

Kertas Asli/Original Articles

Identifying Opportunities for Peer-Assisted Learning In Speech Language Therapy Clinical Education

(Mengenal Pasti Peluang untuk Pembelajaran Berbantuan Rakan Sebaya dalam Pendidikan Klinikal Terapi Bahasa Pertuturan)

ABSTRACT

Peer-assisted learning (PAL) is a potential approach for clinical education that can reduce the burden of clinical supervision and enhance learning. This study aims to identify opportunities for PAL through investigating how speech language therapy students perceive and already participate in PAL within a range of clinical practicum settings. The Speech Sciences students across all years at one institution were invited to participate in a cross-sectional survey that was adapted and revised from Tai et al. (2014). Speech Sciences students reported they applied PAL as part of their learning strategy in their clinical practicums, but still relied on supervisors as the main source of. PAL occurred more frequently in contexts where students already had some clinical experience and spent substantial amounts of time together. Students agreed that PAL enhanced their learning and emphasized a few advantages of PAL, such as having the opportunity to share their ideas, experiences, and knowledge, and providing a positive learning environment without pressure. Confidence to provide information or feedback to peers was cited as a shortcoming in PAL. PAL is a viable teaching approach that can be used in speech-language therapy clinical education program to reduce the supervisory burden. The findings from our study show that PAL is largely self-initiated among speech-language therapy students. However, PAL must be tailored to suit different clinical education year levels and clinical settings to benefit. Case discussion may be one area where scaffolded PAL activities could represent a feasible first step to increasing PAL.

Keywords: Peer-assisted learning, speech-language therapy, clinical education, clinical supervision.

INTRODUCTION

One of the key challenges in the area of clinical education amongst speech-language therapy (SLT) programs worldwide is to provide effective clinical supervision for students in training (McAllister, 2005; Van Dort, 2005). Demands to increase the number of student intake, shortage of centres/hospitals for clinical placements, and the limited availability of suitable supervisors for clinical education has challenged the reliance for the traditional model of a 1:1 supervision (Briffa & Porter, 2013; McAllister, 2005; Van Dort, 2005). Implementing peer-assisted learning (PAL) within clinical education may reduce pressure on supervisors and lead to enhanced learning (McAllister, 2005), however both students and educators must be convinced of PAL's worth (Tai et al., 2017). Studies of PAL in SLT have so far been largely confined to small-scale pilot studies, which do not capture broad student perspectives. Understanding students' perceptions of PAL and their existing PAL practices are important in determining how PAL could contribute further to effective SLT clinical education. This study therefore aims to identify

opportunities for PAL in SLT clinical education by answering the question "How do SLT students perceive and participate in PAL activities during clinical education?"

Clinical supervision is a vital component in the professional training of speech-language therapists as it encompasses educational, supportive and administrative functions (Kilminster & Jolly, 2000). It is a complex process of interaction between clinical supervisors and supervisees to promote professional development and impart clinical skills and knowledge in the supervisees (Kilminster & Jolly, 2000; McAllister, 2005). The majority of the clinical education in speech-language therapy programs has been provided through the traditional approach of a 1:1 student-to-supervisor ratio where one supervisor will closely supervise one student in block or weekly placements (Sheepway et al., 2011). However, speech-language therapy programs have started to use diverse approaches such as utilizing supervisors from other professional backgrounds, collaborative models of supervision or group supervision, peers as supervisors or mentors, indirect supervisory models and distance supervisory models (Briffa & Porter, 2013; McAllister,

2005, Sheepway et al., 2011). Despite the implementation of these innovative approaches to clinical education, there is little empirical data available to support the effectiveness of any of these approaches (Sheepway et al., 2011; Briffa & Porter, 2013).

Anderson's Continuum of Supervision (1988) is widely used in the field of speech and language therapy (ASHA 2008). This model of supervision illustrates the development of the supervisor and supervisee relationship of teaching and learning into distinct stages of clinical development. The critical element of this model is the change in the amount of interaction between supervisor-supervisee; as supervisors decrease the amount of control, participation by the supervisee for their learning increases across the continuum (Anderson, 1988). While the continuum is not exclusively time-bound; it captures how students begin by being dependent on supervisors and relying on direct guidance and feedback (evaluation-feedback stage) as well as progressing through the transitional stage where supervision becomes collaborative. Self-supervision stage eventually promotes clinical independence with the supervisee taking greater responsibility towards self-directed learning. Hence this model corroborates well with Lincoln and McAllister (1993), who encouraged peer learning and believed that it could facilitate students to be "independent and promote growth towards self-supervising clinicians from whom their peers will be able to learn." It is therefore not surprising to find studies showing peer supervision/mentoring and shared individual/shared group as the next useful supervisory model to develop student clinical competency compared to the traditional approach of 1:1 supervision (Sheepway et al., 2011; Joginder Singh et al., 2019).

