. The speech-language pathology competency assessment tool (*Competency assessment in speech pathology* COMPASS®; McAllister, Lincoln, Ferguson & McAllister, 2006) describes this growth on a developmental continuum similar to other areas of competence. It suggests novice students can participate in discussions around ethical principles and values and also follow workplace procedures such as maintaining confidentiality (McAllister et al., 2006). Intermediate students are developing awareness of how to put these principles and values into practice, but need "monitoring and feedback" from the clinical educator (CE) to manage all aspects of situations effectively (McAllister et al., 2006). At entry level, it is still appropriate for students to require support in applying ethical principles and values in more complex situations (McAllister et al., 2006). Hence, regardless of their level of experience, clinical placements have a vital role in helping students work through ethical tensions.

In speech pathology no published research has explored students' level of awareness of ethical matters and the nature of the tensions they perceive. However, from other disciplines it is clear that health care students have some level of ethical awareness and identify ethical tensions across a range of clinical practice areas. Erdil and Korkmaz (2009) surveyed 153 third- and fourth-year nursing students regarding ethical problems encountered during clinical placement and the approaches taken by nurses in solving these dilemmas. They found that all the nursing students observed ethical tensions while on clinical placement. Similarly, Geddes, Wessel and Williams (2004) found ethical issues were mentioned by 53 of the 56 students when reviewing physiotherapy students' reflective journals. Major themes related to respect, professionalism and professional collegiality. Minor themes were allocation of resources, advocacy and informed consent (Geddes, Wessel & Williams, 2004). Kinsella et al. (2008) conducted a study of 25 occupational therapy students who were asked to describe ethical tensions either experienced or observed while on clinical placement. These students must have successfully completed 22.5 hours of ethics education to take part in the study. Among themes identified were "systemic constraints" (p. 179) including staffing limitations, resulting in sub-optimal client care. Due to some similarity in clinical contexts it is likely that this is a universal issue for health care students.

Speech pathology graduates have been reported to experience significant "ethical distress" in response to systemic constraints (McAllister, Penn, Smith, Van Dort & Wilson, 2010, p. 45). Penn (2009) discusses ethical distress in the context of a student witnessing ethically questionable behaviour in a colleague but feeling uncertain, powerless and fearful about reporting it. Kinsella et al. (2008) also identified ethical distress in situations where occupational therapy students experienced an ethical concern and had to decide whether to verbalise this to their supervisor and/or patient. While this causes worry and anxiety, students often feel unable to express these concerns within the clinical placement setting due to their low status, limited knowledge and perceived consequences for their clinical assessment (Kinsella et al., 2008; Erdil & Korkmaz, 2009). Clinical educators have a key role in helping students develop ethical awareness as well as the language and confidence to attend to feelings of ethical concern and distress and express them appropriately.

This paper draws on our experiences as clinical educators of allied health students. To illustrate the common ethics concerns of students, we present vignettes drawn from speech-language pathology, occupational therapy, physiotherapy and diagnostic radiography. These vignettes are drawn from ethical concerns which students have raised with us in formal contexts such as lectures and assignments, and regularly in other activities such as emails, conversations, and debriefs after placements. We discuss the vignettes briefly in relation to principles and duties enshrined in codes of ethics, codes of conduct and mandatory reporting requirements. We offer suggestions for ways in which clinical educators can assist students to manage their ethical concerns and distress.

Vignettes

1. Observing bullying and intimidating interactions between professionals

Thuy is a third-year physiotherapy student on her first clinical placement on an acute medical ward. Her educator is a senior physiotherapist who is also responsible for the supervision of the new graduate, Clare, on rotation in the same ward. During the first week of her placement, Thuy observes a conversation between her educator and Clare. The educator is questioning an intervention that Clare performed on a patient; the educator is using a raised voice and accusing tone. She does not allow Clare to explain her rationale for the intervention she chose. The interaction takes place at the nurses' station in front of several of their colleagues. Clare appears to be upset by the educator's behaviour but continues with her morning caseload. Later that week Thuy hears another conversation between the educator and Clare with the educator accusing Clare of being lazy and incompetent when she arrives a few minutes late to the ward that morning. Thuy later finds Clare visibly upset in the staff toilets. Thuy feels uncomfortable, feeling sorry for Clare but is unsure of what she should say to her.

2. Asking students to undertake tasks from their previous profession

Hamish is a registered nurse who is in his final year of a two-year postgraduate course in diagnostic radiography. He is allocated to a major regional trauma hospital radiology department for his first clinical placement. Hamish tells the radiographers that he is working with that he is a registered nurse. On his second week, Hamish is rostered with Boris, a senior radiographer, to work in fluoroscopy. An oncology patient is booked to have a peripherally inserted central catheter (PICC) inserted for his chemotherapy, but the radiology nurse has called in sick. Boris insists that Hamish scrub and perform the radiology nurse's role assisting the radiologist to insert the PICC.

3. Respecting autonomy and dignity of patients

Ibrahim is a second-year diagnostic radiography undergraduate student on placement in a major metropolitan hospital radiology department. He is rostered to work with Horatio, the senior radiographer in the emergency department. Horatio is very experienced, but his clinical reasoning skills are subservient to his insistence on strictly following imaging protocols. An elderly patient, Agnes, arrives in the department in a wheelchair. She is known to have mild dementia, but can communicate quite coherently. Agnes has fallen on her shoulder, and the emergency medical team, suspecting a fractured neck of humerus, have requested a shoulder x-ray series. The imaging protocol manual dictates that the humerus should be internally and externally rotated for two projections in the series, and Horatio instructs Ibrahim to do just this. When Ibrahim attempts to move Agnes' arm, she screams in pain, and says "leave me alone". Ibrahim stops immediately, but Horatio instructs him to continue. When Ibrahim refuses, Horatio is very angry, and forces the patient to continue with the examination, despite her protests. With a dismissive tone he says to Ibrahim, "She is demented, so just ignore what she says. We have to obtain the images."

4. Explaining procedures to patients from non-English speaking backgrounds (and getting family members to interpret)

Madeleine is a fourth-year occupational therapy undergraduate student completing her final clinical placement block. Along with a senior occupational therapist, Madeleine is assisting in the home visit to Amira, a 35-year-old Iraqi woman with advanced breast cancer, who does not speak or understand English. An interpreter has been booked for the visit. Madeleine and the senior occupational therapist arrive at Amira's home. Amira's husband meets them outside as they arrive. He speaks reasonably fluent English. At the last minute, the interpreter calls to inform the therapist she is unable to attend as she has been called away to assist with a more urgent patient. Amira's husband insists that they would like to go ahead with the appointment and that he would be able to interpret for his wife, as he has done this numerous times before at her previous medical appointments. The senior occupational therapist agrees to this request and explains her reasoning to Madeleine. As they are about to enter the house, Madeleine overhears Amira's husband state during a phone call that he will not be telling Amira anything about her diagnosis as he does not want her knowing that she has cancer, believing that she will lose the will to live if told.

