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Educating the educator: Evaluation of a standardised format, one-day clinical educator workshop on the assessment of physiotherapy student performance in clinical placement

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The authors of this paper can declare that the work has not been previously published, all authors have contributed to the paper and are accountable for the accuracy and integrity of all aspects of the reported work. All authors also acknowledge and agree to the copyright conditions.

Abstract

Background: In Queensland, Australia, physiotherapy students on clinical placements are assessed using the Assessment of Physiotherapy Practice (APP) instrument, by physiotherapists who do not necessarily have a background in education and assessment. Professional development to assist quality assessment processes is currently provided in a variety of formats ranging from online resources to facilitated workshops. However, limited evidence exists regarding best practice methods to support the ongoing training of physiotherapy clinical educators. The aim of this study was to: i) determine if a one-day clinical education workshop can change the perceived knowledge, skills and attributes and overall confidence in ability to undertake a standardised assessment of student performance on clinical placement and; ii) identify if the training format used in the one-day workshop was perceived to be effective in assisting participants with improving their understanding and use of the APP.

Methods: Participants attended a single day face-to-face workshop which consisted of standardised content, practical simulated activities and a process of calibrating participants understanding of the assessment standards when applying the APP instrument. Pre and post workshops surveys were administered to participants of the workshop on the day and later analysed using related samples Wilcoxon Signed rank tests to explore pre to post differences in knowledge, skills, attributes, and confidence.

Results: Data from 109 clinical educator participants (mean age: 30.25 years) who attended the one-day face-to-face workshop was analysed (79 females; 30 males). After attending the workshop, participants self-reported significantly improved knowledge, skills, attributes, and confidence regarding clinical assessment of physiotherapy students. Additionally, after attending the one-day workshop, clinical educators perceived themselves to be appropriately skilled to undertake a standardised process of assessment when using the APP to indicate a physiotherapy student's clinical performance.

Conclusions: The findings from the current study demonstrate that a one-day face-to-face workshop is perceived by clinical educators to be effective for calibrating their understanding and application of the APP instrument to assess physiotherapy students against national entry-level physiotherapy standards.

I INTRODUCTION

In Australia, physiotherapy students from accredited university programs undertake clinical placements in a variety of physiotherapy workplace settings prior to graduating with a professional qualification (Australian Physiotherapy Council, 2017). Clinical placements provide a capstone opportunity for students to demonstrate knowledge and clinical skills under direct supervision of physiotherapists registered with the Australian Health Practitioners Regulation Agency (AHPRA). These experiences provide opportunities for students to demonstrate knowledge, skills, and attributes to ensure acceptable standards of practice have been achieved including safe and effective management of clients (Al-Kadri et al., 2013; Cross et al., 2001; Lekkas et al., 2007). Success in clinical placement is determined by assessment of students' demonstrated knowledge, skills and attributes against a set standard; Assessment of Physiotherapy Practice (APP) (Dalton et al., 2009).

In recognition of the need for consistent assessment in determining competent physiotherapy skills, knowledge, and attributes, almost all physiotherapy programs in Australia and New Zealand have adopted the APP which is both a reliable and valid instrument (Dalton et al., 2011; Dalton et al., 2012). For students to be considered competent on a clinical placement, they must achieve an 'adequate' standard of performance as reflected on the APP. Assessment of performance against the APP is critical in determining students' competencies to safely and effectively manage clients across the lifespan and in a range of clinical settings (Australian Physiotherapy Council, 2017). Graduates successfully completing an accredited Australian physiotherapy program are eligible to apply for registration with the AHPRA (Australian Health Practitioner Regulation Agency, 2019). Thus, physiotherapists supervising and assessing clinical placement/s have a key 'gate-keeping' role in students transitioning to being registered physiotherapists (Engström et al., 2017). Whilst it is the responsibility of the university to award an academic grade to the student, it is essential that the physiotherapists who assume the role of a Clinical Educator (CE) have an appropriate understanding of the standard required of an entry-level physiotherapist and can recognise when a student has reached this standard. It is critical therefore that a consistent approach to assessment is undertaken by CE's, to enable confidence in recommending student competence to universities, and for universities to have confidence to endorse the recommendations, regarding those students who should succeed and those who may require more time to reach competency.