Despite the need for enhanced peer learning, studies in the field of speech-language therapy are limited and confined to small-scale studies. McCarthy et al. (2014) conducted a transcendental phenomenology study amongst five pairs of full-time clinicians - peer mentors and one clinical instructor to explore their perspectives on the clinical peer mentoring experience. The findings showed that participants viewed the peer mentor experience as a positive shared experience characterized by newly formed friendships, team-building and collaborative experiences that guided and supported clinical skills development. Peer mentors also felt that they displayed confidence, self-satisfaction and perceived themselves as providing positive guidance and support to the first-time clinicians. The disadvantages include first-time clinicians feeling overwhelmed with paperwork and still questioning their abilities to perform independently in the subsequent semester. Overall, participants also expressed a lack of clearly defined expectations, roles, and responsibilities,

which negatively impacted the relationships. In a separate study, Rentschler and Gasior (2011) reported positive outcomes in the use of a student peer mentoring in a university Stuttering Clinic. One student mentored six student clinicians with the aid of one faculty instructor for one semester. Mentors, mentees and faculty instructors all reported positive outcomes. The mentor reported improvements in confidence and leadership skills, while the mentees felt at ease and had easy and quick access to information. The authors felt that the selection of student mentors was key to the success of peer mentoring programs. In contrast to the previous studies, only one study reported a significant disadvantage among mentors (Bettens et al., 2018). This study examined the effects of a peer-tutoring for improvement of speech sound errors amongst first (mentees) and final (mentors) year master program students using a case-control study design. While mentees evaluated the project positively, i.e. significantly higher self-assessed learning success, compared to the control group, mentors felt less supported and had not improved at the end of the project. Compulsory involvement, time pressure and low self-efficacy and motivation in mentors were factors that may have contributed to the overall negative self-assessment of the project (Bettens et al., 2018). The use of peer learning in an inter-professional learning model was further shown to demonstrate positive results (Serpanos et al., 2017). Fifty-three speech-language therapy students who were trained by ten doctoral audiology peers over nine individual PAL sessions exhibited significant improvements in their knowledge and skill as well as making outcome-based referrals in audiology screening. Audiology peer mentors also reported positive outcomes for satisfaction and a sense of personal reward. Nevertheless, findings from these studies have shown the potential benefits of utilizing formalized peer learning within clinical education programs. A wider scale approach to understanding students' perceptions of and participation in PAL is required. Thus, this paper seeks to answer the question, "How do SLT students perceive and participate in PAL activities during their clinical placements?"

MATERIALS AND METHODS

PARTICIPANTS

The Universiti Kebangsaan Malaysia (UKM) Speech Sciences program is a pioneering program in Malaysia and has since graduated approximately 400 speech-language pathologists since its inception in 1994 (Ahmad et al., 2013). The program is a four-year undergraduate program where students are required to complete 121 credit

units in eight semesters. Clinical education is carried out over six semesters starting in the second year and is completed in the fourth year of study. All the clinical sessions receive different levels/degrees of supervision by qualified clinical educators. In their first clinical induction in the second semester of year two, students are paired with final year students. Following that, students begin conducting individual therapy sessions. Both second and third-year students conduct their clinical training at the university clinic; Klinik Audiologi dan Sains Pertuturan (KASP), henceforth interchangeably referred to as the “internal clinic”. At the end of the third year, students further complete one-month of industrial training at various external clinical placements throughout the country. Fourth-year students complete one to two days of external clinical placements and one day of internal clinic at KASP. They undertake honours research and one to two subjects to complete the credits.

STUDY DESIGN

The research was approved by the UKM ethics committee (JEP-2019-108). All second-, third- and fourth year UKM Speech Sciences students involved in clinical education were invited to participate in a cross-sectional survey. All participants provided a written informed consent prior to completing the study survey.

