

Confident, Credible, but Lonely – Outcomes Following Postgraduate Interprofessional Education in Rehabilitation

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Abstract

Background: Interprofessional education aims to enhance health service delivery. This study examined whether health professionals changed their clinical practice after completing a postgraduate interprofessional qualification in rehabilitation.

Methods & Findings: All graduates of postgraduate qualifications in rehabilitation at University of Otago were invited to complete a questionnaire. Thirteen participants were purposively selected for further in-depth interviews. Questionnaire data were summarized using descriptive statistics. Qualitative responses from questionnaires and interview transcripts were explored using thematic analysis. The survey response rate was 24% (77/315 students). Postgraduate study was reported to have had a positive impact on professional attitudes and commitment to learning (81%), to enhance interdisciplinary collaboration (79%), and to promote change in service delivery (40%). Themes identified from questionnaire responses were: 1) increased confidence, 2) enhanced credibility, and 3) widened view of rehabilitation. Analysis of the interviews identified three contrasting themes: 1) isolation hampers momentum, 2) managers and clinical leaders do not value postgraduate qualifications, 3) implementing change required postgraduate study plus persistence.

Conclusions: Educators and employers of health professionals should be aware of the benefits of postgraduate interprofessional education for health professionals and healthcare delivery. Employers should recognize and value these benefits and support health professionals to apply new skills in their clinical practice.

Keywords: Interprofessional education; Postgraduate qualifications; Continuing professional development

Introduction

For health professionals, postgraduate education is an important pathway to the acquisition of new knowledge and skills, and to specialist clinical training [1,2]. Furthermore, postgraduate education has been reported to increase job satisfaction and career opportunities [3,4]. One approach to postgraduate education for health professionals is to undertake a program of study run by tertiary institutions. Since 1996 the Rehabilitation Teaching and Research Unit (RTRU), University of Otago, in New Zealand, has offered postgraduate qualifications to health professionals working in rehabilitation. These programs are delivered in a flexible, distance-learning format, which is particularly relevant for health services in New Zealand, with its relatively small health workforce spread over a wide geographic area. At the core of the program is the expectation that students will learn critical appraisal skills to apply to research and will make links between theory and application of knowledge to their own practice. Also central to RTRU's core themes is the importance of inter-

professional teamwork in effective rehabilitation practice. Thus, the RTRU's programs have been based on an interprofessional education (IPE) pedagogy, where students from different health-related occupations are engaged in learning with, from, and about each other [5]. Although the pedagogy for IPE remains to be clearly formulated, key features often include reflection in practice, problem-based learning, experiential learning, use of teamwork, and theories of adult education [6].

RTRU's program of study includes two core papers that introduce a framework for understanding rehabilitation and which challenge students to use critical thinking within their rehabilitation practice, with reference to research findings. Students can then extend their studies with papers examining specialist areas within rehabilitation (e.g., musculoskeletal or geriatric rehabilitation) or specialist topics (e.g., family systems or psychological factors in rehabilitation). The components contributing to the program each have clearly defined learning objectives that are achieved via core module readings provided online; regular audio- or videoconferencing; case-based clinical discussion; and a residential seminar with plenary lectures, small-group work, and experiential learning workshops. Some papers also use reflections-in-practice diaries, critical thinking exercises, and online discussion boards. Consistent with IPE principles, students are not separated into professional groups to undertake this work, but rather share group discussion of course content across professional disciplines.

Although IPE is widely promoted as a desirable learning model, with the World Health Organization reporting that IPE is likely to be a strong driver of effective multidisciplinary care [7,8], only a small number of interventional studies have attempted to assess the effectiveness of IPE [9]. These studies have suggested that certain types of IPE may provide some improvements in health service delivery. However, there exists a need for further mixed-method studies of IPE to examine not only whether IPE is effective, but to also provide insight into *how* IPE might influence educational outcomes (i.e., its mechanisms of action) [10]. Rehabilitation is an ideal context to study IPE, as rehabilitation involves health professionals from a variety of disciplines working together to address the needs of individuals. Moreover, the impact and relevance of participation in, and completion of, formal postgraduate education in rehabilitation, provided within an IPE context, has yet to be ascertained. Despite the potential benefits of IPE for practicing health professionals, there are many potential barriers to accessing IPE including cost, time, and perceived relevance [11].

