

## **STUDENT PERCEPTIONS OF A CLINICAL PLACEMENT WITHIN A THERAPEUTIC COMMUNITY**

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## **STUDENT PERCEPTIONS OF A CLINICAL PLACEMENT WITHIN A THERAPEUTIC COMMUNITY**

### **ABSTRACT**

**Objective:** Chiropractic programmes adopt service-learning outreach placements to facilitate, among other traits, student communication and interaction skills, social responsibility and a philosophy of caring. This mixed-methods study describes the extent to which students believed a service-learning clinical immersion placement met these objectives.

**Methods:** Students (n=42) in the fifth and final year of a 5-year chiropractic undergraduate program spent at least ten afternoon sessions per trimester at a residential therapeutic community outreach placement. Most of the students (91%) completed the Service Experience Questionnaire (SEQ), a survey instrument consisting of a number of closed-ended items, as well as open-ended qualitative reflections after their experience.

**Results:** A majority (92%) felt that the experience was educational. This placement also enhanced students' awareness of others in need (92%), that the placement highlighted the importance of respect for all people (95%), empathy for the disadvantaged (84%), and provided them with an opportunity to improve their communication skills (87%).

**Conclusion:** These results support the utility of an outreach clinical placement to help meet the educational objectives of the chiropractic undergraduate programme. (*Chiropr J Australia* 2017;45:269-287)

**Key Indexing Terms:** Chiropractic; Empathy; Learning; Methods; Perception; Social Responsibility; Students; Therapeutic Community; Vulnerable Population

## INTRODUCTION

A growing number of chiropractic programs are adopting community immersion service-learning outreach placements, a strategy which reflect initiatives in other health care professions (1-9). Through community partnerships, supervised students perform health assessments and provide diagnosis, chiropractic management and if appropriate, referral to other practitioners. These placements are a form of experiential education characterised by hands-on community involvement integrated with the academic curriculum (10). The placements are designed to encourage the development of a sense of caring for others, social responsibility, and active community participation addressing social need (11). Community service also provides chiropractic students an opportunity to make use of and refine academically acquired knowledge and skills. These clinics benefit both the patients who receive evidence-based chiropractic care, and the students who are able to experience a more diverse range of clinical experiences. Further, participation in an outreach programme is known to enhance the professionalism of clinical students, particularly elements of altruism and respect for others, as well as providing varied and challenging clinical placements. Allied health educators have previously reported service-learning evaluations provide a wide variety of social and educational benefits including enhanced moral development, social responsibility, cohort participation, attendance, comprehension of course content, improved ethical decision-making abilities, and diminished racist attitudes (12,13).

The Council on Chiropractic Education Australasia (CCEA) requires the use of educational strategies that provide a diverse case-mix in the chiropractic curriculum, and undergraduate chiropractic education must facilitate the acquisition by students of a relevant knowledge base, skills, attitudes, ethics, and values. The CCEA further requires that undergraduate chiropractic education must foster an affective relationship between the individual practitioner and their patient; specifically the chiropractor must view all patients as people worthy of respect and strive to always provide the highest quality of care (14). While chiropractic education is considered successful at imparting clinical knowledge, fostering appropriate beliefs and attitudes in students presents an ongoing challenge that may possibly be addressed through community based clinical immersion placements.

Murdoch University's chiropractic programme in Perth, Western Australia has 4 weekly community service-learning outreach placements. In their fifth and final year, students complete at least 50 hours of outreach clinic service between; a residential therapeutic community (TC) drug and alcohol recovery program; a publicly-funded community centre with an Indigenous focus; a community support centre for homeless people; and a regional community facility catering for the general public, albeit with a low socio-economic focus. In addition, the university conducts annual rural and remote clinical immersion placements in the north and mid-west of the state lasting 1-2 weeks each (15). This paper reports the student perceptions of a clinical placement in a TC placement.

If chiropractic outreach service-learning programs are to continue being incorporated in the clinical placement programme, a better understanding of their impact is helpful.

