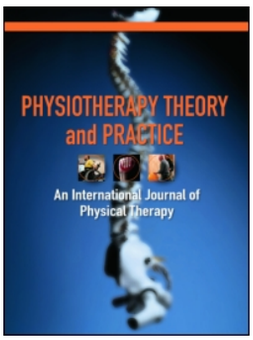

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REPORT

Factors associated with patient-satisfaction in student-led physiotherapy clinics: A qualitative study

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ABSTRACT

Background and Purpose: Student-led physiotherapy clinics are a valuable means for providing clinical education opportunities for student learning and providing cost-effective services to the public. Understanding patient satisfaction within the student-led physiotherapy clinic setting is important to inform organizational, educational, and clinical processes that aim to balance both student learning experiences and quality patient care. ***Design***: A cross-sectional qualitative design using semi-structured interviews. ***Results***: A total of 20 patients from three different university student-led physiotherapy clinics were interviewed. Five major themes were associated with patient satisfaction, style of supervision, student–supervisor relationship, quality of physiotherapy care, student qualities and cost, and location of the service. ***Conclusion***: The results emphasize the importance placed by patients on effective communication, as well as the relationship between the supervisor and student overseeing their care. The findings highlight the influence of both the student and supervisor on patient satisfaction and provide insight into the style of student supervision from the perspective of the patient.

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Clinical Education; physiotherapy; clinical Educators; patient satisfaction; student clinics

Background

Clinical workplace learning or "clinical education" is perceived as essential to the development of clinical skills and attitudes of health professional students (Higgs, 2009; Lekkas et al., 2007; Strohschein, Hagler, and May, 2002). Clinical education provides specific learning opportunities for health professional students to attain a graduate level of competence by integrating knowledge, skills, and professional behaviors into patient care while developing the entry-level performance requirements of their profession (Dalton, Davidson, and Keating, 2011). It is widely accepted internationally that clinical education is integral to physiotherapy curricula (World Confederation for Physical Therapy, 2004). Clinical education has therefore been integrated into entry-level physiotherapy programs.

There is a growing sense of unease regarding the sustainability of clinical education. This is partly due to funding restrictions in the education and healthcare sectors, an exponential growth in student enrolments in physiotherapy entry-level programs, and a decreasing source of clinical education providers (Bostick, Hall, and Miciak, 2014; Crosbie et al., 2002; Hobbs, Henley, Higgs, and Williams, 2000). Additional barriers such as staff shortages, financial limitations, competition between universities, and challenges in delivering quality patient care also impact student clinical placement capacities across wider healthcare settings (Davies, Hanna, and Cott, 2011; Strohschein, Hagler, and May, 2002).

Student-led clinics are clinical learning centers where students are able to manage and deliver supervised health services. Such clinics offer a long-term means of mitigating clinical placement shortages (Simpson and Long, 2007) and have the potential to address community needs through the provision of high-quality, low-cost healthcare (Ryskina, Meah, and Thomas, 2009). They have been described as an effective approach for providing services to specific populations, particularly those with chronic health conditions and those from lower socioeconomic groups (Ellet, Campbell, and Gonsalves, 2010; Meah, Smith, and Thomas, 2009; Sheu et al., 2010; Zucker et al., 2011). Research has demonstrated that student-led clinics are feasible for student learning (Ellett, Campbell, and Gonsalves, 2010; Simpson and Long, 2007) and provide a rich source of experiential practice in the context of direct patient care (Jokelainen et al., 2011). Student-led clinics also provide opportunities for health professional students to take responsibility for the logistics, operational management, and treatment of patients

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under the guidance and supervision of registered and licensed health professionals, thus facilitating professional socialization (Ernstzen, Blitzer, and Grimmer-Somers, 2009; Stuhlmiller and Tolchard, 2015). Research relating to student-led clinics has demonstrated increased student placement capacity (Frakes et al., 2011; Kent, 2012), as well as increased clinical experiences within an interprofessional environment (Moskowitz, Glasco, Johnson, and Wang, 2006).

