

Delivering Pulmonary Rehabilitation and improving quality of life



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Chronic obstructive pulmonary disease (COPD) Is characterised by airflow obstruction. The airflow obstruction is usually progressive, not fully reversible and does not change markedly over several months - NCCCC 2004



• COPD is a chronically disabling lung disease that causes 30,000 deaths per year in the UK and accounts for one fifth of respiratory mortality⁽¹⁾

• Estimated that 24 million working days are lost each year and overall cost to the nation is unknown⁽²⁾

• Breathlessness often results in a deterioration of health leading to inactivity, isolation and dependence.



1. The burden of lung disease - A statistical report from The British Thoracic Society

2. Morgan M. & Singh S. (1997) Practical pulmonary rehabilitation, London, Chapman & Hall pp 1-18



Pulmonary Rehabilitation however has been found to significantly improve the physical function of the patient and improve quality of life

British Thoracic Society 2001

Oban, Lorn & Isles P R program

Small charitable donation allowed us to fund

- Physiotherapist
- Equipment
- Quality of life questionnaire



Program



- 8 week program +
- 1 hour of personally tailored exercise
which is repeated 2 or 3 times more during the week
- Education component
 - what is COPD, exacerbations, warning signs
 - Control of breathlessness, benefits of exercise
 - Dietician
 - Pharmacist
 - Occupational therapist
 - Anxiety management and relaxation

Referral criteria

- Symptomatic breathlessness graded as stage 3 or above on the MRC Dyspnoea scale
- Forced expiratory volume in 1 second $<50\%$ of predicted (FEV^1)

Grade	Degree of breathlessness
1	not troubled by breathlessness except on strenuous exercise
2	short of breath when hurrying or walking up a slight hill
3	walks slower than contemporaries on level ground because of breathlessness, or has to stop for breath when walking at own pace
4	stops for breath after walking about 100m or after a few minutes on level ground
5	Too breathless to leave the house, or breathless when dressing or undressing





Assessment

- 6 minute walk test
- Hospital Anxiety and Depression Scale (HADS)
- Chronic Respiratory Questionnaire -self reported¹.

¹ Williams JEA;Singh SJ. Et al (2001) Development of a self reported chronic respiratory questionairre (CRQ-SR) Thorax vol 56(12) pp 954 - 959

Sample



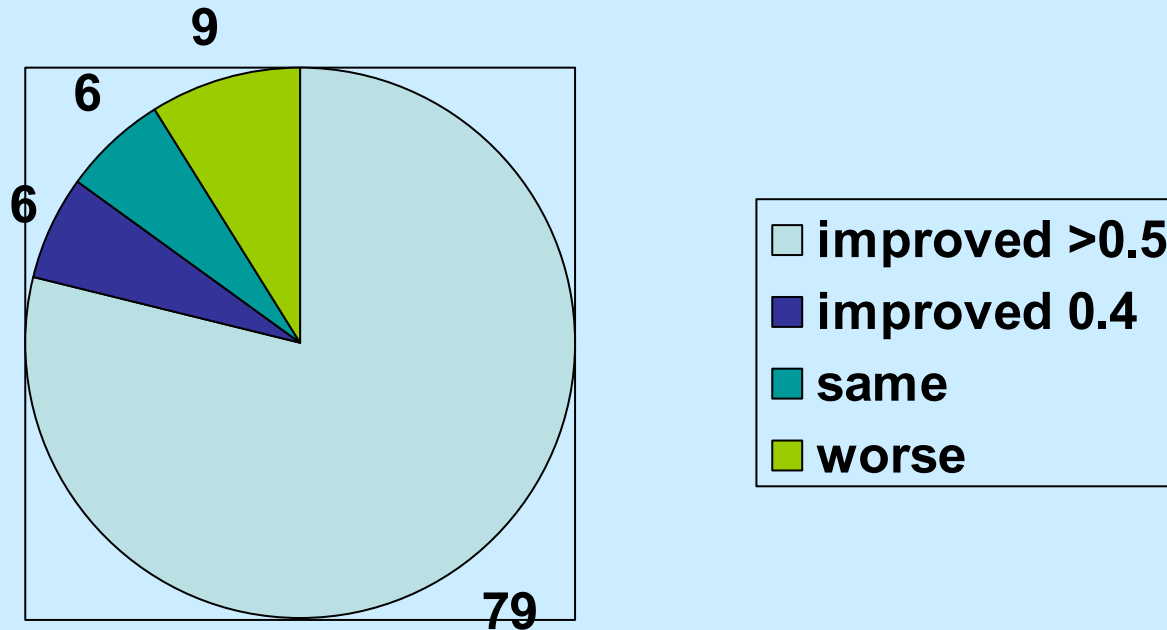
- 49 patients were referred- 47 had COPD
- 35 completed the programme - 17 male 18 female
- 14 failed to complete the course following assessment
- 3 males and 1 female died before completion

