



Current practice of clinical exercise physiology placement supervision in Australia.

2013 report

R Sealey, J Raymond, H Groeller, K Rooney, M Crabb, K Watt



Title: Current practice of clinical exercise physiology placement supervision in Australia: 2013 report.

Authors: R Sealey¹, J Raymond², H Groeller³, K Rooney², M Crabb⁴, K Watt¹

Affiliations: ¹ School of Public Health, Tropical Medicine and Rehabilitation Sciences; ² Faculty of Health Sciences, The University of Sydney; ³ School of Health Sciences, University of Wollongong; ⁴ School of Human Movement Studies, University of Queensland.

Date of report completion: June 2013

Recommended citation: Sealey, R., Raymond, J., Groeller, H., Rooney, K., Crabb, M., & Watt, K. (2013). Current practice of clinical exercise physiology placement supervision in Australia: 2013 report.



CONTRIBUTIONS AND FUNDING SOURCES

Project team

Project Leader

- Dr Rebecca Sealey - Senior Lecturer, School of Public Health, Tropical Medicine and Rehabilitation Sciences, James Cook University

Co-investigators

- Dr Jacqueline Raymond – Senior Lecturer, Faculty of Health Sciences, The University of Sydney
- Dr Herb Groeller – Senior Lecturer, School of Health Sciences, University of Wollongong
- Dr Kieron Rooney – Senior Lecturer, Faculty of Health Sciences, The University of Sydney
- Ms Meagan Crabb – Practicum and Clinical Education Manager, School of Human Movement Studies, University of Queensland
- Dr Kerriane Watt – Associate Professor, School of Public Health, Tropical Medicine and Rehabilitation Sciences, James Cook University

Participating Universities

Australian Catholic University, Charles Sturt University, Edith Cowan University, James Cook University, Murdoch University, Queensland University of Technology, Southern Cross University, University of Canberra, University of New England, University of New South Wales, University of Notre Dame, University of Queensland, University of South Australia, University of Sunshine Coast, The University of Sydney, University of Tasmania, University of Western Australia, University of Wollongong, Victoria University.

Funding source

This project was funded with a James Cook University Teaching and Learning Development Grant.

Ethics approval

This project was approved by the James Cook University Human Research Ethics Committee (H4777).

Endorsement

The project recruitment processes and survey design were endorsed by the Exercise and Sports Science Australia (ESSA) Chief Executive Officer, Anita Hobson-Powell.

CONTENTS

SECTION	PAGE
Executive summary	7
Intended use	7
Overview of findings	7
Background information	8
Introduction	8
Project aim	9
Participation and analysis	10
Project participation	10
Survey design	11
Data analysis and interpretation	11
Results	12
Demographics	12
Geographic location	14
Supervision experience, capacity and scope	18
Factors that influence ability or willingness to supervise student placements	23
Placement and supervision processes	32
Placement and supervision practice	45
Supervision training	48
Supervision resources and support	53
Supervision documentation	62
Further comment regarding placement supervision and/or training	64
Project limitations	70
Conclusion, major recommendations and related projects	71
References	73
Contact details and recommended citation	76

LIST OF TABLES

TABLE	PAGE
Table One: Demographic data of participants	12
Table Two: Geographic location	16
Table Three: Clinical placement supervision capacity	19
Table Four: Content areas of placement	20
Table Five: Practices typically undertaken during clinical placement	47
Table Six: Formal supervision or education training previously completed by supervisors	48
Table Seven: Format preferences for future placement supervision/education training	48
Table Eight: Resources supplied by the universities	53

LIST OF RECOMMENDATIONS

RECOMMENDATION	PAGE
Recommendation One: Explore the potential for multi-disciplinary supervision of exercise physiology placements.	14
Recommendation Two: Explore opportunities for exercise physiology placement in the Northern Territory, the Australian Capital Territory, Tasmania and South Australia.	17
Recommendation Three: Confirm current rural and remote placement opportunities within Australia and explore opportunities to enhance capacity.	18
Recommendation Four: Explore opportunities for the central processing of placement opportunities to maximise current capacity.	22
Recommendation Five: Implementation of a group supervision model. Universities to facilitate this evolution from one-to-one supervision to group supervision by providing supervisor training for small group facilitation, leadership and peer assisted learning to enhance student learning and to increase student placement capacity.	23
Recommendation Six: Transition toward competency-based placement undertaken throughout the university degree and across a more diverse range of services.	31
Recommendation Seven: Enhanced formal recognition of clinical placement supervision as professional continuing education.	31
Recommendation Eight: Develop standardised placement-based assessment resources suitable for use by supervising clinicians.	45
Recommendation Nine: Develop a supervisor checklist and associated exemplars for typical placement practices across the domains of professional practice, learning practice, feedback practice and assessment practice.	46
Recommendation Ten: Develop a national supervisor training package.	52
Recommendation Eleven: Develop a minimum clinical placement resources checklist for universities.	61
Recommendation Twelve: Develop a clinical competencies checklist that includes professional and clinical skills.	61
Recommendation Thirteen: Develop a standardised process for providing feedback to placement supervisors.	61
Recommendation Fourteen: Explore current and future clinical placement and training funding requirements and arrangements.	61
Recommendation Fifteen: Engage with supervisors to explore ways to enhance time efficiency, simplicity and relevance of the ESSA logbook.	64
Recommendation Sixteen: Explore supervisor qualification and accreditation processes to ensure ongoing clinical placement supervision capacity.	69

EXECUTIVE SUMMARY

Intended use

This investigation has been conducted to provide Australian universities and Exercise and Sports Science Australia with quantitative and qualitative data of the experience and capacity of placement supervisors and of activities undertaken by clinical placement supervisors to facilitate learning and competency in exercise physiology students. This study also examined current processes used to provide students with clinical placement learning experiences in Australia. It is expected that outcomes from this investigation will assist stakeholders to understand common and important contemporary issues facing clinical supervision that are likely to impact on future clinical supervisory practice and capacity. Furthermore, the findings of this investigation will provide a solid basis and rationale for undertaking further clinical educational research in exercise physiology.

Overview of findings and recommendations

One hundred and twenty-nine exercise physiology placement supervisors from across Australia participated in the survey. Issues that emerged from the survey responses included documentation and reporting processes, competencies and assessment, communication across stakeholders, scheduling logistics, and cost (time, funds and resources). The findings have led to the establishment of sixteen recommendations for exercise physiology clinical placement practice. The recommendations include:

- Development of checklists and resources to assist both the universities and the placement supervisors with the placement processes.
- Development of a module-based supervisor training package across multiple delivery modes, that is registered for continuing education points and caters for new and experienced supervisors.
- Implementation of a group supervision model (for example, 1 supervisor-2 students) and enhanced recognition of multi-disciplinary and interprofessional education models of clinical placement.
- Transition to competency-based, embedded placement instead of hours-based capstone placement. Such a transition should increase the focus on development and learning.
- Further exploration of placement capacity issues such as funding models, rural and remote opportunities, supervisor qualification and accreditation processes, and central processing of placement availability.

BACKGROUND INFORMATION

Introduction

The combination of increased access to Higher Education in Australia and a push for increased work-based experiences within university degree programs, has led to greater demand for student placement opportunities and therefore placement supervision. This is particularly evident in the health disciplines where work-based placement is often not only a requirement of the university but also of the national accreditation or professional governing bodies. Coupled with an increasing demand for health services in response largely (but not entirely) to the aging population in Australia, the need for high quality student clinical placement experiences is fundamental for both the education and health sectors.

One such allied health discipline is clinical exercise physiology, a professional qualification that has grown significantly within the last decade. Indeed, a 451% increase in clinical exercise physiology membership has been reported over a 7-year period to 2010 (Selig et al., 2011). In 2008 accreditation requirements for clinical placement hours were modified with 500 hours mandated prior to graduation; a 60% increase from previous requirements (Selig et al., 2011).

In addition to membership growth and increased accreditation requirements, university exercise physiology student load increased by 41% between 2010 and 2011 to 3005 EFSTL, coinciding with an increase in exercise physiology clinical placement activity to 242,883 hours per year (HWA, 2013b). In 2011 there were 41 professional entry courses in exercise physiology offered by 20 higher education providers; and 644 facilities were identified as clinical training providers, compared to only 190 in 2010 (HWA, 2013b). It is further projected that from 2009 to 2014, there will be an 84% growth in student demand and 68% growth in placement activity (to 45,000 placement days per year), with most growth predicted for Queensland and Western Australia (HWA, 2011b).

The substantial growth in membership, significant increase in work-based learning hours required for graduation and the rise in the number of universities providing this education have collectively placed significant demands upon access to suitable work-place learning opportunities. In order for the clinical exercise physiology field to continue to grow in response to the increasing demand for health services, high quality placement opportunities and sustainable increases in supervision capacity are necessary. Furthermore, the recent large expansion in graduate numbers would suggest that many supervisors in clinical exercise physiology have relatively limited professional and supervisory experience. It is therefore timely to capture the current practice, experience and capacity of clinical exercise physiology student placement supervision in Australia. Awareness of

current supervision practice, experience and capacity will enable universities and the profession to address current needs and to make recommendations aimed at assuring the upward projection and sustainability of clinical exercise physiology in Australia.

Project aim

The aim of this project was to capture the current supervisory practices within clinical exercise physiology in Australia. To ensure maximal participation and diversity in responses, an online survey tool was used to investigate the level of experience, capacity to conduct practicum opportunities and scope of practice of those learning opportunities in supervisors of clinical exercise physiology students. The survey also determined the factors that influence the ability or willingness of clinicians to engage in exercise physiology supervision, what processes were implemented during placement and supervision and how these processes were supported with documentation and resources. Finally, this study characterised the practices and training undertaken during these work-based learning opportunities.

PARTICIPATION AND ANALYSIS

Project participation

Twenty-four Australian universities were invited to participate in the project on the basis of exercise physiology-based degree offerings. Nineteen universities agreed to participate with written approval received from the relevant head of school/discipline.

Consenting universities included:

- Australian Catholic University
- Charles Sturt University
- Edith Cowan University
- James Cook University
- Murdoch University
- Queensland University of Technology
- Southern Cross University
- University of Canberra
- University of New England
- University of New South Wales
- University of Notre Dame
- University of Queensland
- University of South Australia
- University of Sunshine Coast
- The University of Sydney
- University of Tasmania
- University of Western Australia
- University of Wollongong
- Victoria University

The clinical placement coordinators (or equivalent) for each of the participating universities disseminated a survey link to present and past clinical placement supervisors for participation. The survey remained open for six weeks. Of those who responded to the survey, 129 people agreed to participate in the survey and two did not. Of the participants, all but two had supervised clinical placement in Australia during 2011 or 2012. Of the two participants who reported no recent

supervision role, one had never supervised and the other supervised in 2010 and both were willing to supervise in the future.

Survey design

To assess current practices undertaken within exercise physiology clinical placements throughout Australia, the survey was designed with five key areas: supervisory experience, characteristics of current supervisory practices, the processes associated with supervision and developing competency, supervisor education, and demographic descriptors of participants. The survey was designed to be delivered using an online survey system (Survey Monkey), with participants taking approximately twenty minutes to complete the questions. An internet-based system was used to optimise distribution of the survey and thus yield increased rates of participation from current supervisors throughout Australia.

Data analysis and interpretation

Survey data were analysed via a combination of qualitative (thematic) and quantitative (frequency and proportional) methods. The survey consisted of forty-one questions, twenty-two of which requested either stand-alone free text responses or additional descriptive or explanatory free-text responses, typically following selection of “other” or “yes” responses.

For all questions requesting free-text responses, at least two members of the project team nominated themes and allocated responses to each. The themes and allocations were compared and a consensus reached on the final outputs. There was no limitation placed on the number of themes established for each question and responses were allocated to themes irrespective of the direction of the response (positive or negative).

For the questions that requested participants to select from a pre-determined list of answers, data were analysed descriptively and reported as response proportions (% of participants who selected the response from those who chose to answer the question). The response most frequently selected has been presented in bold text.

When themes are listed, they are placed in order of the themes that encompass the most to the least responses.

RESULTS

Demographics

Sixty-four percent of participants were female and the most frequently selected age categories were 25-29 years, 30-34 years and 35-39 years, comprising a total of 70% of respondents. Most respondents were accredited exercise physiologists (AEPs), clinicians, in private practice, working fulltime as employees and with 6-10 years experience. Three-quarters of respondents reported having at least an undergraduate Bachelors degree in sport and exercise science, exercise physiology, human movement or equivalent (Table One).

Table One: Demographic data of participants

ITEM	CHOICES	RESPONSE PROPORTION
Gender (n=81)	Male	36%
	Female	64%
Age (n=81)	20-24 years	9%
	25-29 years	30%
	30-34 years	24%
	35-39 years	17%
	40-44 years	10%
	45-49 years	4%
	50-54 years	2%
	55-59 years	1%
	60-64 years	2%
	65 years or above	1%
Qualification (n=80) *Multiple selections	Undergrad B.SpExSc, B.HM, B.ExPhys or equivalent	73%
	Undergrad B. other health/allied health discipline	5%
	Undergrad B. unrelated or BSc without major identified	10%
	G.Cert ExPhys or equivalent	0%
	G.Dip ExPhys or equivalent	14%
	Masters exercise physiology/exercise science equivalent	16%
	PhD	3%
	G.Cert other health	4%
	G.Dip other health	1%
	Masters other health	10%
	TAFE Cert III & IV fitness equivalent	4%
	Other Postgrad qualification, unrelated field	3%
	Additional courses or job related upskilling not on AQF	9%
TAFE unrelated	1%	

Profession (n=81) *Multiple selections	AEP	78%
	Physiotherapist	10%
	Clinical nurse	5%
	Academic	2%
	Other	18%
Employment classification (n=81) *Multiple selections	Clinician	42%
	Senior Clinician	37%
	Manager	33%
	Clinical Educator	16%
	Academic	6%
	Other	6%
Duration in current role (n=81)	<1 year	6%
	1 year	7%
	2 years	15%
	3-5 years	29%
	6-10 years	32%
	>10 years	11%
Employment role (n=81)	Self-employed	15%
	Employer	7%
	Employee	77%
	Other	1%
Employment status (n=81)	Fulltime	85%
	Part time	11%
	Casual	3%
	Other	1%
Employment sector (n=81)	Government Department	5%
	Public Hospital	19%
	Private Hospital	10%
	Private practice	43%
	Community	14%
	Tertiary Educator	2%
	Other	7%

Demographics discussion

Almost 80% of respondents were AEPs, therefore the survey reached the target audience. The remaining respondents were mostly physiotherapists or clinical nurses, lending weight to an argument for allowing some clinical placement supervision to be performed by other allied health or multi-disciplinary clinicians in order to maximise placement capacity (HWA, 2011b; HWA, 2011c).

The participants in this survey appeared to be significantly younger than other allied health disciplines, underscoring the relatively recent expansion of exercise physiology clinical practice.

Survey respondents were represented 20% higher in the age category of 25-35 years but 13% lower in the 45-55 years range compared to physiotherapy (Schofield & Fletcher, 2007). Most respondents were employees, with nearly half working in private practice. This representation by private practice is greater than previously reported for clinical training in private facilities (30%, HWA, 2013b).

Recommendation Box

Recommendation One:

Explore the potential for multi-disciplinary supervision of exercise physiology placements.