INSTRUMENT

The survey used in this study was adapted and revised from Tai et al. (2014). Permission to adapt, revise and use the survey was obtained from the original author. The questionnaire is divided into two sections. In Section A, demographic data was collected. In section B specific PAL measures: i) previous participation in PAL activities, ii) self-reported utility of PAL activities in meeting learning needs, iii) cue to action for participation in PAL activities, iv) perceived advantages and disadvantages of participating in PAL activities, and v) overall learning and teaching patterns were collected.

PROCEDURE

The survey was distributed during a clinical briefing session by the researcher in the first week of the semester. Respondents were given two weeks to complete the questionnaire upon the commencement of clinical education in week three of the semester. Students were required to answer the questionnaire based on their clinical experience and usage of PAL in the past few weeks.

DATA ANALYSIS

The occurrence of PAL was analyzed by calculating the mean average score to determine the average frequency of PAL activities. Multiple choice questions: reasons of participating, where is the occurrence of PAL, who they learned most from and who they get clinical teaching from, were all analyzed using descriptive analysis to identify the most frequently occurring items in each question. For questions asked regarding the usefulness, advantages and disadvantages of PAL, a score above 3 (on a scale of 1 = not at all useful to 5 = extremely useful) was calculated in percentages to determine the most frequent and least frequent component.

RESULTS

The response rate for the survey was high, with 66 of 68 (97%) forms returned to the researcher. Of this, 26 (39%) respondents were second-year students, 25 (38%) were third-year students and the remaining 15 (23%) respondents were fourth-year students. There were more female (n=61) than male (n=5) respondents reflecting the actual low enrollment of males into the program. All second- and third-year respondents had clinical training at the internal clinic (KASP) while fourth-year students were undergoing both internal and external clinical placements. The external clinical placements were at hospitals (n=9), private centers (n=9) and schools (n=3).

WHO DO YOU LEARN THE MOST CLINICAL TEACHING FROM?

A total of 65 students responded to the question, “Who do you learn the most clinical teaching from in the past week?” (Figure 1). Students across all years reported having learned from clinical supervisors, followed by peers and lecturers. Only one student reported having learned from other professionals. A total of 53 respondents further explained their own choices when asked: “Why did you learn the most from this person?” Typical answers for choosing supervisors were that they had more experience and that they could learn by receiving feedback through the answers and advice given by supervisors. Respondents who chose peers believed that they could share their experience and knowledge with their peers. Moreover, they were comfortable, had no barriers, were more understanding of their situation and had easy access to their peers. Finally, lecturers were chosen because they were perceived as being informative and they spent more time in class.

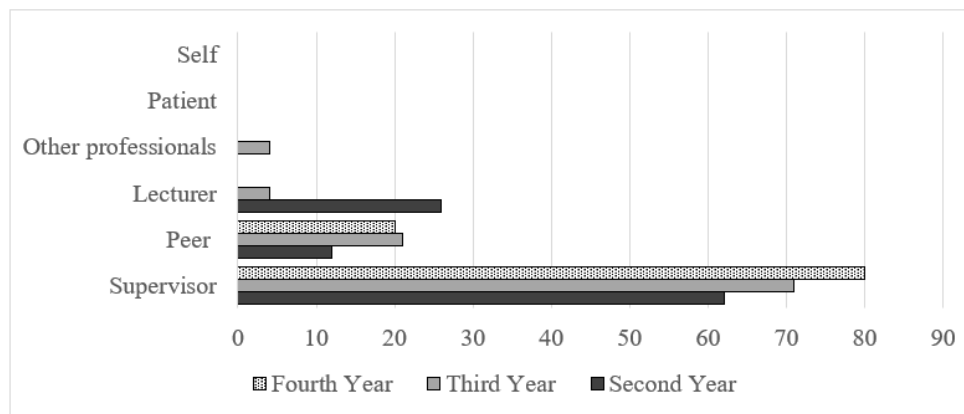


Figure 1. Descriptive data for item: *Who do you learn the most clinical teaching from for the past week?*

