The effect of a pre-clinical fieldwork subject on the confidence and professional skills of undergraduate occupational therapy students.

C Kramer¹, J Copley² & A Nelson³

Abstract

Objectives: This study investigated the effect of a pre-clinical fieldwork subject on the confidence and professional skills of undergraduate occupational therapy students during their first full-time clinical fieldwork placement.

Methods: Participants were 31 third year students enrolled in the pre-clinical fieldwork subject (experimental group), and 25 students not enrolled in the subject (control group). Both quantitative and qualitative methodologies were employed to address the research question. Student anxiety levels were measured using the State-Trait Anxiety Inventory (STAI) and compared at three different intervals — prior to commencing the university semester, prior to commencing full-time practical placement, and following this full-time placement. Individual interviews were conducted with six students (three from the experimental group, three from the control group) to explore their perceptions regarding confidence levels and skill proficiencies during full-time placement. At each data analysis interval, responses for both groups were compared using independent samples t-tests. Responses were compared over time using analysis of variance (ANOVA). The qualitative data were subjected to thematic and content analysis.

Results and Conclusions: In general, student anxiety levels did not differ between the experimental and control groups over time. However, qualitative results suggest that students who were enrolled in the pre-clinical subject have greater confidence and competence with occupational therapy skills, and have heightened awareness of the expectations on full-time placement.

Keywords Pre-clinical fieldwork, anxiety, undergraduate education, professional skills, occupational therapy

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Introduction

Concerns have been raised in the allied health literature that academic programs alone may not adequately prepare students for the complexity of clinical practice (Neistadt 1992, Hunt et al 1998a, Hunt et al 1998b). Practical fieldwork experience is an integral part of allied health professional education. The fieldwork experience gives students an insight into the vast array of skills required to ensure best practice and worthwhile outcomes for the consumer (Cohn 1989). Fieldwork experience takes place in a variety of settings, where the ‘roles and functions of an occupational therapist can be developed and integrated’ (Canadian Association of Occupational Therapists 1989 in Tompson & Ryan 1996: 95). Fieldwork enables students to develop an awareness of how theory is implemented in practice as well as providing hands-on experience with clients (Leonardelli & Caruso 1986). Placing a student in a professional environment enables the development of vital skills, such as confidence, assertiveness, problem solving, and clinical reasoning, for health professional practice (Cohn 1989). It further assists understanding of the complexity of the allied health professional role and the boundaries that define this role (Tompson & Ryan 1996).

This study focuses on the practical fieldwork experiences of undergraduate occupational therapy students. In occupational therapy, fieldwork aims to promote clinical reasoning skills and reflection in practice (AOTA 1991 in Sladyk & Scheckley 2000). Robertson (1996a, b) identified that students need to master basic knowledge and feel confident in technical skills early, in order to respond to client cues necessary for clinical reasoning. Sladyk and Scheckley’s (2000) findings suggest that significant development of clinical reasoning skills occurs during fieldwork experiences. Neistadt (1992) noted that further research would be useful in identifying the impact of early exposure to the occupational therapy setting on future fieldwork and early practice performance.

In addition to promoting clinical skills, there is a consensus within the occupational therapy profession that fieldwork experiences play an integral role in the process of professional socialisation (Tompson & Ryan 1996), whereby students ‘acquire and internalise the values, norms, roles and skills’ (Sabari 1985: 96) central to the profession. The nature of fieldwork has been historically appreciated, as shown by Greenwood (1966 in Tompson & Ryan 1996), who noted that fieldwork experience provided the opportunity for gradual exposure of the novice to the professional culture. Tompson and Ryan (1996) found that basic fieldwork experiences provided early in undergraduate training increased a student’s confidence within the occupational therapy role and that fieldwork played a role in students moving from a state of passivity and dependency to one of becoming independent, active participants.

The fieldwork experience is inherently stressful for students – the environment cannot be controlled, and the student is faced with unexpected events and uncertainties associated with patient care (Oermann & Standfest 1997). Despite the benefits of fieldwork, students often
perceive the transition into the fieldwork setting as anxiety-provoking (Gilbert & Strong 1997). Two types of anxiety have been identified in the literature. State anxiety is the acute situational reaction (Greenstein 1983), whilst trait anxiety describes how a person 'generally feels' (State Trait Anxiety Inventory (STAI) 1968, 1977). Stress and anxiety levels have been shown to interfere with performance levels (Barlow 1988; Spielberger 1972 in Gilbert & Strong 1997) and learning and achievement (Oermann & Standfest 1997). As a result, a student may experience difficulties assuming the occupational therapy role, as well as developing important reasoning skills.