Geographic location

Two-thirds of the respondents worked in Queensland or New South Wales, with the Northern Territory unrepresented (Table Two). Most respondents self-selected their geographic location as metropolitan (70%) with the remaining 30% selecting regional or remote. In contrast, the Australian Government Australian Standard Geographical Classifications (based on post codes; Australian Government Department of Health and Ageing) indicates that 84% of the respondents work in major cities with only 16% representation in regional areas and no rural representation (Table Two). When asked if the geographical location of their facility influences their clinical placement supervision practice, 31% of supervisors (out of 86) responded “yes” with twenty-seven explanations provided.

Based on the twenty-seven extended responses for how geographic location influences supervision practice, seven themes were established. The themes were:

- Transport and travel (9 responses)
- Service – range of activities and clientele (8 responses)
- Distance to/from university (7 responses)
- Accommodation (3 responses)
- Popularity or preference for location (3 responses)
- Rural/isolated/metropolitan (3 responses)
- Access to facilities (1 response)

While ‘Service’ is directly associated to clinical placement supervision practice, the responses within the other themes relate more to student access to the placement.

Transport/travel

The theme of transport/travel was the most represented theme to emerge in the responses to this question. Proximity to public transport was reported as a positive influence on placement by three respondents. Two respondents indicated that students would require a car for transport and another indicated generally that travel away from a major city would be required. One respondent stated that “centred within [name] city has the advantage for students travelling from afar.” This last

statement indicates an assumption that students will be able to find accommodation due to the geographic location however does not appear to consider the cost associated with this.

Service

While four respondents indicated that their location allowed for a wide range of activities, clients and experiences, two responses indicated that location within an “upper class area” and within a “strong public service location” streamlined services toward the client’s goals and occupational overuse injury rehabilitation. Two respondents indicated working with clients from lower socio-economic status, with the geographic location directly impacting on client service as follows: “in an urban area that doesn't have much opportunity for specialised treatment modalities where many lower socio-economic populates can't afford to travel afar to access specialised treatment. This means working with a more diverse cohort of clientele and learning to manage each clients' needs effectively”; and “being in a regional area and not having the population density has a negative impact on the ability to have a regular flow of patients into the student clinic. Also, being in a lower socioeconomic area has an impact on patient's ability to afford treatment as well as their understanding of the benefits of EP treatment and access to services.” These statements indicate that geographic location and associated socioeconomic status of the clients living within the service area, influence service provision and therefore supervision practice with respect to student exposure to services.

Distance to/from the university

Six of the seven responses classified under this theme indicated that proximity to the university was beneficial to their clinical placement practice with the other respondent stating that “we are a distance from the [city named] which offer clinical ex. phys. courses and I think that we are underutilised by tertiary institutions for providing practicum opportunities”.

Accommodation

Three responses based on accommodation reveal different impacts of geographic location. One response indicated that “accommodation is limited for students on a budget and this may limit universities from up north (for example) in sending students to our service”, while the other supervisors stated “central location near the university and accommodation is a big motivator”, and “.... many students can travel from home and do not require accommodation.” Therefore when accommodation is difficult to find, it may negatively impact on student access to the practice for placement experience.

Popularity or location preference

Two respondents reported that the location of their practice was popular and therefore were in demand to supervise students while a third respondent reported that their practice locations were often not the students first preferences as students preferred placements on the other side of the river.

Rural/isolated/metropolitan

Three respondents nominated their specific location classification when answering this question. The metropolitan link was associated with access to public transport and therefore can be viewed as a positive influence. The rural response stated that “have had some occasions where we haven't been able to fill placements, being a rural location may have something to do with this”, and the other response simply stated that “we are rather isolated”.

Access to facilities

Only one response was categorised to this theme and it may have implications for the student placement experience. The respondent noted that “yes not having access to facilities in private practice” influences practice.

Table Two: Geographic location

ITEM	CHOICES	RESPONSE PROPORTION
State (n=80)	QLD	34%
	NSW	30%
	ACT	1%
	VIC	10%
	TAS	2%
	SA	8%
	WA	15%
	NT	0%
Self-selected geographical location (n=81)	Metropolitan	70%
	Regional	24%
	Rural	6%
	Remote	0%
Postcode-based remoteness classification (n=78) #	RA1-major city	84%
	RA2-inner regional	14%
	RA3-outer regional	2%
	RA4-remote	0
	RA5-very remote	0

Australian Government Department of Health and Ageing: Australian Standard Geographical Classification - Remoteness Area

Geographic location discussion

Queensland and New South Wales were most represented in the survey and this is fairly indicative of recent Health Workforce Australia documentation reporting Queensland as having the highest exercise physiology student load and second highest placement activity behind New South Wales (HWA ,2013b). Northern Territory supervision was unrepresented in this study and reported no student load previously (HWA, 2013b). While 71% of all medicine and allied health clinical training in Australia takes places in metropolitan areas, exercise physiology is proportionately more dependent on metropolitan placements at 90% in 2011 (HWA, 2013b) and 84% in the current study. As reported previously (HWA, 2013b), no rural placements were captured within sampling. There is anecdotal evidence (via university placement coordinators) that some student placement activity occurs in rural locations, therefore consideration is recommended for how to capture this target group (rural placements) such that capacity building and resourcing requirements can be reported and actioned. Of particular note is the availability and potential under-utilisation by exercise physiology students of rural and remote placement scholarships such as the Nursing and Allied Health Scholarship and Support Scheme funded by the Department of Health and Ageing.

Of the 30% of supervisors who indicated that geographic location influenced their supervision practice, only nine (of 27) of the responses indicated negative influences. Of these, four responses were based on limited accommodation, transport restrictions and requirements, and restrictions regarding facility access. The other five negative responses reported limitations due to rural/isolated/regional area or (long) distance from the university but were not explained in detail apart from the isolation potentially being the barrier to students taking up the placement offerings. Further investigation needs to be undertaken to determine supervisory impacts on being located in rural or remote regions. Health Workforce Australia has recently released a recommended framework for effective clinical placements in rural and remote settings (HWA, 2013a) that should be used as a foundation for future work aimed at building exercise physiology rural and remote placement capacity.

Recommendation Box

Recommendation Two:

Explore opportunities for exercise physiology placement in the Northern Territory, the Australian Capital Territory, Tasmania and South Australia.

Recommendation Three:

Confirm current rural and remote placement opportunities within Australia and explore opportunities to enhance capacity.

Supervision experience, capacity and scope

The two most frequently reported clusters of years of clinical exercise physiology student placement supervision experience were 6-10 years and 2 years, with over half of the respondents reporting three or less years of supervision experience and 30% reporting six or more years' experience (Table Three). Over the last two years (2011 and 2012), approximately 60% of respondents have supervised six or more students on placement, with 40% of respondents averaging six or more students per year across all years of supervision. Less than 10% of respondents supervise only one student each year. Over 90% of respondents indicated a supervisor:student ratio of either 1:1 or 1:2. Six weeks, greater than 10 weeks and 5 weeks were the three most commonly reported durations of placement however, 55% of responses covered the 4-6 week duration. Twenty-seven percent of respondents indicated that a typical placement week consisted of 35-40 hours, with the next highest reported range being 5-10 hours per week (15%), indicating a split between fulltime and part time placement types (Table Three). There was an approximately even split (between 22% and 29%) of responses for future expansion in supervision capacity (supervising more students than currently), with the four options being 'capable and would like to supervise more placements'; 'capable but would not like to'; 'not capable but would like to'; and 'not capable and would not like to'.

Approximately 65% of respondents indicated that between one and three other staff assisted them with student placement supervision, with 13% indicating no other assistance (that is, sole supervision). When asked to select the content areas of clinical placement that occurs at their facility, cardiovascular, metabolic and musculoskeletal assessment and prescription were the most commonly reported content of service (Table Four). Despite being classified as "other" by ESSA, cancers, mental health, occupational rehabilitation and cardiac investigations were each selected by at least 20% of respondents. Approximately 37% of respondents also provided services to apparently healthy clientele. Other services that were reported but that were not listed in the selections included health promotion, renal, pain, falls prevention, health and wellness, manual handling, pregnancy and post-natal, sports training and injury rehabilitation, and special needs.

Despite only nineteen universities being directly involved in the project, thirty-three different Australian universities were selected by respondents as having sent students to the facilities for

placement. This included a multi-state university, eight New South Wales universities, eight Queensland universities, six Victorian universities, five Western Australian universities and one university each in the Australian Capital Territory, South Australia and the Northern Territory.

Table Three: Clinical placement supervision capacity

ITEM	CHOICES	RESPONSE PROPORTION
Clinical exercise physiology student placement supervision experience (n=122)	< 1 year	13%
	1 year	11%
	2 years	17%
	3 years	11%
	4 years	9%
	5 years	10%
	6-10 years	20%
2011 and 2012 student supervision numbers (combined) (n=120)	>10 years	9%
	1	7%
	2	14%
	3	7%
	4	7%
	5	6%
	6-10	29%
Average number of students supervised per year across all years NB: 1 response for 0 supervisions. (n=100)	11-15	12%
	>15	18%
	1	8%
	2	16%
	3	10%
	4	11%
	5	11%
6-10	21%	
Typical supervisor:student ratio (n=106)	11-15	9%
	>15	13%
	1:1	61%
	1:2	30%
	1:3	3%
Duration (weeks) of a typical student placement (n=106)	1:4	3%
	1:5	3%
	<1 week	0%
	1 week	0%
	2 weeks	3%
	3 weeks	1%
	4 weeks	11%
	5 weeks	19%
	6 weeks	25%
	7 weeks	3%
	8 weeks	9%
9 weeks	3%	
10 weeks	4%	
>10 weeks	21%	

Duration (hours) of a typical placement week (n=106)	< 5 hours	6%
	5-10 hours	15%
	11-15 hours	13%
	16-20 hours	6%
	21-25 hours	10%
	26-30 hours	11%
	31-35 hours	10%
	35-40 hours	27%
	>40 hours	2%
Future supervision capacity (n=106)	Capable of supervising more placements and would like to.	29%
	Capable of supervising more placements but would not like to.	26%
	Not capable but would like to.	23%
	Not capable and would not like to.	22%
Number of other staff assisting with supervision (n=106)	0	13%
	1	22%
	2	25%
	3	19%
	4	9%
	5	4%
	6	1%
	>6	7%

Table Four: Content areas of placement

CONTENT AREA	ASSESSMENT	PRESCRIPTION
Cardiac investigations	24%	21%
Cardiovascular	61%	63%
Pulmonary/respiratory	41%	49%
Metabolic	54%	62%
Musculoskeletal	59%	59%
Neurological	36%	44%
Cancers	24%	34%
Mental health	21%	31%
Occupational rehabilitation	22%	26%
Apparently healthy	37%	38%
Other	9%	9%

* respondents selected all that were appropriate; 106 responses were received.

Supervision experience, capacity and scope discussion

The exercise physiology placement supervisors in Australia are a young, novice group with over 50% of respondents having three years or less of supervision experience. As verified by HWA data, this suggests that the relatively new profession is experiencing significant recent growth and as such, universities are placing students with relatively inexperienced (but accredited) clinicians. A significant proportion of the clinicians are providing between 30-60 weeks of supervisory equivalency per year. Despite this large commitment to supervision, approximately half of the respondents reported that they have the capacity to take further students however half of these reported that they would prefer not to take more students. For supervisors who are capable and would like to supervise more students, strategies to optimise these placement opportunities should be developed to build capacity. Other allied health disciplines such as physiotherapy use a centralised allocation process for clinical placements and this may be an effective strategy for using all available placements. Another suggestion may be for AEPs to self-nominate their capability to supervise (additional) students when completing their compulsory annual renewal process. One quarter of respondents' indicated that they were not capable but would like to supervise more students. Encouraging the implementation of 1:2 supervisor to student ratios during placement would enhance supply, as would the introduction of 24/7 placement opportunities (HWA, 2011c), that is, students undertaking placement during shift work times, weekends and holiday periods as expected of the workforce. However, it is not yet clear if the current mode of clinical exercise physiology practice would enable placement opportunities to occur outside of normal working hours. When appropriate, a multi-disciplinary approach to student supervision may offer an expanded range of placement opportunities.

Most supervisors report supervising more than six students per year, and a majority follow a 1:1 model of supervision. The prevalence of the 1:1 model in exercise physiology placement supervision is almost double that reported in occupational therapy (38%, Thomas et al, 2007). It is not clear from the current study if this is the preferred model for universities or clinicians, and the high use of this ratio suggests that there may be an opportunity to increase the numbers of students supervised via increased student to clinician ratios. Several other allied health professions use models whereby two or more students work together under supervision (Baldry Currens, 2003; Baldry Currens & Bithell, 2003; Henning, Weidner & Jones, 2006; Lekkas et al, 2007). Increasing the ratio of students to supervisors (group supervision) can offer a range of benefits to both students and supervisors. For students, these benefits include deeper learning, improved clinical competence, peer support, greater independence, better balance between personal and vicarious learning, and a wider range of clinical experiences (Baldry Currens, 2003; Ferguson, 2005). For supervisors, the benefits include

students being less dependent on the supervisors, more time available for other duties and more efficient teaching (Baldry Currens & Bithell, 2003). However the success of group supervision relies heavily upon the group leadership skills of the supervisor and therefore requires knowledge and experience of working with small groups (Ferguson, 2005). Without such leadership skills, peer rivalries may limit the effectiveness of engaging in group supervision (Ferguson, 2005). Therefore it may be worth exploring increasing placement capacity by promoting a different supervisory model whereby the supervisor becomes a manager of groups of learners (Romonini & Higgs, 1991) and the benefits of peer-assisted learning can be drawn upon. In recommending a shift toward 1:2 or even 1:3 model of supervision, it would be concomitantly recommended that training packages focus on teaching small groups and facilitating effective peer learning opportunities. Given the level of clinical experience reported by current exercise physiology placement supervisors, such training provided by universities will be critical to ensure a successful transition to the practice of group supervision. The success of peer learning has been reported for athletic training students (Henning et al, 2006). Specifically, students reported feeling more confident and less anxious when performing clinical skills in front of peers, and reported decreased stress associated with unfamiliar environments. Students undertaking peer learning experiences also engage in joint problem solving activities and correct each others' mistakes (Henning et al, 2006). Peer learning also encourages sharing, cooperation and team work (Lekkas et al, 2007).

A large variance in the duration of placements (from a number of hours within a week to a block of weeks) was reported. While diversity in the duration of placements at a particular site might allow students to select placements that suit their individual needs (eg. work and family commitments), it may, in contrast for universities and placement facilities, create potential scheduling clashes. This might increase the administrative burden when coordinating placements and result in unfilled placement capacity due to part time student placements rather than block placements. However, the availability of fulltime, part time and casual placement opportunities is reflective of the broader workforce environment and therefore strategies to maximise placement access across all sites may actually enhance placement activity and therefore capacity.

Recommendation Box

Recommendation Four:

Explore opportunities for central processing of placement availabilities to maximise current capacity.

Recommendation Five:

Implementation of a group supervision model. Universities to facilitate this evolution from one-to-one supervision to group supervision by providing supervisor training for small group facilitation, leadership and peer assisted learning to enhance student learning and to increase student placement capacity.

Factors that influence ability or willingness to supervise student placements

Supervisors were asked to describe (in their own words) what factors promoted their ability/willingness to supervise and what factors constrained or restricted their ability/willingness to supervise). Ninety-two and ninety-four responses were received for each question, respectively.

