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**Factors associated with student satisfaction within a regional student-led physiotherapy clinic: A retrospective qualitative study**

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## **Abstract**

Clinical education requires students to integrate theoretical knowledge and skills into real-life clinical environments. Most clinical education opportunities remain within metropolitan hospitals where student education is often secondary to patient care. In response, many Universities are developing student-led clinics that focus on the student educational experience, whilst providing high-quality patient care. Understanding factors associated with student satisfaction within student-led physiotherapy clinics, particularly in regional areas, is necessary to build the regional and rural workforce. Thirty-eight students from a 3<sup>rd</sup> and 4<sup>th</sup> year Bachelor of Physiotherapy (Hons) undergraduate degree completed written open-ended student feedback at the completion of a five-week placement within a student-led allied health clinic in Rockhampton, Queensland between 2018 and 2019. These data were collected as feedback for the clinic and were not related to course evaluations. All responses were then transformed into one document per question and analysed following an inductive approach and semantic thematic analysis. Using thematic analysis, five key themes were identified to impact student satisfaction: 1) clinical educators and clinic staff; 2) feedback to students; 3) professional development opportunities; 4) low patient numbers and a lack of clinical presentations; and 5) facilities, equipment, and resources. This study has identified several key factors associated with positive and negative student satisfaction within a regional student-led physiotherapy clinic. Implementing factors associated with positive student satisfaction will likely enhance student learning experience and improve the clinical placement experience, potentially improving recruitment opportunities in a regional setting.

## I INTRODUCTION

Clinical education, or clinical workplace learning, provides a real-life learning opportunity for students within the health professions to integrate theoretical knowledge, skills, and behaviours within a clinical environment (Higgs, 2009). Clinical education is fundamental to the physiotherapy profession and has been integrated into many entry-level programs internationally (World Confederation for Physical Therapy, 2011). Despite the need to build the regional and rural workforce within Australia, most clinical education opportunities are situated in metropolitan centres due to the greater population, and location of a larger number of students, educators, and facilities. Furthermore, some students have questioned the quality of the clinical education experience in regional Australian settings, perceiving a disadvantage compared to Australian metropolitan based clinical placements (White & Humphreys, 2014). Despite the perceived inequity between regional and metropolitan clinical placements, approximately one-third of Australian health students who did complete a rural clinical placement reported they were more likely to consider a career in regional or rural areas (McAllister et al., 1998). Given the critical shortage of regional and rural health workers (Rural Health Standing Committee, 2016) and the increasing number of people enrolled in health disciplines in regional universities (Commonwealth of Australia, 2019), it is fitting to develop an understanding of student satisfaction on regional clinical placements, so that students are more likely to seek employment opportunities within regional and remote communities.

In Australian physiotherapy 'private practice' placements, clinical education can sometimes take a secondary role, as the main focus of the health facility is the provision of high-quality patient care and sustainability of the business (Milanese et al., 2013). This is highlighted by the disinclination of some clinical educators to share their caseload with students, due to a lack of support from management and the perception that patient care is a higher priority than student education (Baldry Currens & Bithell, 2000). In contrast, 'student-led' clinics are designed explicitly to maximise both patient health outcomes and student learning outcomes, whilst under the supervision of qualified health professionals who are also skilled in clinical education. The business and healthcare models for such clinics also differ. Smaller patient numbers are often balanced by longer consultation times that allow for increased time for student education, whilst still providing high-quality and affordable healthcare to patients (Meah et al., 2009). Evidence has shown that student-led clinics offer a unique, yet authentic, learning experience (Simpson & Long, 2007) that provides experiential practice in the context of direct patient care (Jokelainen et al., 2011). Student-led clinics also allow students to take responsibility for the extra-clinical duties such as scheduling, ordering consumables, referrals, and general maintenance, many of which require inter-professional collaboration and socialisation (Ernstzen et al., 2009; Stuhlmiller & Tolchard, 2015). Student-led clinics therefore offer a unique and valuable alternative to the

traditional 'private practice' placement that can address the needs of the community and the educational goals of the student in a sustainable and innovative way. Understanding the factors that influence student satisfaction on student-led health clinic placements is important because it will enable academic and clinical educators to tailor knowledge around learning experiences, operational processes, and thus shape the clinical experience to the student. This student-centred approach to clinical supervision is what underpins the success of student-led clinics.