5. Caseload management and patient prioritisation systems in workplaces

Kate is completing her last clinical placement of her four-year undergraduate speech-language pathology degree at her local tertiary referral hospital. Due to staffing shortages, there are not enough speech pathology work hours to cover the patients who could benefit from the service. Clinicians are guided by their well-established

(From the top) Andrew Kilgour, Julia Blackford, Marcelle Alam and Lindy McAllister

patient prioritisation system which identifies assessing new patients as the top priority, closely followed by reviews of those with acute dysphagia. At the lowest level of priority are patients who require communication therapy. On Monday of her second week Kate conducts an initial swallowing and communication assessment with a 68-year-old previously independent woman who presents with a stroke. The woman is found to have mild-moderate receptive and expressive aphasia and mild swallowing difficulties. She is placed on a modified diet and instructed in safe swallowing strategies. On Tuesday Kate briefly sees the patient at lunchtime and observes no swallowing difficulties. Kate's clinical educator speaks with the nurses caring for the woman and no concerns are reported about her swallowing. The patient's daughter and husband catch Kate as she is searching for the medical file and ask what will happen with the lady's speech. Kate has already been told by her clinical educator that they may not be able to see this patient again this week.

6. Seeing non-evidence based practice occurring/being delivered by one's clinical educator

Emma is a third-year undergraduate speech-language pathology student who really enjoyed her child speech lectures. She is excited to start a placement in a community clinic where they have a number of clients with speech disorders. One of Emma's allocated clients is a 4 years 7-month-old boy who is stopping all fricatives, reducing consonant clusters and fronting velars. Emma's clinical educator has already seen this boy for two sessions but Emma will see him for the remaining six sessions of his last therapy block with the service. Emma's clinical educator has been working on stimulating *k* and *g* sounds and suggests that Emma continues working on these targets in nonsense words before moving on to word and phrase level. She mentions that by the end of the block Emma will need to prepare a comprehensive home program so the boy's mother can continue working on his speech before he goes to school. At home that night Emma begins working on the plan for her first session. As she thinks more about this boy she wonders why her clinical educator has chosen these targets and treatment approach, particularly when there are so few therapy sessions. She also struggles to find literature to complete her rationale for the therapy goals she has been given.

Discussion

The six vignettes presented above portray a range of ethical issues experienced by allied health students. Not all are drawn from speech pathology practice, but the issues are generalisable. Further, as allied health students and clinicians work increasingly in teams, being alert to ethical issues in other disciplines and having some strategies to support student peers and colleagues to manage ethical issues are essential.

Vignettes 1 and 2 are concerned with respect for colleagues including students. Students are both witnesses to and recipients of bullying in the workplace. As recipients, they have a clear course of action they can take in seeking support from their university clinical coordinator. The course of action is less clear when the recipient of the bullying is another member of staff, especially when the perpetrator is one's educator. Fear of reprisal and being marked down in assessment of clinical performance will no doubt be in Thuy's mind should she choose to speak to her clinical educator. Concern for the invasion of Clare's privacy might also be on Thuy's mind as she weighs up options for action. Vignette 2 illustrates an increasingly common concern expressed by students. Many allied health students are undertaking study to change careers from being teachers, nurses, allied health assistants and so on. They bring with them knowledge and skills which will enhance their new roles but it is outside the scope of practice of their "new" profession to apply procedural skills from their old profession. They are not credentialled to do this and insurance will not cover them. For clinical educators to request them to undertake such procedures shows a lack of respect for the students as well as a lack of awareness of insurance arrangements in place in the clinical educators' practice settings. It can be very difficult for students to resist such requests because of the power imbalance and fear of reprisal (through poor assessment).

Vignettes 3 and 4 illustrate failures of respect for the autonomy and dignity of patients. The ageing population with concomitant problems such as dementia and an increasingly multicultural society mean that situations like these will be familiar to many practitioners. The issue of informed consent is present in both these vignettes. We know that the decision to continue the procedure without an attempt to modify it in some way to reduce pain or to explain to Agnes why pain is necessary shows not only a violation of the patient's autonomy and dignity but also demonstrates maleficence. It suggests "elder abuse". Vignette 4 illustrates a patient being denied the truth by her next of kin, who is also intentionally drawing staff and students into the deception. The patient's autonomy to make a range of decisions is compromised, and the cultural differences as well as the collusion involved create ethical distress for the student.

Vignette 5 illustrates an increasingly common situation in speech pathology practice (Atherton & McAllister, 2009), where micro-economics collide with beneficence. Prioritisation systems are often a response to restrictions in resource allocation. The ethical principles of justice and beneficence are not served in this vignette. It is likely that this woman will be discharged once she has been determined to have a safe swallow. Togher (2009) and Cruice (2009) discuss the safety issues in discharging patients with no effective communication system. Situations like this will cause ethical distress to clinicians and students as they witness patients' bewilderment and distress. The principle of "need" and a different approach to service rationing must be considered in situations like this one.

Vignette 6 is typical of situations frequently raised with university staff by students who witness non-evidence based practice on placements. Students tell us that when they try to question such practice they receive a range of responses from their clinical educators who may see their behaviour as impertinent, may be defensive, not understand evidence-based practice or see it as not relevant to the real world of practice. The power imbalance often prevents students raising the issue and if they do, they may compromise a positive relationship and learning environment.

It is clear in the vignettes presented above that students are ethically aware. They may also experience ethical distress. If it is not behaviours or attitudes of the clinical educator that are the cause of a student's ethical concerns, a student can discuss their concerns with the educator and consider options for appropriate action. However, particularly if experienced, clinicians might have developed

a level of expertise in their practice as well as their ethical thinking, such that their ethical competence has become "automatic", unconsciously embedded in their practice, and they may find it hard to articulate the issues for students. Students will still need strategies for thinking through their ethical concerns and making ethical decisions.

Sometimes it is behaviours or attitudes of the clinical educator that pose ethical concerns for students, as in Vignettes 1, 2, 3, and 6. In this case the student will need a range of alternatives to help them reason their way through their concerns. These may include discussion with peers, a safe third party on placement (this should be included in site orientation materials), or the university clinical coordinator. We suggest the following as a structured way to prepare students to develop and respond to ethical tensions.

Preparation at university

The process of informing and advancing a student's ethical awareness should begin at university (Cooper, Orrell & Bowden, 2010). Interactive classes held before students initially enter the clinical environment and throughout the duration of their program are an essential tool in the development of students who possess the capacity to ethically reason, make appropriate judgements and responses when faced with an ethical dilemma, and possess coping mechanisms and strategies to minimise the possibility of ethical distress occurring (Clark & Taxis, 2003). Ideally, some of these classes will be interprofessional, so that students begin to understand that different disciplines may bring different lenses to examining ethical issues (Cloonan, Davis & Bagley Burnett, 1999).

These classes can be confronting to students on a number of levels as they are being asked to examine and reassess their values and views on a range of ethical issues. Students' ethical growth occurs along a novice to entry level continuum (and beyond), and students often express difficulty in identifying and managing ethical issues due to a lack of experience (especially in the earlier years of the program). Ethics education must include a reflective component which educates students on how to reflect on a situation in order to improve their ethical reasoning (Lemonidou, Papathanassoglou, Giannakopoulou, Patiraki, & Papadatou, 2004). In novice level students, this beginning process of ethical awareness can be facilitated by asking them to draw on real-life experiences unrelated to clinical placement where they have experienced a dilemma. Students can be asked to look at all of the factors in the dilemma, thus encouraging them to see things not just in black and white, but in "grey" as well. Before commencing placement, students can be briefed on their profession's code of ethics, in addition to the code of ethics/conduct from relevant health authorities.