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### Aims and Objectives

The aim of the study was to determine whether students perceived the TC placement to be useful for their professional education, thus providing a platform for future evaluation of differences between service-learning clinical outreach placements.

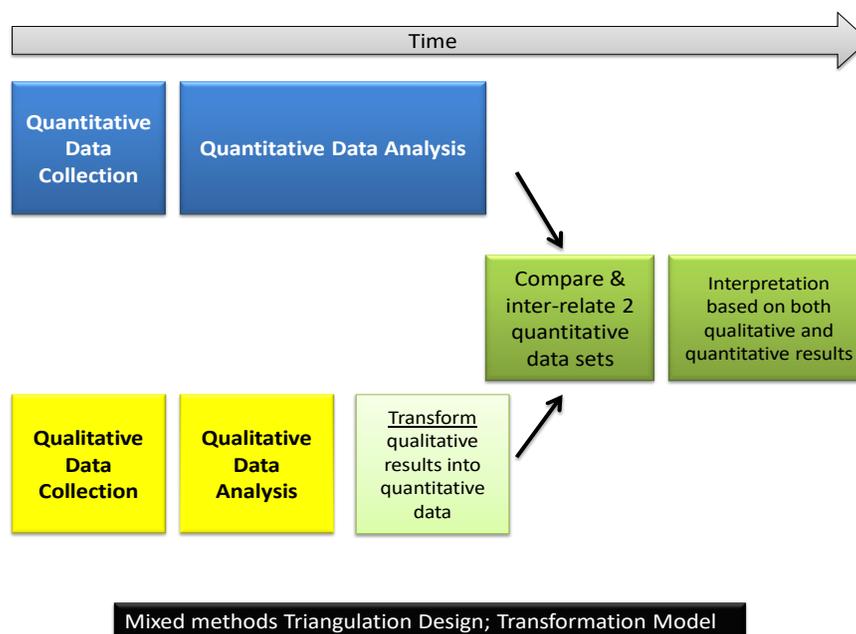
The objectives of the study were:

- Collect quantitative and qualitative data from student participants;
- Analyse and evaluate the data with a view to provide insight into the outcomes and results of the study; and
- Offer general recommendations on future research into delivery of community service placements for chiropractic students

## METHODS

Data were gathered as part of a larger audit which involved a non-randomised quasi-experimental clinical study which was conducted in parallel the results of which are reported elsewhere (16). This was a cross-sectional, mixed methods study design (17) for which ethics approval was provided by Murdoch University Human Research Ethics Committee (#2011/051) prior to data collection. The study was also registered with the Australian New Zealand Clinical Trials Registry (# ACTRN12611001100987). Students provided informed electronic consent to be involved in the study prior to participation in the survey.

Figure 1: The data transformation, triangulation mixed methods design of the study



## Participants

Final year chiropractic students (n=42) from 2 consecutive cohorts at Murdoch University were invited to complete an online Service-Experience Questionnaire (SEQ), in addition to responding to an open-ended question and reflective paragraph at the conclusion of their outreach service experience at the TC.

## Setting

This outreach clinic is located in a therapeutic community (TC) which is an environment in which people with substance misuse issues live together in an organised and structured way in order to promote change and facilitate a drug-free life (18). The TC has a protocol of management utilising a biopsychosocial approach, which has been shown to be effective in reducing drug use, recidivism, unemployment and mental health problems in vulnerable populations (18-20). This holistic approach includes consideration of both physical and mental issues, including the adoption of a healthy active lifestyle and non-pharmacological management of common ailments, such as musculoskeletal and spinal pain. The students provide a package of chiropractic care (under supervision) for residents consisting of various evidence-based interventions following best practice clinical guidelines (21-24).

## Questionnaire

The instrument used in this study was slightly adapted from the SEQ instrument used by Piper (12) with pharmacy students; we simply transferred the context and wording from pharmacy to chiropractic. Evaluative statements assessed the impact of service-learning on specific competencies: caring attitudes, social responsibility, teamwork, confidence, and communication abilities. In addition to the SEQ we asked an open-ended question inviting reflective comments about the placement along with suggestions for improvement. In order to minimise the length of time between the clinical placement and feedback assessments, students received invitations immediately after completion of the placement. Non-responders received a second opportunity to complete their evaluations in the first 2 weeks of the following trimester.