The aims of this mixed-methods study were 1) to ascertain if completing a postgraduate qualification in rehabilitation, founded on IPE principles, resulted in improved perceived clinical practice or career advancement for the professionals involved and 2) to examine the experiences of these professionals on implementing their training in the workplace.

Methods

All students completing a postgraduate qualification in rehabilitation through RTRU between January 1997 and December 2010 were identified from the University of Otago's student records. Students were invited to participate in the study either by email or by post. Of the total 315 graduates identified, 169 students were contacted

by email, using the last known email address given to the university's alumni office. The remaining 146 students (who had no known email address) were contacted by post. The email invitation included a link to an online questionnaire about their study experiences. Students contacted by email could participate immediately via an embedded link. Students contacted by post were also invited to complete the online questionnaire or were offered the opportunity to request a hard copy of the questionnaire and a prepaid envelope. Reminder emails were sent at two weekly intervals for the eight weeks that the survey was open.

The questionnaire was compiled by the academic staff at RTRU and included questions to ascertain the following: basic demographic information; previous tertiary study history; current and previous profession and employment history; facilitators and barriers to postgraduate distance learning; students' opinions regarding the IPE approach; commitment to lifelong learning; and self-reported professional, research, and career achievements occurring as a result of completion of postgraduate qualification in rehabilitation (Appendix 1). Participants were encouraged to provide written comments to explain and expand on their responses.

All participants were invited to volunteer to participate in an in-depth interview to further explore their experiences of implementing the knowledge and skills gained through postgraduate study into their workplace. Purposive sampling was used to select a subgroup of these participants, ensuring representation from a range of different people based on: health discipline background, geographic locations, level of postgraduate study, length of time since completion of postgraduate study, and reported level of satisfaction with postgraduate education. Free text responses from the survey were considered during interviewee selection. Interviews were conducted by one researcher (PB) in person or via telephone or Skype, depending on the preference of the interviewee. Interviews followed a semi-structured schedule (Appendix 2). All interviews were audio recorded and transcribed verbatim.

The questionnaire data were managed in Excel and descriptive statistical analysis was performed in SPSS. Free text responses from the questionnaires and the interview transcripts were transferred into NVivo (QSR International, NVivo. Version 8), where they were explored using thematic analysis [12]. All qualitative data were analyzed on a line-by-line basis, with substantive coding used to identify the initial concepts and themes. Data were clustered under different headings, ranging from concrete messages to more abstract ideas. Key themes were identified on an inductive basis, allowing these to emerge from the data. For both free text responses and in-depth interview data, one researcher (PB) coded all data, with a third of the total data independently coded (for comparison and breadth of analysis) by a second researcher (RG) and, where necessary, debate about emerging themes were clarified in discussion with a third researcher (WL). Extracts from the qualitative data are provided to support the research findings.

The study received ethical approval from the University of Otago Human Ethics committee. Participants were required to consent to participation before completing the survey.

Results

Participant characteristics

The overall response rate for the questionnaire was 24% (77/315 people). Characteristics of survey respondents and interview participants are described in Tables 1 and 2, respectively. University academic records did not include sufficient data to ascertain the characteristics of non-responders for the purposes of comparison to responders.

Table 1
Characteristics of respondents to student survey

Characteristics	Survey respondents (N = 77)
Mean age (range)	47 years (26-68)
Gender N, (%) ^a	Female 59 (84.3%), Male 11 (15.7%)
Occupation at time of enrolment in postgraduate study in rehabilitation (N, %)	Physiotherapist 25 (32.5%) Nurse 10 (13.0%) Health service manager 8 (10.3%) Occupational therapist 6 (7.8%) Academic 6 (7.8%) Rehabilitation service assessor 3 (3.9%) Vocational advisor 3 (3.9%) Social worker 2 (2.6%) Medical doctor 2 (2.6%) Policy advisor 2 (2.6%) Speech therapist 1 (1.3%) Employment outside health 3 (3.9%) Declined to declare occupation 6 (7.8%)
Duration of Postgraduate study, N (%)	At least six months full-time equivalent 33 (43%) At least one-year full-time equivalent study 44 (57%)
Respondents with two or more postgraduate rehabilitation qualifications, N (%)	27, (35%) (included 13 Master's level, one doctorate)

a = Gender not given by 7 respondents.