Average score before and after treatment using Chronic Respiratory Questionnaire-SR

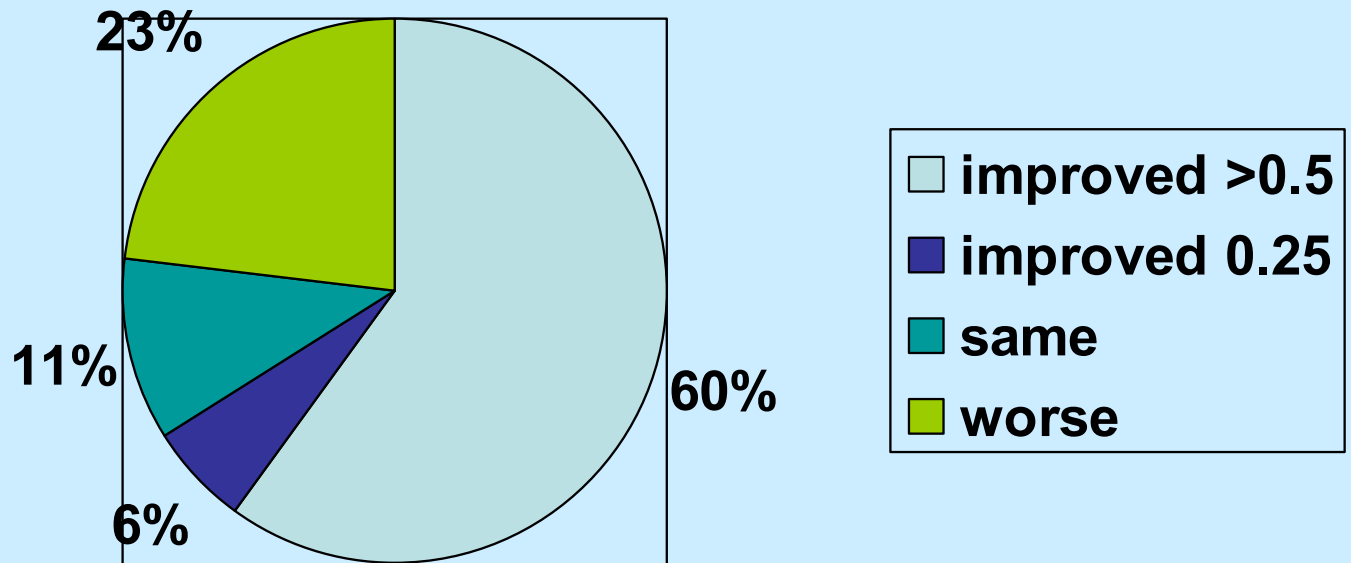
	Before	After	Improvement	P value
Dyspnoea	13.31	21.37	+ 8.05	P<0.001
Emotion	33.51	39.34	+5.82	P <0.05
Fatigue	15.28	19.68	+4.4	P<0.001
Mastery	19.62	23.51	+3.88	P<0.05