Exploring the view of the patient of student-led health clinics is important in understanding how such services can be better managed to be sustained long-term, including retention of patients' as consumers. Patient satisfaction relates to how patients value and regard the care they receive in a healthcare setting and although linked to health outcomes is considered independent to clinical outcomes when evaluating the quality of health services (Australian Commission on Safety and Quality in Health Care, 2012; Butler and Johnson, 2008; Hudak and Wright, 2000).

The importance of seeking the viewpoint of the patient in relation to care provided and their satisfaction with that care has been highlighted within healthcare literature for several decades (Adamson, Ben-Shlomo, Caturvedi, and Donovan, 2009; Barr et al., 2006; Sitzia and Wood, 1997). Recently, Waters, Edmondston, Yates, and Gucciardi (2016) undertook a qualitative study to identify factors influencing patient satisfaction in orthopedic outpatient physiotherapy settings. Interpersonal factors of the therapist such as communication and clinic-related factors such as waiting times and clinician contact time were found to influence patient satisfaction. Extrapolating such findings to a student-led physiotherapy clinic setting may be problematic. Student-led clinics introduce their own set of organizational and service challenges. Often the supervising therapist is responsible for patient care, yet is required to supervise several students and patients at any given time. Additionally, they are required to foster learning opportunities for students as well as provide them with feedback. Furthermore, the environment is often less private than other healthcare settings, with patients also frequently needing to set aside more time for a consultation than they would in a non-student-led clinic (Stuhlmiller and Tolchard, 2015).

The perspective of the patient toward student-led health services has been investigated within previous research with high levels of patient satisfaction being evident in student-led: medical clinics (Ellett, Campbell, and Gonsalves, 2010; Gertz, Frank, and Blizen, 2011), mental-health services (Schweitzer and Rice, 2012), and diabetes clinics (Ryskina, Meah, and Thomas, 2009). Research demonstrates that most patients who utilize healthcare services involving students feel accustomed to the presence of students within their care (Hajioff and Birchall, 1999; Lynoe, Sandlund, Westberg, and Duchek, 1998; Marwan et al., 2012). Furthermore, student involvement may increase patient empowerment, self-worth and satisfaction by allowing the patient to share their experiences to aid student learning (Hajioff and Birchall, 1999; Lynoe, Sandlund, Westberg, and Duchek, 1998). This research however predominantly relates to clinical settings where the student is present for the patient consultation, rather than directly leading patient care.

Research exploring patient satisfaction in both student-led health clinics and non-student-led physiotherapy clinics has been largely survey-based in nature (Al Ghobain et al, 2016; Ellett, Campbell, and Gonsalves, 2010; Lawrence et al., 2015; Monnin and Perneger, 2002). Survey-based research limits the potential to explore the perspective of the patient by using researcher-derived measures framed by the perspective of the professional, rather than the patient (Beattie, Pinto, Nelson, and Nelson, 2002; Kidd, Bond, and Bell, 2011; Monnin and Perneger, 2002). Furthermore, patient satisfaction in student-led physiotherapy clinic services has not been explored within previous research. Understanding what factors influence patient satisfaction within this setting will help to provide high-quality care, and thus promote sustainability of student-led clinics. This study was designed to answer the question, "What factors are associated with patient satisfaction within student-led physiotherapy clinics?"

Methodology

Design

Audio-taped, semi-structured interviews in conjunction with a qualitative thematic analytical approach were used to investigate factors associated with patient satisfaction in student-led physiotherapy clinic services.

Participants

Participants, aged over 18, who could provide perspectives of student-led clinic experiences were purposively selected from three University of Queensland Health and Rehabilitation Physiotherapy Clinics (Musculoskeletal, Neurological and Cardiorespiratory clinics). Purposive sampling of participants was based on selecting a wide range of perspectives of clinic experiences. The recruitment process aimed to preserve student and physiotherapist anonymity. Clinic patients

Table 1. Demographic data.