Admi’s (1997) study of students’ stress levels in clinical situations indicated that stress levels decreased over time as students gained new information and expertise that allowed them to interpret differently the same situations. These findings suggest that early exposure to fieldwork may assist in reducing a student’s stress levels prior to the initial full-time placement. Given the importance of fieldwork in professional education, there has been a recent focus on student preparation for fieldwork to enhance the learning experience for the student and the clinical educator (Cook & Cusick 1998). Cook and Cusick (1998) investigated the effect of an on-campus practicum program developed to facilitate the attainment of clinical competency pre-requisites prior to commencing placement. Cook and Cusick’s (1998) findings demonstrated that the program promoted student self-efficacy in certain situations. In addition, supervisors’ ratings indicated that most students’ performances during the first fieldwork placement were ‘better than expected’ or ‘as expected’ in the areas targeted in the pre-placement practicum (Cook & Cusick 1998). Supervisors also perceived students as being more ‘ready’ for the fieldwork placement (Cook & Cusick 1998). Cook and Cusick’s (1998) findings demonstrate support for pre-clinical fieldwork experience. In contrast, Greenstein’s (1983) research into the impact of early introduction to fieldwork on the anxiety levels of students revealed no difference in the levels of anxiety experienced by students exposed to early fieldwork and students exposed to fieldwork at a later stage in their undergraduate training. Therefore, there is a need to further investigate the effect of early fieldwork experience on the confidence and professional skills of undergraduate students.

The Occupational Therapy Department at the University of Queensland offers a pre-clinical fieldwork subject as an introduction to the processes of paediatric clinical practice. The subject, entitled ‘The Occupational Therapy Practitioner’, aims for students to acquire knowledge, skills and attributes to equip them to appropriately assess clients, write reports and plan and implement appropriate intervention. Students are provided with the opportunity to acquire practical skills within a variety of service contexts, including the university clinic and school environments. The target group for the fieldwork subject are University of Queensland Bachelor of Occupational Therapy students during their first semester of third year.

The research question posed in this study was: Does pre-clinical fieldwork have any benefits for undergraduate occupational therapy students in terms
of their perceived confidence levels, anxiety and stress levels, and clinical and professional skills?

**Method**

**Study Design**

Previous research (Cook & Cusick 1998, Greenstein 1983) has reported conflicting findings in the extent to which early introduction to fieldwork benefits students. This discrepancy may be explained by the differing nature of data collected in the two studies. While Greenstein (1983) used anxiety scores as the sole measure of change after early fieldwork, Cook and Cusick (1998) gathered supervisors' perceptions of student competency, together with data relating to their subsequent fieldwork performance. As a result, students' skills across a broader spectrum of clinical and professional areas were identified. It therefore appears that, when investigating students' confidence and skill development, anxiety scores could be supplemented by gathering a broader range of descriptive data. This study, therefore, comprised both qualitative and quantitative research methods to achieve an in-depth exploration of the impact of early fieldwork experiences on the confidence and professional skills of undergraduate students. A repeated measures design was utilised, involving both an experimental and a control group.

**Participants**

Participants involved in the study were 56 undergraduate occupational therapy students commencing third year. On commencement of the pre-clinical fieldwork subject, all 31 students enrolled in the subject were supplied with information and consent forms regarding the study. All these students agreed to participate and formed the experimental group. Third-year students not enrolled in the subject were also approached during a university lecture and provided with verbal information about the study. The 25 students who returned consent forms formed the control group for the study. All students were reassured that those not wishing to

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**Figure 1:** Data collection and analysis time line

<table>
<thead>
<tr>
<th>Semester One</th>
<th>Semester Two</th>
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<tbody>
<tr>
<td>Pre-clinical subject</td>
<td>Clinical placements</td>
</tr>
<tr>
<td>Placement 1</td>
<td>Placement 2</td>
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</tbody>
</table>

Data collection and analysis 1 (t-test) - STAI

Data collection and analysis 2 (t-test, ANOVA) - STAI and student interview

Data collection and analysis 3 (t-test, ANOVA) - STAI and student interview

NB. STAI - State Trait Anxiety Inventory
ANOVA - One-Way Analysis of Variance
participate in the study would not incur disadvantage throughout any of their subjects, and that their grades would not be influenced by their participation in the study.