## Data Analysis

### *Quantitative data analyses*

Data were analysed using SPSS v21 (Chicago, IL) and GraphPad software (25). Response results scores were expressed as simple proportions (percentages along with 95% confidence intervals), mode, median, mean and standard deviation. Means were calculated from responses on the 5-point Likert scale (1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree) where a higher score meant higher agreement along with an 'unable to judge' option.

### *Qualitative data analysis*

Conventional and summative content analyses of qualitative data as described by Hsieh and Shannon were undertaken by 2 researchers independently (26). For the conventional content analysis, responses were initially read individually and coded

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according to the response, then through an open coding process, responses from each group were read individually and coded according to whether they were a 'positive', 'neutral' 'negative' response or a 'suggestion'. Each category was then examined to ensure internal homogeneity and external heterogeneity and confirm associations between them. The qualitative responses were then quantified and tabulated through a summative content analysis process where responses in each of the categories developed for the conventional content analysis were counted and then expressed as a proportion. The qualitative results are presented in a tabulated step-wise manner as identified themes/categories and content analysis. We minimised potential bias of theme allocation and analysis by using more than one researcher to code responses independently.

## RESULTS

### Participants

Thirty-eight of the invited 42 students (90.5 %) responded and provided usable data. A majority (n=31) of the students completed the survey immediately after their experience with the remainder (n=7) requiring a single follow-up within three weeks. Participant age ranged between 22 and 46 years (mean =31), similar sex distribution (53% female and 47% male), mostly local students (91% Australian and 9% International), and one person who identified as an Indigenous Australian.

### Ranking Scale Results

Due to the overall similarity of the survey results in both cohorts, the datasets were combined for evaluation purposes (Table 1). Most of the students' assessments of their experiences were favourable (i.e. mean score above 3.5) where a majority (92%, 95%CI: 79-98) agreed that the service-learning experience was educational and they learned a lot (84%, 95%CI: 69-93). Students reported that they felt that the experience highlighted the importance of respect for all people (95%, 95%CI: 82-100), enhanced both their awareness of others in need (92%, 95%CI: 79-98), and similarly, helped them realise how much they have to offer those in need (82%, 95%CI: 66-91). It helped them to learn first-hand about empathy for the disadvantaged (84%, 95%CI: 69- 93), and provided them with an opportunity to improve their communication skills (87%, 95%CI: 72-95). A very high proportion of the students also reported that the experience impressed on them the many opportunities for chiropractors to serve the community (92%, 95%CI: 79-98), made them feel like they made a difference (84%, 95%CI: 69-93) and gave them opportunity to refine their communication skills (87%, 95%CI: 72-95). The majority felt the placement should not be eliminated from the program (87%, 95%CI: 72-95) and a majority also agreed with their being made more aware of the needs of the community as a result of the placement (79%, 95%CI: 63-89).

The quantitative data indicate some areas where the students' evaluations of their placement are equivocal. A minority of students agreed that the placement enhanced their confidence in interacting with other health professionals (45%, 95%CI: 30-60), or that it should be longer (40%, 95%CI: 26-55). Less robust agreement was reported for wanting to do community service work in the future (71%, 95%CI: 55-83), that

community service is a part of the chiropractor's contribution as a health professional (68%, 95%CI: 52-81), or that the placement did a lot to change prior perceptions they had about the community they served (61%, 95%CI: 45-74). Finally only just over half (53%, 95%CI: 37-68) agreed they learned about the importance of teamwork.