Structured ethics learning opportunities on placement

Structured discussion times should be built into a placement schedule to allow students the opportunity to discuss ethical issues and ask any questions regarding issues of concern to minimise the potential for ethical distress. Suitable times should be organised by the clinical educator before the commencement of the placement and discussed with the student during the orientation session. Discussions may occur on a one-to-one basis or in a group setting, thereby maximising opportunities for learning. Appropriate strategies for the structure and effective facilitation of ethics-focused conversations with students may need to be provided to clinical educators by university staff. This is a challenging area and it should not be assumed that clinical educators possess these skills or knowledge. Workshops conducted by universities and/or information sheets they distribute are examples of ways in which this knowledge can be disseminated.

The completion of an ethics case study while on placement is a powerful tool in developing students' ethical awareness. For example, students could be asked to apply their knowledge of ethical principles to a workplace situation and provide a detailed discussion of an ethical dilemma which they experienced. Students should be encouraged to reflect on how the situation was handled and provide examples of how they would handle this situation if faced with it in future. Reflective journals and reports can assist students' learning in this regard.

Learning support during placement

We suggest the development of an online discussion board to further support the development of ethical awareness in students. This strategy allows students to connect with their peers and university staff to share experiences, give and receive advice, promote ethical reasoning and devise effective coping mechanisms and strategies to manage an ethical problem. Lemonidou et al. (2004) suggest that continuous support from peers is essential in fostering and refining students' perceptions of ethical and moral situations. As students can be placed in numerous clinical sites across the country (including rural and remote settings), an online discussion board hosted on a university learning management system would allow for this development to occur. The discussion board would allow for postings of students' questions or topics, with peers and/or university staff participating to facilitate the exchange of ideas. The site must be facilitated by a university educator regularly, with posts being sent by students to the staff to be scanned for appropriate content before being posted. Students must be briefed about this process before placement begins, with rules for the content and display of information explicitly articulated on the discussion board. While this may be onerous on educators, it should be considered as an important component of a students' ethical awareness development.

Students can also be encouraged to use their peers as resources to manage ethical concerns, with confidentiality and privacy concerns being appropriately addressed. To use peers well, students will need prior preparation at university in both dialogic and activity-based peer learning strategies (Baldry Currens, 2010). Students need input on how to actively engage in peer learning opportunities as well as on the sorts of communication skills needed to learn with peers. Being able to ask questions that provoke deep learning, providing feedback and offering comments that are respectful and inoffensive, focusing on the task not the person are examples of dialogic peer learning skills.

Debriefing

Debriefing sessions conducted at the university after placements allow students the opportunity to explore and discuss in depth any ethical tensions and dilemmas experienced. Classes should assist students in further developing strategies for effectively managing ethical dilemmas through the exchange of ideas with peers and university staff. A trusting, supportive environment is essential for the effective facilitation of this process, where no fear of retribution exists. Confidentiality should be maintained at all times, with students being made aware of

this at the beginning of each class in order to encourage honesty. Individual meetings with the university clinical coordinator may be indicated to discuss further issues or provide additional support for students who are continuing to experience ethical distress. It must be noted that although this is a confidential process, educators have an obligation to report any suspected cases of abuse to their employer or relevant authority.

Conclusion

It is clear that students are ethically aware and require guidance and facilitation to become ethical practitioners. At entry level, it is still appropriate for graduates to require assistance with ethical dilemmas. Both university and clinical educators play a vital role in students' ethical development, which can be facilitated in the following ways.

Clinicians must be ethically aware and cognisant that students may find a situation ethically challenging. Offering opportunities for structured debriefing sessions will allow students the opportunity to discuss ethical issues witnessed and augment their knowledge base. It is vital for clinicians to provide students with a welcoming environment where they are made to feel comfortable and encouraged to discuss any ethical dilemmas. University educators and clinicians must inform the student of appropriate people at the placement site with whom they can discuss ethical tensions or dilemmas. This is an essential component in ensuring that any ethical issues experienced by students are addressed early, before ethical dilemmas or distress occur.

University educators must fully brief students before they commence clinical placement to the possibility of ethical tensions arising, how to identify them and effective strategies for dealing with these. Students must also be provided with the skills required to reflect on these ethical issues and opportunities to share and learn from their reflections, thereby reinforcing their knowledge and understanding in this area.

The implementation of appropriate strategies such as interactive classes (e.g., role play in a case-based learning environment; structured discussion times and learning opportunities during clinical placement; completion of an ethics case study while on placement; use of online discussion boards; structured peer learning opportunities and debriefing sessions) can assist students in developing their awareness while minimising the potential for ethical distress occurring.

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Ethical reasoning in clinical education

Achieving the balance

Michelle Quail, Brooke Sanderson and Suze Leitão

Ethical reasoning within the context of clinical education is explored using the casuistry approach to ethical decision-making through the layers of the Seedhouse ethical grid (a decision-making tool). The casuistry approach guides clinicians' actions by encouraging them to map previous experiences onto the profession's underlying principles in order to help them proactively plan for future clinical education experiences. In this paper, we present a model which highlights the unique and delicate balance between the multiple stakeholders involved in clinical education, and the shift in responsibilities and relationships that can occur. The need to understand ethical decision-making processes, be proactive with ethical thinking, and ensure clarity in expectations is discussed. A framework is proposed to assist clinical educators in finding the balance between their ethical obligations to their students, their clients and themselves.

Ethical reasoning skills are fundamental to all professional practice, allowing "the highest standards of integrity and ethical practice" and creating the foundation for evidence based practice (Speech Pathology Australia, 2012, p. 3). Speech-language pathologists constantly engage in a process of ethical reasoning when making decisions on both a professional and a personal level. This complex process is made more challenging within the context of clinical education, where, given the number of stakeholders, there is an ongoing shift in the responsibilities and relationships for all involved. This highlights the importance of proactive ethical planning within clinical education.

The ethical issues that speech-language pathologists face within the context of clinical education are unique in origin but not in action. As for any area of clinical practice, the use of theoretical frameworks in ethical reasoning is an essential component of the decision-making process. Ethical frameworks can assist us in not only working through ethical problems, but also in being proactive in preventing these.

Traditionally, speech-language pathologists have adopted a "principles approach" towards ethical reasoning (Speech Pathology Australia Ethics Board, 2011). This approach draws on the Speech Pathology Australia Code of Ethics (Speech Pathology Australia, 2012) as the core basis for decision-making but is less suited for use in proactive planning. As a point of contrast, the casuistry approach to ethical reasoning (Speech Pathology Australia Ethics Board, 2011) encourages speech-language pathologists to draw on their previous experiences and map these onto the underlying principles of our profession to inform future planning.

The Seedhouse ethical grid (Seedhouse, 1998) is a useful tool (Figure 1) that can be applied within the casuistry approach to facilitate ethical reasoning. The grid is made up of four layers; at the core is the "Basis or rationale for health care", surrounded by "Duties aligning to key ethical principles", "Consequences" and finally the outermost layer, "Other contextual factors". The four layers within the grid allow for the analysis of ethical issues at a range of levels, from the principles-based core of the traditional approach to broader considerations where consequences and effects can be considered (Seedhouse, 1998). The grid can be used flexibly, targeting the layers and components that are most relevant for a particular issue (Body & McAllister, 2009). In this way, the grid supports speech-language pathologists working through ethical issues by looking at the whole story, rather than at the issue in isolation.