The demographics of participants selected for the study were similar for both groups, and reflected a cross-section of students enrolled in the occupational therapy undergraduate course. Occupational therapy is generally female-dominated, with the majority of students coming from a white, middle-class background. Student ages in the experimental group ranged from 19-24 years, with a mean age of 19.5 years. Student ages in the control group ranged from 19-23 years (one participant aged 40 years), with a mean age of 21.1 years. The overwhelming majority of participants in both groups were female (30/1 for controls; 22/3 for controls). All students had experienced some fieldwork during the course (e.g. two hours per week for six weeks), held concurrently with university lectures, prior to the first semester of the third year of study. Retention rate of students throughout the study was 75 per cent.

**Quantitative data collection**

All participants were requested to complete the State-Trait Anxiety Inventory (STAI, Spielberger 1968, 1977) at three intervals during the research: firstly, prior to commencing semester one; secondly, prior to the first full-time practical placement; and thirdly, at the end of this full-time placement (see Figure 1).

This enabled comparison of the data at three different intervals to determine the effect of the pre-clinical fieldwork subject on the anxiety levels of the students, and if these levels had changed on completion of the subject or after the full-time practical placement.

The STAI was selected for this study as few instruments are available which are suitable for measuring state anxiety amongst the normal population. One or both of the STAI scales have been used with student groups to assess anxiety related to examinations, performance feedback, and task performance (Spielberger, 1970). Test-retest correlations for the Anxiety-Trait scale range from 0.73 to 0.86. As expected, test-retest correlations for the Anxiety-State scale are low (0.16 to 0.54), since the scale measures transitory, situational responses (Spielberger, 1970). Spielberger (1970) indicated reliable use of the Anxiety-State scale under a number of different conditions: as an anticipatory measure, as a retrospective measure, in normal situations, in relaxed situations, and under stressful conditions.

**Qualitative data collection**

In-depth interviewing was chosen as a second data collection technique to explore students' perceptions of how previous university experience had contributed to their feelings about, and skills during, full-time placement. Following the review of the STAI prior to the first full-time practical placement, two students from both groups were selected on the basis of demonstrating high or low anxiety levels. One student from each group was also selected on the basis of demonstrating average anxiety levels. The selection of students with markedly different anxiety levels enabled comparisons between the two groups to gain further insight into perceptions.
of their skills, confidence, and level of comfort in the occupational therapy role. These same students were again interviewed following completion of the first full-time placement. The six students interviewed completed the first full-time placement in a variety of clinical areas, including adult physical rehabilitation, paediatrics and mental health.

A semi-structured interview question guide was utilised to obtain data that were systematic and thorough for each respondent (Patton, 1990). Questions in initial interviews for both groups focused on the students’ feelings about commencing placement and the perceptions of their experiences thus far that may have prepared them for full-time placement. The experimental group were specifically questioned about their experiences during the pre-clinical fieldwork subject. In second interviews, students from both groups were asked their perceptions of their performance during placement, and which previous experience they felt had best prepared them for full-time placement. For students in the experimental group, specific reference was made to the pre-clinical fieldwork subject. As themes emerged from the interviews, questions were altered and added to obtain more in-depth information.

All interviews were audio-taped with the participants’ consent and were transcribed verbatim for data analysis. Interviews were conducted in the participants’ homes and ranged in duration from 20 to 30 minutes. The interviewer created an open and informal atmosphere, encouraging students to give both positive and negative feedback on the pre-clinical fieldwork subject and other university subjects, in addition to their perceptions relating to full-time practical placement.

A single pilot interview took place with one occupational therapy student who had previously completed the pre-clinical subject, prior to commencement of the bulk of data collection, to trial the interview format. Minor modifications were then made to the order and wording of questions prior to conducting further interviews.

Data Analysis Methods

Quantitative analysis

The independent variable for the quantitative component comprised two levels – enrolment in the pre-clinical fieldwork subject and no enrolment in this subject. The dependent variable was the overall score on the State-Trait Anxiety Inventory.

The level of anxiety for each student was calculated through addition of responses for each item on the State-Trait Anxiety Inventory. Scores for each item are in the range of one to four, thus the STAI-S (state anxiety scale) can yield scores between 20 and 80, with high scores representing higher levels of anxiety.