Practice, attitudes, career, and workplace effects of, and on, postgraduate study

The attitudinal, career, and workplace effects of postgraduate study in rehabilitation as reported by the participants are described in Table 3. The most common experienced barrier to postgraduate studies was a lack of protected study time in the work-

Table 2
In-depth interviewees, N = 13

Age/gender	Participants' occupation
42F	nurse and social services manager
53F	physiotherapist and clinical team leader
36F	disputes resolution practitioner, health and disabilities services
31F	speech language therapist
60F	rehabilitation nurse
48F	physiotherapist
65F	academic nurse
43F	physiotherapist
35F	physiotherapist
52F	occupational therapist
40M	nurse and manager
53M	vocational services practitioner and service manager
47M	employment consultant

place (62%, 44/71). The most common perceived facilitator of postgraduate study through RTRU was the distance-learning format (77%, 55/71), which allowed students flexibility in timing and location of study. The second most common perceived facilitator was the contribution of financial support by either an employer or a scholarship (70%, 50/71).

How postgraduate study influenced practice: mechanisms of action

Analysis of free-text responses from the questionnaire about the impact of postgraduate study on attitudes, career, and practice by thematic analysis identified the following themes: 1) postgraduate study made me more confident to practice effectively and to communicate in rehabilitation, 2) postgraduate study enhanced my credibility in my field, and 3) postgraduate study widened my view of rehabilitation.

1) Confidence and communication

Survey participants identified that postgraduate rehabilitation study provided a framework within which they gained a higher understanding of the practice of rehabilitation, the skills to critically analyze this practice, and the confidence to implement change in their own or their services' practice.

Doing the DipRehab [sic] switched the light on for me in terms of considering my own practice, the evidence for it and how to think more critically compared to the way I was organically training in physiotherapy – and gave me the tools to do so.

Doing the PG DIP Rehab [sic] gave me an understanding of the theories and frameworks that I work within, and an enhanced vocabulary to discuss my work with others.

Table 3
Self-reported outcomes of postgraduate study in rehabilitation

Area of outcome	Self reported outcome of postgraduate study gave me ("As a result of postgraduate study in rehabilitation I...")	Percentage % (number of respondents/total responses to statement)
Professional attitudes and commitment to learning	gained a willingness to invest time and energy to keeping my knowledge in rehabilitation current	81% (60/74 ^a) agree or strongly agree
	enhanced my ability to collaborate with health professionals from other disciplines.	79% (59/74) agree or strongly agree
	experienced an increase in esteem from peers	49% (36/74) agree or strongly agree
Career and workplace outcomes	implemented changes at the level of service delivery	41% (30/74)
	gained funding for new service initiatives as a result of applying my skills from study	5% (4/74)
	influenced my career by contributing to an increase in income	35% (26/74)
	influenced my career by contributing to a promotion	32%, 24/74)
	influenced my career by contributing to a change in career	(31%, 23/74)
	gained appointment to a clinical leadership position	23% (17/74)
	undertook a health management role	20% (15/74)
	undertook a specialist advisory role	18% (13/74)
	gained appointment to a clinical specialist role	10% (7/74)
Academic practice in the workplace	participated in at least one research project following my first postgraduate qualification	31% (23/74)
	initiated a research project	24% (18/74)
	published in a peer-reviewed journal	14% (10/74)
	secured funding to undertake research within an academic or other workplace setting	7% (5/74)

a = Not all participants provided responses to all questions.

2) Professional credibility

Survey respondents perceived enhanced credibility in the eyes of colleagues, clients and their families, and employers after completing postgraduate qualifications in rehabilitation. This credibility also provided a degree of authority that facilitated

greater opportunities to initiate change of services for the better and contributed to progression of the participants' careers.