This tool is valuable in the context of clinical education because of its multifactorial nature, which reflects the complexities of clinical education beyond those that may be represented by the principles alone. The process and outcome of clinical education is dictated to a large extent by the type and extent of experience of both the student and the clinical educator. In this context, the use of the Seedhouse grid within the casuistry approach (where experience is of particular value) facilitates the opportunity for dynamic and comprehensive ethical reasoning and decision-making.

In this article, the casuistry approach will be used to identify a number of key ethical challenges posed to all stakeholders involved in clinical education and discuss these within the multiple layers of the Seedhouse ethical grid (Seedhouse, 1998). This article also provides a framework which can be used to facilitate proactive ethical reasoning and assist clinical educators in finding the balance between their ethical obligations to their students, their clients and themselves.

KEYWORDS
CASUISTRY
CLINICAL EDUCATION
ETHICAL GRID
ETHICS

THIS ARTICLE HAS BEEN PEER-REVIEWED

Michelle Quail (top), Brooke Sanderson (centre) and Suze Leitão

Clinical education – the context

Clinical training is mandatory for successful completion of all professional entry-level health courses. Clinical placements provide students with the opportunity to gain clinical and professional skills before they assume the responsibility of independent client care (Department of Health, 2011). The quality of clinical education can be viewed as a key factor in assuring the future quality of health care; with high-quality education in the real-world setting enabling students to gain the experience required to develop competency in their delivery of health care services. In the context of speech pathology, an extending scope of practice, diversification in workplaces, increased demand for speech pathology services and increased fiscal constraints make for a challenging clinical education environment.

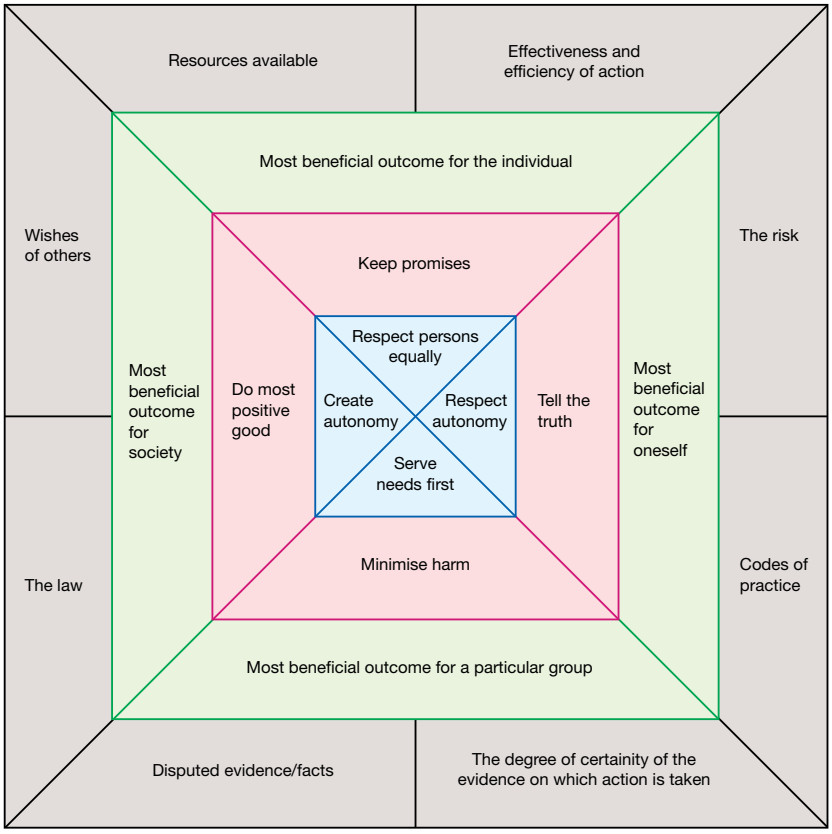

Figure 1. Ethical grid

Source: http://www.priory.com/ethics.htm with permission from Professor David Seedhouse

Speech-language pathologists are expected to contribute to the development of the profession by "participating in clinical education and supervision" (Speech Pathology Australia, 2001; 2012, p. 3). When choosing to supervise speech pathology students, clinical educators are meeting their obligation to support the training of the future speech pathology workforce; however, this responsibility needs to be balanced with their responsibility to their clients. The overriding priority during clinical placements must be that client care is safe, of high quality and effective (Health Workforce Australia, 2011).

This balance is depicted in Figure 2, and emphasises the clinical educator as the key platform between the student and the client, while the fulcrum is depicted as a triangle underpinned by both the foundational responsibility to the university for whom they are providing the clinical placement, and to the profession as a whole. While balancing the link between the student and the client, the clinical educator is in a position of constant change, whereby they can shift closer to the student or the client depending on the demands on their responsibility, time and expertise at that point in time. This movement has an immediate effect on the equilibrium of the relationship, shifting the primary balance towards either the student *or* the client (figures 3 and 4).

A clinical educator may be faced with a situation such as a student experiencing difficulty managing a client's behaviour and hence feel the need to become more prescriptive and actively involved in a student's session. Although this allows greater control over the service being provided at the time, it can also limit the student's opportunity for autonomy and to "make mistakes", reflect and learn from these. In this situation the client is kept grounded and close to the profession's aim of the best quality service (Figure 3), but this moves the student further away from the university's aim to develop independent and competent professionals.

In contrast, a clinical educator faced with the same scenario, but who provides a student with this independence while providing a safe learning environment and foundation to build confidence, may jeopardise high-quality client care (Figure 4). Establishing the right balance between these parties can be extremely difficult and is complicated by the desire to provide the best learning opportunity for the student and the professional obligation to provide the best possible service, while maintaining ethical responsibilities to both. A more experienced clinical educator is able to draw on previous experiences in this role to support such ethical decision-making, while a novice clinical educator may draw on their own experiences as a student. The casuistry approach, where reasoning is informed by similar cases and dilemmas, and the successful outcomes of previous cases, provides clinical educators with a useful framework for such decision-making.

The ethical grid in clinical education

In light of the ethical issues that commonly arise within clinical education, in particular the potential tension between a clinical educator's responsibility to the student and the client, the need for proactive ethical planning is apparent. The framework presented in Table 1 is based on the layers of the Seedhouse grid (Seedhouse, 1998), and is designed to frame orientation discussions between a clinical educator and student. It might also form part of a clinical placement manual and could be used to structure supervision discussions throughout the placement.