PAL ACTIVITY FREQUENCY, UTILITY AND REASONS

Students responses for frequency and utility (Table 1a) and reasons for participation (Table 1b) in PAL activities are summarised across years. All students reported having participated in PAL activities 1-8 times per week. However, the frequency of PAL activities was the highest among third year (occurring at least three times per week) and the lowest among fourth year students (occurring at least once per week). Interestingly, PAL activities were consistently self-initiated (66 - 69%) and were the least requested by

educator (6 - 14%) across all years. Second year students reported having used PAL in their learning for an average of twice a week. 88% of the students agreed to the statement 'I was taught by a peers about the topic' was the most useful. The least useful PAL activity was 'giving feedback to a peer regarding their performance/knowledge' (65%). The average occurrence of PAL per week for third year students was 3 times per week. The most frequent PAL activity was 'observed peer doing examination/history' with average of seven times per week. 'I demonstrated a skill to peer' was the least practised PAL activity among third-year students. Most of the students responded that

Table 1a. PAL activity frequency (per week) and utility of PAL activity for learning needs across years

Peer Assisted Learning (PAL)	Year 2 (N=26)		Year 3 (N=25)		Year 4 (N=15)	
	Frequency	Utility	Frequency	Utility	Frequency	Utility
I observed a peer performing a history/ examination	2.85	85%	7.60	64%	1.80	47%
I was observed by a peer performing a history/ examination	1.96	77%	4.12	48%	1.47	53%
I taught a peer about a topic	2.00	77%	3.80	80%	1.27	53%
I was taught by a peer about a topic	2.81	88%	5.32	92%	1.47	53%
I demonstrated a skill to a peer	2.19	77%	2.92	72%	1.13	53%
A peer demonstrated a skill to me	3.00	85%	4.08	92%	1.07	53%
I gave feedback to a peer on their performance/ knowledge	2.23	65%	4.92	92%	1.80	53%
I received feedback from a peer on my performance/ knowledge	2.35	81%	4.32	92%	1.53	80%
I discussed a case with a peer	2.73	85%	6.20	92%	2.33	80%
A peer discussed a case with me	2.77	85%	5.42	92%	1.93	80%
Total	24.89		48.7		15.80	

PAL activities were useful in their clinical practise. 92% of respondents agreed that ‘I was taught by a peer about a topic’, ‘a peer demonstrated a skill to me’, ‘I gave feedback to a peer on their performance/ knowledge’, ‘I received feedback from a peer on my performance/ knowledge’, ‘I discussed a case with a peer’, ‘a peer discussed a case with me’ were useful in their learning. Observation by a peer was the least useful PAL in their clinical practise (48%). Fourth year students practised PAL activities at least once a week. The most frequent PAL activity practised was ‘I discussed a case with a peer’, which occurs twice per week. The most useful PAL

activities agreed upon by the overall students were ‘I received feedback from a peer on my performance/ knowledge’, ‘I discussed a case with a peer’, ‘A peer discussed a case with me’ as shown by 80% responses with more than 3 (on a scale of 1 = not at all useful to 5 = extremely useful). ‘I observed a peer doing history/ examination’ was chosen as the least useful PAL activity.

Students were asked to further explain their choices regarding the usefulness of PAL via open-ended questions. Responses were coded into themes. The frequency of statements for each theme is presented by year in Table 2. Students across all years agreed that the main reason they

Table 1b. Reason for participating in PAL activity across years

Reason for participating in peer assisted learning (PAL)	Year 2			Year 3			Year 4		
	I choose to do it (%)	I was asked by a peer (%)	I was asked by an educator (%)	I choose to do it (%)	I was asked by a peer (%)	I was asked by an educator (%)	I choose to do it (%)	I was asked by a peer (%)	I was asked by an educator (%)
I observed a peer performing a history/ examination	13 (93)	1(7)	0 (0)	18(78)	0	5(22)	14(93)	1(7)	0
I was observed by a peer performing a history/ examination	9(47)	3(16)	7(31)	14(56)	5(20)	6(24)	9(60)	1(7)	5(33)
I taught a peer about a topic	14(52)	10(37)	3(11)	16(55)	12(41)	1(4)	6(40)	9(60)	0
I was taught by a peer about a topic	22(84)	2(8)	2(8)	21(75)	5(18)	2(7)	10(71)	3(21)	1(8)
I demonstrated a skill to a peer	14(58)	4(17)	6(41)	14(52)	9(33)	4(15)	6(50)	7(43)	1(7)
A peer demonstrated a skill to me	19(70)	5(19)	3(11)	20(76)	3(12)	3(12)	11(85)	2(15)	0
I gave feedback to a peer on their performance/ knowledge	13(54)	6(25)	5(21)	14(47)	10(33)	6(20)	11(69)	4(25)	1(6)
I received feedback from a peer on my performance/ knowledge	7(58)	1(8)	4(34)	22(81)	3(11)	2(8)	12(75)	1(6)	3(19)
I discussed a case with a peer	20(83)	1(4)	3(13)	22(79)	4(14)	2(7)	14(88)	1(6)	1(6)
A peer discussed a case with me	17(77)	4(18)	1(5)	18(67)	8(30)	1(3)	9(53)	8(47)	0
Total	151(69)	37(17)	34(14)	179(66)	59(22)	32(12)	102(69)	37(25)	12(6)