Whilst it is common in Australia that physiotherapists participate in student education as part of their employment, they may not have any prior training in student education or assessment. For registered physiotherapists undertaking the role of a CE it should not be assumed that clinical expertise translates to effective education skills (Hook & Lawson-Porter, 2003). There is a growing number of physiotherapy programs in Australia requiring clinical placement opportunities for students, along with increasing student numbers in already approved programs (Australian Health Practitioner Regulation Agency, 2022). Growth in student numbers has subsequently led to an increase in new placement providers assessing student performance (Health Workforce Australia, 2014; McMeeken, 2008). This growth adds challenges for university clinical education managers (CEMs) to ensure that CEs from different organisations align their understanding of an adequate standard of performance when making assessment recommendations, to ensure fair and equitable assessment standards are applied. Consequently, this also challenges quality assurance processes for the university sector as they aim to ensure consistent understanding and application of student assessment processes.

In support of CE training, there are comprehensive instructions regarding the appropriate use of the APP instrument that are provided to users via an online portal; APPLinkup (Dalton et al., 2015). In addition, video vignettes of student performance across a variety of standards including not adequate, adequate, and good/excellent, along with independent learning resources are available online for individual users to self-inform how to reliably use the APP instrument and interpret student performance (Clark et al., 2015; Dalton et al., 2015; Griffith University, 2015). This self-learning format relies on independent acquisition of information and interpretation to

develop skills regarding physiotherapy student assessment in clinical practice. Further, there is no monitoring of who accesses or how this information is accessed which presents a challenge in understanding the extent to which CEs are familiarising themselves with the assessment process and acceptable standards of performance.

Students report variability in the assessment process being undertaken by CEs using the APP, and this is often attributed by students to CEs having a perceived lack of knowledge and skill utilising the assessment tools appropriately (e.g., APP) (Keating et al., 2009). Achieving consistency in assessment practices in physiotherapy clinical placements requires a common understanding of the thresholds for entry-level practice (Physiotherapy Board of Australia & Physiotherapy Board of New Zealand, 2015) and improving consistency in applying the APP against the entry-level thresholds, which can be enhanced through a process of calibration (Clark et al., 2015). Sadler suggests that assessors can tune their judgment-making abilities by participating in calibration procedures with professional peers (Sadler, 2013). Further, dialogue with peers provides an opportunity for calibration through reaching a common understanding of vocabulary and meaning in relation to assessment standards. Sadler refers to this as becoming calibrated and suggests that professionally calibrated assessors are more able to make decisions independently and consistently (Sadler, 2013).

Ensuring that CEs have accurately calibrated assessment skills, when applying the APP to determine clinical performance scores for students, is of utmost importance to physiotherapy programs across Australia (Australian Physiotherapy Council, 2017). The Australian Council of Deans of Science has recently produced a quality and standards document for work integrated learning to support high quality learning and assessment processes for students undertaking practical experiences such as physiotherapy clinical placements (Australian Council of Deans of Science, 2019). Furthermore, preparation of CE's is highlighted as a key indicator of quality clinical education by the Australian Government's Tertiary Education Quality and Standards Agency (Australian Government, 2017). Despite these strong and clear expectations for quality assurance in the clinical education environment, there is a paucity of evidence about how to best prepare CEs to ensure consistency in understanding of the assessment standard and processes.

In response to this, six Universities in Queensland (Australian Catholic University, Bond University, Central Queensland University, Griffith University, James Cook University and The University of Queensland) known as the Queensland University Clinical Education Collaborative (QUCEC) developed standardised training for CEs. This incorporates instruction on the appropriate use of the APP, utilising resources and vignettes developed by experts in the field (Dalton et al., 2012; Griffith University, 2015), along with the opportunity to engage in activities that support a process of calibration through peer and facilitated discussion during a one-day face-to-face workshop. Despite anecdotal feedback that the training has been useful in supporting CEs with assessment processes, to date there has been no formal evaluation. Therefore, the aim of this study was to: i) determine if a one-day clinical education workshop can change the perceived knowledge, skills, attributes and overall confidence in ability to undertake a standardised assessment of student performance on clinical placement and; ii) identify if the training format used in the one-day workshop was perceived to be effective in assisting participants with improving their understanding and use of the APP.

This paper presents the findings of the study and implications for future preparation of educators involved in the assessment of physiotherapy students' clinical performance.