The data analysis program, SPSS (version 11.0) was utilised to assist quantitative data analysis. At each data analysis interval, responses for the experimental and control groups were compared using means, ranges, and the t-statistic (independent samples t-test) to determine whether anxiety levels differed between the two groups.

Responses at the three intervals were then compared using analysis of variance (ANOVA) to determine whether
students' anxiety levels changed following the pre-clinical fieldwork subject, and following initial full-time fieldwork experience. Experimental and control groups were also compared to investigate if there was a difference in anxiety levels between the groups at different times.

**Qualitative analysis**

Analysis of the qualitative data was ongoing and cumulative. Interviews were undertaken at two intervals (i.e., prior to commencing the first full-time placement and following this placement). Responses were transcribed after each interview for ease of coding the responses and generating themes (Patton, 1990). Constant comparative analysis was undertaken and data were gathered and analysed until "saturation point" was reached, with all themes being confirmed and no new themes emerging (Taylor & Bogdan, 1998). Saturation point was reached following interviews with the three students from each group. Interviews from the experimental group were coded separately from the control group in order to identify whether themes were comparable between the two groups, and if differences existed. Content analysis was performed with the assistance of the data management system NVivo.

Interpretation of the data was cross-checked by two of the investigators through independent identifying and coding of themes. The primary investigator developed the initial set of codes. The second investigator then read 60 per cent of the data and developed a set of codes independently. The two sets of independently developed codes were then compared and found to correlate highly. Minor differences were discussed and a slightly modified set of codes was agreed upon. A further 40 per cent of the data were re-coded by both investigators to ensure the appropriateness of the new codes. This coding was again compared and was found to correlate highly between the two investigators.

Throughout data analysis, member checking was undertaken to assist in interpretation of the data and facilitate rigour in the research. Participants were provided with a summary of the main themes that arose during data analysis and were requested to check the validity of their content to ensure that interpretations were correct. Participants agreed that the summaries were an accurate reflection of their perceptions and did not provide additional comments to be included in the data.

**Results**

**Quantitative data**

At the three time intervals (see Figure 1), statistical analysis revealed no significant difference between the anxiety scores of the experimental group and the control group (see Table 1).

A Repeated Measures ANOVA was performed to investigate the difference between the anxiety levels of the two groups prior to commencing the university semester and prior to commencing full-time practical placement (see Figure 1). The analysis demonstrated no difference in anxiety levels over time for either group ($F = 0.05; p = 0.832$). Furthermore, there was no evidence of a difference in anxiety levels between the groups over time ($F = 0.17; p = 0.687$).
Table 1: Student anxiety levels over time

<table>
<thead>
<tr>
<th>Time</th>
<th>Experimental</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Range</td>
<td>Mean</td>
</tr>
<tr>
<td>1</td>
<td>26-29</td>
<td>42.00</td>
</tr>
<tr>
<td>2</td>
<td>23-58</td>
<td>39.97</td>
</tr>
<tr>
<td>3</td>
<td>21-56</td>
<td>33.13</td>
</tr>
</tbody>
</table>

Time 1 – prior to commencing university semester
Time 2 – prior to commencing first full-time practical placement
Time 3 – following completion of first full-time practical placement

The ANOVA was again performed to investigate the difference between the anxiety levels of the two groups prior to commencing the first full-time practical experience and following the completion of this experience (see Figure 1). This analysis did demonstrate a difference in anxiety levels over time for both groups (F = 27.8; p<0.001). This indicates that the anxiety levels of both groups changed over time. However, change occurred at similar rates for both groups, with the analysis demonstrating no evidence of a difference in the anxiety levels between the two groups over time (F = 0.31; p = 0.579).

Qualitative data results

The five overall themes that emerged from each group (i.e. experimental and control) paralleled each other closely. These were: the students’ feelings about full-time practical placements; preparation for practical placements; skill area improvement during university education; skill proficiency on full-time practical placement; and recommendations for changes to the university curriculum. The sub-themes within these major themes showed distinct differences between the two groups. Results from both groups will therefore be reported together under each major theme to allow comparison and contrast.

Feelings about full-time practical placements

At first interviews, students in both groups expressed differing levels of confidence about commencing their first full-time practical experience, with some citing feelings of excitement and anticipation, and others expressing more reluctance.

Regardless of their reported degree of confidence, all students mentioned that they felt nervous prior to commencing the full-time practical experience.