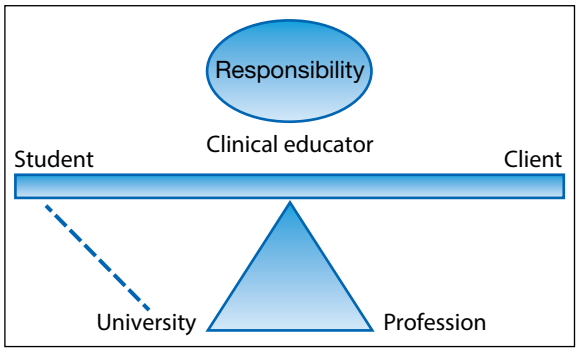

Figure 2. The clinical education balance

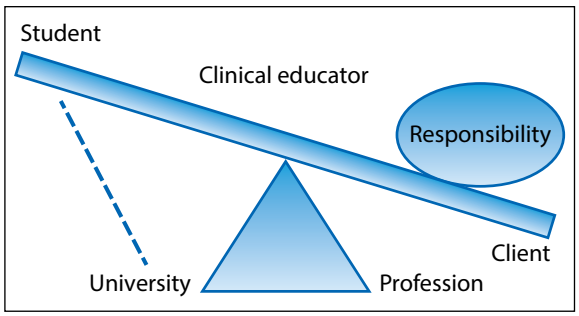

Figure 3. The client focused clinical education balance

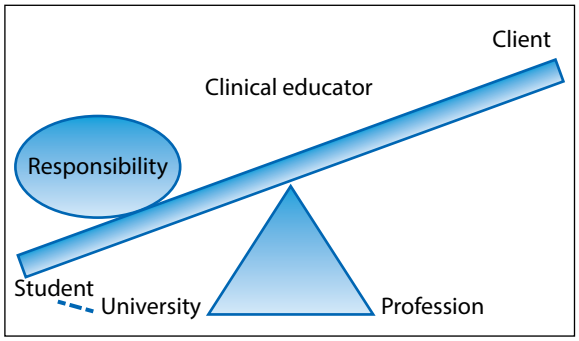

Figure 4. The student focused clinical education balance

This paper will now explore some of the recurring ethical issues that arise in clinical education, in particular those related to balancing the needs of the client and student, drawing on the casuistry approach and the ethical grid as a tool (Seedhouse, 1998). The grid is presented in four layers to highlight the need to consider these four aspects in a comprehensive ethical analysis of a situation. It can be used in many ways, and in this context we have chosen to start in the innermost layer and work outwards.

Basis or rationale for health care

The core of the ethical grid addresses the key concept of autonomy – specifically, the need to both respect and create the opportunity for all parties to be actively involved (Kummer & Turner, 2011). This concept underpins the delicate balance depicted in Figure 2, in that clinical educators are attempting to balance the opportunity for students to develop independence, while ensuring the clients are actively involved in the therapy and decision-making process. The clinical educator also needs to respect the autonomy of the client and their family to provide and withdraw consent for working with a student at any time, while respecting the autonomy of the student in acknowledging and encouraging perspectives and opinions different to their own. Although the client is attending in order to receive a service and be provided with support, this also applies to the student – who attends the clinic to receive support and guidance from the clinical educator.

Ethical planning is a practical strategy that can support a balanced approach. A key component to this is the need for transparency. Ensuring clarity among all parties underlies the success of almost every aspect of clinical education. There is a need for clinical educators, students and clients to take an objective step back and discuss the processes, relationships, responsibilities and expectations. Examples of focus questions are provided in Table 1. This will be facilitated by reflection on past experiences and drawing on successes. Such a pro-ethical step could be embedded by providing this level of detail within orientation packages and materials placed in waiting rooms in an effort to prevent potential ethical dilemmas from arising.

Duties aligning to key ethical principles

This layer of the grid aligns closely with that of the SPA Code of Ethics (Speech Pathology Australia, 2012), specifically addressing the principles of truth, fidelity, beneficence and non-maleficence. Beneficence in the clinical education context extends beyond the common understanding of ensuring the "most positive good" (Seedhouse, 1998) for our clients. It also encompasses responsibility towards the student, and is dependent on understanding the role clinical educators play in student learning. It is suggested that clinical educators spend time discussing the code with their students and reflecting on its application to clients and clinical experiences (see Table 1).

The key component in this relationship is *education*. As a clinical educator, the speech-language pathologist is responsible for teaching, nurturing and providing feedback. This involves taking responsibility for imparting, rather than only expecting knowledge. Herein lies the difference between clinical education and supervision – those who teach and develop skills and those who monitor and assess skills (McAllister & Lincoln, 2004). McAllister and Lincoln's (2004) discussion of clinical educators creating learning contracts for themselves (in addition to using these with their students) is a valid suggestion which emphasises that they too need to be constantly reflecting on their performance and experiences.

The past experiences of a clinical educator provide significant support for decision-making if these situations arise again. For example, when supervising a marginal student, the clinical educator needs to take responsibility for their role as a "gatekeeper" for future professionals, and be honest with the student in giving them the required feedback. These difficult decisions and discussions align with the concept of truthfulness and loyalty, and reflecting on previous experiences and drawing on past successful outcomes can assist in supporting the clinical educator with their current decision-making.

Consequences

The next layer of the grid considers a broader perspective of ethical issues, and the potential consequences for society, students, clients and clinical educators themselves.

For example, when considering the most beneficial outcome for the student, the clinical educator may wish to select clients taking into account the requirements of a student to develop specific competencies, the level of skill of that student and the limitations and opportunities of the workplace. However, this may come into conflict with the

Table 1. Pro-ethical practice in clinical education

Aim	Justification	Strategies
To facilitate and respect autonomy in the student and clients	*Basis of rationale for health care* The clinical educator is responsible for ensuring the student and clients are clear on their responsibilities. This explicit discussion is a vital step in being proactive with ethical reasoning by ensuring that role expectations are clear and no assumptions are made.	Discuss roles and responsibilities of: • Clinical educator • Student • Client Discuss clinical education process: • Relationships • Supervision • Feedback • Learning opportunities Develop clinical placement contract Discuss responsibilities within the clinic: • How does the clinic work? • Who is responsible to whom? • And why? • What are the processes and responsibilities? • Does everyone know this?
To facilitate students' practical understanding of the Code of Ethics in the clinical placement context	*Duties aligning to key ethical principles* The Code of Ethics and principles of truth, fidelity, beneficence and non-maleficence should be explicitly discussed with reference to clinical education and duties within the current clinical placement.	Discuss the Code of Ethics: • What does the code mean to you? • Do you understand the values, principles and duties? • When might you need to apply the code in this placement? • How will the code frame our decision-making? Look at the Code of Ethics together and discuss examples from previous practice/placements
To motivate the student and ensure a broad perspective to facilitate well considered decision-making	*Consequences* It is essential that the outcomes of the clinical placement are discussed. This will facilitate students' broad understanding of the process of clinical education / placements and the need to consider all parties in their decision-making throughout the placement.	Discuss outcomes and the contribution the placement makes to: • The local community (society) • A student • Our clients • Clinical educator For each point above, discuss self-management, readiness, preparation and motivation for the clinical placement from both the clinical educator and student point of view.
To ensure the student is making decisions with an understanding of the external considerations of the placement context	*Other contextual factors (legal and social)* The clinical educator is responsible for ensuring the student and clients are clear on their responsibilities. The external factors depicted in the outer layer of the grid highlight the range of considerations that may differ between contexts.	Draw on the resources provided in the reference list to guide your discussions (including legislation, policies and procedures that guide service delivery such as risk management) • Do you have any questions about your responsibilities within these?

principle of fairness (Speech Pathology Australia, 2012) and the need for all clients to have equitable access to services, within the presence of waitlists and other constraints on the service. Such decisions are delicately balanced as presented in Figure 2, and the consequences of these decisions cannot be ignored, for both the student and the client who the student will (or won't) see. It is advantageous for the clinical educator to draw upon their previous experiences in client management, student development and clinical education, to ensure they allow all parties the best possible outcome when selecting clients within the difficult balance of clinical education. Asking oneself questions such as: "Have I experienced a case like this before? How did I manage this? What were the outcomes? Should I respond in a similar way or modify my decision-making?" will help guide the clinical educator in their current planning.