II METHODS

A Participant identification and recruitment

Participants included in this study attended one of the six workshops offered between February and November 2016 by the QUCEC. CEs registered to attend training with one of the host Universities who make up the QUCEC. Workshop attendance was not compulsory, rather it was highly recommended, and attendees self-selected a workshop that best suited their needs (e.g.,

timing or geographical location). The workshops on offer were aimed at AHPRA registered physiotherapists who had either: i) greater than one year experience as a physiotherapy CE responsible for assessment or ii) were planning to deliver clinical education to physiotherapy students in the future and had no recent training on the use of the APP. At the commencement of each workshop, all attendees were invited to opt-in to the study. An information sheet was provided and those attendees who opted to participate in the research project provided written consent. Participants individually completed a paper-based four-page pre-workshop questionnaire and a four-page post-workshop questionnaire. Appendix 1 provides the questions asked in the post-workshop questionnaire. All questionnaires were completed on the day of the workshop and placed in a sealed collection box provided.

B Workshop details

The workshop was designed collaboratively by QUCEC as a standardised offering. Six face-to-face workshops were conducted throughout 2016 at six separate university venues in Queensland, Australia. The timing of the workshops occurred in February, March, April, July, August and November and each workshop had a different group of physiotherapists attending. Each workshop was standardised for both content and format. Presenters were chosen from a minimum of two different universities for each workshop to represent the collaborative nature of the training developed. The expertise level of presenters ranged from 2-15 years in their respective roles as university clinical education managers. Presenters in each workshop were matched to complement experience (e.g., less experienced presenter supported by a more experienced presenter). All presenters were physiotherapists registered with AHPRA and had an authentic understanding of entry-level thresholds for physiotherapy practice in Australia. In addition, all presenters contributed as participants to the research resulting in the development of the APP (Dalton et al., 2009) and the video vignettes to guide interpretation of student performance (Griffith University, 2015; Kirwan et al., 2019). The content of each workshop focussed on assessment of physiotherapy students on clinical placements including the standardised use of the APP instrument (Dalton et al., 2011; Dalton et al., 2012; Dalton et al., 2009). Each workshop contained five hours of standardised content offered across a one-day workshop (Appendix 2) which was developed to provide consistent material and to limit variance by university facilitators when delivering content. The format of the workshop included a mix of information transfer, reflection and learning activities to guide understanding of entry-level practice thresholds, an exploration of personal biases related to standards and assessment process, simulated rating of student performance using the APP through video representation of student practice and discussion to unpack the rationale for the assessment ratings based on observed behaviour demonstrated by the student. The targeted discussion serves as a process of calibrating perceptions and raising awareness of individual biases that may influence assessment scores. Additionally, this process of calibration facilitated a common understanding of assessment standards and the identification of appropriate behaviour for each APP domain. Utilising calibration methods previously documented (Sadler, 2013), the perceptions of educators grading against a previously determined achievement standard (Kirwan et al., 2019) was a strong focus of the workshop, highlighting the importance of peer discussion to gain a common understanding of clinical practice standards and to inform future clinical assessment judgements in the workshop (and in authentic practice). Calibration was achieved through peer discussion and moderation between participants and workshop facilitators.

C Study design

This study used a quasi-experimental pre-post intervention (workshop) design to obtain quantitative measures related to the participants' perceived knowledge, skills, attributes, and overall confidence regarding their assessment of physiotherapy students undertaking clinical practice placements. Clinical educators who attended a facilitated clinical education standardised workshop (the intervention) were invited to participate by completing surveys prior to and following the workshop. Workshop attendees were provided information detailing the study, highlighting

that participation required their written consent for survey data to be used in the current study. Data from consenting participants was de-identified through the use of a unique identifier. The identifier was used to match pre-workshop survey responses to post-workshop survey responses. Ethics approval was obtained through the Behavioural and Social Sciences Ethical Review Committee (Approval number 2009001668) at The University of Queensland.

D Survey instrument

The survey instrument was purpose designed for this study by the research team. The development was based on previously used evaluation tools to evaluate clinician training in student learning and assessment from the six universities who were offering the workshops. Development of the survey items drew on 1) consideration of the research aims; 2) an understanding of the learning objectives/outcomes of the training, and 3) literature related to appropriate number of survey items and response formats considered appropriate to maximise participant engagement, gain considered views, and limit participant burden. The face validity of the survey was examined by all members of the research team prior to implementation. Additionally, two Queensland clinical education managers who are not members of the research team (MP, KM), were utilised to assist with determining face validity, ensuring that the survey questions used appropriate language and content was appropriate and inclusive to gain meaningful responses to address our aims.