Themes allocated for this section included:

- Resources, further subdivided into:
 - Staffing, time availability, workload allocation (50 responses)
 - Funding (15 responses)
 - Workplace support (13 responses)
 - Staff qualifications and experience (8 responses)
 - Facilities and infrastructure (4 responses)
- Workplace benefit, subdivided into:
 - Service benefit (28 responses)
 - Clinical/personal benefit (16 responses)
 - Future recruitment (5 responses)
- Administration, organisation and support, requirements linked to the university (39 responses)
- Student quality, prior knowledge and attitudes (38 responses)
- Student learning experience (38 responses)
- Giving back to the profession (28 responses)
- ESSA (14 responses)
- Networking and relationships with stakeholders (6 responses)
- Prior positive experience (6 responses)
- Giving back to the university (3 responses)

Resources

Supervisors are willing to offer placements however this is dependent on the time of the year, specifically, dependent on whether they have adequate staffing available at the time requested for the placement. Forty responses highlighted staffing, time availability and workload factors as restricting supervision. In particular, lack of time, additional time required to supervise, loss of time to perform work duties while supervising, burnout and requests from too many universities are all noted as perceived barriers to supervision. Example comments to further illustrate this sub-theme include “running the actual business takes up a lot of my time as well as then reports and actual client consults so to then have a student is sometimes more work . Often I get a lot of work done between clients however with students you can't get these jobs done and so I end up doing them in my normal 'down' time at the moment which isn't ideal for me”; and “it is often very time consuming and costly as a self employed private practice owner to provide supervision for students.” Six participants indicated that workplace support by way of centralised processes, having multidisciplinary or inter-professional support and having keen and willing staff promoted supervision willingness while the lack of an inter-professional model, absence of company permission and lack of resource development limit supervision willingness. Four participants mentioned funding and remuneration as a positive influence with lack of funding and remuneration noted as a negative factor in eleven responses. Examples of negative comments include “we do not receive any financial assistance from either the universities or ESSA to provide this service. If we had financial assistance for a role ..., we would be able supervise more students throughout the year as well as minimise delay in the student accreditation process”; and “the company does not like me doing too much exercise physiology as they are not paid or paid as much as physiotherapists in the WorkCover setting.” This last statement is potentially misleading because the WorkCover fee schedule for exercise physiology and physiotherapy services are the same in some states, but not all (www.qcomp.com.au). While three respondents reported that their qualification or years of experience promoted their willingness and ability to supervise, five respondents reported it as a negative factor with three of these five responses focussing on the difficulty ensuring adequately qualified (that is, AEP) supervisors. The availability of facilities and infrastructure did not appear as a theme for factors that promote supervision however small programs or facilities, and community-based services were mentioned as limiting factors.

Workplace benefit

Supervisors mostly report a workplace benefit of effectively increased staffing when students are present for placement. Forty respondents indicated a positive comment regarding a potential workplace benefit of student placement supervision, while four responses indicated a negative

impact. Most (24/40) of the positive responses were themed as a service benefit which included the ability for students to provide a helping hand or to free up staff to do other tasks, and the remaining sixteen positive responses regarded enjoyment, the ability to undertake continuing education and the promotion of own learning. Example positive workplace benefit statements included “it’s great to have a helping hand for my practice”; “additional support for running of our program - enhances service provision- frees up time for staff members to undertake other duties during placement”; “enjoyment of being a clinical supervisor”; and “can count supervision hours towards re-accreditation.” The factors that would limit placement supervision ability or willingness included insufficient staffing availability and the added work required during supervision, for example “it is often very time consuming and costly as a self-employed private practice owner to provide supervision for students. However, when utilising time efficiently students can become an asset to a business but the time spent and the loss of earnings resulting from student supervision does not financially justify providing the service.”

Administration, organisation, support and requirements linked to the university

Supervisors indicated that partnerships, good communication and organisation, provision of resources, and provision of proactive support with/by the university were important factors that promoted their willingness to supervise. For example “supportive university i.e. assist/ intervene if there are student issues, attempt to make contact with placement sites and build relationships here instead of just placing them with a workplace and expecting workplaces to 'look after' the students” clearly indicates the importance of university involvement to expand beyond organisation of placement logistics. Comments also focussed on requesting that universities finalise placement dates six months in advance and allowing the facility some choice with placement date allocations. While thirteen supervisors indicated a positive association with the university, twenty-six supervisors reported that the university processes were a restrictive factor. These negative responses included the paperwork requirements (too much, too complicated, too time consuming), last minute changes to university timetables, the requirement for set placement dates and hours (mostly second half of the year), feeling pressured to take too many students (and from too many universities), and students calling to organise their own placements. Example responses are “extensive time is required for all students to complete satisfactory ESSA log books, supervision over clientele sessions, continuous education and adjusting placement times as well as correspondence between students and university supervisors;” and “universities changing course and subject timetables at short notice has disrupted our student prac schedules. In the past we have accommodated students all year round, since approximately 2010 this has ceased and students are not utilizing holiday times and end of year break.... lack of organisation of the university in regards to organising placements, being

pressured from students and the unis to find extra hours for students who need it, when we are at full capacity of students;” and “having commitments to too many unis / overlap of students. Only 1 EP and having requests to have up to 3-5 students at one time.”

Student quality, prior knowledge and attitudes

Students who have attained a high quality of learning and ability to perform clinical skills, a good understanding of the field, are prepared for prac and are flexible with prac hours, and display good interpersonal skills, enthusiasm, a learning attitude, motivation and engagement and initiative, promoted supervisors’ willingness to provide clinical placement supervision. Alternatively, students who are unprepared for prac, have insufficient clinical knowledge and/or skills, lack interest, are unwilling to learn, are unmotivated or not enthusiastic or are inflexible with placement hours, restrict supervisors’ willingness to supervise clinical placement. Furthermore students’ inability to sufficiently speak or write in English, and students who just complete the hours as a requirement for ESSA are also factors that restrict willingness to supervise.

Student learning experience

Supervisors were willing to supervise placements if they were able to provide students with a worthwhile learning experience that is hands on, or provides exposure to a unique or specialised client population. For example “I work with respiratory patients and coordinate pulmonary rehabilitation in a regional area and this is not an area that traditionally EP's have worked in and it is a great experience for students to experience working with this patient population.” Alternatively, supervisors reported that a limited client case load or limited patient contact hours restricted their ability and willingness to supervise.

Giving back to the profession

Twenty-eight responses were positively themed as giving back to the profession, with the responses targeted at ensuring quality exercise physiology graduates and discipline professionalism, ensuring sufficient number of placements available to students, and enjoying mentoring future exercise physiologists. For example “it is good to be able to pass on information to students studying clinical EP as I feel that it strengthens our profession and in turn will raise the profile of EP Australia wide.” And “I love sharing my knowledge and skills with students, I love being able to mentor our future AEPs.”

ESSA

Fourteen responses to the willingness and ability to supervise question specifically mentioned ESSA. One supervisor noted that a factor that would promote supervision willingness/ability is the distribution of placement over the whole year. The factors that restricted supervision were related to the timing of placements, the extensive paperwork, lack of clarity with requirements for ESSA logbook hours, and the lack of guidelines to ensure consistency of placement and supervision. For example “the fact that now many of the universities do not send students out on placement in 1st semester restricts our capacity to offer as many placements as previous years”; “extensive time is required for all students to complete satisfactory ESSA log books”; and “guidelines regarding best practice for clinical supervision would help develop consistency for all students, work sites and supervisors.”

Networking and relationships with stakeholders

Networking with the universities and receiving access to university resources was a positive factor reported by five supervisors, while one supervisor reported that “limited tertiary institutions know we exist and that we can provide clinical placement opportunities to EP students.”

Prior positive experience

Prior positive experience either with supervision of previous students, or during their own placement as a student, is a motivating factor for five supervisors, however one supervisor reported that a prior negative experience with supervising (unhelpful student) would limit their willingness to take on future students.

Giving back to the university

While twenty-eight respondents focussed on giving back to the profession, only three indicated that giving back to the university was a factor that positively influenced their supervision decisions.

Factors that influence ability or willingness to supervise student placements discussion

Key factors that emerged in this section include the consideration for placements to be scheduled throughout the degree/calendar year, for placement to be competency-based instead of hours-based, for increased recognition of hours across a range of services, for different perceptions between large and small business supervisors, for expanded involvement from universities and for streamlined paperwork processes.

Embedding clinical experiences earlier in a degree program may promote a spread of student placements across the calendar year rather than in the second half of the year after the student has demonstrated a competent level of performance across the scope of practice within the university-based studies. The use of early clinical experiences is becoming more common in the education of other professionals (Hopayian, Howe & Dagley, 2007; Thistlethwaite & Cockayne, 2004) and therefore may also be appropriate for exercise physiology. The objective of early exposure often relates to scope of practice, introductory clinical skills such as taking a history, communicating, developing professional attitudes, building confidence in gathering information, gaining an understanding of the patient's perspective and of the social context of disease (Basak et al, 2009; Hopayian et al, 2007; Thistlethwaite & Cockayne, 2004). As such, students are not required to be competent in the full range of skills required by entry level practitioners before going out on placement. Early clinical experiences also introduce the student to professional socialisation, allowing them to develop appropriate professional attitudes (Lam, Irwin, Chow & Chanl, 2002), build confidence in patient encounters and develop clinical skills (Howe, Dagley, Hopayian & Lillicrap, 2007). For successful early inclusion of placement experiences, universities would need to provide supervisors with information including where the student is positioned within the degree structure, current student competency levels and expected learning outcomes and goals for that specific stage of placement (Hill, Wolf, Bossetti & Saddam, 1999). With early inclusion of placement it should also be recognised that the act of learning is likely to differ markedly, and is dependent upon the level of student knowledge. Tilley and colleagues (2007) note that collaboration for learning can occur when student knowledge expands and they are able to interact effectively with the supervisor, suggesting that students must attain a basic level of competency prior to commencing a clinical placement. If placement occurs before students have developed knowledge-based competencies, the relationship with the supervisor is more likely to be 'imitation-based' via observation. Early inclusion of placement may also require universities to undergo significant re-design of curriculum processes that would necessitate input and approval from ESSA and so may be a medium-term goal to coincide with accreditation timelines (e.g. over 5 years).

Supervisors indicated that students who are unmotivated, unenthusiastic or inflexible with placement hours restrict their willingness to supervise. Similar concerns have been reported previously in allied health (Hill et al, 1999). Moving away from hours-based placement requirements and toward competency-based placement may alleviate these concerns as the focus is placed on clinical placement as a tool for experiential learning and the development of professional practice skills and attributes. A shift to a competency-based model would be consistent with the approach that was adopted following federal government reforms in the 1990s whereby the emphasis shifted

from a time-served approach to the demonstration of competency standards (Guthrie, 2009). Furthermore, a shift to a competency-based model would bring exercise physiology in line with other allied health professions such as speech pathology and physiotherapy. Competency-based placements would allow for fast-tracking of highly competent students, particularly those with previous industry experience and would provide the means for extending placement for students who take longer to develop the necessary clinical and professional skills. This transition to competency-based placement would also require curriculum and assessment re-design with support and participation by ESSA (NUCAP), all accredited universities and supervisors.

Transition from hours-based, predominantly end-of-degree clinical placements to competency-based placement would require the design of competency checklists and tools for assessing each competency, new logbooks, and national training for supervisors and university representatives. Supervisors are still reporting difficulty and unwillingness to complete the placement logbooks (despite revisions) due to the complexity of the documentation and the time required to complete the documents. Consideration for a new approach to placement processes and reporting would address this ongoing concern. A potential modification might be to replace the hours-based logbooks with ePortfolios. An ePortfolio is “a digitised collection of artefacts, including demonstrations, resources, and accomplishments that represent an individual, group, community, organisation or institution” (Lorenzo & Ittelson, 2005). EPortfolios have been used in other health disciplines not only to provide evidence of undergraduate skills attainment and reflective practice (Gwozdek, Springfield & Kerschbaum, 2013), but also to provide evidence of continued professional development throughout ones’ career (Moores & Parks, 2010).

Supervisors report pressure to take more students despite already operating at full capacity. Promotion of increased student to supervisor ratios (as discussed in the experiences, capacity and scope section) should alleviate this concern, as might the enhanced recognition of hours across services that are not currently classified as falling within the main field of exercise physiology practice by ESSA. Placements that offer services in occupational rehabilitation, cardiac investigations, and mental health or cancer-based rehabilitation may be currently under utilised as they cannot contribute significantly toward hours for accreditation. The introduction of competency-based placement would provide opportunity to expand engagement with these services as students would be able to obtain a conglomerate of professional skills such as communication, team work, time management and professional behaviour, as well as potential exercise testing and prescription practices within this framework.

Generally, supervisors that work within larger facilities report an increased willingness to supervise students. This improved preparedness to supervise students may be due to a greater number of staff

available within the facility to assist with the demands of student supervision. However, supervisors even within smaller (including sole-operator) facilities still reported that they received a workplace benefit from suitably capable students as they provided a 'helping hand'. This last observation has been reported within physiotherapy whereby suitably experienced students on placement were able to significantly increase clinician productivity, as measured by the number of patients seen per day and daily billing of services (Schoen et al, 2003). It might therefore be recommended that early placements are carried out in larger, multi-disciplinary facilities to establish basic professional skills with peer support, while later placements could be carried out in smaller, service-specific practices, when student competencies have increased to a level that may provide a service benefit to the clinician via increased level of independence and confidence.

Supervisors appear to have a greater loyalty to the profession than to the individual universities. To ensure on-going loyalty to the profession, active involvement by ESSA to assist with easing the perceived burden of placement supervision is recommended. Common themes that could be specifically targeted are a simplification of the paperwork requirements surrounding supervision and enhanced recognition and reward for providing supervisory services, for example, member discounts or increased formal recognition that providing student placements contributes significantly to clinician continuing education. While loyalty to the profession appears strong, loyalty to the universities is less obvious. Supervisor responses indicate that this relationship could be improved if universities expand beyond the basic organisation of placement logistics and become more proactive in placement processes, for example, increased participation in initial discussions, facilitating training sessions and assisting when students are in difficulty on placement. As recommended by Dibert & Goldenberg (1995), communication between the university and placement facilities should involve discussion about goals, responsibilities and any specific issues or concerns. The training sessions for supervisors should include communication of expectations for placement outcomes and student competencies, feasible time frames for placement finalisations, and documentation requirements. Processes for assisting supervisors and students when learner difficulties arise, have been documented (Moeller, 1984), and should be embedded in the communication and training process. To further enhance the relationship between stakeholders, provision of resources such as access to libraries by the universities to the supervisors should also be considered (Rodger et al, 2008). Figure one represents a model for collaboration between the universities and the placement facilities to enhance the success of placements, and is focussed on the shared understanding of roles and responsibilities, and the collaborative development and use of guidelines, policies, funding and resources.