One student from the control group expressed the uncertainty she felt.

I was pretty nervous. And then I questioned my abilities as well. I just didn’t know if I knew enough or I would be confident or competent. I was really scared.

Despite this nervousness, all three experimental group students reported
that they now (at the end of semester one) felt less anxious than at the beginning of the semester. These students felt that they became more confident about occupational therapy practice as a result of exposure to practical subjects, particularly the pre-clinical fieldwork subject.

At the beginning of semester... I didn't really know what to expect. But now, having done fairly practical subjects throughout the semester... I've got some experience so I can walk into a professional area and be comfortable enough to do some work.

Unlike the experimental group, students in the control group did not mention that their confidence had increased over the duration of the semester prior to the first full-time placement.

**Preparation for practical placements**

Through their experience at university, all students felt that a number of subjects contributed in some way to preparing them for the full-time placement. Experimental group students reported that the pre-clinical fieldwork subject contributed most to their preparation.

Definitely the (pre-clinical fieldwork) subject, because it was actually doing OT work — it was actually in a school trying to be professional and talking to teachers, and I really enjoyed the whole experience.

All three experimental group students stated that the pre-clinical fieldwork subject greatly assisted in enhancing their awareness of the expectations on full-time placement.

...just a way of thinking and seeing, just kind of prepared me in that I had some idea of what a prac experience was actually like, what it's like to be looked at as an OT, being able to talk to other professionals, how to interact with your supervisor — that was really useful.

These students also reported that the subject facilitated the laying of foundation knowledge and practices, such as assessment and treatment principles, that were widely used during the full-time placement. The students further commented that the subject helped prepare them for professional practice, which greatly assisted them on full-time placement.

Two students in the control group stated that participation in other subjects which included an element of practical experience (e.g. a home visit), assisted in their preparation for full-time fieldwork. However, these students cited the experiential benefit of the one-off practical experience, rather than the broader clinical and professional preparation of the pre-clinical subject perceived by the experimental group students.

One that definitely did help was... that home mods subject and we went on a home visit. That was helpful to know what it's like to go into someone else's home.

Prior to commencing the first full-time practical placement, all students stated that an occupational therapy subject involving a number of minor fieldwork experiences played a role in their preparation. However, each student attributed the extent to which this
subject assisted in their development of occupational therapy skills differently. Again, students who perceived the contribution of this subject favourably cited the benefits of one-off exposure to a particular clinical situation, rather than broader practice development.

We did a physical prac last year, it was really good…we had a guy who was in PTA (post-traumatic amnesia). I knew what PTA was at uni, but you don’t know what it’s like until you really see it…that was really good. It prepared me a lot for the physical (fieldwork).

Two students from the control group felt that the fieldwork, failing to address some aspects of occupational therapy (e.g. informal assessment), did not provide sufficient preparation for full-time placement.

However, following completion of the first full-time practical experience, all students stated that they could retrospectively perceive the benefits of the aforementioned subject in preparing them for this experience.

We did a prac subject that was very similar to this placement…I found that really helpful in terms of everything – it gave me an idea of what the OT role was in that sort of field, and how to talk to people…when I actually started prac, it wasn’t all new to me.

Three of the six students interviewed identified their part-time employment as being a factor in their preparation for occupational therapy practice. One student from the control group stated that her experience in part-time work improved her abilities in a number of areas, including communication and time management.

**Skill area improvement during university education**

All three students interviewed from the experimental group communicated improvement in a wider range of skills than those students in the control group. In particular, experimental group students identified that a broad view of occupational therapy, and the awareness of factors which influence practice, were acquired during the pre-clinical subject.

It will make me more aware of my own values and also of the system influences – why they (occupational therapists) can’t do certain things because of either budgets or they just don’t have the assessments or they’re just not used to doing it that way…the ethical sort of stuff is good to know as in where the boundaries are…

Students, having had experience in the pre-clinical fieldwork subject, expressed greater confidence in the majority of clinical and professional skill areas than did students without this pre-clinical fieldwork experience. Students in the experimental group reported greater competence in assessment and treatment skills than students in the control group. For example, while one experimental group student commented,

The assessments were really good to know and how long it should take…scoring all the tests was good too…I definitely think the assessments were helpful…and (you) build up your knowledge base of what the tests do.
a control group student stated

I have no idea about assessments because I have never really conducted one — that was another thing I was scared about when coming on prac.