I was the only person in the facility with this qualification and it did afford me esteem and respect in the facility. Families of residents also recognised my knowledge, giving me [an] excellent relationship with them.

My colleagues would probably recognize me as a clinical leader and clinical specialist in the area of rehabilitation.

3) Widened view of rehabilitation

The survey respondents expressed that they had gained a much broader view of rehabilitation as a result of completing postgraduate study. This broader view was expressed in terms of work within their own teams, but also at the level of service provision within the wider health sector. It contributed a much clearer view of rehabilitation from the perspective of the people receiving those services (i.e., clients or patients).

I feel I am able to contribute not only at a clinical level but also the wider picture and have a greater sense of wider, non-clinical issues.

My postgraduate studies have enabled me to look more globally and across the spectrum about rehabilitation and to become far more client centred and focused. I have become far more interested in the person and their life following illness or injury.

Life after postgraduate study: The challenges of applying knowledge to practice

In addition to the largely positive findings above, three further themes emerged from the in-depth interviews, all of which related to challenges faced in implementing the newly gained knowledge and skills following completion of postgraduate qualifications. These themes were: 1) isolation hampers momentum, 2) the perceived lack of value of postgraduate qualifications at a managerial level, and 3) implementing change required postgraduate study *plus* persistence.

1) Isolation hampers momentum

Many of the interviewees contrasted the enriched learning environment that existed during postgraduate study (including, for instance, a high level of access to library resources and academic expertise) and the experience of studying within a group of enthusiastic, like-minded peers with the lack of ongoing support for continuing education in the workplace. This meant that some skills gained during postgraduate study were difficult to practice following graduation.

Definitely when there was this big momentum of more people wanting to be learning and engaging and being able to critically evaluate their practice, it did mean it was easier ... it wasn't particularly hard work. ... now a lot of these things have not been updated, so there are definitely gaps and holes, 'cos you can't do everything on your own. (physiotherapist, inpatient rehabilitation)

A sense of isolation in the workplace was also experienced by a number of interviewees:

Because the impression that I got is that nobody give a hoot. ... It is a lonely place to be. (occupational therapist, inpatient rehabilitation)

This experience of loneliness resulted in a decreased interest in continuing to pursue on-going learning as well as a reduced motivation to put in place some of the ideas that had already been learned.

2) Lack of value of postgraduate qualifications at a managerial level

Many interviewees expressed the view that although *they* highly valued their postgraduate study and qualification, these were not equally valued by their manager or clinical leaders in the workplace.

It is kind of rocky at the moment. ... five years ago we had a manager who was very pro-active and encouraging of people to go into post-grad study ... but this new manager doesn't talk about post-grad study ever ... and even the managers below them don't necessarily have that way of being able to stimulate people's thoughts. ... [the number of] people that are doing post-grad now is significantly less than five years ago, which means people are not necessarily in that learning frame of mind. (physiotherapist, inpatient rehabilitation)

From this interviewee's perspective, even talking about postgraduate study appears to have the power to stimulate health professionals to contemplate pursuing further education. Without managerial support, this interviewee felt that others would not think of it as important to their job or relevant to their future.

3) Implementing change required postgraduate study plus persistence

Many interviewees had felt empowered by their postgraduate studies to initiate change in service delivery but found that implementation of change was frequently resisted by the organizations in question, making perseverance and commitment additional requirements before change could be implemented.

Participant: I removed the lock on the small dementia unit door so staff needed to walk with clients ... and that caused a huge uproar because they were just used to locking them up and leaving them until [it was] time to take [them] to meals or whatever.

Interviewer: How did you find a way around that?