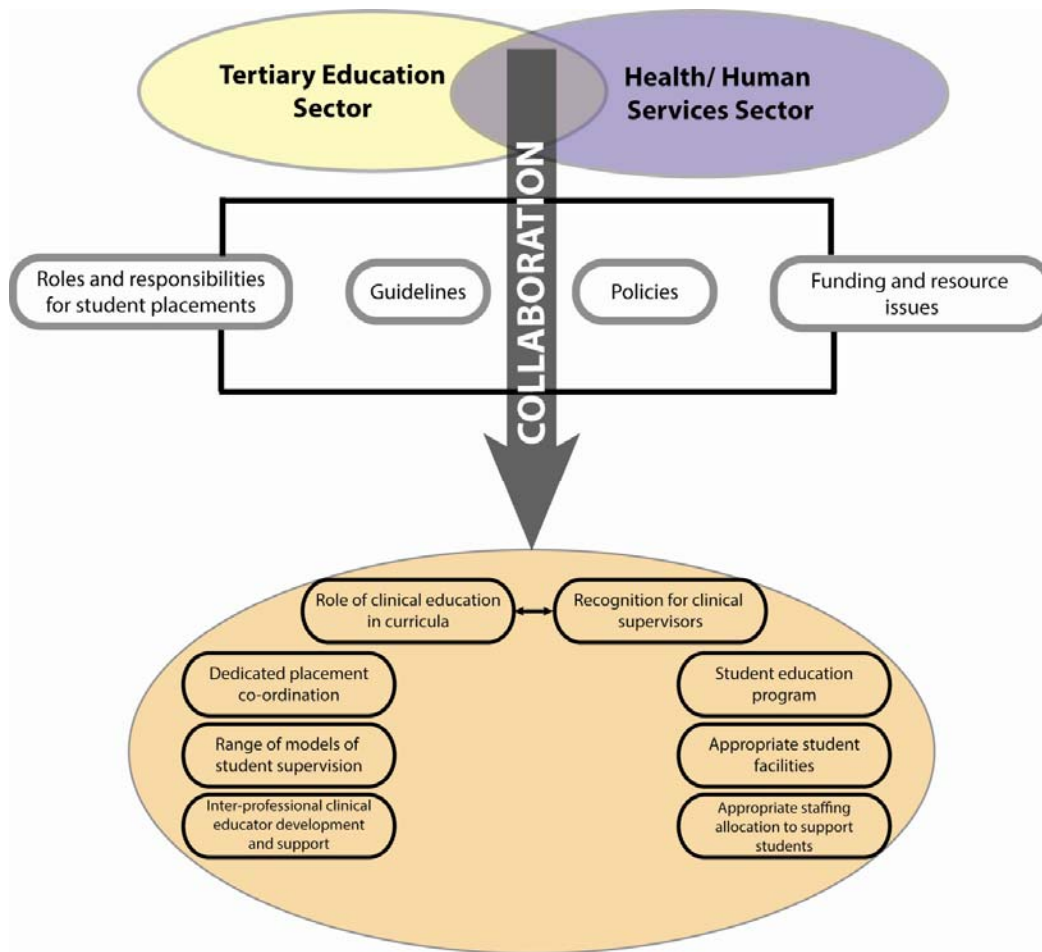


Figure one: Image adapted from Rodger et al (2008), illustrating collaborations for successful practice placements.

Recommendation Box
<p>Recommendation Six:</p> <p>Transition toward competency-based placement undertaken throughout the university degree and across a more diverse range of services.</p> <p>Recommendation Seven:</p> <p>Enhanced formal recognition of clinical placement supervision as professional continuing education.</p>

Placement and supervision processes

Eighty-two respondents described the typical process that was involved in clinical placement at their facility. Ten process-based themes emerged from the responses. Themes were:

- Performance and/or assessment of clinical skills and client services (66 responses)
- Incremental supervision or student involvement (51 responses)
- Orientation, goal setting, expectations and preparatory reading (33 responses)
- Pathology areas and client services (33 responses)
- Two-way feedback and evaluation sessions between student and supervisor(s), and documentation tasks (27 responses)
- Team meetings, case conferences, professional development sessions and tutorials (26 responses)
- Allied health interaction (23 responses)
- Process and organisational steps (18 responses)
- Supervision ratio (14 responses)
- Quizzes/assessment of current knowledge (5 responses)
- Other un-themed (3 responses)

Performance and/or assessment of clinical skills and client services

The processes associated with performance and/or assessment of the students' clinical skills and client services was the most frequently reported item, with 80% of responses linked to this theme. This theme included a wide range of student activities such as client admission and discharge interviews, client health and fitness assessments, client education, client motivational interviewing, exercise prescription programming and reviews, gym supervision, monitoring and symptom management and report writing. The frequent identification of these clinical tasks indicates the largely hands on, client-based clinical skills nature of clinical placement experiences.

Incremental supervision or student involvement

There is clear self-report evidence that the majority of participating supervisors facilitate placements that provide a progressive or incremental student experience whereby student involvement in tasks and responsibilities advances throughout the placement. Supervisors report a pattern of initial observation and shadowing, followed by participation and culminating in leadership. For example "students generally begin in a shadowing role with expectation to develop into an independent practitioner"; "they are also involved in partaking in the rehabilitation programs with the goal of

being able to supervise and manage an entire class at the end of the placement”; and “...slowly progress them from observing, to recording data, to planning sessions and then to taking sessions.”

Orientation, goal setting, expectations and preparatory reading

Just over one-third of respondents included orientation-based or induction-based activities in their description of their typical placement process. These induction processes occur either in the weeks prior to placement or during the first week of placement. Orientation topics that are covered include facility policies and procedures, code of conduct, behaviour and confidentiality, timetables, general ‘housekeeping’, health and safety, and expectations and goal setting. For example, “week one - orientation and training, going over learning styles, learning goals, code of conduct, confidentiality etc, policy and procedures for all clinic activities...” and “initial meeting to meet with student, discuss expectations, student goals, appropriate behaviour and attire and set ground rules prior to commencement of prac placement (typically at least one month prior). Liaise with student closer to commencement date to arrange meeting point and time for first day (mobile service).”

Pathology areas and client services

When describing the typical placement process, just under one-third of responding supervisors included a description of the specific pathology areas or client services that were available at their facility. The areas indicated include cardiac rehabilitation, pulmonary rehabilitation, heart failure, musculoskeletal concerns, co-morbidities, fairly healthy or apparently healthy clients, dementia, complex cases, strength and conditioning, falls prevention, spinal cord injury, WorkCover functional capacity evaluations, enhanced primary care, metabolic rehabilitation, neurology, neonatal intensive care and paediatrics, post-orthopaedic surgery rehabilitation and chronic pain. These responses indicate a wide spread of client service areas and reaffirms the data depicted in Table Four for the scope of placement experiences. The most frequently reported client services were cardiac, metabolic and musculoskeletal (50-63% of respondents). Mental health, cancers, occupational rehabilitation and cardiac investigations, areas that are classified by ESSA as ‘other’ with respect to logbook hours, were reported by between 21-34% of respondents.

Two-way feedback and evaluation sessions between student and supervisor(s), and documentation tasks

Discussion and feedback sessions between the student and supervisor were reported to occur as part of the typical process by approximately one-third of supervisors. These feedback and evaluation sessions occur at varying frequencies such as daily, weekly or monthly; and occur at varying time points such as early in the placement, mid way, at or near the end, or routinely throughout. The sessions involve a combination of supervisor feedback to the student on how they are performing,

and the student providing feedback to the supervisor. Feedback is provided in a combination of verbal and written contexts. Documentation associated with the feedback between student and supervisor included ESSA logbooks and reflection diaries.

Team meetings, case conferences, professional development sessions and tutorials

Although less often reported than the student-supervisor meetings, supervisors also reported that students attend team meetings, case conferences and professional development sessions that are attended by facility staff. In some facilities students also undertake tutorials. In one example, students participate in case conferencing by “presenting a journal, a client case and reflections of learning.”

Allied health interaction

Twenty-three responses made direct mention of allied health interaction during the placement. The allied health disciplines named in addition to exercise physiology were nurses, dietitians, occupational therapists, general practitioners, physiotherapists, pharmacists, clinical psychologists, speech pathologists, cardiac scientists, and unspecified other allied health clinicians/staff. One respondent also indicated that students interact (via telephone conversations) with insurers. The nature of the interaction (when specified) included case conferences, phone calls, observation and attendance at appointments and/or clinics, compiling reports and written communication.

Process and organisational steps

Eighteen responses highlighted specific process-based or organisation-based processes that include centralised mapping and allocation of placements based on demand, university-arranged placement, specified placement durations (for example 2 x 4 hour/week shifts; 5 weeks of 2 days per week for a total of 75 hours; 4-5 week rotation of 24 hours/week; 6 week block), students needing to apply for placement or to have an interview, and the provision of pre-placement information to students. One respondent (assuming a university-based placement) indicated the requirement for students to undertake 8 hours of placement on campus to assess competency and professionalism prior to external placement.

Supervision ratio

Supervisors who addressed the supervision ratio in their response indicated specifically that all student activities are overseen by a supervisor. The supervision appears to be predominantly one-on-one (one supervisor: one student and one client: one student).

Quizzes/assessment of current knowledge

Five respondents referred to direct assessment of student current knowledge or competency during placement. These assessments typically occurred at or near the start of placement to gauge student ability, for example “general quiz and knowledge test given on first day to allow for a level of performance review and ability to discuss expectations and formal goal setting.”

Other

Three responses were categorised into the ‘other’ theme. Two responses did not directly address the question and were moved to the ‘general feedback’ section of the report. The third response was focussed on student outcomes as follows “after successfully completing the practicum placement you (the student) should be able to : 1) Understand the aetiology and pathophysiology of heart failure and COPD states and specific risk factors for each disease; 2) Understand heart failure and chronic obstructive pulmonary disease management, including diagnostic and interventional procedures and how cardiorespiratory rehabilitation fits in with management; 3) Understand the effects of exercise on heart failure and chronic obstructive pulmonary disease and the effect of heart failure and COPD has on exercise; 4) Observe and understand the basics of 12 lead ECGs and how it relates to heart failure and COPD rehabilitation; 5) Perform and interpret exercise tests using various protocols; 6) Understand respiratory function tests; 7) Understand and apply risk stratification for heart failure and COPD; 8) Describe effects of medications on heart rate and blood pressure during rest and exercise; 9) Understand exercise guidelines for patients at risk of and with heart failure and COPD; 10) Prescribe, develop, modify and supervise exercise and education sessions for persons with heart failure and COPD; 11) Identify and understand psychosocial issues associated with heart failure and COPD.” This identification of intended placement learning outcomes provides a clear overview of the supervisor expectations for students undertaking placement in their facility.

Forty-three percent of respondents (37/86) indicated that the process of clinical placement varies over the duration of the placement. Descriptions of how the process varies were received from 36 respondents. Descriptions were themed into eight categories:

- Supervisor assessed student skill level, ability, confidence and independence (12 responses)
- Staff availability or centre activity (10 responses)
- Length of placement or structure of placement (8 responses)
- Student progress made during placement (8 responses)
- Client-based changes (5 responses)
- Does not vary (2 responses)

- Student-led or prompted differences (1 response)
- External assessment requirements (1 response)

Supervisor assessed student skill level, ability, confidence and independence

Twelve supervisors indicated that the placement process changes depending on the ability, confidence or independence of the student, with specific emphasis on the student ability at the start of placement, however exact details of how this is achieved were not included in the responses. One respondent did state that their process involves “initially observation, then as I feel they are capable they progress in responsibilities.”

Staff availability or centre activity

The second most frequently reported theme was based on the activities or client load occurring at the facility during the placement allocation, or to a lesser extent, on the availability of staff to supervise or to facilitate professional development sessions.

Length of placement or structure of placement

Supervisors indicated that processes vary depending on the placement schedule. For example, students who are not performing placement in block (and therefore assumingly sporadic hours) do not undertake regular case conferences. Similarly students who undertake placement in a continuous block appear to be exposed to a progressively increasing level of responsibility and independence as the weeks progress. Example responses include “less clinical supervision as the placement progresses to encourage independence for the student in a clinical setting;” and “we will increase or decrease the length of time that each student will have to finish a particular case study depending on the length of the placement or the ability of the student.”

Student progress made during placement

Eight responses indicated that the placement process will vary in response to the students’ progress and will be reflected by increasing responsibility of student activities and interaction. For example, “there is a general progression across all areas of the outpatient component from observation, interaction and participation, supervision of clients and leadership of the health profession team (under distant observation).”

Client-based changes

Five respondents indicated that the placement process will vary on account of the presenting client condition or overall caseload however the responses were not specifically linked to accounting for different levels of student competency.

Does not vary

Two responses indicated that the typical process does not vary or at least the basic process remains the same, but with no further explanation provided.

Student-led or prompted differences

One supervisor reported that the placement process will vary if the student or the supervisor has any specific concerns or issues and therefore this supervisor appears to be responding directly to the student needs.

External assessment requirements

One respondent indicated that some universities require students to complete an assessment item while on placement and therefore the placement process varies for these students.

When supervisors were asked to explain how they accounted for different levels of student competency within the practice processes, eleven different themes were established from seventy-six responses. The themes were:

- Manipulate rate of progression or amount of supervision (40 responses)
- Assessment, observation or review of student competency (31 responses)
- Independent learning or changing tasks (22 responses)
- Provision of feedback (17 responses)
- Tailored learning or case studies (12 responses)
- Processes don't change or different processes are a part of the normal operating procedures (11 responses)
- Peer support (10 responses)
- Other un-themed (7 responses)
- Increased observation period (5 responses)
- Communicate with the university (4 responses)
- Variation in practicum hours (3 responses)

Manipulate rate of progression or amount of supervision

The most often reported means of accounting for different levels of student competencies throughout placement was to manipulate the rate of progression of skills/tasks or to manipulate the amount of supervision. This theme emerged from approximately half of the responses. Some examples of how progression is manipulated included “day 1 students are provided with a neurological theory exam which benchmarks their current knowledge. Students who are very competent are progressed quickly through the involvement process and take a more active role at an earlier stage compared to those who are less competent and need more practice”; and “more competent students are given more responsibility more quickly / they are also quizzed with more difficult clinical questions.” Examples of the modification to the amount of supervision included “close supervision is provided initially and is always available if needed. If a student lacks competence or confidence then the supervisor will spend more time with them providing guidance, knowledge and support”; “students with a high level of enthusiasm and commitment rarely require constant supervision”; and “the degree of student supervision is determined by the students’ competency, with students with less competency having closer supervision.”

Assessment, observation or review of student competency

Thirty-one supervisors responded to this question by indicating that they observed or evaluated the knowledge or skill-based competency of the student during placement. It was often reported that this observed level of student competency would influence the placement processes. The methods for observing and evaluating student competency included quizzes, knowledge tests, observation of task performance, case notes and review sessions. For example “general quiz and knowledge test given on first day to allow for a level of performance review” and “...we usually have the student start working with a client (who has an exercise program or has been exercising for some time) in a group exercise situation, so that we can observe their skills and knowledge and communication skills before we determine whether they are ready to manage a client from initial consultation through to exercise supervision. We find it hard to determine when the student comes in for their interview whether they are competent or not. It is not until they attend prac that find out their competency level.”

There was also an expectation noted that students in advanced years would already be competent, “generally we only have fourth years from mid-year onwards so we expect them to be at a reasonable level.” This statement indicates that individual accountability for different levels of student competency may not always be considered.

Independent learning or changing tasks

Supervisors reported that they would prescribe specific independent learning projects or would modify the specific tasks that they would assign to students in response to the students' individual competencies. Independent learning tasks included self-directed assignments, case studies and prescribed readings. Changes to tasks included having students assist and observe for additional sessions prior to taking on a lead role if they were less competent, reducing the complexity of case studies for less competent students, and pairing less competent students with highly competent students. More competent students were progressed to reduced levels of supervision and increased patient numbers and management.

Provision of feedback

Seventeen supervisors directly mentioned the provision of feedback to students when answering this question. The feedback was most often provided with the aim of achieving the required competencies. Feedback types ranged from single-session to continuing feedback, and included both formal and informal feedback processes. An example of the continual feedback process states the following "offer ample opportunity for question time, offer feedback each day and summarise at end of week. Students who excel will be offered hands on work sooner than those who don't, students who lack skill will be questioned as to what they are finding difficult and offered options of how to improve - one-on-one assistance with prescription for eg. mid point assessment tasks along the way give opportunity for feedback."