P <0.001 is highly significant

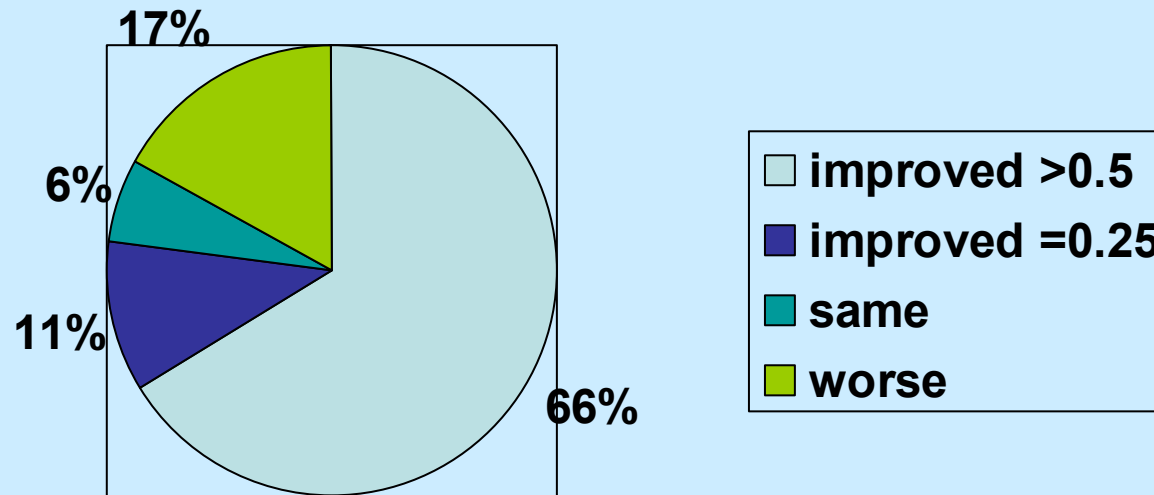
Dyspnoea domain demonstrates that 79% of patients improved by a mean score > 0.5 a minimally important difference