Participant: Persistence, I guess, is all I could say. ... But I was able to show them the research, which showed that you only increase agitation when you restrain somebody, be it a physical restraint such as locking them in a room. ... yeah, it was a hard one to make, because it got backs up and you don't want that if you want a good working relationship with people. (Nurse manager, residential care)

Discussion

In this study health professionals who had participated in formal IPE at university were motivated to continue with lifelong learning and gained credibility and applied skills to enhance their level of collaboration and leadership within rehabilitation teams. Many students advanced in their careers, changed service delivery or clinical practice, and integrated academic processes in rehabilitation settings. Having gained a broader perspective on interprofessional rehabilitation and greater confidence in their clinical skills and knowledge, the program graduates felt motivated and enabled to engage to a greater degree with other team members and with health service management to improve service delivery. Many students gave examples of applying newly acquired strategies in evidence-based rehabilitation to successfully write business cases to secure funding for new service initiatives. Specific examples included establishing a new role for a sexual health clinical nurse specialist within a multidisciplinary spinal cord rehabilitation team and the implementation of self-management groups for people with chronic neurological conditions. Students gained a wider appreciation of the context of professional practice and the provision of rehabilitation. However, barriers to implementing this new knowledge included professional isolation and lack of support from senior management, which had an impact on their motivation and ability to effect change in the workplace. As a consequence, significant tenacity and persistence was deemed important for effective application of learning to clinical practice.

These data have implications for educators and health service providers who employ health professionals. Implementing evidence-based practice in health services will require networks of motivated health professionals who share common goals. Students experience a supportive, collaborative community during their study, but in contrast there can be a lack of on-going support in the workplace. This, along with perceptions of postgraduate study being undervalued by some managers and employers, acted to reduce the participants' motivation to continue with independent learning, and hindered on-going application of evidence-based practice.

Educators and health service providers could address this issue by providing more formal structures for the development of networks to support students after graduation. These could include web-based fora, such as social network sites, and provision of on-going opportunities for short educational updates. It is notable that although the IPE reported on in this study was provided by distance, the program still allowed students to feel connected with and supported by their peers, encouraging interprofessional learning.

One limitation of this study was the low response rate to the survey. The sample included students who had studied over a 13-year period, and it is likely some past students were no longer at the last contact address or felt that they had little ongoing engagement with the university. Response rates to surveys are often low, and therefore this study was designed incorporating mixed-methods, to give a more complete view of the students' experiences [13]. Furthermore, standard recommendations for optimizing participation in a survey were utilized [14].

A second limitation of this study was the self-selecting approach to participant recruitment. It is possible that the people who chose to respond to an invitation to

complete the survey or participate in an interview were the people who felt most strongly about their postgraduate experience (either positively or negatively). As a consequence, this study might tend to bias findings to the extremes of experiences.

Finally, as this study was conducted by one tertiary education provider, in one country, the observations may not be generalizable to other settings. Some of the participants' experiences after completion of study may be specific to the professional practice environment in New Zealand, both in terms of regulatory requirements of professional bodies and in terms of the employers, who were predominantly within government-funded health services.

Future research into IPE should include the completion of similar mixed-method studies on graduates of programs from other providers of postgraduate rehabilitation qualifications in different regions around the world [15]. More methodologically challenging, but nevertheless important, would be a study of the impact of postgraduate IPE, in comparison to no additional training or other types of postgraduate training, on the knowledge, skills, and attitudes of rehabilitation professionals. Furthermore, work should be undertaken to examine the effectiveness of strategies to increase the translation of postgraduate learning into clinical practice and to further support lifelong learning among program graduates following completion of their qualifications.

Conclusion

By undertaking postgraduate study in rehabilitation, practicing rehabilitation professionals gain confidence in their abilities and credibility within their peer and patient relationships. Many also reported increased interprofessional collaboration, achieving positive changes in clinical practice, undertaking research, and making tangible gains in their careers. However, isolation from similarly experienced colleagues and lack of support from managers hampered their abilities to apply their new skills and knowledge in the workplace, with changes in service delivery requiring persistence. Employers and educators should work to address these issues to enhance practitioners' ability to improve evidence-based service delivery in rehabilitation.

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*Appendix 1***Questionnaire Content**

1. What year did you first enroll for study for a tertiary qualification (i.e., your FIRST enrollment for a degree or diploma at university, polytechnic, or other tertiary institution)?
2. What was your first completed undergraduate tertiary qualification?
3. What year did you graduate with your first completed undergraduate tertiary qualification?