Student satisfaction relates to the students' evaluation of their clinical placement experience. Previous work investigating student satisfaction on clinical placement has shown that many factors can impact overall placement satisfaction (Cole & Wessel, 2008; Frantz & Rhoda, 2007; Milanese et al., 2013). For instance, students tend to appreciate immediate and constructive feedback whilst being challenged and respected (Cole & Wessel, 2008), but not being tutored or examined by other students (Milanese et al., 2013). Furthermore, evidence suggests that physiotherapy students may perceive a disadvantage in regional and rural clinical placements on the basis of the perceived quality of supervision and clinical expertise, compared with metropolitan placements (White & Humphreys, 2014). This sense of disadvantage may also relate to the clinical setting, with students reporting inadequate patient caseloads and reduced learning opportunities in community facilities compared to tertiary and secondary hospitals (Frantz & Rhoda, 2007). However, 'private practice' or student-led clinics were not mentioned in previous research (Frantz & Rhoda, 2007). In fact, no studies to date have investigated factors associated with student satisfaction in a student-led regional physiotherapy clinical setting. Given the importance of building the regional workforce, the perceived disadvantages of regional and rural placements, and the fact that students who enjoy their rural placement are more likely to consider a career in a rural or regional area (Webster et al., 2010), it is important to understand factors that impact on students' satisfaction in a regional student-led physiotherapy clinic. Therefore, the aim of this study was to investigate factors associated with student satisfaction in a regional student-led physiotherapy clinic.

## **II METHODS**

### **A Study design and setting**

The study was a retrospective qualitative analysis of student feedback within a student-led physiotherapy clinic in Rockhampton, Queensland, Australia. Due to the use of anonymous retrospective data a waiver of consent was granted by the Central Queensland University Human Research Ethics Committee (Approval number: 0000021458).

## **B Participants**

All 3<sup>rd</sup> and 4<sup>th</sup> year physiotherapy students were encouraged to complete anonymous feedback written at the end of their 5-week clinical placement at the CQUniversity Health Clinic in Rockhampton.

## **C Data collection**

All students who undertook a 5-week placement within the physiotherapy student-led clinic between February 2018 and October 2019 were encouraged to provide open written feedback answering three questions regarding their positive and negative experiences while on clinical placement. The context of this feedback was focused solely on the clinical placement and addressed any positive feedback and/or experiences for the clinical educators or the clinic from their placement, and any areas of improvement or recommendations for the clinical educators or the clinic from their clinical placement. The feedback provided by students was anonymous and while encouraged for all students the provision of feedback was not compulsory and was not linked to student assessment or course evaluations. Two investigators collected this feedback over the course of the study period. To maximise the students' candour regarding the placement, the feedback was completed on the last day of placement following the provision of their final Assessment of Physiotherapy Practice score and therefore could not impact on their results. This written feedback was collected in November 2019 by two investigators, who were independent to those who collected the data within the clinic. Two investigators transcribed all responses by typing the entire response of each student into a separate Microsoft Word document for each question and cross checking the responses. To maximise anonymity students were randomly assigned a participant number.

## **D Data analysis**

Data analysis was undertaken following the six phases of thematic analysis as outlined by Braun and Clarke (2006). First, each Word document was read in its entirety by two investigators for accuracy and completeness. Following this, one investigator coded each response following an inductive approach and semantic thematic analysis to identify interesting features within the data. The same investigator used the coded responses to search, review and define the themes and subthemes (Braun & Clarke, 2006). A second investigator cross checked the data for completeness and accuracy of themes and subthemes. NVivo software (Version 12.1) (QRS International Pty Ltd, Victoria Australia) was used to assist with forming themes and subthemes within the thematic analysis. Descriptive statistics (number and percentage) were used to quantify the number of responses for each theme. The hierarchy of themes were designated based on the descriptive statistics, with the greatest volume of responses given the highest priority within the hierarchy. Representative quotes were selected and reported for each theme.