Tailored learning or case studies

In addition to the comments that related to the assigning of independent learning tasks in response to student competency, supervisors also facilitate tailored learning activities or case studies during work time to account for variations in student competencies. For example, "each student receives the same level of exposure to clinical environment and supervision. Through this process, differences in student competency can be identified and if there are areas that a student is less experienced in we aim to focus on providing more tailored tutoring and specifically developing case studies and research around this area to assist them to come up to speed." Another supervisor runs mini tutorials and special practical sessions however the supervisor noted that "...this process unfortunately puts a great strain on our time resources and usually places the staff member behind in their employed duties". Yet another supervisor uses role play and mock client situations as additional learning opportunities.

Processes are a part of the normal operating procedures or don't change

Eleven supervisors included comment that the placement process variations are assumed or are a normal part of the process and therefore aren't a concern; does not change between students; or that throughout or by the end of placement all students should have received a similar experience and have achieved similar competencies. For example, "we try to expose students to as much as possible while they are here. We use a 1:1 ratio so different levels of competency aren't a problem as we adjust to suit the individual"; and "by the end of the placement all students should have had very similar experiences and should have achieved very similar competencies". One supervisor suggested that "this is more of an art than a science."

Peer support

Peer support from students or clinicians to assist students who are less competent, was another emerging theme. Example comments include "...better student is used to help other student. Allow students to work together"; "... practice between staff"; and "...we also have a number of students completing placements simultaneously, so students are encouraged to discuss topics, training sessions and clients amongst themselves after approaching staff initially."

Other un-themed

Seven responses included text that did not fit neatly into the other themes or did not appear to directly address the question. These comments were related to provision of more resources and clearer guides for supervision, students learning in different ways, student and supervisor expectations, and variance in student competencies.

Increased observation period

Five supervisors specifically identified that they would increase the duration of observation-based placement activities for students (assumably students who were observed as being not sufficiently competent to progress to active involvement).

Communicate with the university

Four supervisors indicated that they would communicate directly with the university. For example, "feedback is provided to the student university placement co-ordinator if the student is struggling in their placement."

Variation in practicum hours

Two supervisors indicated that practicum hours would be increased for less competent students to allow more time for competency achievement.

Supervisors were given the opportunity to explain in free-text how they would like to operate clinical placement supervision, in an ideal situation. Seventy-one responses were received and were thematically grouped as follows:

- As is (27 responses)
- Placement schedule and intake (20 responses)
- Supervisor specifics (18 responses)
- Student experience (17 responses)
- University or ESSA resources (6 responses)
- Communication and feedback (5 responses)
- Funding (4 responses)
- More time for development (3 responses)
- Student placement preparation (2 responses)
- Other un-themed responses (5 responses)

As is

Over one-third of responses included a statement indicating that in an ideal situation they would continue to operate clinical placement supervision as they do currently. Example responses include “at present, I find our situation appropriate and effective” and “the way we currently operate clinical placement supervision at [facility name] is ideal, I wouldn't change it.” Some respondents expanded their response by explaining why they wouldn't change their process, as follows “this model seems to work well but because of time considerations it is harder to make it too much bigger”; “the current situation works well. Ideally we would be autonomous in the hospital and be able to dictate how our daily hours of work are spent, but as such still conform to a set schedule determined by nursing;” and “not sure, we do the best we can at the moment, I'm not sure how we could improve.”

Placement schedule and intake

Twenty responses included text that met the theme of placement schedules and student intake. Regarding placement schedules, supervisor opinion was split between a preference for fulltime block placements and part-time placement that extends over a longer period. Example differing comments include “we'd like them working almost fulltime for 5 weeks to complete their hours as quick as possible so we can open the opportunity up to more students”; and “ideally, placements would consist of a group of students seeing patients in a student led clinic 1-2 days per week for the entire year, with the clinical supervisor roaming between students to assist with decisions/actions. This

method would allow an increased number of patients accessing the service, and allow for the students to work with a patient for an extended period.” One supervisor did indicate a preference for students to undertake placement during university holidays in addition to traditional study periods in order to increase the facility’s capacity to supervise more students across the year.

With respect to student intake, one supervisor commented that they would prefer to supervise only the top 5% of students, while another would ideally supervise no more than three students per year. Supervisor opinion was also divided regarding the number of simultaneous students on placement. Some supervisors specifically wanted only one student at a time while others indicated that they would prefer multiple students or at least a partial overlap of students undertaking placement. One supervisor commented that they would be willing to supervise students from other states (other than their own) and that perhaps this could be advertised on the ESSA website.

Supervisor specifics

Supervisors reported that ideally they would like EP-based supervision, that a staff members’ sole responsibility is placement supervision/clinical education, that supervision be performed by experienced supervisors, and that supervisors have more time available to increase one-on-one supervision practice (particularly during the early stage of placement) and overall supervision capacity (ability to supervise more students). In contrast to the EP-based preference for supervision, one supervisor reported that they would ideally prefer supervision via an allied health team. One example comment states: “perhaps additional hours from specific exercise physiologist supervisors would further support student learning. The students have limited access to an EP, and while they are supervised by this supervisor and the inter-professional clinical facilitator, I believe a few more hours from the EP facilitator would enhance the process.”

Student experience

Seventeen responses were focussed on the theme of the student experience when answering this question. Supervisors would ideally like to cater for more students, provide more hands-on and practical-based experiences, provide students with specific responsibilities, provide students with the opportunity to work with a patient over an extended time period, and provide ongoing feedback. Supervisors also indicated a preference for a greater client case load (back-to-back patients and additional group exercise sessions) to maximise student contact with patients. One supervisor also “would particularly like to teach students more of the admin/paperwork side of things that is actually required working as an EP, they don't teach you all of that at uni!”

University or ESSA resources

Six supervisors indicated that they would ideally like additional resources either from the universities or ESSA to assist with the placement supervision process. Such resources included a checklist for required competencies, external-based tutorials, advertising of placement opportunities on the ESSA website, documentation on assessment requirements, clear guidelines from ESSA for clinical hours and registration requirements, and learning guides and specific skills/procedures worksheets.

Communication and feedback

Four supervisors would like to focus on providing feedback to students throughout placement, while a fifth supervisor responded with “frequent communication between supervisor, student and university.”

Funding

Four supervisors would like to operate their clinical placement supervision with financial assistance, with one supervisor noting “...would like to be paid for taking the students like we are for physio students.”

More time for development

Three supervisors would like more time to be able to develop robust and structured processes, resources and education delivery for clinical education and placement supervision.

Student placement preparation

Pre-reading and pre-placement interviews were identified as ideal activities to prepare students for placement.

Other un-themed responses

Text from five respondents could not be confidently attributed to a specific theme or did not appear to directly address the question. These responses were as follows:

- “Have students that want to be at prac and work.”
- “I'm not sure what exactly you mean.”
- “Pre and post questionnaire based on learnings within the company/knowledge which is required and building on this 'selection criteria' through real life appointments and case studies.”
- “As I am just with more help.”
- “Our training is above average so wouldn't change our methods.”

Placement supervision processes discussion

The current placement process outlined by supervisors would appear to follow sound education principles for learning, although it is not clear how supervisors, who as a majority have not undergone supervision or education training, have developed these principles. Also despite the range of supervisor experiences, there appears to be consistency in the approach to placement supervision, and this approach includes 1:1 supervision, progressive learning, placement orientation and the establishment of goals. Student performance of clinical skills and client services was the main theme established from the responses regarding current practice. This practice-oriented theme underpins the rationale for the high-priority inclusion of clinical placement experiences in the curriculum, as it provides students with the opportunity for a theory-practice transition and skill consolidation. The most frequently reported student performance of client services occurred within the cardiac, metabolic and musculoskeletal domains, accurately reflecting the current ESSA requirement for placement hours to target these client services (www.essa.org.au).

While performance of clinical skills appears common-place, the assessment of skills appears to be performed less often and to a lesser extent, and when performed is undertaken independent of the university requirements. This reinforces the objective and professional manner in which these clinical placements are run without university guidance. To facilitate an increase in the prevalence of clinical skills assessment practices during placement, it is recommended that a set of standardised assessment checklists and tools be developed.

The 1:1 supervision ratio and pre-placement student competency achievements were again evident in this section, as was the revelation that more competent students, and students undertaking block placements were fast tracked to greater independence and greater complexity of tasks, while less competent students were progressed more slowly or were not afforded the opportunity to participate in complex tasks such as case conferences. These processes call into question the current hours-based approach to placement and the potential transition to a competency-based model. The ideal preference for placement scheduling and intakes appears to be highly variable and individualised and therefore a one-size-fits-all model for supervision practice may not be achievable, and an organic and dynamic approach will be required if recommendations for change are adopted. With over one-third of respondents indicating that in an ideal situation they would continue with their current supervision and placement practices 'as is', it is recommended that any implemented changes should consider potential resistance to change; and changes should be prioritised and stream-lined to minimise disruption and to maximise supervisor participation and future student learning.

When describing current placement processes, approximately one-quarter of supervisors indicated an allied health interaction. This demonstrates acceptance that AEPs must be able to (and do) work effectively in a multidisciplinary allied health environment. The provision of multidisciplinary supervision and interprofessional education during exercise physiology placement should therefore be explored as an efficient and inclusive model of clinical education. The rationale for interprofessional education is that it will result in an enhanced collaborative working environment, enhanced delivery of service and enhanced quality of care (Hammick, Freeth, Koppel, Reeves & Barr, 2007). As defined by the Centre for the Advancement of Interprofessional Education (CAIPE), “interprofessional education occurs when two or more professions learn with, from and about each other to improve collaboration and quality of care” (CAIPE, 2002). Interprofessional education has resulted in positive changes in knowledge and skills, with mixed results reported for student perceptions and attitudes (Hammick et al, 2007). Interprofessional education provides students with insight into other professions (Wilhelmsson et al, 2009) and importantly, in a rural setting created new opportunities for supervised practice (Charles, Bainbridge, Copeman-Stewart, Tiffin Art & Kassam, 2006). In order for interprofessional education to be integrated into current exercise physiology student placement, acceptance of non AEPs as supervisors and acceptance of non-traditional exercise physiology service areas such as occupational rehabilitation, cardiac investigations and mental health, is required.

Recommendation Box

Recommendation Eight

Develop standardised placement-based assessment resources suitable for use by supervising clinicians.

Placement and supervision practice

Most supervisors always performed inductions, health and safety and emergency briefings, facility tours, introductions, regular and final feedback sessions, discussion/agreement on expectations, and set clear expectations. Most supervisors however rarely or never used audiovisual devices to record and play back sessions, while more than 40% of respondents rarely or never use quizzes, student presentations, a contract or agreement, reflective journal, planning sheets or role play during clinical placements.

Placement and supervision practice discussion

The placement and supervision practices listed in Table Five can be categorised as learning, assessment, feedback, and professional practices. Learning practices include the facilitation or provision of learning contracts, goals and expectations, planning sheets, student presentations, workbooks, activity sheets, case study reviews, role plays, mock/draft reports, reflective journals and verbal articulation of processes. Assessment practice includes skills tests and quizzes; while feedback practice includes the provision of regular feedback to the student throughout and at the end of placement, and feedback from the student regarding supervisor performance. Professional practice includes inductions, health and safety and emergency briefings, tours, introductions to staff, and the setting and monitoring of workload time frames. The current practices recorded in Table Five reflect that clinical supervision must occur within the normal daily clinical duties undertaken by the supervisor, that is, the professional practice tasks. Practices that are time intensive or that may detract from clinician care such as student-based learning, assessment and feedback tasks may place additional demands on the clinician and therefore are less likely to be adopted.

The development of a clinical placement practice checklist with individual sections for professional, learning, assessment and feedback practices may assist supervisors in planning the placement experience to concurrently optimise student learning and clinical servicing. Exemplars for each checklist item may assist with adoption of the checklist. Supervisors could use the checklist to gauge the scope of the placement experience offered and to focus tasks to areas that have not yet been targeted. Universities could use the checklist across placement sites to ensure that students receive a broad range of professional and learning experiences. Students could use the checklist to monitor their learning and to inform their reflective practice tasks. Such development of the checklist should involve extensive input from all stakeholders (universities, ESSA, clinicians and students) to ensure that checklist practices are reflective of typical client services and achievable student learning outcomes. The items listed in Table five provide a platform for the checklist development.

Recommendation Box

Recommendation Nine:

Develop a supervisor checklist and associated exemplars for typical placement practices across the domains of professional practice, learning practice, feedback practice and assessment practice.

Table Five: practices typically undertaken during clinical placement

PRACTICE	Uni requires	Always undertake	Often or sometimes undertake	Rarely or never undertake
Student induction (n=85)	21%	92%	3.5%	1.2%
Health & safety & emergency procedures briefing (n=84)	19%	76%	15.5%	6.0%
Facility tour (n=86)	8%	90%	5.8%	3.5%
Staff-student introductions (n=86)	9%	92%	4.7%	2.3%
Regular feedback sessions (n=85)	8%	61%	35.3%	2.4%
Skills test(s) (n=83)	0%	24%	54.2%	21.7%
Quiz(zes) (n=84)	0%	17%	38.1%	46.4%
Student presentation(s) (n=85)	7%	21%	35.3%	40%
Student completion of workbook(s)/activity sheet(s) (n=85)	19%	40%	24.7%	29.4%
Discussion/agreement regarding expectations (n=86)	12%	73%	22.1%	1.2%
Final feedback session (n=84)	14%	82%	13.1%	2.4%
Use of AV to record & play back sessions (n=83)	1%	4%	3.6%	94%
Set clear expectations (n=86)	9%	77%	19.8%	1.2%
Use a supervision/learning contract or agreement (n=82)	17.1%	34.1%	14.6%	43.9%
Seek feedback from students on your performance as a supervisor (n=84)	7.1%	41.7%	42.9%	14.3%
Establish learning goals (n=86)	9.3%	41.9%	40.7%	15.1%
Use formal strategies such as a reflective journal to develop skills in reflective practice (n=83)	21.7%	13.3%	26.5%	48.2%
Request student to articulate processes out loud (n=85)	0%	38.8%	40%	21.2%
Use planning sheets or goal setting (n=85)	4.7%	24.7%	34.1%	37.6%
Structure time to allow for preparation for client interventions (n=83)	1.2%	55.4%	36.1%	9.6%
Review case studies of similar clients (n=85)	1.2%	40%	50.6%	9.4%
Require student to seek feedback on implementation of intervention from clinical educator, client and/or peers (n=86)	3.5%	38.4%	46.5%	14.0%
Monitor and set time frames to manage workload (n=86)	2.3%	44.2%	36.0%	19.8%
Encourage self-reflection and observation to assist/shape behaviours in the workplace (n=86)	4.7%	46.5%	33.7%	17.4%
Role play (n=86)	0%	19.8%	38.4%	41.9%
Draft/mock reports (n=86)	0%	31.4%	38.4%	30.2%

Supervision training

Two-thirds of the respondents (56/84) indicated that they have had no formal placement supervision training or education training. Of the one-third of respondents who did, the categories of training are shown in Table Six.

Table Six: Formal supervision or education training previously completed by supervisors.

QUALIFICATION	NUMBER OF RESPONDENTS
University bachelor qualification	0
University certificate or diploma qualification	3
TAFE qualification	5
University-facilitated training or workshop	15
Work-facilitated training or workshop	7
Yes but insufficient information to classify	7

More than half of the respondents indicated that they would like to undertake formal training as they had not received any, with a further 21% indicating that they would also like formal training despite already having received some formal training.

Respondents were most likely to undertake an online training module, week day professional development session at their workplace, or a correspondence training module as their preferred supervision/education training option (Table Seven). The four “other” responses indicated a desire for time efficient training, for the training to be free or paid for by work, or for the use of a checklist or booklet instead of formal training.