Of the six students interviewed, all stated that the subject with minor practical components assisted in developing their communication skills, with one control group student commenting

I guess (I am confident) just interacting with different people, being able to ask them questions.

However, experimental group students reported greater competence and confidence in communication than the students in the control group. They attributed this to the repeated exposure to clinical situations in the pre-clinical subject, and the corresponding need to develop effective communication skills.

It (communication skills) got better as I went along. I started off not very confident and more just kind of wanting them to tell me what to do. But by the end, I was a bit more confident and I felt like I could see how I needed to initiate the conversation and ask questions.

All students interviewed perceived that their skills in report writing had improved as a direct result of fieldwork experiences in the occupational therapy curriculum. While control group students simply stated that they possessed the necessary skills — 'at least I know how to write reports' — students enrolled in the pre-clinical fieldwork subject specifically cited the benefits of repeated opportunities in report writing.

I had to write so many progress notes, and writing reports (in the pre-clinical fieldwork subject). I found I picked things up a lot quicker because I was used to the style.

Having completed the pre-clinical fieldwork subject, students felt that they were competent in making astute observations.

...being able to observe them, and being able to look at a kid and do an activity and say 'what's wrong here', and learning to some extent how to actually get down and see what the underlying problems are...I really found it helpful cause when I started I would observe a kid and just have no idea what I was meant to be looking for or how to get anything out of it. But, by the end of the subject, I was having some idea of how to pick up little hints and clues.

The three control group students did not discuss their competence in observation skills.

Skill proficiency on full-time practical placement

In general, students from the experimental group reported a greater number of skill areas in which they felt they were proficient whilst on full-time placement. The three students in the experimental group felt they had developed proficiency in interacting with clients and team members.

I made a pretty focused effort...to get to know some of the other staff and kind of be part of the team. I guess just generally being
able to interact with clients. So communication was really important and I found that I was pretty good at that.

Only one student from the control group mentioned proficiency in communicating with supervisors and clients. Another student from this group reported that “I needed more experience just interacting with clients.”

All three students in the experimental group stated that they were “fairly good with time management” and “getting everything done...just being organised”. One student in the control group mentioned that time management was important in being able to manage a busy hospital caseload; however, none of the three students in the control group described themselves as being competent with time management skills.

All but one of the six students interviewed stated that they were confident and competent with occupational therapy assessments. The students with previous assessment experience in the pre-clinical subject perceived a greater level of confidence in this skill area. For example, an experimental group student commented:

Going on those pracs...I really found useful in that just knowing what kind of tests are available, so you kind of knew when they asked you to plan a treatment session what there was to choose from...I felt confident...I had to do an assessment as a baseline and I was relatively confident.

while a control group student stated:

Assessments that I found hard...ADL assessments. I was so bad!

But, I only had one opportunity to observe one...I was just so bad at it!

Of the six students interviewed, only three students made mention of their competencies in writing reports and progress notes whilst on full-time placement. Two students from the experimental group stated that writing reports and progress notes were areas of strength during their full-time practical experience, with one of these students firmly stating that writing progress notes was her strongest skill area. The third student, from the control group, stated less emphatically ‘I was alright at writing progress notes’.

Recommendations for changes to the university curriculum

Three of the six students interviewed made suggestions to improve particular areas of the undergraduate curriculum to better prepare students for full-time practical placement.

Two students from the experimental group identified areas in which improvements could be made in the pre-clinical fieldwork subject, with one student stating that there were no components of the subject that required modification. One student suggested that increasing the time period of the subject would be beneficial in allowing students to consolidate their skills.

Maybe we could do a longer prac, I know we started two weeks earlier...maybe we could also finish later just to have that extra two weeks. Only in the last couple of weeks you get really confident...just an extra week for us to consolidate and for us to be
more prepared and know exactly what to look for.

One student from the experimental group recommended that the pre-clinical subject be more varied to incorporate a balance of both assessment and intervention.

I think you need a bit more of a combination of both. I found that although school visits were important, I found that we'd be doing assessment the whole time...I think that perhaps they could decrease the amount of work you have to do on your own, and maybe increase the time you get doing therapy or assessment, it would be more beneficial.

One student from the control group communicated that increased client contact for all students during the course may prove beneficial in better preparing students for full-time placement.

What you'd ultimately want is patient contact throughout the whole course...any way in which they could increase patient contact...I learn better when I'm actually doing something...

