

2015/2016 Summer Studentship Project Application Form

Send to: Research Office, University of Otago Christchurch, PO Box 4345, Christchurch, by 3pm on **3rd July 2015**

Supervisor Information (First named supervisor will be the contact):

Supervisor's Name(s): Dr.Mike Epton/Louise Weatherall

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Research Category (Choose one category only – to be used for judging the students' presentations):

Clinical

Laboratory

Community X

Project Title (20 words MAXIMUM):

Can non-attendance to Pulmonary Rehabilitation be predicted prospectively using a question based scoring system

Project Description:

Introduction:

The Canterbury Clinical Network (CCN) has delivered Pulmonary Rehabilitation (PR) programmes in multiple community settings across the Canterbury region since 2009. The PR programme is delivered according to the international, evidence-based, guidelines. It is an 8-week long programme with both exercise and education components aiming to improve patient's quality of life and exercise capacity through exercise and knowledge empowerment. Even though we direct our patients to a programme close to their homes according to the "Better, sooner, more convenient" ethos, we still notice a 50% drop out rate from the time of referral to booking participants into an assessment appointment slot. A further third would drop out after the commencement of the programme. The CCN PR service has been collecting reasons for withdrawal from patients for the past few years. In addition, there is international literature that has identified specific attributes and demographics that put people at risk of non-attendance and non-completion.

Aim:

This one-off 10-week project intends to create a questionnaire to screen patients before they start a programme (identifying the risks early) and offer the appropriate support to facilitate patient's journey into and through our PR programme.

Objective:

The objective of the summer studentship will be to analyse the available data on the reasons of non-attendance and create a questionnaire to predict which PR participants have a higher "drop-out" rate. The questionnaire will then facilitate the clinician to offer the appropriate level of support to prevent non-attendance.

Methods and analysis: the methods will include a mix of quantitative and qualitative approaches.

- The investigators will review previous audits, and individual patient PR files, to identify possible factors predicting non-attendance (over and above those already identified in the international literature) for the screening tool.
- In addition, the researchers to attend a PR Consumer Focus Group to enquire about other reasons for PR non-attendance. Subsequently a sample of non-attenders will be called to explore in detail other reason for non-attendance, using a qualitative questionnaire.
- The factors identified from these approaches will then be explored by phoning a sample of previous participants to PR, including attenders and non-attenders in

proportion to final attendance rates. We anticipate phoning 100 participants, but will seek formal statistical input to determine final numbers prior to the project proceeding. This data will then be analysed to identify grouping and weighting and a subsequent 'threshold' for determining risk of non-attendance, and to identify a target for intervention to reduce non-attendance. Methods such as factor analysis, Chi-square automatic interaction detection (CHAID) and logistic regression analysis will be used to determine groupings and weighting of each component of the questionnaire. Potential predictor variables will include: smoking status, marital status, social isolation, distance to venue, depression.

- The tool will subsequently be trialled and validated prospectively in participants in a current PR programme

Exposure to scientific method:

The student will lead on the delivery of this project. S/he will design the questionnaire, interview the participants and analyse the results generated. 10 weeks is a reasonable timeframe for a student with an understanding of the research methods. The clinical supervisors with the community PR team will provide the support required.

Dissemination:

The report will be summarised and reported through usual communication channels within Pegasus Health. The research findings will be discussed with the PR working group and may be implemented to facilitate clinicians in identifying the potential PR non-attenders and to improve the participants' experience in the community PR journey. Given the high rates of non-attendance to PR programmes world-wide, we anticipate that development of a predictive tool for non-attendance and intervention will be of interest to the international PR community, and we would aim to publish and otherwise disseminate the results in the international literature.

This is a one-off project, but we aim that work from this project will then inform a programme of targeted interventions to reduce non-attendance to PR.

Student Prerequisites (e.g. Medical Student) if applicable:

None