practised PAL was that they could gain new ideas and learn new skills by discussion and observation with peers (n=112). Following that, students stated that they utilized PAL in their clinical practise because they could reflect on their own performance (n=73) and could increase their understanding (n=72). Students also reported that by practicing PAL they could gain feedback from their peers on their performance (n=60), enhance direct learning (n=49) and improve self-skills (n=18). Differences across years for choices regarding usefulness of PAL were observed.

ADVANTAGES AND DISADVANTAGES OF PAL

Students were asked to rate statements given for the advantages and disadvantages of PAL from 1= strongly disagree to 5= strongly agree. Responses above 3 were recorded and measured in frequencies. Results are presented in proportion in Figure 2 (Advantages of PAL) and 3 (Disadvantages of PAL) respectively. The highest reported advantages for the second year students were to

‘reflect on my learning’ and ‘increases my respect for peers’ compared to third year students whose highest reported advantages include ‘allows me to ask ‘dumb’ questions that I might not be willing to ask of an expert’, ‘Allows me to express myself/let down my guard’ and ‘Gives me different strategies and perspectives on how to learn material’. Final year students reported similar advantages as year three students; ‘allows me to ask ‘dumb’ questions that I might not be willing to ask of an expert’ as well as ‘gives me extra time to increase my understanding’. The least number of students agreed with the statement ‘improves my leadership skills’. Second- and fourth year students agreed that ‘I cannot trust my own judgement about my peers’ knowledge or performance’ as their main disadvantage of PAL as compared to third year students who agreed that ‘my peers hesitate to provide me with constructive feedback (i.e. identify negative aspects of performance)’ as one of the main disadvantages of PAL. The least students agreed with the statement that ‘it encourages ‘unhealthy competition’ if PAL was being practised’.