Another student from the control group mentioned that there is limited opportunity to gain experience in the intellectual disability field, however, did not identify solutions to this problem.

Discussion

Although anxiety levels on the STAI did not differ between the experimental and control groups, the qualitative results suggest a difference between those students who had done the pre-

clinical fieldwork subject and those who had not. It appears students in the experimental group felt better prepared for their first full-time placement in terms of both clinical and professional skills, and that this preparation allowed them to demonstrate a wider range of skills during the placement.

The similar anxiety levels of the two groups at all three data intervals reflects Greenstein's (1983) findings that anxiety levels of students exposed to early fieldwork did not differ from anxiety levels of students lacking such an experience. However, in this study, these similar anxiety levels may have been affected by the differing awareness of fieldwork expectations between the two groups. The finding that the control group students did not have significantly higher anxiety than the experimental group students may be attributed to the control group students' limited awareness of the expectations on full-time practical placement. In general, students in the experimental group appeared to have a greater awareness of the skills that may be involved in full-time placement as a result of their pre-clinical fieldwork experience. These findings are similar to those of Tompson & Ryan (1996), that student placement in the professional environment enabled greater understanding of the complexity of the occupational therapy role. Paradoxically, this enhanced understanding on the part of the experimental group students may not have reduced their anxiety levels, as they were more aware of what would be expected of them on full-time placement.

In general, experimental group students perceived greater competence in a wider range of skill areas as a result of
extensive experience with clients and supervisors during the pre-clinical fieldwork subject. These students reported confidence in professional skills, such as communication and time management, and clinical skills, such as assessment. This finding suggests that these students may have developed a greater knowledge and level of skill in fundamental areas, perhaps signifying a heightened awareness of the occupational therapy role and requirements on full-time placement. These benefits to experimental group students appeared to be not only relevant to paediatric placements, but to the range of clinical areas in which they undertook full-time placement. Results of this study therefore support the contention of previous researchers that early exposure to fieldwork is beneficial in the process of becoming a health professional. The current findings reflect those of Tompson and Ryan (1996) that fieldwork experiences are integral in the process of professional socialisation, and that early fieldwork experiences enhance a student's confidence in practice.

Pre-clinical fieldwork appears to assist the transition of the student into practice. Therefore, it is important to consider components of such fieldwork that will prove most beneficial in promoting a smooth transition for the student. Similar to Cook and Cusick's (1998) research, this study provided students with the opportunity to repeatedly practise and receive feedback on clinical and professional skills in a supervised university environment. Cook and Cusick (1998) placed an emphasis on hands-on practical skills (e.g. assessment and treatment skills), with a focus on the development of professional skills (e.g. communication, time management). Moreover, similar to Cook and Cusick's (1998) findings, this study discovered that by providing such a dual focus, students were better prepared for full-time placement. The results have specific implications for educators in terms of the way early fieldwork experiences are structured. Such experiences should provide students with opportunities including: delivering clinical services to clients repeatedly over time; managing the timelines associated with a regular service; acquiring documentation skills; and communicating with clients, carers and other professionals.

**Limitations of the study**

Retention of students was the main difficulty encountered in the study. Out of the 56 students initially recruited, only 42 completed the research requirements. This may have impacted on statistical analyses, having fewer participants with which to draw comparisons over time. However, students recruited for interviewing purposes were retained for the duration of the study.

No differences in anxiety levels between the two groups over time were detected even though differences between the groups were identified in the qualitative data. This may mean that the STAI was not a sufficiently sensitive tool for use in this study, and thus did not expose true student anxiety levels.

**Conclusion**

The results of this study suggest that students with previous experience in occupational therapy practice through a pre-clinical fieldwork subject are more
prepared for full-time placement in terms of awareness of expectations, and confidence in important skills than those students without this experience.

This study has identified particular aspects of undergraduate education that may improve student skill proficiency and confidence in the occupational therapy role. Support has been demonstrated for the inclusion of early fieldwork training to better prepare students for clinical practice, and this has similar implications for other allied health undergraduate curricula.

Further research could aim to evaluate in more depth the effect of pre-clinical fieldwork in relation to anxiety levels, other skill development and the attitudes of students to full-time practical placement. In addition, future research could focus on investigating the optimal time to incorporate fieldwork into the curriculum to maximise benefits for students preparing for full-time practical placement.

References