### III RESULTS

#### A Participants

A total of 38 physiotherapy students from both 3<sup>rd</sup> and 4<sup>th</sup> year who were completing the professional practice component of their bachelor's degree (i.e. BPhy (Hons)) provided feedback. Due to the retrospective study design and the anonymity of the survey it is not possible to provide demographic data for the student survey responses.

#### B Factors associated with student satisfaction

Following data analysis, five overarching themes emerged with fifteen sub-themes. The five over-arching themes were: 1) clinical educators and clinic staff; 2) feedback to students; 3) continued education and additional clinical activities; 4) patient numbers and clinical variety; and 5) facilities, equipment, and resources. The hierarchy of themes, sub-themes and proportion of comments for each theme is presented in Table 1. Each sub-theme was characterised as positive feedback (+) or an area of improvement (-).

**Table 1**  
**Hierarchy of themes and sub-themes**

| Themes   | Number (%) of comments from respondents (n=38) | Sub-themes   |
|--|--|--|
| 1. Clinical educators and clinic staff                       | 23 (61%)                                       | Supportive learning environment (+)<br>Challenged by the clinical educators (+)<br>Variety of clinical educators (+) |
| 2. Student feedback  | 19 (50%)                                       | Feedback from clinical educators (+)<br>Greater volume and more specific feedback (-)<br>Consistency of feedback (-) |
| 3. Professional development opportunities                    | 13 (34%)                                       | Tutorials (+)<br>Exercise classes (+)<br>Observational surgeries (+)   |
| 4. Facilities, equipment, and resources                      | 6 (16%)  | High-quality facilities (+)<br>New equipment (+)<br>Good resources (+)   |
| 5.. Low patient numbers and a lack of clinical presentations | 3 (8%)   | Patient cancellations and 'no-shows' (-)<br>Low patient numbers (-)<br>Low variety of clinical presentations (-)     |

Notes: (+) positive perspective on the clinical placement, (-) area for improvement for the clinic placement

#### C Theme 1. Clinical educators and clinic staff

Sixteen (70%) of the 23 students who commented on clinical educators and clinical staff reported that a supportive learning environment, fostered by clinical educators and administration staff, was positively associated with their satisfaction with the clinical placement. Students highlighted the importance of having approachable staff who were always available and willing to answer questions and provide assistance.

- Very good learning environment with enough time for student to carry out sessions. Educators were always approachable and supportive when needed, especially for challenging case (Student 29).
- All the CEs provided the encouragement and advice that I needed to succeed in this placement and in my future career. It was fantastic to know that they were there to teach and support throughout the entire process and clearly value their roles and responsibilities beyond the daily routines of the clinic (Student 10).

Three (13%) of the 23 students who commented on clinical educators and clinical staff reported that being challenged by the clinical educators on their clinical reasoning and practical skills was a positive experience and improved the learning environment.

- Educators constantly challenged skills and knowledge to ensure I got the most out of my experience. Positive challenging experience overall (Student 29).
- Great learning environment. I like how the educators challenge your thoughts and push you to the think of “why?” (Student 23).

Although a variety of clinical educators, and therefore varying styles of format, was reported as a negative factor, 4 of the 23 (17%) students did report that having multiple clinical educators was also positive, as it allowed the students to observe differences in clinical skills and approaches to clinical reasoning.

- Having two CE’s [clinical educators] [was] really good for the extra experience and advice (Student 25).
- Enjoyed the placement and having a variety of different supervisors’ experience to draw on (Student 35).

#### **D Theme 2. Student feedback**

Nine (47%) of the 19 students who commented on student feedback reported that the type (i.e. constructive and specific) and frequency of feedback was an important factor that influenced their satisfaction with the clinical placement.

- Clinical educators were really supportive and they give specific feedback to each student (Student 21).
- All clinical educators are open to questioning and provide constructive feedback (Student 19).
- I was able to implement the feedback quite easily as the educators were great at explaining the things that we could do better (Student 2).