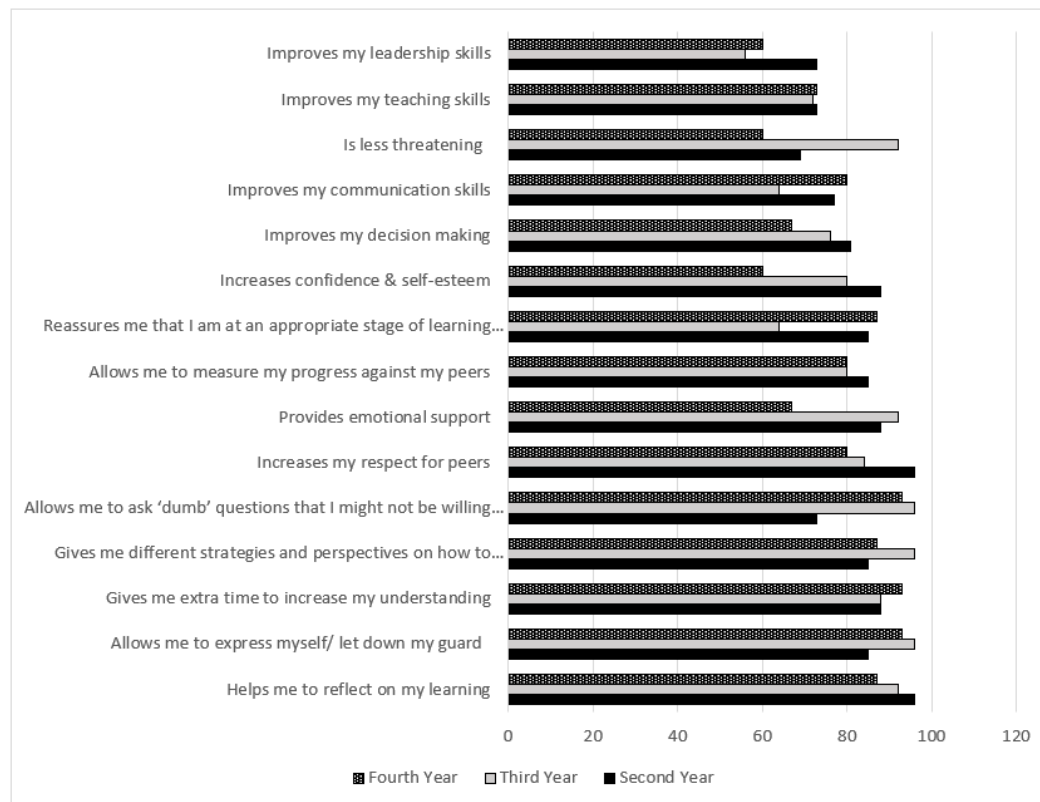


Figure 2. Advantages of PAL across years (%)

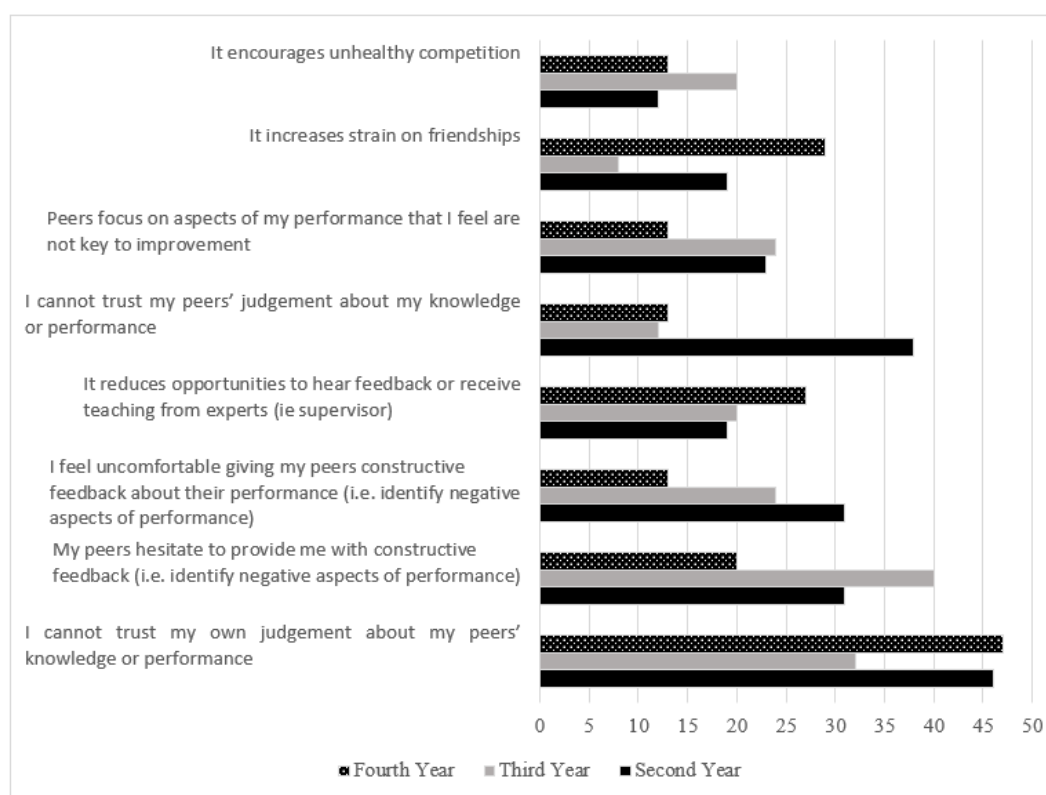


Figure 3. Disadvantages of PAL across years (%)

DISCUSSION

This study suggests that peer learning in clinical education is perceived positively amongst SLT students and already occurs, albeit in low frequency. However, the reliance on clinical supervisors as a source for their learning is still very high. Students preferred direct teaching and believed that clinical supervisors were more experienced and able to provide valuable input to improve their learning. In contrast, students also learned from their peers but for different reasons; they were comfortable, had no barrier, felt that their peers were more understanding of their situation and they had easier access to their peers. This is in-line with McAllister (1993) who suggested that it is possible that emotions may be more freely expressed with peers because there may be more empathy and less risk of judgement. Furthermore, in this study, PAL is largely self-initiated across the year levels, which demonstrates the current less prominent role of clinical educators. More than 60% of respondents chose to participate in PAL, rather than being told to by a peer or asked by an educator. The overall findings also align with previous work by Tai et al., (2014) that was conducted in an undergraduate medical education setting.

