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

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Introduction:

Pulmonary rehabilitation (PR) is a multi-disciplinary programme that utilises physical exercise training in combination with cognitive and behavioural education in order to improve the health related quality of life of individuals with chronic obstructive pulmonary disease (COPD).

This community-based programme runs for eight weeks where there are two sessions per week. Key goals of this rehabilitation programme include symptom and disability reduction, improved independence, and improved physical and emotional participation in everyday activities.

A recently updated Cochrane Review investigating the benefits of PR for COPD patients found that participation in a PR programme leads to significant improvements in quality of life, exercise capacity, emotional function and breathlessness (McCarthy et al., 2015). In addition to this, the Global Initiative for Chronic Obstructive Lung Disease (GOLD) has listed PR as an essential tool for COPD treatment where it is listed alongside smoking cessation.

Despite the notable benefits that the programme confers, those that are referred to the programme often do not attend the programme. Referral data collected by the Canterbury Clinical Network (CCN) who run PR for Canterbury patients found that over 50% of those referred do not attend a single session.

Aim:

To determine the factors associated with PR non-attendance amongst the Canterbury population. The findings from this study will then be utilised to develop a screening tool to predict non-attendance when patients are referred to the programme.

Method:

All patients that were referred for PR and failed to attend between July 1 2014 and June 31 2015 were recruited to the study population. A telephone-based questionnaire was developed, which included a mix of open and closed questions about factors previously suggested to be associated with non-attendance.

An information letter was sent to participants before telephone interviews commenced. Interviews were recorded and transcribed to allow for interpretation of the themes associated with non-attendance.

Results:

The interview was completed with 75 participants during the study period. The average age of these non-attenders was 68 years old, over six years younger than the average age of people who do attend. In addition to this, 18% of non-attenders were still working and 22% were still smoking. This indicates that this younger population may not be accessing the PR programme due to conflicts with work and different health-seeking behaviours.

Anxiety and depression screening was also included in the interview and 27% of participants had a positive screen for anxiety and 24% for depression.

The most important statistic found was that 36% of non-attenders received inadequate information about PR at the time of referral. This was reflected in the themes that emerged from the interviews. Five clear themes associated with non-attendance were identified from the interview transcripts: issues with travel, conflict with everyday life, fears and anxieties, lack of perceived benefit and beliefs and understandings.

A common underlying narrative for each of these themes, particularly those surrounding the attitudes, beliefs and understandings about the programme, was a lack of relevant and relatable information at the time of referral. Many participants felt they were either too sick, or not sick enough to benefit from the programme or that they were either too old or too young to benefit from the programme. There was also a major misconception that PR is simply an exercise class and this was a deterrent for many participants.

Conclusion:

Two important issues were identified from this study. The first of these is that younger patients who are still in work are unable to access the PR programme, which runs during working hours. In addition to this, there was a common perception amongst younger participants that PR is just an exercise class designed for elderly people, so felt that they weren't suitable for the programme.

This ties into the second key issue identified, where there is inadequate information delivered at the time of referral. A large number of participants had the perception that the programme would offer no benefit or that they would not be suitable participants for varying reasons. It was clear that many of these individuals had a poor understanding of the programme and this resulted in ambivalent or even negative attitudes towards attending.

These findings suggest that the referral process and information dissemination needs to be reassessed. In addition to this, the issue of making the programme available to a younger, working population should be addressed.

Many of the factors associated with non-attendance can be incorporated into a screening tool to be used during referral triage and this may be piloted in 2016.