Patient	Gender	Age	University of Queensland Physiotherapy Clinic
1	M	71	Neurological & Ageing
2	M	49	Neurological & Ageing
3	F	69	Neurological & Ageing
4	M	26	Neurological & Ageing
5	F	66	Neurological & Ageing
6	F	78	Neurological & Ageing
7	F	63	Neurological & Ageing
8	M	21	Musculoskeletal & Sports
9	M	27	Musculoskeletal & Sports
10	F	26	Musculoskeletal & Sports
11	F	41	Musculoskeletal & Sports
12	F	76	Cardiorespiratory
13	F	30	Musculoskeletal & Sports
14	M	47	Musculoskeletal & Sports
15	F	24	Musculoskeletal & Sports
16	M	70	Neurological & Ageing
17	F	60	Neurological & Ageing
18	M	27	Musculoskeletal & Sports
19	M	58	Musculoskeletal & Sports
20	F	23	Musculoskeletal & Sports

were invited to participate and sent study information via email. Informed consent was provided verbally at the time of the interview. The sample resembled the profile of patients who typically attend the three University of Queensland physiotherapy clinics (Table 1).

Data collection

The semi-structured interviews (Table 2) occurred over the phone (n = 18) or within a private office at the University of Queensland (n = 2). Each interview question was explored using probing questions (Table 2) to further extrapolate participants' responses and investigate topics further (Payne and Payne, 2004).

All interviews were audio-recorded and transcribed verbatim and patients were de-identified with a numerical code. Patient interviews were conducted over a 6-week period. Interviews ranged from 8 to 43 minutes, with a mean of 26 minutes. Interviews were conducted by both researchers using the same semi-structured interview guide. Transcription and analysis of data were undertaken on a continued basis until no new or relevant information was reported to ensure there was sufficient depth and breadth to address the research question. Any potential for bias arising from the interview processes was minimized using several strategies. The interviewer was not involved in the physiotherapy care of the patient in question, personal or health-related questions were not asked, and the same semi-structured interview format was used for all interviews. The researchers engaged in regular review meetings throughout data collection to identify and discuss potential biases and assumptions. Ethical approval was gained from the institutional ethics committee. Informed consent was obtained prior to participation in the research.

Table 2. Example interview questions.

1. What initially made you choose the UQ Health Clinics?
2. Did you have any reservations about attending a student-lead clinic?
3. Did your expectation about what a student-led clinic would be differ from the reality of the experience?
4. Can you tell me what the positive things are that you have experienced by using this student-led clinic?
5. Have there been any negative aspects about using this student-led service?
6. What advice would you give to administrators or clinical educators of the student-led clinic to improve your experience or care in this setting?
7. What advice would you give to students of the student-led clinic to improve your experience or care in this setting?

PROBING QUESTIONS
Is there anything else you can think of?
Can you explain that a little bit more?
Why do you think that is?
Do you think others would also feel that way?

Data analysis

Audio data were transcribed verbatim by the researchers. Each transcript was then read several times to sensitize the researchers to the meanings ascribed to the research. Data were analyzed thematically using an inductive approach where data directly from patients were utilized for coding and themes. Each researcher read through all transcripts, but after the first reading the transcripts were filtered to only include aspects of the patient experience. The process of analysis included key phases of familiarization, coding, searching, reviewing and then naming and defining (Braun and Clarke, 2006). Data management software (NVivo, QSR, International Pty Ltd., Victoria, Australia) was used to store and manage the data and identify further coding. Coded passages were subjected to continued comparison and differentiation. Saturation was determined through a preliminary analysis alongside data collection with discussion across the research team. For verification purposes, summaries of each transcript including context, main themes, impressions and exemplary quotations were prepared, and compared with memos written during the interviews. Each summary represented perceptions of important aspects of physiotherapy for that particular patient. Axial coding (Strauss and Corbin, 1998) was then applied to concepts within categories and across categories. This final coding involved the identification and comparison of inter-relationships between the key properties of each category. Classification of categories was independent of the frequency with which they were identified in the transcripts.

Results

Twenty patients across three university physiotherapy clinics consented to participate and were interviewed (Table 1). The age of patients ranged from 21 to 76 and most patients were female (n = 11, 55%).

We found areas of similarities as well as some variation in factors associated with patient satisfaction. To illustrate the findings, quotes have been selected to give examples of key themes. Five over-arching themes emerged following data analysis. These were: 1) Style of supervision; 2) Student–supervisor relationship; 3) Quality of physiotherapy care; 4) Student qualities; and 5) Cost and location.