Seven (37%) of the 19 students who commented on feedback suggested feedback could be improved by being provided more often and not just at formal mid-unit and end-unit assessments.



In addition, one student commented that feedback could be more open between clinical educators and students and feedback could be more specific; however, this was contradictory to several comments that feedback was specific.

- Maybe more debriefs/recommendations to students on where they can improve – not just at mid-way formal assessments (Student 23).
- My only recommendation is that sometimes communication didn't feel very open with students/clinical educators, and at times it would be helpful if clinical educator's sat down and talked through things that student's may be observed having trouble with, and if feedback could be more specific (Student 20).

Three (16%) of the 19 students commented that feedback and opinions regarding clinical reasoning or their clinical interpretation varied between different clinical educators. This was considered as both an advantage and disadvantage, as it broadened their clinical experience, but sometimes led to confusion with how to progress.

- ... sometimes advice was different between educators (Student 25).
- Clinical educators' opinions vary from person to person and students can get quite confused at times (Student 21).

### **E Theme 3. Professional development opportunities**

Five (38%) of the 13 students who commented on professional development opportunities for students commented on their involvement in group-based exercise classes as a positive way to engage with patients to achieve meaningful goals.

- I very much enjoyed spending time with the patients in the falls and balance class (Student 26).
- I enjoyed the exercise classes as patient were really interactive and fun (Student 21).
- Maintenance and falls and balance class, group atmosphere, patient engagement, relationships built (Student 34).

Five (38%) of the 13 students who commented on professional development opportunities for students commented on their ability to observe an orthopaedic surgery at a nearby facility, with students suggesting this was a positive learning experience.

- I enjoyed being given the opportunity to go to the surgeries at the base (Student 22).
- I enjoyed the observational surgeries as it was great to see what happens in surgery (Student 31).

Three (23%) of the 13 students who commented on professional development opportunities reported the inclusion of additional tutorials as a positive way to improve students' theoretical knowledge and clinical skills.

- The tutorials were very helpful especially education about the shoulder (Student 36).
- I also enjoyed the taping tutorials and believe it has helped me throughout this placement and for my future career (Student 18).

#### **F Theme 4. Facilities, equipment, and resources**

Of the six students that provided comment about the facilities, equipment, and resources, all positively commented that the facility and systems helped improve learning within the student-led clinic.

- I enjoyed the facilities, the clinic is well organised and equipment is all easily accessible to allow good flow during appointments (Student 27).
- The clean and well set up clinical environment (Student 16).
- Very well set up rooms for students including all of the equipment, outcome measures and extras resources (Student 25).

#### **G Theme 5. Patient numbers and clinical presentations**

Of the three students that commented on patient numbers and clinical presentations, all suggested that high patient cancellations and low patient numbers were seen as a negative within the clinical placement, and one student (33%) commented that the case load lacked diversity.

- I think the only real criticism I have is only seeing 6 patient per day by week 5. I've had as many as 14 patients by week 3 on one ward. I think 8 per day might [be] beneficial for students in week 5, even if it is only for two of the days. Just to prove to the student that they can manage that many. This placement might be the only MSK [Musculoskeletal] placement after all. This would cut into the time for feedback but the 8 patient days could be staggered between students in the final week to make it more manageable (Student 15).
- [It] just sucked that so many patients cancelled (Student 34).
- More patients and more diverse case load (Student 8).

### **IV DISCUSSION**

This study investigated factors associated with student satisfaction in a regional student-led physiotherapy clinic. Five key themes that influenced student satisfaction were identified: 1) clinical educators and clinic staff; 2) feedback to students; 3) continued education and additional clinical activities; 4) patient numbers and clinical variety, and 5) facilities, equipment, and resources. The five key themes had 15 sub-themes which consisted of both negative and positive

factors. Given the need to build the health workforce of regional and rural Australia (Rural Health Standing Committee, 2016), it is critical to develop a thorough understanding of student satisfaction regarding clinical education in a regional setting. In addition, with 'private practice' clinical placements making up only nine percent of total physiotherapy student placements in Australia (Wells et al., 2019), understanding factors associated with student satisfaction within student-led clinics is warranted. The themes identified in this study could be used to tailor the student experience in a student-led physiotherapy clinical placement and contribute to better student outcomes and greater workforce retention in regional areas.