The survey was designed to capture anonymous responses of participants who undertook the workshop training, pertaining to knowledge, skills, attributes and confidence in ability to assess in a standardised manner when scoring student performance using the APP. The survey was administered pre-training and post-training seeking to identify any change following attendance at the workshop. The pre-training questionnaire also included demographic information (11 items). Common to both the pre and post training questionnaires was 23 items survey which covered the four targeted domains; knowledge (10 items), skills (7 items), attributes (5 items) and overall confidence in ability to assess in a standardised manner (1 item) along with a unique identifier to enable anonymity and pairing of pre and post responses from each participant. Participants were asked to rate survey items on a 5-point Likert scale from strongly disagree (1) to strongly agree (5). The 5-point Likert scale was used given its acceptance as an appropriate format to elicit valid and reliable feedback from participants (Cook & Beckman, 2009; Cox III, 1980; Taherdoost, 2019). The post-training questionnaire was used as the outcome measure and consisted of the same 23-item survey that was used in the pre-training questionnaire and further questions pertaining to training format (5 items), facilitators' knowledge (1 item), facilitators' enthusiasm (1 item), and facilitators' presentation skills (1 item) were included. These items were also presented as statements to be rated using a 5-point Likert scale, offered a midpoint response so we did not encourage participants to artificially take the optimised (i.e., positive) response as has been previously reported in the survey design literature (Colman et al., 1997; Krosnick, 1991). Further, the 5-point Likert scale was chosen to examine responses, over extended rating scales, as it has been reported in a previous review about survey design (Taherdoost, 2019) as less confusing and more likely to increase response rates (Bouranta et al., 2009). This was a critical issue, considering we were asking participants to complete the post workshop survey after a long day of workshop activities. Participants also had the option to complete free text additional comments at the end of the post-training questionnaire.

E Data analysis

All data was matched from pre-to-post clinical educator training, transferred to an excel database, coded for analysis and made non-identifiable before entering the data in SPSS for statistical analysis (SPSS, 2016). Data was checked for normality and homoscedasticity. Prior to the bivariate analysis, univariate descriptive analysis of survey domain responses included examination for ceiling and floor effect upon the mean score of each domain to determine response bias and item relevance (Streiner et al., 2015). Domains were deemed to demonstrate ceiling or floor effect if greater than 80% of the mean responses for each sub-scale grouped at

either the 1 or 5 response (Streiner et al., 2015). Means, percentages and frequencies were calculated for participant characteristics and responses to individual questions pre and post clinical education workshop. To address the main aim of our study, related samples Wilcoxon Signed Rank tests were used due to the non-parametric qualities of the paired-data sample. This analysis assisted the research team to identify the magnitude and direction of changes in the clinical educators' mean scores pre and post workshop for their perceived knowledge, skills, attributes, and confidence in ability relevant to clinical education and assessment of student performance on placement. This test was deemed appropriate as we were using paired data, measured on an ordinal scale (i.e., Likert scale) with a relatively small sample size in a single sample of clinical educators (Pett, 2015; Roberson et al., 1995). All statistical analyses were conducted using IBM SPSS Statistics (Version 24) (SPSS, 2016). The level of significance for all statistical analyses was set at $p \leq 0.05$.