It must not be forgotten, however, that often the placement of students facilitates expanded service delivery. The end product of students' clinical education (being graduation and entry into the workforce) has benefits for society in bringing about growth in the health workforce, while the actual process of their training is also beneficial in some way to all clients that they come into contact with on their clinical placements. In that sense it is important to consider that although a session may not run optimally, any effect may be short-term, balanced against the longer term outcome for the client (as the student will learn from the experience and invest additional time in their planning) and society. Table 1 includes discussion points that can be used by clinical educators to facilitate students' broad understanding of the process of clinical education and the specific placement itself.

A broader ethical issue encompasses the significant diversification of our profession and society as a whole. Universities have a responsibility to embrace student diversity, and Lincoln (2012) discusses the need for clinical educators to adapt to universities recruiting more Indigenous, culturally and linguistically diverse and international students. As this shift is a relatively new one in our profession, the opportunity for clinical educators to draw upon previous experience is reduced. The current needs of these students may not align with clinical

educators' previous experience, but with each occurrence a new "case" is added to the clinical educator's toolbox. For example, there may be a discrepancy between a student's professional competencies and English language competencies, and it may take longer for international students to reach the required competencies. There is therefore the need for universities, students and clinical educators to work together, to learn from emerging cases and ensure these students are supported to develop their skills and contribute successfully to the profession, while balancing the needs of the clients they are servicing.

Unsurprisingly speech-language pathologists rarely consider the most beneficial outcomes for themselves, despite this being included in the revised Code of Ethics (Speech Pathology Australia, 2012). It is documented that speech-language pathologists regularly suffer burnout (McAllister & Lincoln, 2004), and there may be cases where clinical education can exacerbate workplace pressures. Better short-term outcomes for the clinical educator may be achieved through the balance represented in Figure 3. This represents the dynamic that would be present in typical clinical practice, whereby the balance is tipped towards the client, which may feel more comfortable for the clinical educator. Better long-term outcomes however are likely to be achieved from a delicate balance that favours neither side more than the other, but regularly shifts at different points on the placement. It is essential that clinical educators regularly reflect on their own personal styles and investments, and analyse how they respond and support particular students.

Other contextual factors (legal and social)

The outer layer of the Seedhouse ethical grid (Seedhouse, 1998) takes the broadest look at ethical issues, considering the resources, constraints, evidence and implications for decisions. These external considerations are often overlooked, yet the necessity for proactive ethical behaviour is the key to ensuring these elements are addressed. Analysis of the risks, duties and wishes of others can not only be used to reason through existing ethical issues, but are essential in preventing potential dilemmas from occurring. All speech-language pathologists and, in particular, all clinical educators and students need to have a solid understanding of their Code of Ethics (Speech Pathology Australia, 2012) and feel confident that they have frameworks and processes to use when ethical issues arise. In addition, clients should always be well informed as to their rights and the expectations they should have for the service they are receiving. This clarity on all accounts ensures that the wishes of others are always considered, and allows clinical education to be a collaborative and proactive process. These three parties together can achieve the right balance by openly discussing an ethical practice framework in a proactive manner at every level of a service (see Table 1).

Conclusion

Clinical education is a key element in producing entry-level graduates with the competencies required for entry into the speech pathology profession. It is widely accepted that clinical education is not the sole responsibility of the tertiary sector, rather, that all speech-language pathologists should contribute to the clinical education of speech pathology students (Speech Pathology Australia, 2012). The clinical educator is thus responsible for achieving a unique balance between the student, themselves and the client and this brings about the potential for a significant range of ethical tensions. The key to striking the balance between these parties has three parts; assuring understanding of and access to ethical decision-making frameworks and approaches, ensuring measures are in place to help prevent these issues from developing in the first instance, and finally ensuring transparent communication of expectations and processes.

To promote pro-ethical practice you need to talk about ethical practice. Within a clinical education context this is even more paramount because of the multiple lines of responsibility (as explored in Figure 2). Ethical planning and decision-making should not be seen as a reactive process to be brought in only if and when required, but an integral part of all processes from the ground up. In line with the casuistry approach (Speech Pathology Australia Ethics Board, 2011), it should also continuously involve reflection on lived experiences.

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Webwords 46

Social media in clinical education and continuing professional development

Caroline Bowen

Caroline Bowen

In this edition of "Webwords", the use of social media in clinical education for undergraduate and postgraduate students, and in ongoing clinical education as a component of clinical professional development (CPD), is explored. Approaching these uses from four unexpectedly alliterative perspectives, they fall under the headings of Association, Aspirants, Academics and AAC.

Social media is a collective term used to describe a set of highly interactive platforms that promote discussion and community, allowing people to build relationships and communicate user-generated information. The range of social media platforms, described in **Webwords 44: Life Online**[1], is applied in the delivery and pursuit of both clinical education and CPD. They include podcasts, RSS feeds, video sharing, Facebook, Twitter, blogs, wikis, Internet discussion groups and email lists, cloud computing, social bookmarking and keyword tagging, and informal sharing of resources "socially".

Association

Recognising the critical significance of the clinical education of students, Speech Pathology Australia (SPA; 2005) encourages its members to engage in student supervision, urging them to regard it as a professional responsibility. Clinical education is the component of a bachelor or masters degree program that directly equips a student who aspires to become a speech-language pathologist (SLP) with the skills and experience required to work in clinical settings in our field at the level of competent "beginning practitioners".

Whether they are "beginning" or further down the track, a main objective of the Association is "to facilitate and promote opportunities for members to pursue knowledge and develop professionally". Consistent with this objective, it provides a continual selection of relevant, authoritative and enjoyable continuing professional development (CPD) events for members and non-members. Members' credentials can be enhanced if they engage in the Association's voluntary **Professional Self Regulation (PSR)**[2] program. It provides an objective means of measuring and acknowledging an SLP's commitment to CPD. As a participant in the PSR program the SLP must accrue a minimum number of points annually, over a 3-year period, in clinical practice, becoming entitled to use the post-nominals CPSP.

Members pursuing Association and non-Association professional development for PSR points are advised to be mindful of the level of evidence, or in some cases the lack of evidence, associated with available offerings. The necessary 10 points per year related to clinical practice can be earned by reading articles or attending workshops on assessment and intervention; providing peer support and attending special interest groups that have a clinical focus; undertaking quality assurance projects designed to impact service provision to clients; and engaging in activities related to topics such as benchmarking, case mix, evidence based practice and clinical pathways. On 25 March 2013 SPA announced on Twitter that active online learning relevant to speech pathology practice was worth 1 point per hour in the "extends professional skills/knowledge category", and gave as an example following #SLPeeps.

Speech Pathology Australia provides a **Social Media and Speech Pathology**[3] document to guide its members. Its own use of social media in CPD contexts extends to a public Facebook presence, a private Facebook group called APPropriate Apps for members interested in sharing information about Apps, an active Twitter account in which tweets are often appended with the #SLPeeps **hashtag**[4], email blasts (National and Branch e-News and the SPA Evidence Alert from the National Advisor, EBP & Research, Cori Williams), video sharing, and email lists related to Member Networks, including the Student Member Network.