Table Seven: Format preferences for future placement supervision/education training

FORMAT	LIKELY	UNLIKELY	UNSURE
Weekend PD session/course, not at own workplace (n=74)	32.4%	50%	17.6%
Week day PD session/course, not at own workplace (n=78)	51.3%	28.2%	20.5%
Week night PD session/course, not at own workplace (n=75)	33.3%	56%	10.7%
Weekend PD session/course, at own workplace (n=76)	31.6%	53.9%	14.5%
Week day PD session/course, at own workplace (n=78)	74.4%	16.7%	9%
Week night PD session/course, at own workplace (n=76)	48.7%	40.8%	10.5%
Online training module – self paced (n=78)	79.5%	11.5%	9%
Correspondence training module – self paced (n=73)	61.6%	1.9%	16.4%
University graduate certificate or graduate diploma in adult learning/clinical training (n=75)	40%	37.3%	22.7%
Other (n=17; n=4 included responses)	11.8%	64.7%	23.5%

Twelve themes for potential barriers for non-participation or non-attendance for supervision training were identified from the 74 open-text responses received. The themes identified were:

- Work commitment, demands, load, shifts/times and availability (40 responses)
- Time, timing (in general) (30 responses)
- Financial cost, payment and loss of income (22 responses)
- Family commitment, personal life and other plans (11 responses)
- Location (11 responses)
- Workplace support and availability of study leave (7 responses)
- Continuing education points (3 responses)
- Duration (3 responses)
- Course content and relevance (3 responses)
- No issues or not needed (2 responses)
- None (2 responses)
- Not interested (1 response)

Work commitment, demands, load, shifts/times and availability

Most supervisors indicated that work-based barriers such as a heavy work/client load, time away from work or work duties and shift work might be reasons for non-attendance or non-completion of training. For example “time constraints on staff and training schedule as this is determined by clientele availability”; and “significant clinical responsibilities during work hours as well as on-call responsibilities out of hours. This limits opportunities to perform training out of hours. It would be more appropriate to do the training in work hours that can be allocated in advance with the knowledge that the department would be gaining something from the staff member attending the training.”

Time/timing (in general)

The second most commonly reported theme for potential barriers was the issue of time and timing related to the training. Supervisors were concerned that they were already experiencing time constraints and therefore have limited time availability for training. Some supervisors report that training during work time would be a barrier due to the difficulty with fitting the training in around client loads and the consequent loss of income, while other supervisors reported a reluctance for training to occur outside of working hours because it will clash with other priorities. For example “if the training occurs during working hours as I run a private practice. The impact that this training may have on my income due to lost time. I would prefer outside of working hours or self paced learning

which is flexible so I can complete it when it suits me”; and “my current hours of work are 7am to 6pm. As well as being the EP in the company I am also the business manager. I am currently also studying online for a Masters in OHS, I volunteer at an amateur AFL club 2 nights per week and Saturdays, Last thing I want to do is to have to find time for something else when all I want to do is sleep.”

Financial cost, payment and loss of income

Twenty-two responses specifically identified financial-based barriers for training attendance and completion. Supervisors were concerned about the loss of income associated with training taking the place of client appointments during working hours, and about the financial cost of undertaking the training. Specifically, some comments included “I'm not paying for it..... do i get paid for it????” and “cost: actual cost of the program ie. graduate certificate, cost of loss of income as unable to see clients at the same time.”

Family commitment, personal life and other plans

Family and personal life commitments were identified as a potential barrier, particularly regarding children.

Location

Location was another commonly reported barrier and it was associated with excessive distance or travel time required to attend the training. Parking availability was also mentioned as a barrier.

Workplace support and availability of study leave

Supervisors indicated that if they were able to take study leave or time off work with their managers' support they may be able to attend, however a lack of either would be a barrier.

Continuing education points

Supervisors were concerned that if no, or only a small number (no set amount given) of continuing education points were assigned to the training then it would not be worthwhile for them to attend.

Duration

Three respondents indicated that duration of the training would be a barrier, however only one explained their response, indicating “the shorter the better.”

Course content and relevance

Three respondents were concerned about how worthwhile the course would be. One respondent wanted to know whether they would learn anything, and one respondent reported that “time management of current duties preclude additional training sessions not specifically relevant to my

paid position. Payment for prac placement would counterbalance this. Our dept has no problems with our current prac program. Any issues or areas for improvement are currently in the hands of the universities. I do not believe training for prac supervisors is a relevant priority (from my perspective). We have not received any feedback to the contrary from our students or the universities.” The third respondent suggested that “.... a course for supervisors with many years experience of many students should be different to a course for beginners.”

No issues or not needed

Two respondents indicated that they had no issues with placement supervision and that training was not needed. For example “I have been supervising clinical placement for 16 years and whilst I am sure it is not perfect, feedback from students is that I offer a valuable practicum experience for them.”

None

Two respondents indicated “nil” and “N/A” for this question, while fifty-seven supervisors chose to not answer this question.

Supervision training discussion

The majority of respondents indicated that they would like to undergo supervision training and the most popular media for the training were online modules, week day professional development at work or self-paced correspondence modules. It is suggested therefore that any developed supervisor training packages be available in these modes to maximise supervisor engagement. It is important to consider that clinicians supervise students across a range of universities and current anecdotal reports of ‘information overload’ from across the university sector lends support to the development of standardised training modules across the country. This would ensure consistency across the sector and would limit the time that supervisors would need to dedicate towards training if all universities followed the same training (and reporting) structures.

The commonly reported potential barriers for training participation included work commitment, time, cost, family commitments, location/travel, workplace support and associated continuing education points. The development of a tri-modal training package of online, face-to-face and correspondence delivery options is likely to reduce the time and travel barriers as supervisors would be able to choose the mode that best suits them.

Evidence to support improved patient case as a direct result of clinicians participating in clinical supervision is limited (Cassedy, 2010). There are however, a number of benefits associated with

undertaking the supervision of students on clinical placement. Such benefits range from the maintenance of clinical skills and quality practice, increased job satisfaction, worker retention and communication skills (Adams & Kilburn-Watt, 2000; Butterworth, Carson, White, Jeacock & Clements, 1997; Harvey & Schramski, 1984; Webb, 1997). For example, 64% of radiographers reported an increase in work satisfaction, 68% agreed their level of performance had increased and 61% stated that clinical supervision had deepened their knowledge of nuclear medicine (Adams & Kilburn-Watt, 2000).

Therefore acceptance and recognition of the overall benefit to the workplace via processes such as allowing supervisors to undertake training during work hours or allowing staff to take paid study leave to complete training may assist to optimise training participation and completion rates and may reduce the concern that supervisors have regarding loss of income while undertaking training. Supervisors also report concern regarding the cost of training registration. Yearly accumulation of 20 continuing education points is a national requirement for maintaining AEP status (www.essa.org.au). Registering the training courses with ESSA as a continuing education course will allow supervisors to accrue points. To promote long-term sustainability of the training, it would be worth considering the development of individual modules within the overall supervisor training package so that each year supervisors (and workplace managers as appropriate) could select the module to undertake. This would reduce the perceived burden of attending or completing a long/large training package in one go and would stimulate 'as needed' training options. Module-based packages could also include the provision of training to novice and experienced supervisors at a level most suitable to their needs and the needs of the university and student. This would assist new supervisors with a smooth transition into the 'teacher' role and would also allow experienced supervisors to refresh and up-skill in accordance with contemporary practice and pedagogy.

Recommendation Box

Recommendation Ten:

Develop a national supervisor training package.

Supervision resources and support

Supervisors were asked to indicate which resources (from a given checklist, Table Eight) were provided by universities to assist with student placement supervision. Respondents could choose three different responses: ‘yes, supplied by all universities’; ‘yes, supplied by at least one university’; or ‘no- not supplied’. Respondents could also indicate if they found each resource to be useful. Approximately half of the 79 supervisors who responded to the question reported that ALL universities (to which they were affiliated with for student placement) provided student contact details, placement dates, assessment forms, insurance certificates placement agreements and evaluation forms (Table Eight). Less than one third of respondents reported that all universities supplied them with an induction manual, ESSA reference forms and logbooks and placement expectations; with only 17% reporting receipt of a list/description of the current student competencies from ALL universities. Over 60% of respondents indicated that a list/description of current student competencies was not supplied at all, while approximately 40% reported that universities did not supply ESSA reference forms or logbooks. The resource that received the highest proportion of responses for being “useful” was the student contact details, followed by placement dates and evaluation forms.

Table Eight: Resources supplied by the universities

RESOURCE	Supplied by ALL universities	Supplied by at least ONE university	Not supplied	The resource was useful
Student contact details (n=79)	51.9%	24.1%	24.1%	31.6%
Student placement dates (n=77)	53.2%	33.8%	14.3%	28.6%
Induction manual (n=78)	29.5%	34.6%	35.9%	12.8%
University code of conduct (n=77)	35.1%	39%	29.9%	5.2%
ESSA reference forms (n=76)	21.1%	28.9%	48.7%	7.9%
ESSA placement logbook (n=78)	29.5%	28.2%	41%	10.3%
Student assessment forms (n=76)	53.9%	38.2%	7.9%	22.4%
University insurance certificate (n=77)	44.2%	33.8%	22.1%	18.2%
Student placement agreement (n=79)	46.8%	35.4%	17.7%	15.2%
Student evaluation forms (n=79)	45.6%	46.8%	7.6%	20.3%
Placement expectations (n=77)	28.6%	41.6%	29.9%	13%
List/description of current student competencies (n=77)	16.9%	16.9%	64.9%	16.9%

Approximately two-thirds (68%) of respondents indicated that their workplace had developed resources for student placements. Fifty-two supervisors provided written details of what these resources were, with these resources themed as:

- Site-based resources (34 responses)
- AEP-based resources (18 responses)
- Student or learning-based resources (17 responses)
- Assessment-based resources (10 responses)
- Evaluation-based resources (7 responses)
- Online/PC-based resources (4 responses)
- Generic or allied health-based resources (4 responses)
- Very few resources, or under review (3 responses)

Site-based resources

Site-based resources that have been developed by the workplaces include orientation manuals, policy and procedures manuals, student handbooks (unspecified content), emergency contact information and health and safety documentation, background information about the clinic and access to client histories.

AEP-based resources

A wide range of AEP-based resources were reported as having been developed by the workplaces involved in clinical supervision. Resources include medications summaries, chronic health condition handouts, reference guides for clinical terminology and manuals for health and fitness assessment and measurement protocols. Prescription and rehabilitation resources were also developed and included training manuals for musculoskeletal conditions, resources for training methodologies, programming templates and exercise prescription manuals. For example “we have a student manual that encompasses all the rehabilitation programs protocol plus relevant literature articles.” One supervisor also reported that they also use the ESSA Position Statements.

Student or learning-based resources

Student learning-based resources have also been developed by the workplaces with workbooks and case studies being the most commonly reported learning tool. Learning expectations, individual student forms (background and previous experience), documents/agreements, presentations, tutorials, question and answer sheets and readings were also mentioned. Two supervisors reported using student development plans, with one supervisor noting “we have a comprehensive

development plan that highlights the expectations, key components and potential issues that may arise during placement. This is specific to cardiac rehab and is reviewed by supervisor and student at least weekly, students are to keep it with them at all times during prac and make notes daily. Students are encouraged to utilise their development plan when completing their ESSA log books.”

Assessment-based resources

Ten supervisors indicated in their responses that their workplace had developed quizzes or theory tests and practical exams as specific clinical placement assessment resources for students.

Evaluation-based resources

Evaluation-based resources that were identified from the supervisor responses included reporting templates and questionnaires and templates or forms for student reflections and feedback. One supervisor provided evidence of extensive evaluation-based resource development as follows: “in a way, as the EP student placement program has developed, we have set up a residential EP service for clients. This has all of its’ own documentation as well as recording for setting up episodes of service etc. We have pre and post placement questionnaire and validated tools around attitudes and knowledge of working within aged care environment. Students also participate in post placement semi structured questionnaires or focus group to gather feedback and info on placements....”

Online/PC-based resources

Four responses were themed as online or computer-based resources. These resources were online training, a CD resource containing all relevant placement information, server-based student access to information, and an online database.

Generic or allied health-based resources

Some workplaces use generic or allied health-based resources when supervising clinical exercise physiology placement. Such resources included an occupational therapy induction manual, subscription to ‘PhysioProfessor’ and the use of a state government procedural document for allied health student clinical placements.

Very few resources, or under review

One supervisor noted that their workplaces had developed “very few” resources, another indicated that resources are “under review” and a third supervisor noted that their workplace was “in the process of competing EP specific resources such as WHO ICF clinical reasoning, SOAP note writing, report writing etc.”

Fifty-eight supervisors provided descriptions of the support that they believe should be provided by the universities to the clinical placement supervisors. The respondents were requested to include all items irrespective of whether or not they already receive that support. The themes stemming from these free-text responses were:

- Provision of resources for assessment, evaluation and expectations (26 responses)
- Administrative support and provision of logistics (20 responses)
- Information on student performance and curriculum (13 responses)
- Communication (13 responses)
- Supervision, monitoring and site visits (11 responses)
- Funding (9 responses)
- Training and courses (6 responses)
- Proactive coordination (6 responses)
- Access to library resources (2 responses)
- Flexibility of prac hours (1 responses)
- Other un-themed (6 responses)

Provision of resources for assessment, evaluation and expectations

Supervisors most often reported that resources are the support that universities should be providing to assist with clinical placement supervision. The resources encompass expectation-based, assessment-based and evaluation-based documents or processes. One supervisor would like universities to provide an induction manual, while numerous supervisors think that universities should be providing an overview of expectations and goal setting for placement. A checklist or outline of clinical competencies that the student has already achieved and also that they will be expected to have achieved during placement was frequently reported. Supervisors would like universities to provide assessment forms and “clear yet brief assessment information.” Another recurring request for assessment-based support is the provision of specific assessment items, criteria and instruction for how to use the criteria when assessing students, for example “what constitutes not competent, competent and very competent”; “how to check that they understand” and “how to grade.” Supervisors would also like universities to provide evaluation forms and processes and to provide students with an understanding of the paperwork required for ESSA logbooks and reference forms.

Administrative support and provision of logistics

Supervisors would like the universities to provide administrative and logistical support that “allows the placement of students to be streamlined.” Supervisors request provision of student placement dates, hours needed, student names, student contact details, emergency contact details, pre-placement readings, immunisation records and insurance certification, ideally 6-12 months in advance of placement with all paperwork completed 4 weeks prior to commencement. One supervisor requested that universities provide clarity on the level of supervision that is required.

Information on student performance and curriculum

Thirteen respondents identified that universities should provide information about student performance (achieved skills and knowledge competencies) or the curriculum that has been completed. Comments also related to the provision “of a guide ...to what areas that a particular student requires further assistance with.” One supervisor also noted the importance of receiving information about student competencies and suitability for placement as follows: “we would like to know the competencies of the students before we accept them, as we have found some students are not suitable for our centre or are not genuinely interested in the types of clients we see and this is reflected throughout their prac. Our staff and clients can pick up on unmotivated students and it lowers morale in our centre.”

Communication, supervision, monitoring and site visits

Supervisors would like regular feedback on how students rated their placement as this would provide “opportunities to improve – students may not always give a true response at time of placement.” Supervisors would also like the university representatives to undertake site visits both before the placement in order to address supervisors, to appraise the workplace and to organise the placement details face-to-face instead of over the phone; and during the student placements to assist with student monitoring and to discuss progress and issues arising.