Physiotherapy student satisfaction during clinical education has been widely investigated (Frantz & Rhoda, 2007; Harris & Naylor, 1992; Milanese et al., 2013; Nehyba et al., 2017; Neville & French, 1991; Stith et al., 1998). Most students within our study commented positively on the approachability and supportive nature of the clinical educators and the clinical staff (i.e. administration team), suggesting these qualities were highly associated with student satisfaction on clinical placement. Consistent with our students' comments, previous work has suggested that students valued clinical supervisors that were friendly, encouraging, helpful, and approachable (Cross, 1995; Neville & French, 1991), with these attributes linked to high satisfaction of clinical placement for physiotherapy students (Frantz & Rhoda, 2007) and nursing students (Wotton & Gonda, 2004). In addition, the current student cohort commented positively about being challenged regarding their clinical reasoning and practical skills, also suggesting this was associated with high student satisfaction, which is consistent with previous work (Cole & Wessel, 2008; Delany & Bragge, 2009; Neville & French, 1991). It is clear from this work and the work of others that the attitudes, approachability, and supportive nature of clinical educators and clinic staff play an integral role in student satisfaction and that this is relevant for placements within private practices, hospitals, and student-led clinics.

Feedback is an integral component of the clinical placement experience and aims to improve the learner's confidence, knowledge, skills, and/or behaviour (Burgess & Mellis, 2015; Kilminster & Jolly, 2000). The students within our study commented positively on the constructive and supportive feedback provided to them; however, students also commented negatively on the lack of feedback and inconsistencies provided by some clinical educators. This dichotomy presents a challenging situation for clinical educators, particularly those with limited clinical and/or educator experience. Our findings are broadly consistent with previous work that identified constructive feedback as a vital component of student learning (Frantz & Rhoda, 2007; Harris & Naylor, 1992; Milanese et al., 2013; Nehyba et al., 2017; Neville & French, 1991; Stith et al., 1998) and as an integral component of clinical educator training (Kilminster et al., 2002). Similarly, previous work has shown that a lack of feedback is perceived by students as negative (Neville & French, 1991) and has the potential to hinder the learning experience. Of concern for our student cohort was the

inconsistency of feedback between two (or occasionally more) clinical educators during the clinical placement. While 'shared supervision' (i.e. two or more clinical educators supervising the student(s)) is common practice in all clinical education settings to allow free time for clinical educators' and to promote learning within the team (Bennett, 2003), students found it difficult to process inconsistencies in clinical feedback or clinical reasoning between the two (or more) clinical educators. Although speculative, it is possible that a dedicated student-led clinic may provide more consistent and instructive feedback compared to private practice, as educators are strongly focused on meeting both the learning needs of the student and health goals of the patient. In general, it is strongly recommended that students receive prompt and constructive feedback throughout the clinical placement with the aim to facilitate the students' knowledge, skills, and behaviour. Where possible, clinical educators involved in shared supervision should communicate regularly and aim to avoid inconsistent feedback to the students.

Providing additional learning opportunities in the form of tutorial sessions or observational experiences has been reported as having a positive impact on student satisfaction and student learning during clinical placements (Milanese et al., 2013; Neville & French, 1991). This is consistent with our findings, whereby student satisfaction was positively influenced by the addition of regular clinical tutorials and/or observational experiences (e.g. surgery) offered by the clinical staff and the local public hospital. Although students from our study (and other studies (Ernstzen et al., 2009; Milanese et al., 2013; Neville & French, 1991)) rated observing surgery as a positive learning experience, clinical educators from community and hospital settings did not share the same sentiments (Ernstzen et al., 2009). The clinical educators within our clinics report that observing surgery is seen as a positive learning opportunity for the student, provided they want to observe the surgery, but also an opportunity for the clinical educators to catch up on administration tasks with some non-clinical time. The differing views of the benefits, or not, of observing surgeries between clinical educators from hospital settings (Ernstzen et al., 2009) and clinical educators from our student-led clinic may represent different educational models between clinical educators from different clinical settings.