III RESULTS

Initially 116 participants from six different University clinical educator workshops in 2016 consented to participate. One person did not provide any survey responses relevant to the research questions and an additional six clinical educators attending the workshops were removed from the data analysis due to providing only pre or post data. Data from 109 participants (mean age: 30.25 years), which represented 91% of all workshop attendees, was subsequently analysed to address the aims of our study and consisted of responses from 79 females and 30 males. Reasons were not provided for those workshop attendees who did not consent to participate in the study. Most participants worked in a metropolitan centre ($n=68$, 62.4%) with the remaining participants reporting that they worked in regional ($n=31$, 28.4%) and rural ($n=9$, 8.3%) areas with only one participant working in a remote region. The predominant areas in which participants were providing clinical education were public ($n=67$, 61.5%) and private ($n=10$, 9.2%) hospitals as well as community health centres ($n=11$, 10.1%). Over half ($n=57$, 52.3%) reported that they supervised students across a combination of clinical fields, with musculoskeletal ($n=17$, 15.6%), neurology ($n=16$, 14.7%) and cardiorespiratory ($n=10$, 9.2%) being the most common fields in which participants provided clinical education. Ten (9.2%) participants indicated that they provided clinical services to infants, children and adolescents. Fifty (45.9%) stated that they provided clinical services to adults and/or older persons and a further 48 (44.0%) indicated that they provided clinical services across the lifespan. Almost half ($n=46$, 42.6%) stated that they had been practising for between 1 – 3 years and 17 (15.7%) had practised as a physiotherapist for over 10 years. Forty-five (41.3%) participants indicated that they had not been the primary clinical educator previously, whilst 52 (47.7%) had been in a clinical education role for up to 3 years, and only five (4.6%) had educated for over 10 years. Over half ($n=66$, 60.6%) of participants had undertaken previous clinical education training of some kind, consisting of short courses, university workshops and workplace professional development.

Table 1 outlines the mean response scores for survey questions and highlights significant changes in perceived knowledge, skills, attributes and confidence in ability to undertake a standardised assessment from before to after completion of a one-day clinical education workshop directed towards new clinical educators.

Table 1**Changes to perceived knowledge, skills, attributes and confidence in ability to undertake a standardised assessment after attending a one-day clinical education workshop**

Survey Variable	Pre-workshop score (mean ±SD)	Post-workshop score (mean ±SD)	Difference – related samples Wilcoxon Signed Rank Test (p-value)
<i>Knowledge</i>			
1. I have a good understanding of the passing standard for student performance on placement	3.33 (0.76)	4.22 (0.61)	<0.001
2. I am familiar with the performance indicators that align with the passing standard	3.30 (0.82)	4.19 (0.55)	<0.001
3. I have a good understanding of the Assessment of Physiotherapy Practice instrument	3.19 (0.98)	4.24 (0.58)	<0.001
4. I have a good understanding of the CE role in assessment of student performance	3.63 (0.66)	4.32 (0.56)	<0.001
5. I know where to obtain the assessment resources used by the university	2.81 (1.01)	4.33 (0.68)	<0.001
6. I am not aware of how to gather evidence to support my assessment of performance (NOTE: a decrease is desirable)	2.93 (0.91)	1.97 (0.98)	<0.001
7. I know where to access APPLinkup	2.68 (1.28)	4.45 (0.70)	<0.001
8. I know when it is appropriate to fail based on inadequate performance	2.78 (0.92)	4.08 (0.53)	<0.001
9. I am familiar with the performance indicators that align with a failing standard	2.88 (0.91)	4.12 (0.54)	<0.001
10. I know how to use the assessment instrument to guide learning	2.99 (0.87)	4.09 (0.60)	<0.001
<i>Skills</i>			
11. I can recognize when a student has demonstrated the required standard	3.44 (0.73)	4.09 (0.57)	<0.001
12. I am able to rate student performance using the performance indicators	3.30 (0.81)	4.15 (0.52)	<0.001
13. I am skilled in completing the assessment instrument on APPLinkup	2.34 (0.90)	3.73 (0.77)	<0.001
14. I do not have the skills to provide feedback on student performance (NOTE: a decrease is desirable)	2.44 (0.79)	1.83 (0.79)	<0.001
15. I am confident in my ability to recommend a student fail the placement	2.78 (0.85)	3.87 (0.68)	<0.001
16. I am not confident in my ability to recommend a student pass the placement (NOTE: a decrease is desirable)	2.63 (0.91)	2.12 (1.03)	<0.001
17. I can develop strategies for improved performance	3.69 (0.64)	4.09 (0.52)	<0.001
<i>Attributes</i>			
18. I am well prepared to assess student performance	3.07 (0.78)	4.00 (0.56)	<0.001
19. I am not confident of my role in the assessment process (NOTE: a decrease is desirable)	2.84 (0.87)	1.91 (0.87)	<0.001
20. I am motivated to assess student performance	4.11 (0.68)	4.31 (0.60)	0.005
21. I feel a sense of responsibility to follow a standardized assessment process	4.31 (0.66)	4.48 (0.66)	0.032
22. I do not need support from the university to undertake assessment (NOTE: a decrease is desirable)	2.27 (0.82)	2.57 (1.13)	0.005
23. I am confident in my ability to undertake a standardised process in the assessment of student performance on clinical placement.	3.18 (0.82)	4.09 (0.57)	<0.001

Likert Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = neither disagree or agree, 4 = Agree, 5 = Strongly Agree. For all questions an increased score indicates a desirable response, except for questions 6, 14, 16, 19 and 22, where a decrease is considered a desirable response.