Style of supervision

Supervision of the student provided by the health professional was perceived as an important factor for patient satisfaction in the student-led clinic experience. Patients reported that close supervision promoted feelings of confidence and that student incompetence of providing effective care would be a major risk arising from inadequate supervision.

> *The part where they were telling me what to do; that was led by the supervisor anyway. Maybe the risk might have been that they would tell me something stupid, but that risk wasn't there as they were so closely supervised (Patient 14)*

Supervisors who were directly involved, "hands-on" and engaged in their supervision of students, as opposed to providing a more observational role, were also seen as contributing to their satisfaction.

> *The main thing as far as the facilitators go is being hands on.…. the good educator will come around and look at what the student is doing and then make actual recommendations to the student and getting in there and showing the student specifically what to do and how to deliver the treatment (Patient 3)*

The perceived level of expertise and competence of the clinical educator was viewed as being an important factor influencing the patients' decision to attend the student-led clinic, and contributed to satisfaction.

> *I feel much more comfortable going somewhere where there will be someone who knows what they are doing and I think at the University they really know what they are doing so it's not like going and seeing just anyone. (Patient 10)*

> *I knew the supervisors would have a high level of expertise so this made me feel more confident about it. (Patient 11)*

Student–supervisor relationship

An effective relationship between student and supervisor was described as being collaborative, centered on the patient, working together to undertake a thorough examination of the patients' problem and using shared decision-making to seek agreement.

> *It's good to hear the supervisor agreeing with the student or telling them what to change and why. I could see that this helped both with (their) learning, and also helped me. (Patient 13)*

Patients identified the importance of the student being able to frequently check their decision-making relating to the patient's assessment and intervention with the supervisor to ensure what was being performed was indeed correct.

> *One of the students was a bit nervous…but she checked everything with her supervisor and that helped. (Patient 15).*

The relationship between the student and supervisor was identified as something that contributed positively by making the patient feel safe and inspired trust in the care received.

> *The student said on several occasions when they needed the supervisor which is comforting and reassuring (Patient 11).*

Quality of physiotherapy care

Physiotherapy-related care and outcomes were identified as factors contributing to a positive experience. The most prominent physiotherapy-specific factors included interventions aimed at patient self-management, thoroughness of assessment and interventions, and the achievement of outcomes for the patient.

Patients valued being taught self-management strategies to manage their condition more independently.

> *I could see it would be a benefit to me and give me the tools to help my balance and help with my strength (Patient 7)*

Thoroughness of care was viewed positively by patients. Thoroughness referred to assessments that were undertaken, but also the comprehensiveness of having both the student and the supervisor involved in the consultation.

> *The students were really thorough; especially the first appointment. They really left no stone unturned about what my problems were. (Patient 11)*

> *(with a supervisor and student) if there is something missed by one person, it can be picked up by another.* (Patient 9)

Patients described the importance in achieving the outcomes and goals related to their reason for attending physiotherapy.

> *I got the help I needed and got better so at the end of the day that's what mattered the most. (Patient 13)*

Student qualities

Patients spoke of the qualities and characteristics which they viewed as important for a student physiotherapist to possess to contribute to satisfaction of care. Four sub-themes emerged from the data. These were preparedness, communication skills, enthusiasm, and confidence.

Emphasis was placed on background reading and the preparation performed by the student prior to seeing the patient. Conversely, a perceived lack of preparedness on the student's behalf was viewed as negatively influencing the patient experience.

> *I do wonder if the student looks back through my file, because I wonder if the new problems I come in with are linked to older problems. (Patient 10)*

Good communication skills were described by patients as being an integral student characteristic from the patients' perspective. Such skills included listening and appropriately responding to patient cues.

> *A good student has very good communication skills. There have been bright and knowledgeable students but they might not communicate effectively and then can't build rapport. (Patient 3)*

The value of student enthusiasm was also described by patients.

> *The enthusiasm of the students is something that people with (my condition) often need. (Patient 16)*

Finally, students who exhibited confidence were viewed more favorably. This included confidence in verbal interactions, but also in relation to patient handling and manual therapy skills. Conversely, a lack of confidence was viewed as contributing to a negative experience.