In the following section we are interested in your postgraduate qualifications that incorporate papers offered by the RTRU with subject codes REHX 7XX or qualifications specifically endorsed in rehabilitation. These include:

- Postgraduate Certificate in Health Sciences (PGCertHealSc [Clinical rehab])
 - Postgraduate Certificate in Rehabilitation (PGCertRehab)
 - Postgraduate Diploma in Rehabilitation (PGDipRehab)
 - Postgraduate Diploma in Health Sciences (PGDipHealSc [Rehab])
 - Master of Health Sciences (MHealSc [Rehab])
 - Doctor of Philosophy (PhD)
4. What year did you first enroll in a postgraduate rehabilitation qualification at the University of Otago?
 5. Where were you living when you first enrolled in a postgraduate rehabilitation qualification at the University of Otago?
 6. What was your main occupation when you first enrolled in postgraduate rehabilitation studies at the University of Otago?
 - Fitness instructor
 - Manager
 - Medical doctor
 - Occupational health and safety advisor/nurse
 - Occupational therapist
 - Physiotherapist
 - Policy analyst
 - Registered nurse
 - Social worker
 - Speech language therapist
 - Other (please specify)

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7. If you were in paid employment when you first enrolled in a postgraduate rehabilitation qualification at the University of Otago, who was your main employer?
- District health board (or regional health authority/crown health enterprise)
 - University/polytechnic/ other tertiary educational institute
 - Private rehabilitation provider
 - Self-employed healthcare provider
 - Private residential care provider for older adults
 - Private residential care provider for disabled younger adults
 - Accident compensation corporation
 - Primary health organization/general practice
 - Not in paid employment
8. What was your first completed/awarded postgraduate rehabilitation qualification from the University of Otago?
- Postgraduate Certificate in Health Sciences (Clinical Rehab)
 - Postgraduate Certificate in Rehabilitation
 - Postgraduate Diploma in Rehabilitation
 - Postgraduate Diploma in Health Sciences (Rehabilitation)
 - Master of Health Sciences (Rehabilitation)
 - Doctor of Philosophy
9. What year were you awarded your first completed/awarded postgraduate rehabilitation qualification from the University of Otago?
10. Have you completed more than one postgraduate qualification in rehabilitation from the University of Otago?
- y/n
11. What was your second completed/awarded postgraduate rehabilitation qualification from the University of Otago?
- Postgraduate Diploma in Rehabilitation
 - Postgraduate Diploma in Health Sciences (Rehabilitation)
 - Master of Health Sciences (Rehabilitation)
 - Doctor of Philosophy
12. What year were you awarded your [Q11]?
13. Have you completed more than two postgraduate qualifications in rehabilitation from the University of Otago?
- y/n
14. What was your third completed/awarded postgraduate rehabilitation qualification from the University of Otago?

- Master of Health Sciences (Rehabilitation)
- Doctor of Philosophy

15. What year were you awarded your [Q14]?

16. Have you completed a fourth postgraduate rehabilitation qualification from the University of Otago?

- y/n

17. What was your fourth completed/awarded postgraduate rehabilitation qualification from the University of Otago?

- Doctor of Philosophy

18. What year were you awarded your [Q17]?

19. If you completed more than one postgraduate qualification in rehabilitation, please describe the factors which influenced your decision to continue with your studies?

- (free text answer)

20. The university of Otago has a “Graduate Profile,” which describes the attributes to be fostered in people studying at the university. We are interested if undertaking postgraduate rehabilitation studies at Otago fosters these attributes?

(Please bear with us, this section is rather wordy!)

Studying and completing my postgraduate qualifications(s) in rehabilitation ...	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
enabled me to communicate information, arguments, and analyses effectively.					
enhanced my commitment to the fundamental importance of the acquisition and development of knowledge and understanding.					
enhanced my ability to work effectively as both a team leader and a team member.					
enhanced my information literacy and specific skills in acquiring, organizing and presenting information, in particular through computer-based activity.					
enhanced my intellectual openness and curiosity, and the awareness of the limits of current knowledge and of the links between disciplines.					