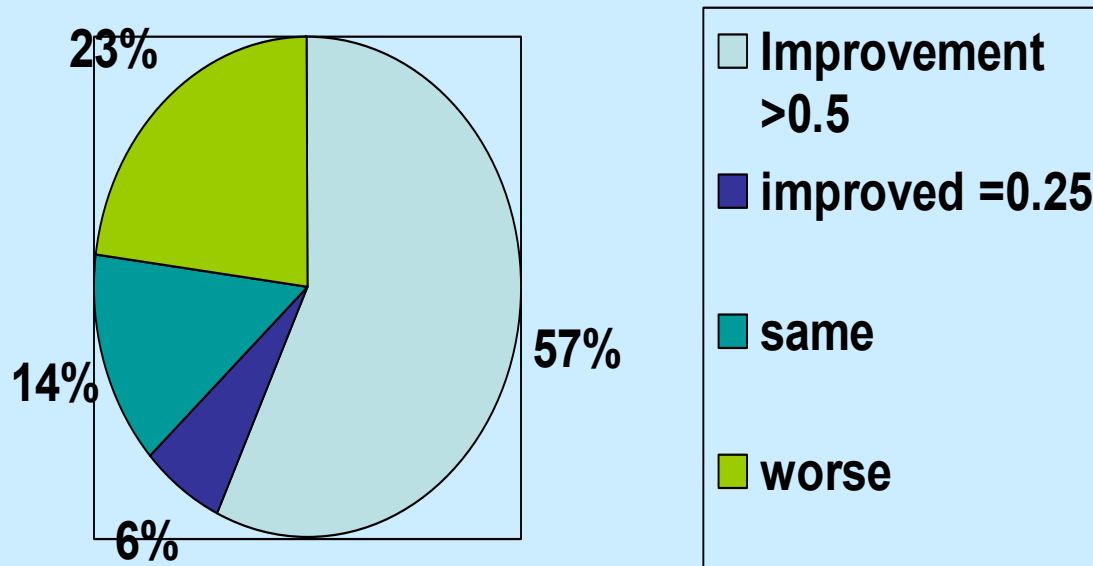
Emotion Dimension 60% improved by > 0.5



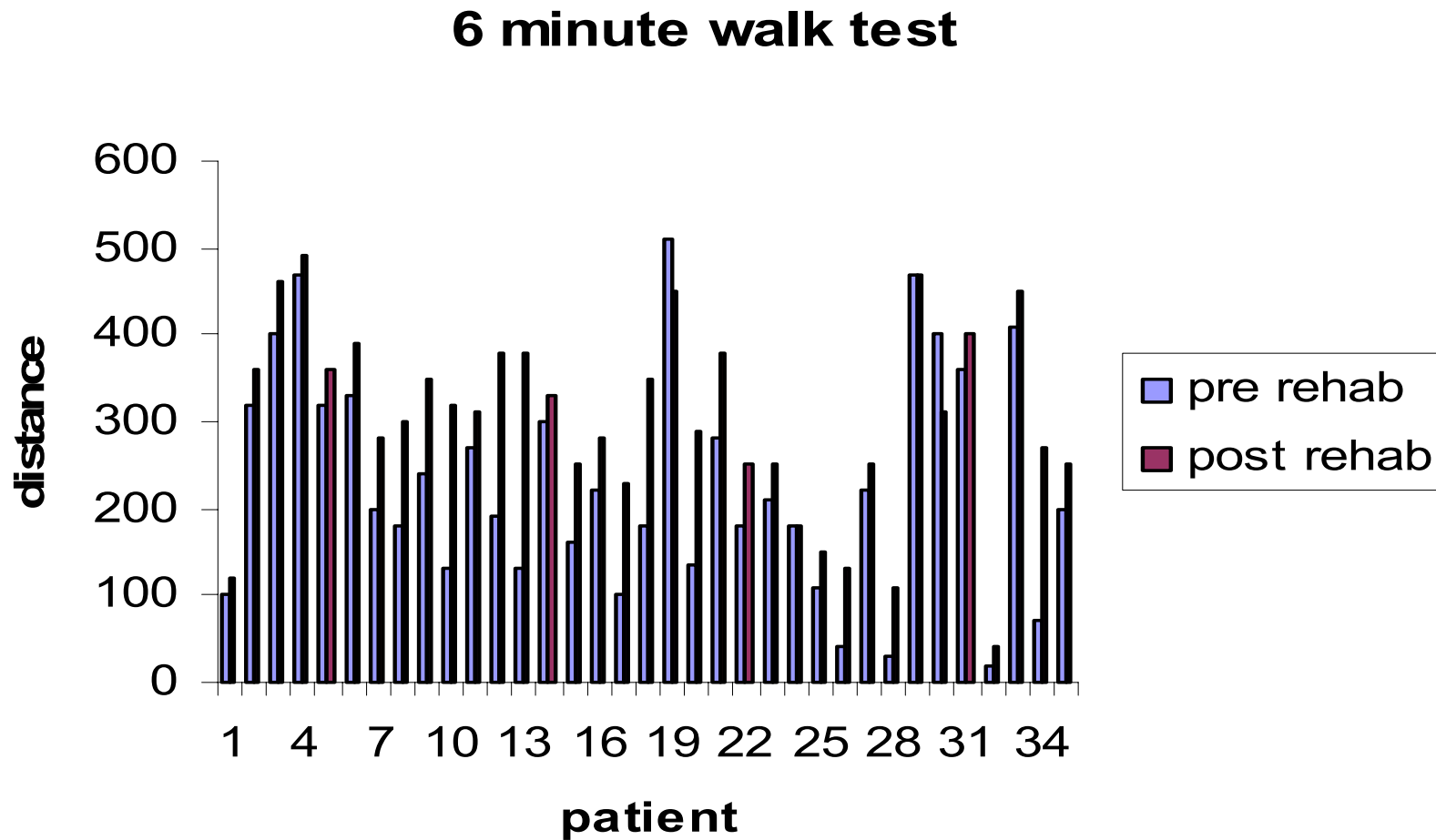
Fatigue dimension 66% of patients improved by > 0.5



Mastery domain 57% improved by >0.5



15% increase in distance walked is clinically significant



In conclusion

Pulmonary rehabilitation improves quality of life, therefore promotes independence and self management with relatively small outlay.

Evidence to suggest it reduces exacerbation rates and hospital admissions





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COPD Easy Week: 10 - 17 June 2006

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