> *The one over-riding thing would be (timid) students; in terms of the physical nature. It could happen where the student doesn't know how much pressure they can apply. Whereas with the supervisors, they are much more confident with how much pressure to apply. If you are not very confident, and also a bit (physically) timid, then it doesn't inspire confidence (in the patient). (Patient 14)*

Cost and location

The relatively low cost and convenient location of the clinics at the main campus of the University site was described by patients as a positive aspect leading to the initial decision to attend physiotherapy and in continuing utilizing the service.

> *..probably the price to be honest (as a reason for choosing the UQ clinics). (Patient 18)*

> *Proximity is important I guess…I felt it would be convenient. Cost was also a positive. (Patient 19)*

Patients also identified that when the location was not convenient, this was offset by the low cost.

> *the price is important as the driving is a big factor coming from… (Patient 4)*

Discussion

The results of this study highlight aspects of student-led physiotherapy services that are important for the patient as consumer. This may be important for informing organizational and service planning where an aim is fostering high levels of patient satisfaction. The emergent themes from the study emphasize the role of interpersonal factors in influencing patient satisfaction, as consistent with previous research relating to physiotherapy (Kidd, Bond, and Bell, 2011; Waters, Edmondston, Yates, and Gucciardi, 2016) and student-led clinics within other health professions (Al Ghobain et al, 2016; Ellett, Campbell, and Gonsalves, 2010). Communication underpinned several of the major themes generated from the data including student qualities, the student-supervisor relationship, the style of the supervision provided, and the quality of physiotherapy care including providing self-management skills. Patients had a strong positive perspective of both the student and supervisor communicating openly, and the involvement of both of them in the patients' care with this leading to trust and confidence in the care provided. This is not surprising considering that communication underpins patient-centered care (Chester, Robinson, and Roberts, 2014) and a positive therapeutic alliance (Cooper, Smith, and Hancock, 2008; Pinto et al., 2012) which is strongly linked to patient satisfaction (Fuertes et al., 2007). This is also consistent with wider research relating specifically to physiotherapy care where effective communication (Hush, Cameron, and Mackey, 2011; Waters, Edmondston, Yates, and Gucciardi, 2016), and trust (Chang, Chen, and Lan, 2013; Waters, Edmondston, Yates, and Gucciardi, 2016) are strongly linked to patient satisfaction.

The clinical supervisor provides an influential role in student learning and professional development (Giles, Wetherbee, and Johnson, 2003; Housel and Gandy, 2008; Laitinen-Väänänen, Talvitie, and Luukka, 2007; Lauber et al., 2003) and the importance of the relationship between supervisor and student is increasingly emphasized for its role in student learning (Hauer et al., 2012; Hodges, 2011; Sambunjak, Straus, and Marusic, 2010). An effective clinical supervisor needs to possess the skills to promote student learning, and also simultaneously coordinate this with high-quality patient care (Manninen, Henriksson, Scheja, and Silen, 2015). Studies demonstrate that supervisors are already conflicted by opposing demands on their time in filling their dual roles as healthcare provider and teacher (Henning and Weidner, 2008; Silén, Kiessling, Spaak, and Henriksson, 2011). Our interview findings reflect that patients recognize the dual relationship that the supervisor has with the student and the patient, by facilitating student learning but also ensuring patient satisfaction through active and involved supervision and communication. The results of the current study also emphasize the potential impact of this student-supervisor relationship on patient satisfaction in this setting. This finding highlights that the relationship between student and supervisor goes beyond the student experience and their learning and has an impact on the patient receiving care. This is an important finding considering that most focus of the student–supervisor relationship in previous research has been given to its impact on student learning (Hauer et al., 2012; Skøien, Vågstøl, and Raaheim, 2009).

Previous research has investigated the appropriate ratio of clinical supervisors to students to meet student learning and assessment needs (Ismail, Aboushady, and Eswi, 2016). However, the view of the patient has not been considered. Interestingly, the student–supervisor ratio, or clinical education "model" was not something that was actively discussed or commented on by patients' within the current study. Although the student–supervisor dynamic was openly discussed by patients, the level of supervision in relation to time, or number of students being supervised was not highlighted, however these issues were not specifically asked within the interview framework (Table 2). Further research should aim to explore how various models of supervision and the style of supervision impacts patient satisfaction and care in the student-led physiotherapy setting.