Aspirants

It is probably fair to say that the vast majority of students in communication sciences and disorders aspire to find work in their field of study, and that was certainly true of Julie Sheridan who graduated from Birmingham City University (BCU) in June 2011. In February 2013, still without a job as a speech and language therapist (SLT), Julie wrote,

> *The job situation in the UK for newly qualified SLTs is not good and in tough times like this, social media provides clinical education, support and helps maintain clinical skills for those searching for jobs. I was employed by Birmingham City University to set up an employability and clinical skills website for SLTs. I used social media sites to find out what SLT graduates and undergraduates wanted from the BCU site and what was already out there.*

As an invited guest on the Skills for Graduates resource that Julie developed in **Moodle**[5], Webwords was impressed with the scope and practicality of what was on offer.

Speaking of her own student and new graduate experience, Julie said,

> *Truth be told, I don't know where I would be without social media for SLTs. I am a member of Twitter, Facebook, Pinterest and LinkedIn, mainly to keep in touch with SLT, new developments and most of all for the great support you receive from other therapists and organisations. I follow organisations such as RCSLT, ASHA and Speech Pathology Australia and I follow experienced SLPs. I find Pinterest fantastic for resource ideas and LinkedIn's groups and discussions provide a wealth of information on clinical education.*

Academics

In our professional Association's main academic publication, three of many academics, Lyndal Sheepway, Michelle Lincoln and Leanne Togher from the University of Sydney, point to the need for research in the area of clinical education. They emphasise that traditional models have not been investigated in their own right, or compared with non-traditional models in relation to their effectiveness in developing professional entry-level competencies as specified in Speech Pathology Australia's CBOS document.

The international study of clinical placement and supervisory practices in speech-language pathology (SLP) by Sheepway, Lincoln and Togher (2011) involved a survey of university personnel in 45 programs across seven English-speaking countries: Australia, Canada, Ireland, New Zealand, South Africa, the UK and the US. It revealed that archetypal traditional models, characterised by block and weekly placements with an SLP as supervisor working directly, one-to-one with a student, were the most widely used. Non-traditional models, such as *specialist*, *interprofessional*, *rural*, and *international* placements, adopting a variety of *direct*, *indirect* and *distance* supervisory structures involving electronic communication (Dudding & Justice, 2004; McLeod & Barbara, 2005), some with SLPs as supervisors and some using peer supervision, were utilised with differing frequencies across the countries.

Bronwyn Hemsley of the University of Newcastle, Australia, works in a speech pathology program that makes innovative use of social media for teaching, learning, and clinical education, and is engaged in a formal pilot project that has been ethically approved by the University of Newcastle. As part of the pilot, second- and third-year students are trained to use social media as an extracurricular activity and engage with social media in their coursework for "Complex Communication Needs 1" and "Swallowing Across the Lifespan".

Bronwyn writes,

> *A small group of students will visit Vietnam in April 2013 on Clinical Placement, during which time they will be taught to use a blog for documenting issues relating to cultural competence and their clinical education experiences. Lessons from this use of "blogs" with their classmates will be used to guide curriculum in the use of blogging during clinical education. The pilot project is progressing alongside development of University policy on the use of social media for teaching and learning, for both students and staff. The pilot project also informs this development of policy, and will lead to its use in curriculum in the future. The research part of the pilot is in "data collection phase" with focus groups of academic staff and students of speech pathology on their views on using social media (Twitter) for teaching and learning; results will be reported on at the 2013 Speech Pathology Australia National Conference and submitted for international publication.*

AAC

Discussions on Twitter bearing the #AAC hashtag quickly reveal that people working with people who use AAC, including SLP AAC service providers, are skilled in the use of social media.

Twitter is a free social networking micro-blogging service in which users send and read updates or "tweets" of no more than 140 characters. All six MRA signatories tweet: ASHA with the Twitter handle @ASHAWeb, CASLPA with @CASLPA, IASLT with @iaslt, NZSTA with @NZSTA, RCSLT with @RCSLT and SPA with @SpeechPathAust. A hashtag is a tag embedded in a message posted on Twitter, consisting of a word within the message prefixed with a hash sign, for example #SLPeeps. All messages containing #SLPeeps (note that it is not case-sensitive) are listed in date-order on a dedicated page so that interested parties can find them all in the same location. Among the most enduring and influential SLP-related hashtags are #SLPeeps (number one), #aphasia, #apraxia, #augcom, #dysphagia, #SLP2b, #slpchat, #SLT2b, #augcomm, and #spedchat.

A colleague in the US, **Carole Zangari**[6] who has taught AAC graduate classes for 20 years, responded to Webwords' request (on Twitter, for course) for information on how instructors use social media in their work as clinical educators, and for their top 5 social media resources.

Carole began by describing her efforts to get students engaged with tools such as blogs, **digital curation**[7] Facebook and video sharing. Below are her top 5, explained in Carole's own words.

Blogs

These give student clinicians insight into the issues faced by practicing SLPs. We use our own blog, **PrAACtical AAC**[8], to build AAC knowledge in our students and stay connected with them post-graduation. We also direct them to blogs by other SLPs, parents, and educators (e.g., **Jane Farrall**[8], **Uncommon Sense**[9], and **Teaching Learners with Multiple Special Needs**[10]).

Facebook

AAC-related pages and groups are used to connect student SLPs with professionals, other students, and families who share information, offer new perspectives, and engage in collaborative problem-solving (e.g., Augmentative Communication Resources and Help, IRSF Communication Information and Device Exchange, PrAACtical AAC).

Scoop.It

We model and encourage the use of digital curation tools, like **Scoop.It**[11] that allow students to become aware of new resources by following topics of interest. They can peruse resources in a visually compelling format. Students can build their own topics and use this to share information with clients and families (e.g., **Aided Language Input**[12], Communication in Autism13).

Twitter

Following individuals, agencies, and specific hashtags for topics (e.g., #augcomm, #AAC, #assistivetech) and conferences (e.g., #ISAAC2012, #ASHA12) allows students to stay current and connected with professionals who have similar interests.

Ted Ed

This tool allows us to select YouTube videos of people with AAC needs and pose clinical questions. We use these as outside assignments and discuss the cases in class, do related activities, or have students post to an online discussion board in the course website.

Acknowledgements

In one final "A", acknowledgement and thanks are extended to Julie Sheridan, Bronwyn Hemsley and Carole Zangari for their input, expertise and permission to quote them.

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Links

1. http://speech-language-therapy.com/index.php?option=com_content&view=article&id=67:ww44&catid=13:professional&Itemid=108
2. http://www.speechpathologyaustralia.org.au/library/PSR%20Booklet%202012.pdf
3. http://www.speechpathologyaustralia.org.au/library/M_and_CO/SpeechPathology_and_SocialMedia.pdf
4. https://support.twitter.com/articles/49309-what-are-hashtags-symbols#
5. https://moodle.org/
6. http://praacticalaac.org/author/carole-zangari/
7. http://www.dcc.ac.uk/digital-curation/what-digital-curation
8. http://www.praacticalaac.org/
9. http://www.janefarrall.com/
10. http://niederfamily.blogspot.com/
11. http://www.scoop.it/t/communication-and-autism
12. http://www.scoop.it/t/aided-language-input
13. http://www.scoop.it/t/communication-and-autism

Webwords 46 is at www.speech-language-therapy.com with live links to featured and additional resources.