Our students commented negatively on low patient numbers, the number of patient 'no-shows', and the lack of variation in the patient case load. This is consistent with previous work showing that students perceived the clinical placement as 'poor' when too few patients were seen and there was an unvaried case load (Neville & French, 1991). One explanation for students perceiving low patient numbers in our student-led clinic is their direct comparison to previous placements, often within hospital settings, where student caseloads are often much higher. From previous quality assurance data collected from our facility, our student-led clinic has relatively lower patient numbers (average of ~8 occasions of services per student per week) (unpublished data averaged from 2017-2019), compared to a musculoskeletal outpatients setting (average of

~15 occasions of service per student per week) (Stoikov et al., 2018). Lower patient numbers may be explained by students shadowing each other in the early weeks of the clinical placement and/or by longer consultations that allows for increased time for student education, whilst still providing high-quality health care to patients (Meah et al., 2009). Interestingly, our students did not comment on peer-to-peer shadowing, which has been perceived as a low quality learning opportunity in other studies (Milanese et al., 2013). Patient cancellations or 'no-shows' affect all health clinics from private practice through to musculoskeletal outpatients and have a direct impact on income generation (Mbada et al., 2013; Moore et al., 2001), clinician productivity (Moore et al., 2001), and student education (Hixon et al., 1999). While there are several reasons for patients failing to show for their appointments, such as transportation issues, forgetfulness, or employer obligations (Lacy et al., 2004; Ofei-Dodoo et al., 2019), many of these are external to the control of the clinic staff. To minimise patient 'no-shows', our student-led clinic has implemented known strategies, such as automated appointment reminders (Parikh et al., 2010); however, 'no-shows' continue to remain a problem for our clinic. Finally, our facilities, equipment, and resources were positively associated with student satisfaction within the student-led clinic. This is not surprising as the facilities are relatively new (built in 2016) and systems have been put in place for resource management and facility maintenance.

There are several methodological strengths and limitations that require consideration when interpreting our results. First, the retrospective study design may be both a strength and limitation of our study. For instance, some students may not feel comfortable providing feedback about a clinical placement directly to the clinical educator due to fear of impacting their grades and/or future job opportunities. Alternatively, the retrospective nature of our study limited the ability to probe for more information from the students, which could take place if using focus groups. Second, a strength of the study was the limited number of questions which enabled students to quickly complete the feedback, assisting with response rates. However, the limited number of questions also limited the depth of feedback and thus reduced our ability to obtain more data that would strengthen our conclusions. Third, the relatively small sample size (n = 38) and regional setting may limit the generalisability of our findings to student-led clinics within metropolitan centres. However, the findings of this study, specifically related to supportive clinical educators who offer additional learning opportunities during quiet periods would be important for other universities looking to commence a regional student-led clinic. Fourth, our study required students to fill out the feedback after receiving their grade for the placement. This was done to minimise any potential bias from students feeling that their opinions could have influenced their grades; however, it is possible that their grade may have influenced their opinions. Finally, our students range from 3<sup>rd</sup> years entering their very first clinical placement through to 4<sup>th</sup> year students on their final clinical placement. This range of student experiences will likely affect the factors that

are associated with student satisfaction as the 4<sup>th</sup> years will have had more clinical experiences to draw comparisons from. More research utilising a prospective mixed methods approach (i.e. quantitative and qualitative) is warranted to further understand student satisfaction with student-led clinics.

## **V CONCLUSIONS**

In conclusion, the qualitative approach of this study allowed an understanding of factors associated with student satisfaction within a regional student-led physiotherapy clinic. Five key themes emerged; 1) clinical educators and clinic staff; 2) feedback to students; 3) professional development opportunities; 4) low patient numbers and a lack of clinical presentations; and 5) facilities, equipment, and resources, which positively or negatively impacted on student satisfaction within student-led clinics. Implementing factors associated with positive student satisfaction may enhance student learning opportunities and improve the clinical placement experience, potentially resulting in more students seeking employment within regional areas.

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