Physiotherapy training providers may be aware of graduate attributes to develop effective physiotherapists however awareness of the qualities that students should possess from the view of the patient has not been frequently investigated. The results of this study also highlight the importance of the personal attributes of the student in patient satisfaction, including enthusiasm and confidence. Clinical education providers may be able to take measures to aid patient satisfaction through considering cost of services and providing training to supervisors. However, ensuring attributes of the student that influence patient satisfaction, such as enthusiasm and confidence, although amenable to change, may be more outside the scope of what clinical educators can control.

The data from the current study did not uncover themes in relation to patients' expressed role or satisfaction of being involved in, or contributing to, student learning. This was surprising given the literature indicating that patients feel satisfied if they believe they are contributing to student learning (Coleman and Murray, 2002). A reason for this may be that unlike previous research, many patients within the current sample were not receiving long-term care and may have sought consultation within a student-led clinic initially due to accessibility and cost or perceived quality of supervision, rather than seeking involvement in student learning. Lastly, the nature of the interview methodology may have been conducted in a way in which patients did not consider their contribution to student learning as this was not explicitly asked (Table 2).

Unsurprisingly, and consistent with previous patient satisfaction research (Lawton, Parry, Peel, and Douglas, 2005), cost and convenience of location were major factors associated with patient choice to attend the student-led clinics and subsequently, their satisfaction with the service. Although patients recognized both cost and access as a factor, the low cost of the service offsetting difficult access for some was considered.

Limitations

Limitations in generalizing these findings to wider settings must be considered. Self-selection, as consistent with the research design, means that views of particular groups may not have been included. This is difficult to overcome since self-selection is an unavoidable part of ethical research, particularly that which is qualitative in nature (May, 2001). Our recruitment approach likely excluded patients who attended the student-led clinic only once and did not return, for example, therefore results cannot be considered reflective of the entire student-led clinic patient population. However, a range and contrast of views from a wide demographic sample were sought and expressed so the effects of this potential bias were minimized. Further research in this

area could employ an interview or focus group approach to explore and understand reasons for patient non-attendance within student-led physiotherapy clinics. Given the similarities between some of the findings of the study and previous research, it is probable that many themes would be reflected in other student-led services that adopt a similar clinical education model to that of University student-led clinics.

Although recruitment of participants occurred across three student-led physiotherapy clinic services (musculoskeletal, neurological and cardiorespiratory), only one cardiorespiratory patient could be contacted to participate. This was due to recruitment from a small service that provides care to a very small number of patients. Extrapolating the findings of this research to student-led cardiorespiratory physiotherapy clinics is therefore a key limitation of the current study. It is apparent that further research is required to identify how these findings may relate to other patient groups attending physiotherapy such as those receiving student-led services within hospital or cardiorespiratory settings.

There are methodological and interpretive challenges with investigating patient experiences and satisfaction. The methodology whereby patients were interviewed by a physiotherapist regarding their experience may have influenced outcomes. Steps were taken to minimize this; the interviewer was not known to the patient, anonymity was assured throughout the data collection process and patients were not interviewed within the physiotherapy clinic setting. Although we are unable to provide insight into whether organizational or service level changes may lead to changes in patient satisfaction, this study has provided an initial important step in understanding patient satisfaction in this setting and providing areas of service that could be further explored. More robust and accurate measurement approaches that provide more actionable insight into organizational, service-level, supervisory, or student-support factors should be considered from a longer-term perspective.

Conclusion

This study is the first to explore patient satisfaction within physiotherapy student-led clinics. The relationship of the student and supervisor, as well as their relationship with the patient, strongly influence patient satisfaction within student-led physiotherapy clinics. These relationships highlight communication skills of both supervisors and students, with active inclusion of the patient. Patients in this setting also place emphasis on achieving physiotherapy-specific outcomes and the location and cost of such services. These factors are important for student-led clinic providers and institutions to inform service improvements and for providers and supervisors to consider when considering changes to clinical education models. These findings are also important for students and supervisors to reflect on to consider how best to navigate their roles and relationship when considering the impact on the patient.

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Declaration of interest

The authors report no conflicts of interest.

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