Significance for related samples Wilcoxon Signed Rank Test $p \leq 0.05$.

The data reported in Table 1, indicates that there was a statistically significant and desirable change in all mean scores reported for perceived knowledge, skills and attributes relevant to clinical education assessment of physiotherapy students in the study population. Additionally, as a result of the one-day clinical education workshop, the mean score for overall self-perceived ability of CEs to undertake a standardised process in the assessment of student performance during a physiotherapy clinical placement, significantly changed from 'neither disagree or agree' before the workshop to 'agreeing' that they had the ability to do this after the workshop.

Finally, in response to questions pertaining to the workshop, participants agreed that the training format used in the one-day workshop: i) assisted their understanding of the APP (mean score = 4.51, SD: 0.59); ii) encouraged discussion about assessing student performance (mean score = 4.57, SD: 0.55); iii) enabled challenges in assessment of performance to be addressed (mean score = 4.42, SD: 0.61); iv) helped to better understand assessment standards via the use of video vignettes (mean score = 4.47, SD:0.62) and v) supported the use of face to face training (mean score = 4.27, SD: 0.94).

IV DISCUSSION

The aims of this study were firstly to determine if a one-day clinical education workshop can change the perceived knowledge, skills, attributes, and overall confidence in ability to undertake a standardised assessment of student performance on clinical placement, and secondly, to identify if the training format used in a one-day workshop was perceived to be effective for assisting participants to improve their understanding of the assessment process using the APP.

In relation to our first aim, attendance at a collaboratively designed and standardised one-day workshop, resulted in significantly improved perceived knowledge, skills and attributes regarding clinical education assessment of physiotherapy students. Additionally, after attending the one-day workshop, CEs reported increased confidence in their ability to undertake a standardised assessment of student performance on clinical placement using the APP to indicate the level of a student's clinical performance. These findings are important as preparation of CEs is a key indicator of quality clinical education provision (Australian Government, 2017) with the provision of clinical education being an essential and irreplaceable component of physiotherapy training (Lekkas et al., 2007; Williams & Webb, 1994). Traditionally, despite the complexity of the CE role, clinical education has relied on the unsupported premise that registered clinicians' previous experiences have prepared them for their role as an educator and assessor (Hook & Lawson-Porter, 2003). Conversely, there is now common understanding that success of clinical education depends on CEs' knowledge, preparation, support and evidence-based educational practice (Chipchase et al., 2004; Higgs & McAllister, 2005). It has been previously demonstrated that physiotherapists are less confident in performing their role as a CE if they have not completed any formal CE related professional development. Consequently, the training of CEs to prepare them for their role in facilitating a student's clinical capability before becoming a registerable practitioner, is the responsibility of the higher education sector, which can be further supported by skilled CEs in the clinical environment.

Currently across Queensland, university based clinical education staff collaboratively conduct up to six one-day face-to-face workshops per annum for physiotherapy CEs to assist with the provision of quality assessment. Although there is consensus that CEs should be supported by university staff, there is currently no agreement as to the form this training should take (Gallagher & Pullon, 2011). Given the time investment and cost to universities, health facilities and the CEs, it is important to question the efficacy of the workshop design. Whilst increasing access to support attendance of CE's is a first step, the design and delivery mode of the workshop is also key to successful CE engagement. Prior research indicates that whilst a CE may have previously attended clinical education professional development, the mode of delivery used may not be optimal for developing CE confidence to support clinical placement (Recker-Hughes et al., 2010). Content, duration and mode of workshop, have been described as barriers with attendees reporting a perception of more training being required (Newstead et al., 2018).