The findings of this study showed that the fruitful use of PAL in the clinical environment might vary across the

years of the program, which might be associated with both the placement configuration and students' developing expertise. The year three students used and benefited from PAL activity the most compared to both second- and fourth year students. This might be due to the increased opportunity for students to learn from each other; typically, this cohort of students spent most of their time undergoing internal clinics and attending classes together during the semesters. They also had previous experience in clinic and may be further along in the Anderson's Continuum of Supervision (1988); hence understand the value of learning from each other during clinical sessions. While second year students used PAL frequently, they appeared less confident in using PAL and perceived that PAL activities that require teaching and demonstrating are less useful to their learning as compared to if they were being taught by an educator. This aligns with previous work that suggested more junior students may need appropriate scaffolding to participate in PAL (Tai, Canny, Haines & Molloy, 2017). The fourth-year students in this study used and benefitted the least from PAL, despite increased clinical hours (including direct contact with clients) and reduced supervisor dependence. The qualitative comments suggested that these students may perceive different roles for PAL compared to junior years as they face an additional set of challenges with being in the final year of clinic, achieving competency before entering the workforce. Fourth year students were also less

focused on knowledge and understanding and appeared to be more concerned about their own judgements, valuing the opinions of educators more. This may be an instance of the “Dunning Kruger” effect where those with relatively more understanding tend to rate themselves as less competent (Kruger & Dunning, 1999). Reduced self-efficacy might also have contributed, as there was a higher number of students who repeated course subjects or clinical training in this specific cohort. The class and placement structure may have also contributed to reduced opportunities for PAL, since they also worked individually to complete their research projects. Taken together, the findings across year levels suggest that it is unlikely that a single model for PAL across all year levels, and across all clinical settings, will be appropriate.

Students also felt uncomfortable with providing feedback, and reported they were not able to trust peers, nor their judgements. How trust and credibility in feedback are established between peers, however, further investigation. Focussing on developing students’ feedback literacy and evaluative judgement (Carless & Boud, 2018; Tai, Canny, Haines & Molloy, 2016) may help with this. Supporting students in this way also aligns with the Anderson’s Continuum of Supervision (1988) where students at the beginning of the clinical training are novices who require support in all aspects of their learning.

With regards to specific peer learning tasks, interestingly, across all years, students found that ‘I discussed a case with a peer’ and ‘A peer discussed a case with me’ was one of the most useful peer learning activities. None of the other peer learning tasks were perceived as important in improving clinical learning. While not all students employ the same methodology to learn; it is apparent that different tasks facilitate different types of interaction and learning (King, 2002). Case discussion appears to be meaningful for speech-language therapy students, which allows students to bring their own observation and experience into a more reflective learning process. This may be one area where scaffolded PAL activities could be enhanced since current case discussion activities usually involve a panel of lecturers and clinicians. This aspect has previously been incorporated in allied health PAL and could represent a feasible first step to increasing PAL (Sevenhuysen et al., 2015).

CONCLUSION

This study suggests that there are opportunities to incorporate formal PAL activities to expand SLT clinical supervision models beyond the traditional 1:1 format, particularly in relation to case discussion Speech Sciences students in this study understood the importance of PAL

and did apply it as part of their learning strategy in their clinical practicum, without being asked by an educator or doing it as part of a course requirement. Despite positive attitudes to PAL, the findings also suggest that students might not as confident in providing information or feedback to peers on certain areas of knowledge. The progressive usage of PAL across the years of a SLT curriculum may gradually reduce student’s over-dependency on the supervisors and consolidate along Anderson’s Continuum of Supervision for speech-language pathologists.

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Hasherah Mohd Ibrahim
 Nurul Atikah Mohd Shafri
 Centre for Rehabilitation & Special Needs Studies,
 Faculty of Health Sciences,
 Universiti Kebangsaan, Jalan Raja Muda Abdul Aziz
 50300 Kuala Lumpur, MALAYSIA

Joanna Tai Centre for Research in Assessment and
 Digital Learning, Deakin University, Australia.

Corresponding author: Hasherah Mohd Ibrahim;
 hasherah@ukm.edu.my.