Four of the 5 items in Part 1; 'Placement Assessment', and seven of Part 2; 'Specific Competencies' of the instrument achieved a mean score of at least 4.0. While there were no items with a mean score less than 3.0, 1 item of part 1 (regarding length of placement 3.0), and 2 items of part 2 scored less than 3.5, leaving the remaining 4 items which scored between 3.8 and 3.9. The highest scores were 4.2; the placement should not be eliminated from the program in Part 1, and 2 items (the placement highlighted the importance of respect for all people, and enhanced awareness of other individuals in need) 4.3. It is significant to note that only 1 item in Part 2; enhanced confidence in interacting with other health professionals (3.2), scored below 3.5. It is also significant to highlight the 3 items, it should not be eliminated from the program (Part 1), the opportunity to learn first-hand about empathy for the disadvantaged and the placement did a lot to change prior perceptions they had about the community (Part 2) where the mode was 5.

#### *Open-Ended Question Results*

Qualitative responses from students to the open-ended questions were collated and analysed as described by Hsieh and Shannon (26). Table 2 presents the quantified results from the summative content analysis.

The data transformation quantification of the qualitative results revealed 50% of all comments were positive and only 4.6% were negative. Two 'negative' responses related to a perceived lack of prior preparation/orientation and infection advice. By far, the greatest proportion of suggestions (64.3%) related to timing, scheduling and length of sessions. Most of the positive responses (50%) related to the setting, the residents (patients) and the perception that the students were actually making a difference to the health and well-being of those they served.

Selected examples of qualitative responses;

"The placement was good, I felt like I made a difference to the patients there not only physically, but the psychological impact of another person caring about them individually would undoubtedly have a positive effect".

"One of the best placement among all the other placements... Very educational and lots of learning opportunity".

"I have done a lot of work with the Red Cross previously, if I had not have had my previous experiences with the Red Cross I believe that the farm would have made me more aware of my social obligations and thus my responses would have been very different".

"The first day of my placement at the Farm I read the goals and vision of the Farm, I was touched that we, MUCC, were welcomed to this harmonious community and to offer our services and do our bit to help others on their road to vitality, self-worth and

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well-being. The duration of the placement rotation allowed us to build rapport with our patients and to see positive changes. Treatment times were one hour once a week, and driving time was approximately one hour round trip, so being allocated more time to treat would be feasible, and earlier in the day”.

Table 1: Student Service-Experience Questionnaire (SEQ) responses

Domain	Agree (%) (95%CI)	Median	Mode	Mean	SD
PART 1: Placement assessment					
Your feelings about the placement as a whole					
1. It was educational	92.1 (78.5- 98.0)	4	4	4.21	0.74
2. I learned a lot from the placement	84.2 (69.2- 92.9)	4	4	4.05	0.84
3. It should be longer	39.5 (25.6-55.3)	3	2	3.05	1.25
4. It should not be eliminated from the program	86.8 (72.2-94.7)	4	5	4.24	0.88
5. It made me feel like I made a difference	84.2 (69.2- 92.9)	4	4	4.11	0.80
PART 2: Specific competencies					
Specific perceptions about competencies					
1. The placement highlighted the importance of respect for all people	94.7 (81.8-99.5)	4	4	4.34	0.67
2. The placement enhanced my awareness of other individuals in need	92.1 (78.5- 98.0)	4	4	4.32	0.70
3. The placement enhanced my confidence in interacting with other health professionals	44.7 (30.1-60.3)	3	4	3.16	1.05
4. The placement provided the opportunity to enhance my communication skills	86.8 (72.2-94.7)	4	4	4.24	0.71
5. The placement made me realise how much I have to offer those in need	81.6 (66.3-91.1)	4	4	4.16	0.86
6. The placement gave me the opportunity to learn first-hand about empathy for the disadvantaged	84.2 (69.2- 92.9)	4	5	4.29	0.87
7. The placement makes me want to do community service work in the future	71.1 (55.1-83.1)	4	4	3.82	0.95
8. I learned about the importance of teamwork	52.6 (37.3-67.6)	4	4	3.29	1.09
9. The placement impressed upon me the many opportunities for chiropractors to serve the community	92.1 (78.5- 98.0)	4	4	4.13	0.70
10. I am more aware of the needs of the community as a result of the placement	78.9 (63.4-89.2)	4	4	3.97	0.79