Studying and completing my postgraduate qualifications(s) in rehabilitation ...	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
enhanced my knowledge of ethics, ethical standards and social responsibility.					
gave me the ability to conduct research by recognizing when information is needed, and locating, retrieving, evaluating, and using it effectively.					
gave me a commitment to lifelong learning, with the ability to apply knowledge, develop existing skills, adapt to a changing environment, and acquire new skills.					
gave me a deep, coherent, and extensive knowledge of rehabilitation and coupled with an understanding of the fundamental contribution of research.					
gave me an appreciation of the global perspective in rehabilitation and an informed sense of the impact of the international environment on New Zealand and New Zealand's contribution to the international environment.					
gave me an understanding of cultural diversity within the framework of the Treaty of Waitangi, and biculturalism and multiculturalism in New Zealand.					
gave me the ability to analyze issues logically, consider different options and view points, and make informed decisions.					
increased my capacity for self-directed activity and the ability to work independently.					
provided me with the skills for advancing my clinical practice.					
reinforced my sense of enterprise, self-confidence, and personal responsibility within the workplace and community.					

Do you have any comments in relation to this question?

(Free text answer)

We now want to understand the influences postgraduate rehabilitation studies at the University of Otago have had on your professional practice.

22. Please indicate the degree to which you agree or disagree with each of the following statements.

My participation in postgraduate rehabilitation studies gave me...	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
the ability to collaborate with health professionals in other disciplines.					
the ability to tolerate uncertainty.					
the motivation to work in a team with health professionals from other disciplines.					
the ability to work in a team with health professionals from other disciplines.					
the ability to adapt rapidly to change.					
the ability to be more open to new ideas.					
concern for ethical, social, and environmental implications.					
a willingness to invest time and energy in keeping your knowledge in your field current.					

Do you have any comments in relation to this question?

(Free text answer)

23. We are really interested in hearing about your successes. PLEASE take a moment to fill in the text box after the question. Go on ... celebrate your achievements. Please tick any of the boxes that apply to you.

These roles/achievements relate to your professional practice. We will also ask about employment/career achievements in a subsequent question.

24. As a result of completing my postgraduate rehabilitation qualifications, I have

- assumed a clinical leadership position
- assumed a clinical specialist position
- undertaken a specialist advisory role
- undertaken a health management role
- successfully gained funding for service initiatives
- become a skillful consumer of clinical research
- changed service delivery
- none of these apply to me

Please take the opportunity to describe in more detail.

(Free text response)

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We want to understand how your postgraduate rehabilitation studies at the University of Otago have influenced your career. Please tick any of the boxes that apply to you. We are really interested in hearing about any of your successes. PLEASE take a moment to fill in the text box after the question. Go on ... celebrate your achievements.

25. As a result of completing my postgraduate rehabilitation qualification/s, I have

- had a promotion to a more senior position with my organization
- moved to a more senior position at another organization
- changed careers
- had a pay raise/earned more income
- gained increased esteem of peers
- none of these apply to me

Please take the opportunity to describe in more detail.

(free text answer)

We want to understand how your postgraduate rehabilitation studies at the University of Otago have influenced your participation in research. Please tick any of the boxes that apply to you. We are really interested in hearing about any of your successes. PLEASE take a moment to fill in the text box after the question. Go on ... celebrate your achievements.

26. As a result of completing my postgraduate rehabilitation qualification/s, I have

- participated in a research project
- initiated a research project
- published a manuscript in a peer-reviewed journal
- published work in another capacity
- gained funding for research in an academic setting or workplace for salary/stipend
- gained funding for research in an academic setting or workplace for working costs
- none of these apply to me

Please take the opportunity to describe in more detail.

(free text answer)

27. Please comment on your own personal priorities and values in relation to your postgraduate rehabilitation qualifications.