In relation to our second aim, findings from the current study provide support for the one-day workshop format employed with participant CEs, indicating it developed their understanding of the APP and encouraged discussion about assessing student performance. Additionally, the use of video vignettes and supported face-to-face training enabled challenges in assessment of performance to be addressed and helped them to better understand assessment standards for which to apply the APP. The workshop attendees agreed the one-day face-to-face workshop format not only improved their knowledge of the APP, but also facilitated discussion and addressed concerns about assessing student performance, which assisted CEs to calibrate their assessment skills. Clinical education can be at times an isolating experience, with limited opportunity to learn from other CEs (Thampy & Bond, 2016). Face-to-face workshops provide a platform for group discussions and peer collaboration, allowing CEs opportunity to problem solve the management of challenging situations and debrief previous experiences (Edgar & Connaughton, 2014). This study demonstrates that current workshop mode of delivery is valued by physiotherapy CEs and supports CEs' knowledge, and confidence regarding the use of the APP. These findings support the continuation of the current form of training for CEs to enhance the quality of assessment in clinical education experiences, which ultimately ensures the assessment of students' clinical performance against a consistent entry-level standard, a crucial CE gate keeping role (Engström et al., 2017), remains in place.

Interestingly, whilst the one-day face-to-face workshop explored in this study was targeted at new or inexperienced CEs, many of the attending physiotherapists had experience as a CE (but not primarily responsible for the assessment using the APP). Additionally, over half of the participants had previously undertaken professional development in the area of clinical education with 48% indicating they had been educating students for up to three years. These findings suggest that even those CEs with experience, are using the workshop to assist with calibrating their assessment skills, to keep their skills and knowledge current and perhaps this indicates a need for both new educator and experienced educator workshops on a regular basis as a quality assurance process. This would be consistent with the recommendations in previously published work (Sadler, 2013) which suggests that CEs need opportunities to periodically check and recalibrate their assessment skills to produce accurate performance-based scores without the need for third-party confirmation. Given the number of experienced CEs attending beginner clinical education workshops, further research regarding the professional development needs of the current pool of CEs is warranted, and pending outcomes, development of additional intermediate and advanced level workshops maybe required.

Whilst the benefit of interactive face-to-face workshops has been highlighted above, expanding access to professional development opportunities for rural and remote clinical partners could be considered through exploring videoconference participation and pre-recorded online modules. Electronic access to clinical education professional development would better enable equitable access to training for rural and remote clinical partners and this is particularly relevant considering the COVID-19 pandemic. Furthermore, it would allow the value of the group discussion to be retained for the physiotherapists attending online as well as face-to-face. Whilst careful consideration would need to be given to a remote delivery version of the workshop, previous research (Mohammed et al., 2007) has shown no significant difference to the reported educational value from attending face-to-face or videoconference clinical education workshops. Evaluation of the effectiveness of online modes of workshop delivery to support CE confidence, knowledge and skills in providing accurate and reliable assessment of students would be crucial as online delivery of clinical education training may be particularly useful during pandemic times.

To assist with assurance of student assessment in clinical practice this study provides support for continued access to the current or similar CE training, to assist with quality education. The post workshop response to item 22: I do not need support from the university to undertake assessment, remained in the 'disagree' range, suggesting that CEs appreciate the support from universities to undertake assessment of physiotherapy students and this is likely to be most apparent when the assessment decisions require the CE to make high-stakes decisions (e.g., determining if a student should be considered 'adequate' or 'not adequate') which may lead to

placement failure. Due to the growth in physiotherapy student cohorts, there is an increasing university demand for clinical placements. This growth in students, on top of a professional expectation of involvement in supervising clinical placements has implications for future preparation of CEs. Such change will likely include an increased number of new CEs supervising and assessing students, as well changes to clinical placement structure, for example increasing the number (ratio) of students supervised by each CE. Whilst beyond the scope of the current study, the landscape of physiotherapy is changing and future investigation regarding the support needs of our CEs beyond assurance of assessment is indicated.

In conclusion, clinical education is a key component of physiotherapy training, and appropriate training and support of CEs is paramount to ensure high quality graduates who can safely and effectively manage clients across the lifespan in a variety of clinical settings. The findings from the current study demonstrate the effectiveness of a one-day face-to-face workshop for calibrating CEs' understanding and application of the APP assessment tool against that of an entry-level physiotherapy standard.