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11. Community service is a part of the chiropractor's contribution as a health professional	68.4 (52.4-81.0)	4	4	3.82	0.93
12. The placement did a lot to change prior perceptions I had about the community I served	60.5 (44.7-74.4)	4	5	3.82	1.01
13. Community service is effective in enhancing the perception of personal awareness	84.2 (69.2- 92.9)	4	4	4.13	0.88
Composite values from Q1.1-2.13	76.3 (60.6-87.2)	4	4	3.96	0.86
Overall Rating of the placement	92.1 (78.5-98.0)	3	3	3.47	0.51

Agree=Score greater than or equal to four on a five-point Likert scale: 1=strongly disagree; 2=disagree; 3=neutral; 4=agree; 5=strongly agree.

Table 2: Quantification of qualitative responses by category of responses

Responses to the question: "Please provide a reflective paragraph on the placement. Feel free especially to comment on ways you feel the placement could be improved in the future".

Category	n=	%Within Total	%Within category
<b>Positive</b>			
Educational and Learning Value	3		13.7
Enjoyment and Rewarding	3		13.6
Physical Effect	2		9.1
Psychological Effect	2		9.1
Positive Challenge	1		4.6
Making a Difference and Community Service	5		22.7
Organisation and Setting	6		27.3
Total Positive	22	50.00	
<b>Neutral</b>			
Previous Experience	2		33.3
Organisation and Setting	4		66.7
Total Neutral	6	13.64	
<b>Negative</b>			
Preparation and Orientation	2		100.00
Total Negative	2	4.54	
<b>Suggestions</b>			
Curriculum Change	3		21.4
Logistics and Protocols	1		7.1
Length, Scheduling and Timing	9		64.3
Professional Interaction	1		7.1
Total Suggestions	14	31.82	

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Total Responses

44\*

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\*Multiple comments on different categories were split

## **DISCUSSION**

When reviewing the results, bearing in mind anecdotal feedback from previous years of running the outreach program, it was not surprising to find that the students, in general, agreed with most of the survey questions. In summary, the students felt that their placement service-learning experiences were educational, that they made a difference and should not be eliminated from the program. In addition, specific perceptions include respect for the individual, enhanced awareness of other individuals in need, empathy, perception of personal awareness, and how much they have to offer the disadvantaged. These findings are consistent with previous findings, for example the work by Piper (12) and previously that of Osborne (27) that determined that service-learning as a component of a course improved pharmacy students' confidence in their interactions with others.

Three questions were clearly identified as generating highest amounts of disagreement and neutral responses amongst both cohorts for this outreach placement: "It should be longer," "The placement enhanced my confidence in interacting with other health professionals", and "I learned about the importance of teamwork." The 2 cohorts were rostered for 10 and 16 weeks of outreach shifts, respectively, and in both cohorts a mixed set of responses was identified. Although a majority of students indicated that the outreach program should be longer, since 42% disagreed with this statement it seems likely that the duration of this placement is adequate. Due to the physical setup of this particular outreach placement, the responses relating to interacting with other healthcare professionals and teamwork make sense from the student perspective. Although the TC provides a supportive environment with multidisciplinary care, this may not be obvious to the chiropractic student who arrives once a week on TC and works from a room that does not generally involve direct engagement with the staff or healthcare team. Although students are able to make recommendations that involve a team approach with other staff on the TC, as this does not usually involve face to face engagement by the students (i.e. it is the supervising clinician who contacts the TC manager who arranges appropriate care/ follow up with GP, nurse, or counsellor), these responses appear to make sense for this outreach setting. Less obviously, 3 further questions generated some disagreement and neutral responses: "The placement makes me want to do community service work in the future," "Community service is a part of the chiropractor's contribution as a health professional," and "The placement did a lot to change prior perceptions I had about the community I served." An explanation for these responses and the factors driving these responses is not clear. Based on these results, it seems that this placement was unable to positively influence these perceptions in only a relatively small proportion (14-18%) of the cohort. No obvious reason can be offered for why 1 student disagreed with 13 questions and was neutral on 2 questions. However, it is interesting to note the 3 questions that this student did agree to: "The placement highlighted the importance of respect for all people," "The placement enhanced my awareness of other individuals in need," and "Community service is effective in enhancing the perception of personal awareness." All questions

received at least 1 disagreement by at least 1 student, suggesting that this placement was not unanimous for any one item.