Funding

Nine responses were included in the theme of funding. Funding was requested to pay for the time spent supervising (non-patient time), for costs associated with placement, funding toward student materials and generic financial assistance. One supervisor noted that “the only way we could run a better placement is if we had more staff. It is a funding issue. Payment for taking students would be a way of improving how way could manage things.” Another supervisor commented similarly “... with financial assistance we believe we would be able to provide more thorough education to all students. We are a not for profit organisation and cannot currently supply a student specific role

within our current/future budget. With financial support from the universities, we would be able to allocate time to specific education for the students without impeding on employed responsibilities.” One supervisor recommended “money to cover non patient time allocated to teaching. For example allow us to have 30mins prior to appointment and 10min after to discuss.”

Training and courses

Six respondents identified that universities should provide professional training and education courses for clinical education, with one supervisor noting specifically “more support regarding structure of content and assistance in developing skills to ‘teach’. As a private practitioner who provides supervision in a university I feel that I need to develop my ‘teaching’ skills. I never actually thought I would be in this role, so haven't looked to develop these teaching skills on a formal basis.”

Proactive coordination

Six supervisors provided responses that were themed about wanting the universities to be proactive with the placement coordination. This theme included suggestions for “universities to be receptive to feedback and possible complications or poor attendance as well proactive dealing with any issues that arise” and “assistance in managing incidents or conflicts with students whether due to unprofessional behaviour or competence issues.”

Access to library resources

Two supervisors indicated that universities should supply supervisors with access to the university library and resources.

Flexibility of prac hours

One supervisor requested more flexibility for prac hours as follows: “flexibility for students to complete their prac hours. Students are currently required to attend lectures for their practical unit which often takes them away from actual prac.”

Other un-themed responses

Un-themed responses include those that either do not appear to answer the question, were not able to be classified due to difficulty with response interpretation, or provided an over-arching recommendation:

- “An ESSA based minimum standard document formally defining requirements.”
- “If prac is to be structured and the same then this is important. But it isn't that is what students source out prac venues.”

- “Access to computer and internet while on practicum placements (not always access to such equipment due to limited resources).”
- “Research areas/case studies for students.”

Supervision resources and support discussion

Supervisors have reported that not all universities are supplying placement sites with basic placement logistics information such as placement dates and student contact details, insurance and agreement documentation, ESSA documentation and placement expectations. To ensure that supervisors consistently receive basic placement information in advance of the student’s arrival, it is recommended that a checklist of resources to be supplied to placement supervisors be developed and disseminated. The resource checklist items could be based on the information provided in this report with pilot testing across the university and workplace sectors prior to finalisation. In addition to providing resources, some supervisors are requesting that universities finalise placement information 6-12 months in advance. While this request is understandable as it would allow facilities to undertake workload planning and to manage students from a variety of universities, it may not be achievable by the university. Some universities offer the clinical exercise physiology degree as graduate entry courses and therefore only receive student enrolment information at the start of each calendar year. Additionally, many universities require students to successfully complete all course-work requirements prior to undertaking placement and therefore student eligibility and availability for placement may change dependent on their success with coursework subject completion, student attrition and student course transfers. It is recommended that this organisational challenge be articulated to the workplaces during training modules or early in the placement preparation process. Universities are able to project likely student placement dates and numbers but often require the capability to amend these arrangements at the ‘last minute’. Supervisors do report this ‘last minute’ placement organisation as problematic however universities may also require emergency placements. These emergency placements are required in times when organised placements withdraw their booking due to staffing changes, the placement facility or AEP services close (as has happened throughout early 2013 in Queensland Health facilities), if students need to cancel due to unforeseen personal circumstances, or if students require remedial (additional) placement prior to graduation.

From the information obtained in this report, it is obvious that placement facilities are investing their own time and effort into developing their own resources for student placements. The facilities are well-placed to design site-based, AEP-based and allied health-based resources, however it is

recommended that universities assist with the development (or finalisation) of facility-based learning and assessment resources to ensure compatibility with the current and expected student skill and knowledge basis and stipulated course learning outcomes. Individual facility-based resources provide students with an understanding of the uniqueness of the facility and of the breadth of exercise physiology services available therefore it would be important for universities to assist with the resource development but not to govern the process, for fear of losing the uniqueness of each placement experience.

Supervisors report that they would like universities to provide more information and resources regarding the current and expected level of student competencies. This need for better information about learning outcomes and student knowledge and skill sets has also been identified nationally for the health disciplines (HWA, 2011a). It is therefore recommended that universities provide a checklist of clinical competencies that encompasses the already achieved and expected/yet to be attained clinical competencies during the exercise physiology degree experience. This should also be accompanied by an overview or list of measurable goals and learning outcomes associated with placement. Some clinicians already report undertaking competency assessment processes on their own accord, perhaps due to the failure from the universities to provide a meaningful or robust assessment of the student prior to placement. The use of competency-based checklists and assessment processes will ensure that students attend a placement site with a minimum level of competency required by that placement site, and may also benefit the university and the student by enabling universities to strategically place students with supervisors to work on particular areas of weakness or not yet attained competencies.

As the universities expect supervisors to provide timely and regular feedback to students about their performance, universities should reciprocate with the provision of feedback to supervisors about the placement experience. Supervisors have indicated that they would like this to include a combination of retrospective feedback from students and feedback from the university representatives who undertake site visits during student placement rounds. It is important that universities adopt this 'close the loop' approach to supervision feedback as this will provide supervisors with the opportunity to receive external feedback, to combine this feedback with their self-reflection for critical evaluation of current practice, and to plan and implement modifications for continued professional development specific to supervision and teaching skills.

Some supervisors indicated that they would like universities to effectively pay for placements so that the facility can recoup a perceived loss of income due to a reduction in billable client services while supervising. Schoen Dillon and colleagues (2003) reported that students can actually increase workplace productivity in the physiotherapy discipline. A similar investigation should occur to

determine whether income loss or income generation occurs during exercise physiology student placements and if this differs across facilities (e.g. public versus private practice). University budgets are tightening with the recent loss of government funding and therefore they may not be in a position to pay for placements. It has been anecdotally reported that facilities are requesting payment of up to \$600 per student, per week, which if demanded by all facilities would cost in excess of \$4Million annually based on the 2011 student placement activity hours reported by HWA (2013b), which is an underestimate of the current demand. It is recommended that this funding issue be further investigated with consideration also for what occurs in other allied health disciplines, and that a standardised approach to payment or non-payment of placements is established.

Supervisors reported that they would like universities to provide training courses and access to university resources, to be more proactive particularly in terms of dealing with students in difficulty, and to be more flexible with prac hours. These items have all been discussed in previous sections.

Recommendation Box

Recommendation Eleven:

Develop a minimum clinical placement resources checklist for universities.

Recommendation Twelve:

Develop a clinical competencies checklist that includes professional and clinical skills.

Recommendation Thirteen:

Develop a standardised process for providing feedback to placement supervisors.

Recommendation Fourteen:

Explore current and future clinical placement and training funding requirements and arrangements.

Supervision documentation

Twenty percent of respondents (16/63) reported having difficulty completing the documentation associated with clinical placements. The free-text responses for these difficulties were allocated to six themes:

- Time constraints associated with document completion (9 responses)
- Standardised competencies and assessment tools (8 responses)
- ESSA logbooks (4 responses)
- Supervisor qualifications and clinical judgement (2 responses)
- Resources (in general) (2 responses)
- Students understanding of assessment requirements (2 responses)

Time constraints associated with document completion

When asked to identify difficulty completing the clinical placement documentation, the most commonly reported difficulty was associated with time constraints. Two respondents indicated generic lack of time while others provided more descriptive responses including “completing all the documentation associated with student placements (initial contact, conversing with students and university supervisors, assessments, ESSA requirements including log books and reference forms) places an enormous strain on staff time resources. Our staff fall behind in their employed duties on a regular basis in order to complete student paperwork. ESSA requirements are the most time consuming with at least two hours being consumed per person, per log book.” Another supervisor noted “not related to universities themselves, but I find the ESSA logbook complex and not user friendly. This tends to take up more student placement time when helping the student try to work out what counts as what and how to record things than supervising the student!” Another example was “documentation too long and time consuming. ESSA logbook requirements not easy to understand and each student seems to have a different opinion on them.” Another supervisor was dissatisfied with the time requirement for university-based paperwork, stating “some of the current assessments from some of the universities are very long, and unfortunately we are very time poor as supervisors.”

Standardised competencies and assessment tools

Supervisors also report having difficulty assessing and evaluating student performance without the availability of standardised competency and assessment tools. For example “not necessarily difficulties, mainly grading a student as competent when no real 'competencies' have been set. A lot

of this is a clinical judgement made by each individual supervisor, at each individual site, with the resources they have available to them. I guess an obvious answer would be to develop some competencies specific to the placement ie cardiac, metabolic, pulmonary, MSK etc.” Other comments included “all assessments are different. Some are very tricky to complete. A universal EP assessment would be good. Also some basic competencies for EP's to achieve”; and “the evaluations are all very different so I don't have trouble as such but it makes it less straight forward. There should be a uniform evaluation across all the universities so the students are being evaluated under the same criteria no matter where they study.” Current marking of competency achievement has also be found to be confusing, as evidenced by the following statement: “Some universities have what I feel is an unrealistic or confusing grading scale - with students considered ‘intermediate’ or ‘advanced’ as not competent, with only ‘entry level’ or ‘exceeds entry level’ deemed a ‘competent’ grading and 4 levels below this.”

ESSA logbooks

Four comments specifically indicated the complexity and length of the ESSA logbooks as the cause of their difficulty with clinical placement documentation.

Supervisor qualifications and clinical judgement

One supervisor noted that the need for clinical judgement when assessing students was a difficulty that they faced, while another stated that “initially we found it (the documentation) difficult to fill in as a large amount of the student time is spent with inter-professional student facilitators who are not EP's. This meant we needed to work very closely with the EP which at times was hard to arrange. While EP supervises the client contact, the inter-professional facilitator spends a lot of time helping to create the experiences that the student undertakes...just makes it more difficult with the documentation.”

Resources (in general)

General resource-based difficulties that were cited include the necessity for supervisors to make use of the resources that they have available to them at the facility, and the difficulty in completing the whole array of paperwork requirements that are associated with clinical placement.

Students understanding of assessment requirements

Two supervisors reported student difficulty with understanding and interpreting the documentation and then also with documentation completion, the later sub-theme evidenced by the following statement “the students seem to find it hard to fill out logbooks. We are often sending them back as

they have claimed for extra hours that did not occur or they have not included enough information about clients and the consultations or they cut and paste information too often.”

Supervision documentation discussion

Supervisors report the need for time efficient and simple documentation from both ESSA and the universities. The ESSA logbook is standardised for all of Australia however it is recommended that supervisors provide ESSA with suggestions for how this documentation could be further simplified or streamlined and about what training or instruction would be beneficial with respect to logbook completion. As addressed earlier, it is recommended that a move away from hours-based placement is considered by the industry and may involve the investigation of the association between log book completions and competency.

The time consuming nature of placement documentation is likely to also stem from universities having different documentation and assessment requirements (and perhaps with little supervisor training). Developing standardised competency and assessment documents would streamline this process and might allow for significant promotion of simultaneous supervision of students from different universities, as per the suggested increase in the supervisor-student ratio and emphasis on peer-assisted learning. ESSA already has a standardised set of criteria for all accredited universities to meet regarding curriculum-based knowledge and skill sets. This suggests that the development of minimum practicum standards with associated resources should not be difficult to achieve.

Recommendation Box

Recommendation Fifteen:

Engage with supervisors to explore ways to enhance time efficiency, simplicity and relevance of the ESSA logbook.

Further comment regarding placement supervision and/or training

When given the opportunity to provide additional comments regarding current clinical exercise physiology placement supervision and training in Australia, thirty-two responses were received. These comments were allocated across six themes:

- Student preparedness for placement (10 responses)

- Future supervisor training (10 responses)
- Placement logistics and relationship with universities (9 responses)
- Future supervision capacity and qualifications (6 responses)
- ESSA requirements, communication, accreditation and standardised resources and practice (6 responses)
- Facility-based progress and benefits (5 responses)

Student preparedness for placement

Supervisors are concerned that students are commencing placement without the necessary theory and practical application skills. Example comments reflecting this concern include: “students are NOT being taught enough theory behind exercise physiology. ie. simple muscles and their function. They also lack a practical application of their knowledge. ie. how to assess some ones postural problems and relate that to musculature imbalances” and “I have found that the students have not been exposed to a high level of case note documentation in particularly the SOAP format. This format allows them to communicate with other allied health professionals as well all use this format. Case note writing seems to be an area that the students lack confidence. Also issues with clinically reasoning for complex clients. It does not seem students are taught a structured way to clinically reason for clients, we promote WHO ICF to assist with the reasoning, but the EP students that have come to this workplace don't seem to ever be exposed to this.” One supervisor also commented that “students have reported some difficulties this year with their academic program. They report satisfaction with clinical placement, but have expressed some concerns about their preparation to be competent on placement.” In contrast to the preceding statements, a positive comment was that “clinical placement at this hospital runs smoothly with clear guidelines and expectation given to each student.” Regarding student attributes, one supervisor commented “personally, I enjoy working with students when they are willing to learn and participate. Most of the paperwork and business side of things tend to go to the wayside when students are present, as I am using my free time to ensure they are getting the most out of the clinical placement. Some students do not realise this and have a sense of 'arrogance' when beginning prac, which makes the entire process unpleasant for our staff and clients. On the whole, students do understand and are grateful for the time and effort.”

Future supervisor training

Ten respondents indicated that increased supervisor training would be beneficial for the student learning experience and potentially for clients. For example “the development of supervisor training and resources to support student clinical education will only add to this level of professionalism. I

thank you for developing this survey and look forward to its outcomes” and “further training for supervisors will provide students with a better consistency practicum experiences. Therefore the quality of training for students will further improve the development of the industry.” One supervisor provided a suggestion for the training package as follows: “there is a need for formal education of practicum supervisors, especially supervisors whom have been working in the industry for less than 5 years. Formal education does not necessarily have to be a graduate diploma, I believe that even a single day course could cover enough information to give site supervisors more self confidence and self efficacy and therefore be able to provide their students with a better practicum experience.”

Placement logistics and relationship with universities

Supervisors provided additional comment that related to placement logistics such as block placement scheduling, placement opportunity, methodological processes and feedback and assessment practices, as well as relationships with the universities. With respect to scheduling, a supervisor commented that “students would benefit greatly from attending prac for a block of 4-5 weeks rather than trying to fit it in with other lectures/work commitments etc. Places increase stress on the students to get their prac completed and they don't seem to engage as well as there is not as much cohesiveness/consistency.” Regarding placement opportunity, it was noted that “clinical placement can vary greatly from service to service. Whether the student only observes or has a full workload often has caused indifferences in course marks which has caused some concern for some students.” Supervisors also commented on the relationship between the workplace and the university, focussing on the desire for coordinators to meet with supervisors in person to discuss the student placements and to provide feedback, and that some universities already have established this process. For example “an effective and efficient relationship has been developed between University [name] and [name] Hospital Cardiac Rehabilitation department. [name] University has just established a relationship with us at Cardiac Rehabilitation. I would like to see all universities have a professional and methodological clinical placement process where they contact exercise physiologists to organise preferred timeslots so that I am not inundated with students looking for placement. There are a few universities that still require students to organise their own placement which makes it hard for students to organise their clinical placement, especially if it is organised late in the year.”

Supervisors were also concerned that students were completing placement just to get the required hours, not for the intended learning experience, as represented in the following response: “with changes in ESSA accreditation and required hours in certain fields, we feel students are on occasion coming to complete placement purely to sign off on hours. They are less interested in our particular

field but require placement here in any case. This has not only put a strain on staff in terms of time resources, but changes the passion behind many of our students. We feel as though some universities are purely interested in the number of students they can push through their degrees and less interested in the impact student placements have on our workplace.”