(free text answer)

28. Do you have any other comments about postgraduate studies in rehabilitation at the University of Otago?

(free text answer)

29. To what extent do you agree or disagree that following factors are barriers to post-graduate rehabilitation studies at the University of Otago:

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Cost of course (university fees, travel, etc.)					
Loss of income					
Time required to complete studies and assignments					
Lack of protected study time within the workplace					
Distance learning format					
Other family or personal priorities/commitments					
My work has changed					
The course did not meet my expectations					
Lack of recognition from professional peers or employer					

30. I experienced/had the following during my postgraduate rehabilitation studies at the University of Otago:

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Financial stress/difficulty due to cost of course (university fees, travel, etc.)					
Loss of income					
Insufficient time to complete studies and assignments					
No protected study time within the workplace					
Didn't like distance learning					
Other family or personal priorities/commitments which interfered with my studies					
My work changed					
The course did not meet my expectations					
Lack of recognition from professional peers or employer					

If you answered YES to any of the above, or have other factors which were a barrier to studying, please describe in the text box below.

(free text answer)

We now wish to understand the factors that made postgraduate study in rehabilitation at the University of Otago easy or difficult. We call these factors facilitators (made easier) or barriers (made harder).

31. To what extent do you agree or disagree that the following factors facilitate postgraduate rehabilitation studies at the University of Otago?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Support from my manager					
Distance learning environment					
Financial support from employer/grant/scholarship					
Social support					

32. I experienced/had the following during my postgraduate rehabilitation studies at the University of Otago:

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Support from my manager					
Financial support from employer/grant/scholarship					
Social support					

If you answered YES to any of the above, or have any other factors which facilitated your studies, please describe in the text box below.
(free text answer)

We would like to know a little about you at the time you are completing this survey.

33. What is your current main occupation?

- Fitness instructor
- Manager
- Medical doctor
- Occupational health and safety advisor/nurse
- Occupational therapist
- Physiotherapist
- Policy analyst
- Registered nurse
- Social worker
- Speech language therapist
- Other (please specify) (Free text answer)

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Postgraduate
Rehabilitation
Education**Grainger, Boland,
& Levack**

34. Where are you living now?

(free text answer)

35. What is your age?

36. What is your gender?

- Male
- Female

Thank you for taking the time to complete this survey.

We are interested in inviting some graduates to participate in a qualitative study. This would take about one to two hours of your time, at a time convenient to you, by phone or in person if in Wellington, Christchurch, or Dunedin. Your response will have no influence on your current or future studies at the University of Otago.

37. I would be interested in finding out more about participating in a qualitative study exploring my experiences and outcomes after postgraduate rehabilitation studies at the University of Otago.

- Yes
- No

38. My contact details are

Name
Address 1
Address 2
City/Town
ZIP/Postal code
Email address
Phone number

Thank you again for your participation. We value your opinion and feedback. Best wishes in your ongoing journey and life-long learning.

Ka kite ano.

*Appendix 2***Qualitative Interview Schedule Postgraduate study**

Student perceptions of outcomes relating to their postgraduate study, specifically about how their practice changed (or not), perceptions of course content, how the course was delivered. Also looking at barriers and facilitators to completing the course AND implementing the learning.

Warm up

- Can you tell me about where you are working now?
- Can you tell me about where you were working when you completed your postgrad qualification?

Broad questions about topics about experiences of postgraduate study

Can you describe for me the main reason why you chose to complete a postgrad (PG) qualification with RTRU?
• Does participant answer cover personal and professional reasons?

What were the benefits of completing this qualification to you personally and/or professionally?

How relevant did you find the PG study to your work at the time?

How relevant did you find the PG study to your work now?

Can you comment on the content, including the seminars, workbooks, and audio-conferences?

How did you find the interdisciplinary aspect of this course?

Has PG study with RTRU helped you with your career and/or current role? Can you tell me more about why this is so (or not)?

What did you find supported you to complete your PG study (personal and professional)?

What did you find was most of a hindrance/barrier when completing PG study?

Was the course what you expected? (Expand as necessary)

If you were giving advice to someone who was considering this course, what would you tell them they could get out of doing it? Any other advice you would give them?

Refer to qualitative responses given by participant to survey monkey and ask them to discuss further (refer to their free text responses from their survey).

Wrap up and thank them for their time.