The open-ended responses are valuable in adding depth and understanding to the questionnaire results. For example, in order to better appreciate the neutral responses concerning the length of the placement, comments such as “had to wait at uni for 3 hours before going to outreach,” “have longer hours so student clinicians can spend more time to treat the patients there,” and “time spent was not long enough considering the commute time” suggest that timetabling and commute time are important issues for students. The take home message is that students would prefer their activities be scheduled without gaps. An extension of this could be that if the scheduling is not optimal, it may impact negatively on their experience.

### *Limitations and Lessons Learned*

We hasten to point out limitations inherent in this study. The sample size, limited to 2 cohorts and the self-reported cross-sectional nature of the study mean that the findings are not generalisable outside of this placement due to some important differences between the various outreach placements.

## **Recommendations**

### *Compare Placements.*

Each placement offered during the clinical experience contributes a different experience in terms of patient base, environment, scheduling, travel distance and multi-disciplinary engagement. Therefore, it is important in the future to assess and compare each outreach clinic to determine common features and points of difference. Future studies should compare these data across multiple placements possibly with longitudinal assessments conducted at multiple points for all outreach placements throughout the academic year.

### *Measure Patient Outcomes.*

Evaluations ideally would also determine if the needs of service recipients (patients) are being addressed at other locations. While we have initiated this process with the outcomes published in the clinical audit associated with this study (16), research should be conducted across all placements.

### *Evaluate Educational Competencies.*

Given the positive student feedback regarding their perception of the placement, we recommend further investigation ask if educational outcome competencies other than attitudes are also met through the placement.

### *Investigate Interdisciplinary Dynamics.*

Further investigation is also recommended into the questions relating to teamwork and interaction with other healthcare professionals. Research could be conducted at one of the other outreach clinics that offer onsite multidisciplinary services where the students

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are able to directly interact with other health professionals (e.g. street doctor, nurse, optometrist, podiatry, massage).

## **CONCLUSION**

This study demonstrated that students feel an outreach clinical immersion placement at a therapeutic community is useful in meeting desirable attributes and attitudes such as communication and interaction skills, social responsibility, and a philosophy of caring. The placement experience helped students to better perceive the stereotypes that they may have had about certain patients, in this case people recovering from substance misuse. Based on these results, continuation of the outreach placement service-learning experience at the therapeutic community is strongly recommended. Timetabling and commute time appear to be important factors in determining the overall student experience.

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## Appendices

### Service Experience Questionnaire (SEQ) (Adapted)

For each statement, please choose (1-5) the response below that best indicates the extent of your agreement/disagreement with the following statements;

#### PART 1: Placement assessment

Your feelings about the placement as a whole

1. It was educational.
2. I learned a lot from the placement.
3. It should be longer.
4. It should not be eliminated from the program.
5. It made me feel like I made a difference.

#### PART 2: Specific competencies

Specific perceptions about competencies

1. The placement highlighted the importance of respect for all people.
2. The placement enhanced my awareness of other individuals in need.
3. The placement enhanced my confidence in interacting with other health professionals.
4. The placement provided the opportunity to enhance my communication skills.
5. The placement made me realise how much I have to offer those in need.
6. The placement gave me the opportunity to learn first-hand about empathy for the disadvantaged.
7. The placement makes me want to do community service work in the future.
8. I learned about the importance of teamwork.
9. The placement impressed upon me the many opportunities for chiropractors to serve the community.
10. I am more aware of the needs of the community as a result of the placement.
11. Community service is a part of the chiropractor's contribution as a health professional.
12. The placement did a lot to change prior perceptions I had about the community I served.
13. Community service is effective in enhancing the perception of personal awareness.

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PART 3: Overall rating of the placement.

Overall rating

PART 4: Open ended question

Please provide a reflective paragraph on the placement. Feel free especially to comment on ways you feel the placement could be improved in the future.