The current study's results provide support for the continued investment in face-to-face workshop training as an effective medium for developing CEs' confidence and ability to apply the APP to students' clinical placement performance. For many CEs, workshops provide an opportunity to collaborate and debrief, and this study demonstrates that attendees value the facilitated discussion. With increasing student numbers and placement requirements, from multiple universities partnering with external organisations who support students from multiple universities, it is essential that universities develop an ongoing CE professional education program to equip CEs with a common understanding of student attainment for demonstrating required standards of practice. The study results support the benefits of such programs therefore resources should be adequately allocated to this important quality assurance process. Future research regarding the need for, and access to, clinical education professional development is recommended.

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Appendix A
SURVEY QUESTIONNAIRE

Knowledge

1. I have a good understanding of the passing standard for student performance on placement
2. I am familiar with the performance indicators that align with the passing standard
3. I have a good understanding of the Assessment of Physiotherapy Practice instrument
4. I have a good understanding of the CE role in assessment of student performance
5. I know where to obtain the assessment resources used by the university
6. I am not aware of how to gather evidence to support my assessment of performance
(NOTE: a lower score is desirable)
7. I know where to access APPLinkup
8. I know when it is appropriate to fail based on inadequate performance
9. I am familiar with the performance indicators that align with a failing standard
10. I know how to use the assessment instrument to guide learning

Skills

11. I can recognize when a student has demonstrated the required standard
12. I am able to rate student performance using the performance indicators
13. I am skilled in completing the assessment instrument on APPLinkup
14. I do not have the skills to provide feedback on student performance
(NOTE: a lower score is desirable)
15. I am confident in my ability to recommend a student fail the placement
16. I am not confident in my ability to recommend a student pass the placement
(NOTE: a lower score is desirable)
17. I can develop strategies for improved performance

Attributes

18. I am well prepared to assess student performance
19. I am not confident of my role in the assessment process
(NOTE: a lower score is desirable)
20. I am motivated to assess student performance
21. I feel a sense of responsibility to follow a standardized assessment process
22. I do not need support from the university to undertake assessment
(NOTE: a lower score is desirable)

Overall Confidence

23. I am confident in my ability to undertake a standardised process in the assessment of student performance on clinical placement.

Training Format (Only offered in Post Participation Survey)

24. This training program assisted my understanding of the use of the APP.

25. This training program encouraged discussion about assessing student performance.

26. The interactive design of this training program enabled me to address challenges in assessment of performance.

27. The video vignettes helped me better understand the assessment standards.

28. I prefer to attend face to face training.

Participants were asked to respond to each statement on a 5-point Likert Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = neither disagree or agree, 4 = Agree, 5 = Strongly Agree.

Appendix B

WORKSHOP TITLE, LEARNING OBJECTIVES, STRUCTURE AND CONTENT

Workshop Title

Assessment of student performance in clinical practice using the APP

Objectives

1. Understand the process of assessment of clinical performance.
2. Understand the indicators of adequate and not adequate performance and how this relates to standards expected of a new physiotherapist.
3. Use the APP instrument effectively.
4. Have confidence in your role as assessor of physiotherapy student performance.

Format

Face to face, presentations and group activities and discussions

Structure

1. Preparation for assessment:
 - Outlines the forms and role of assessment.
 - Contributors to assessment within clinical placements.
 - Components of effective assessments.
 - What students value and their expectations.
 - When assessment should be completed.
2. Identifying the standard:
 - Group activity and discussion – Review and discuss the similarities and differences of the Physiotherapy Threshold Standards and the Australian Physiotherapy Associations Code of Conduct.
 - Outlining the Minimum (adequate) standard.
 - Group activity and discussion – Review and discuss a video vignette of an adequate level student and discuss the behaviours of an entry level performance.
3. Introducing the assessment instrument – Assessment of Physiotherapy Practice (APP):
 - Background on the APP.
 - Validity and reliability of APP.
 - What the instrument is and how to score it.
 - Explanation of Performance Indicators.
4. Using the APP
 - Using the online platform – APPLinkup.
 - Finalising the assessment.
 - Follow up support requirements of inadequate or struggling students.
5. Clarifying performance criteria
 - Specific Items of instrument.

- Considerations regarding complexity, consistency, reasonable caseload expectations, bias.
6. Applying the standard
 - Group activity and discussion – Review and discuss video vignettes of differing levels of performance, discussion specific to the overall Global Rating Scale on student performance.
 7. University specific information and contacts / Useful resources for Clinical Educators