One response specifically focussed on the role that practitioners should have in the development of supervision practice, as follows “I feel that there needs to be more recognition by the academics on the specialised skills of the private practitioner. I am concerned that there has been little consultation with EP practitioners in the set up of student clinical placement. I have noted that there has been a heavy reliance on academics to define the student clinical placement requirements and expectations with little to no consultation with EP practitioners. With all due respect to academics, there is a significant difference in the mindset and skills set between academics and EP in private practice, which is what the majority of students are preparing for, to go into private practice. I feel that at times I was restricted by the current structure of the student clinic and unable to convey a "real" EP practice experience. I would like to see more consultation with EP private practitioners in the development of the student clinical placements and student supervision. I feel that it is difficult for an academic (who may have minimal or no experience as a private practitioner) to develop the student clinical placement and Supervision. I feel that as an EP you need the experience of being a private practitioner day in, day out over an extended period to be able to convey to students what it is like being an EP practitioner. Maybe a collaborative approach between academics and EP practitioner would give the best outcome.”

Future supervision capacity and qualifications

Six comments were associated with future capacity for supervision and with supervisor qualifications and these encompassed ESSA requirements, and standardised or centralised processes. Concern was noted that future supervision capacity might be limited due to accreditation difficulties. For example “I haven't got ESSA accreditation so might not be able to moving forward take students” and “I graduated from The University of Western Australia in 2006 with a BSc in exercise and health science and have found it extremely difficult to gain accreditation as an exercise physiologist or exercise scientist even though I have been working full time in the field since my final year of study. I find it difficult to understand why so many barriers are put in place to gain accreditation when there are so many final year students being offered accreditation when their practical and theoretical knowledge of the course material is questionable. An unaccredited supervisor with over 6 years of clinical experience is unable to gain accreditation with ESSA yet he is able to provide supervision to a student who will be accredited upon completion of their practicum. Rather than looking into the current state of clinical placement in Australia I think it would be far more beneficial to reassess the

criteria for accreditation as it is currently making a mockery of the industry.” One comment indicated that the facilities need to take more of a proactive role in ensuring future placements “more facilities private, university or government should make more of an effort in providing opportunities for students to be able to complete their placements. There are many private EP's who do not take students because of the time and costs involved.” One supervisor noted “I would like to add that Queensland Health has progressed the professionalism of student placements by initiating the centralisation process with the support of the Tertiary sector. This has engaged various sites that may not have been willing or were too resource poor to take students.” This statement indicates that centralised allocation processes may enhance organisational logistics and future placement capacity by involving more facilities.

Facility-based progress and benefits

Supervisors indicated that while in some instances the current process of placement supervision runs smoothly due to clear guidelines and expectations, others would like the facility to receive something tangible out of placements such as having students complete a project or research. Furthermore, students need to balance desire to learn with the need to contribute to the workplace because one supervisor reported that “the only current benefit to my business of taking student placements is getting to know potential employees as well as potentially learning something off them about current practices and research.”

Additional comments discussion

Most of the points raised in this free commentary section of the report have already been addressed, including clear stipulation of competencies and enhancing the relationship between the university and the placement facilities and supervisors. A new theme to emerge however is the current process of practitioner versus new graduate accreditation. These processes are not commensurate. New graduates are required to have completed a NUCAP accredited degree that includes 500 hours of placement (360 hours of which must be within the clinical streams). Experienced clinicians who have been practising prior to NUCAP implementation were eligible to apply for EP accreditation via an amnesty process in 2012/2013 that included evidence-based documentation of 8000 hrs of exercise prescription-based tasks with clinical populations. This requirement has resulted in anecdotal reports of highly experienced exercise physiology clinicians being unable to achieve accreditation due largely to a lack of supporting documented evidence of practice, and therefore may impact on future supervision capacity if ESSA mandate that supervision be performed only by AEPs. This links back to the earlier recommendation that students should be

able to be supervised by other allied health practitioners through a multi-disciplinary setting and provision for supervision by non-accredited exercise physiologists may also need to be reconsidered if placement demand outweighs capacity. The battle between protecting the reputation of the 'exercise physiologists' brand and the increasing demand for placement supervision should remain in the thoughts of all stakeholders when investigation, developing and implementing new guidelines and processes.

Recommendation Box

Recommendation Sixteen:

Explore supervisor qualification and accreditation processes to ensure ongoing clinical placement supervision capacity.

PROJECT LIMITATIONS

This report is based on the written responses provided via an online survey that was distributed to placement supervisors by participating universities across Australia. The results only represent the thoughts and practices of the participating supervisors. The results are also dependent on how the respondents interpreted the questions and how the respondents chose to answer the questions with respect to response format, length and depth.

CONCLUSION, MAJOR RECOMMENDATIONS AND RELATED PROJECTS

The aim of this project was to capture the current supervisory practices within exercise physiology clinical placement in Australia. Supervisors of clinical exercise physiology students were asked about factors that influence their ability to engage in supervision, what practices and processes were implemented during placement and supervision and how these practices and processes were supported with documentation and resources. This report highlights the young and relatively inexperienced, yet proactive and dedicated exercise physiology clinical placement supervision workforce within Australia. Themes that were common throughout the survey responses included: documentation and reporting processes, competencies and assessment, communication across stakeholders, scheduling logistics, and cost (time, funds and resources). The findings have led to sixteen recommendations that include:

- Checklist and resource development
 - A checklist should be made available to universities that are training clinical exercise physiology students, covering the minimum resources and information that they must supply to placement sites.
 - A checklist of overall clinical competencies should be made available to all universities and supervisors that are training clinical exercise physiology students. This checklist would be ticked off progressively as the competencies are achieved by each student with stipulation of whether the competency was achieved during university-based activities or on placement, with evidence of achievement included.
 - A checklist of typical placement practices covering factors such as professional development, learning, feedback and assessment should be made available to all placement sites so that they can monitor depth and scope of the placement experience.
- Development of a module-based supervisor training package across multiple delivery modes, that is registered for continuing education points and caters for new and experienced supervisors.
- Implementation of a group supervision model (for example, 1 supervisor-2 students) and enhanced recognition of multi-disciplinary and interprofessional education models of clinical placement.
- Transition to competency-based, embedded placement instead of hours-based capstone placement. Such a transition should increase the focus on development and learning.

- Further exploration of placement capacity issues such as funding models, rural and remote opportunities, supervisor qualification and accreditation processes, and central processing of placement availability.

Several projects are already underway around Australia which will leverage off several of the themes identified in this report:

- A collaboration of researchers from five Australian universities (The University of Sydney, University of Wollongong, University of New South Wales, University of Queensland and James Cook University) is developing a set of competencies for clinical learning for exercise physiology students. The competencies will reflect the knowledge, skills and attitudes essential for an entry-level accredited exercise physiologist at the beginning of their professional career to practice safely and effectively and with a client-centred philosophy. This set of competencies will then be used to develop a competency-based assessment tool that can be used by supervisors to assess student performance on clinical placement.
- Researchers from The University of New South Wales and Southern Cross University are examining the factors which influence examiner judgement when assessing student performance during standardised clinical scenarios with a view to improving the validity and reliability of the objective, structured clinical exam.
- Researchers from University of Sunshine Coast and James Cook University are designing and piloting an exercise physiology supervisor education and support scheme.
- The authors of this report will shortly commence developing a minimum resources and information checklist for universities and a placement practices checklist for supervisors.

REFERENCES

- Adams, E.J., & Kilburn-Watt, E. (2000). Clinical supervision, is it mutually beneficial? *The Radiographer*, 47(3), 115-119.
- Australian Government Department of Health and Ageing: Australian Standard Geographical Classification - Remoteness Area (ASGC-RA). Retrieved from www.health.gov.au.
- Baldry Currens, J. (2003). The 2:1 clinical placement model – review. *Physiotherapy*, 89, 540-554.
- Baldry Currens, J., & Bithell, C.P. (2003). The 2:1 clinical placement model –perceptions of clinical educators and students. *Physiotherapy*, 89(4), 204-218.
- Basak, O., Yaphe, J., Spiegel, W., Wilm, S., Carelli, F., & Metsemakers, J.F.M. (2009). Early clinical exposure in medical curriculum across Europe: an overview. *European Journal of General Practice*, 15, 4-10.
- Butterworth, A., Carson, J., White, E., Jeacock, J., & Clements, A. (1997). *It is good to talk: an evaluation of clinical supervision and mentorship in England and Scotland*. University of Manchester.
- Cassedy, P. (2010). *Clinical supervision skills for practice: a guide for healthcare professionals*. Berkshire, Great Britain: McGraw-Hill Professional Publishing.
- Centre for Advancement of Interprofessional Education (2002). Definition of interprofessional education. Retrieved from www.caipe.org.uk, 8th June, 2013.
- Charles, G., Bainbridge, L., Copeman-Stewart, K., Tiffin Art, S., & Kassam, R. (2006). The interprofessional rural program of British Columbia (IRPbc). *Journal of Interprofessional Care*, 20(1), 40-50.
- Dibert, C. & Goldenberg, D. (1995). Preceptors' perceptions of benefits, rewards, supports and commitment to the preceptor role. *Journal of Advanced Nursing*, 21, 1144-1151.
- Ferguson, K. (2005). Chapter 18 Professional Supervision Section 5: Beyond clinical educations; in Rose, M., Best, D., & Higgs, J. (Eds.), *Transforming practice through clinical education professional supervision and mentoring*. London: Elsevier.
- Guthrie, H. (2009). *Competence and competency-based training: What the literature says*. Adelaide: National Centre for Vocational Education Research.
- Gwozdek, A.E., Springfield, E.C., & Kerschbaum, W.E. (2013). ePortfolio: developing a catalyst for critical self-assessment and evaluation of learning outcomes. *Journal of Allied Health*, 42(1), e11-e17.
- Hammick, M., Freeth, D., Koppel, I., Reeves, S., & Barr, H. (2007). A best evidence systematic review of interprofessional education: BEME Guide no.9. *Medical Teacher*, 29, 735-751.
- Harvey, D.R., & Schramski, T.G. (1984). Effective supervision and consultation: a model for development of functional supervision and consultation programs. *Counselor Education and Supervision*, 23(3), 197-204.
- Henning, J.M., Weidner, T.G., & Jones, J. (2006). Peer-assisted learning in the athletic training clinical setting. *Journal of Athletic Training*, 41, 102-108.
- Health Workforce Australia (2011a). Clinical supervision support program – directions paper, April 2011.

Health Workforce Australia (2011b). Mapping clinical placements: capturing opportunities for growth – demand (University) study.

Health Workforce Australia (2011c). Mapping clinical placements: capturing opportunities for growth – supply (clinical training provider) study.

Health Workforce Australia (2013a). A framework for effective clinical placements in rural and remote primary care settings.

Health Workforce Australia (2013b). Clinical Training 2011.

Henning, J.M., Weidner, T.G., & Jones, J. (2006). Peer-assisted learning in the athletic training clinical setting. *Journal of Athletic Training, 41*(1), 102-108.

Hill, N., Wolf, K.N., Bossetti, B., & Saddam, A. (1999). Preceptor appraisals of rewards and student preparedness in the clinical setting. *Journal of Allied Health, 28*, 86-90.

Hopayian, K., Howe, A., & Dagley, V. (2007). A survey of UK medical schools' arrangements for early patient contact. *Medical Teaching, 29*, 806-813.

Howe, A., Dagley, V., Hopayian, K., & Lillicrap, M. (2007). Patient contact in the first year of basic medical training – feasible, educational, acceptable? *Medical Teaching, 29*, 237-245.

Lam, T.P., Irwin, M., Chow, L.W., & Chan, P. (2002). Early introduction of clinical skills teaching in a medical curriculum – factors affecting students learning. *Medical Education, 36*, 233-240.

Lekkas, P., Larsen, T., Kumar, S., Grimmer, K., Nyland, L., Chipchase, L., Jull, G., Buttrum, P., Carr, L., & Finch, J. (2007). No model of clinical education for physiotherapy students is superior to another: a systematic review. *Australian Journal of Physiotherapy, 52*, 19-28.

Lorenzo, G., & Ittelson, J. (2005). An overview of EPortfolios; In Oblinger, D (Ed.), *Educause learning initiative*.

Moeller, P. (1984). Clinical supervision guidelines for managing the problem student. *Journal of Allied Health, August*, 205-211.

Moore, A., & Parks, M. (2010). Twelve tips for introducing E-portfolios with undergraduate students. *Medical Teacher, 32*, 46-49.

Q-Comp (2013). Exercise physiology services table of costs effective 1 July 2012. Retrieved from www.qcomp.com.au, 22nd May 2013.

Q-Comp (2013). Physiotherapy services table of costs effective 1 July 2012. Retrieved from www.qcomp.com.au, 22nd May 2013.

Rodger, S., Webb, G., Devitt, L., Gilbert, J., Wrightson, P., & McMeeken, J. (2008). Clinical education and practice placements in the allied health professions: an international perspective. *Journal of Allied Health, 37*, 53-62.

Romonini, J., & Higgs, J. (1991). The teacher as manager in continuing and professional education. *Studies in Continuing Education, 13*(1), 41-52.

Schoen Dillon, L., Tomaka, J.W., Chriss, C.E., Gutierrez, C.P., & Hairston, J.M. (2003). The effect of student clinical experiences on clinician productivity. *Journal of Allied Health, 32*(4), 261-265,

Schofield, D.J., & Fletcher, S.L. (2007). The physiotherapy workforce is ageing, becoming more masculinised, and is working longer hours: a demographic study. *Australian Journal of Physiotherapy, 53*, 121-126.

Selig, S. Coombes, J.S., Otago, L., Pascoe, D., Raymond, J., Torode, M., & Groeller, H. (2011). The development of an accreditation scheme for Accredited Exercise Physiologists in Australia. *Focus on Health Professional Education, 13*(2), 89-102.

Thistlethwaite, J.E., & Cockayne, E.X. (2004). Early student-patient interactions: the views of patients regarding their experiences. *Medical Teaching, 26*, 420-422.

Thomas, Y., Dickson, D., Broadbridge, J., Hopper, L., Hawkins, R., Edwards, A., & McBryde, C. (2007). Benefits and challenges of supervising occupational therapy fieldwork students: supervisors' perspectives. *Australian Occupational Therapy Journal, 54*, S2-S12.

Tilley, D.S., Allen, P., Collins, C., Bridges, R.A., Francis, P., & Green, A. (2007). Promoting clinical competence: using scaffolded instruction for practice-based learning. *Journal of Professional Nursing, 23*(5), 285-289.

Webb, B. (1997). Auditing a clinical nurse training program. *Nursing Standard, 11*, 34-39.

Wilhelmsson, M., Pelling, S., Ludvigsson, J., Hammar, M., Dahlgren, L., & Faresjo, T. (2009). Twenty years experiences of interprofessional education in Linköping – ground-breaking and sustainable. *Journal of Interprofessional Care, 23*(2), 121-133.

www.essa.org.au

CONTACT DETAILS AND RECOMMENDED CITATION

Contact details

Dr Rebecca Sealey

Senior Lecturer

School of Public Health, Tropical Medicine and Rehabilitation Sciences

James Cook University

Queensland 4811

Phone: (07) 4781 4770

Email: Rebecca.sealey@jcu.edu.au

Recommended citation

Sealey, R., Raymond, J., Groeller, H., Rooney, K., Crabb, M., & Watt, K. (2013). Current practice of clinical exercise physiology placement supervision in Australia: 2013 report.