Top 10 resources for clinical education

Final-year Speech Pathology students at Charles Sturt University

This list of resources for successful workplace learning experiences has been compiled by final-year students in the undergraduate speech pathology program at Charles Sturt University in Albury. Students identified their most useful resources based on workplace learning experiences undertaken during the first three years of the course. These experiences included traditional placements in hospitals, community health clinics, and disability services, as well as non-traditional placements with clients and families in a range of community settings. Workplace learning (WPL) comprises a large component of their final year of study at CSU and so the students anticipate these resources will be utilised even more during the next 6–12 months!

1 Peers

Students valued the opportunity to talk with other students in their cohort (and other students completing WPL at the same sites) about their experiences. Communicating with peers (face to face, via telephone and email, in chat rooms and other social media) was seen to be beneficial in enabling students to develop *communities of practice*, and support one another in their learning. It also provides an opportunity for them to debrief about their experiences in a less formal context than is possible through the structured reflections often required by clinical educators (CEs) and university staff.

2 Websites

The *Speech Pathology Australia website* was identified as a valuable resource for providing student speech pathologists with important information about frameworks for practice (e.g., Code of Ethics, Competency-Based Occupational Standards for Speech Pathologists) and position statements relating to their work with particular client groups. The students also valued websites such as *speech-language-therapy dot com*, which they used to gather information about communication difficulties and intervention strategies, as well as *SparkleBox*, which they used to identify interesting and fun intervention activities for children.

3 Textbooks

Books that were prescribed reading for specific subjects across the four years of the course were considered useful resources for assisting students to recall characteristics of communication and swallowing difficulties, modes of assessment and evidence based intervention approaches. Students also valued textbooks such as the *Survival Guide for Speech-Language Pathologists* (Moon-Meyer, 2004) which provided them with templates for practical tasks such as writing session notes and initial assessment reports.

4 Summaries

Students often created their own summaries of information about particular client groups and conditions, which they then used as a reference while undertaking WPL. Students appreciated CEs providing details about the populations serviced by the speech pathologists on site prior to the commencement of their WPL, as this directed their preparation and independent study. Summaries often took the form of tables which were considered particularly useful for summarising information to compare conditions (e.g., dysarthria and dyspraxia).

5 Lecturers/CEs

Students valued the insights and assistance of their CEs and university staff in providing them with information, support and guidance when working with clients and their families. They appreciated CEs and university staff taking time to help them prepare for their experiences and for providing constructive feedback to enable them to expand their knowledge and improve their skills in future sessions.

6 Lecture notes

Lecture and tutorial materials were considered a useful reference point for students who used them to recall information covered in subjects from previous years, but also to direct them to further references and resources for particular topics. Lecture materials were often downloaded onto USB and portable hard drives which made them easier (and lighter!) to transport to the sites of WPL than textbooks.

7 Diagrams

Students reported the creation and use of diagrams to assist in their recall of information, particularly for anatomical knowledge was valuable. Sometimes the process of creating these diagrams was sufficient to aid their recall, while at other times the diagrams were used as a reference throughout the duration of their WPL experiences.

8 Templates

Students appreciated being provided with templates to assist with timely and appropriate documentation while completing their WPL experiences. Templates that identified the type of information to be included and the structure preferred by the WPL site assisted students to complete administration tasks such as preparing session notes and writing reports in an efficient and effective manner.

9 Checklists

Frameworks for conducting assessments and analysing results were useful for students to ensure they examined appropriate structures and functions and interpreted the outcomes accurately. These frameworks often took the form of checklists that students could use as a reference while completing clinical tasks, such as bulbar assessments and oromotor examinations. They were also used to guide the analysis of results from assessments such as videofluoroscopies, and for aiding students to write comprehensive progress notes following such assessments.

10 Assessment tasks

The completion of assessment tasks during the first three years of their studies was regarded as useful for student learning and preparation for WPL experiences. Some of these assessment items (e.g., Toolboxes) involved the collection or creation of resources that the students were then able to use in sessions with clients/families.

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Resource review

Speech pathology resources

Dillon, H. (2012). *Hearing aids* (2nd ed.). New York: Thieme; ISBN 978-1604068108

Helen Harrington-Johnson

Harvey Dillon's second edition of *Hearing Aids* provides an invaluable resource to audiologists, clinicians, engineers, technicians, and students as well as all those who work with people with hearing impairments. The hardback text reflects Harvey's immersion in the theory and practice of assessment, diagnosis and management of hearing loss. This book is set to become the "bible" for of all those who have hearing aids or are working with people who wear them.

The synopsis provided at the beginning of each chapter summarises the technical and practical aspects dealt with in the specific topics of each chapter. Key issues are highlighted throughout the book with the addition of clear, easy-to-read printable tables and checklists. These checklists are perfect for quick reference in clinics and are a really practical aspect to this book.

Hearing Aids covers a wide range of topics, divided into clinically suitable themes. Within each chapter is an array of topics, each clearly labelled. *Hearing Aids* deals comprehensively with the structure of hearing aids, audiology assessment theory, practical diagnostic and assessment tasks. It also covers post diagnostic information including the technical management of equipment and personal management of clients. Harvey's book also discusses the management challenges affecting clients outside the audiology clinic.

It seems relevant that speech-language pathologists and teachers of deaf people have access to this text so they to have a comprehensive reference to develop a good understanding of the assessment process of hearing impairments and the equipment involved. The high level of technical detail is clearly relevant to audiologists, engineers and technicians; however, it is also an essential reference for other professionals who would not necessarily have this information to hand.

The range of content covered in *Hearing Aids* and its style of presentation makes this book user friendly. I would recommend it as an everyday management reference for those in non-clinical settings.

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 1, 2014	1 August 2013	14 October 2013	Translating research into practice
Number 2, 2014	3 December 2013	1 February 2014	Policy and Practice
Number 3, 2014	12 April 2014	27 June 2014	TBA

* articles on other topics are also welcome

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Material submitted must be your original work. Any direct quotations or material used from other sources must be credited in full. If copyright clearance is required to use material included in your article, please supply evidence that this has been obtained.

With rare exceptions, we do not publish material that has already been published.

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).

The title page should contain the title of the article, the author's name, profession, employer, contact phone number, and correspondence address, as well as a maximum of five key words or phrases for indexing. Please provide brief biographical details (up to 15 words) for all authors.

The format must be double spaced with 2.5 cm margins, in a serif face (such as Times or Courier), each page numbered sequentially.

CDs must be clearly marked with file name, author's name and program used, including version number and whether PC or Macintosh (e.g., MS Word 2007). Each table or figure must be in a separate file on the disk. Do not incorporate figures or tables within the text of the article. Formatting must be kept to a minimum. Do not use tabs, bold, or other highlighting of the text. References must appear at the end of the article. The first line of each paragraph should be indented. Do not right justify the text. Use one space after punctuation, including full stops. Double quotes should be used.

Peer review

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.

Style

Clear and concise writing is best. Use short sentences and paragraphs and plain English.

Reproduce any quotations exactly as they appear in the original and provide the page number(s) for the pages you have quoted from.

References, which should be kept to a minimum, should follow the American Psychological Association (APA 6th ed.) style.

The title should be kept as short as possible (maximum 80 characters).

Headings should be short. Within the article a maximum of two levels of headings should be used. For first level headings use all capitals, centred with one line space above and one line space below. For second level headings use a capital letter for the first letter of the first word only, centred with one line space above and one line space below.

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