

was examined and demographic information collected. The data were divided by season – winter months incorporating October to March and summer months, April to September. The null hypothesis that there would be no difference between attendance rates in summer months compared to winter months was tested using a Mann–Whitney U test. The attendance data were correlated, using Pearson’s product-moment correlation coefficient, with local monthly weather data, obtained from the Met Office, for temperature, hours of sunshine and rainfall over the time period.

Results In total 506 assessment appointments were made to achieve 258 attendances, an attendance rate of 51%. For assessments, there was no difference in attendance between the winter and summer months (50 and 51% respectively). For the group PR sessions, 2325 appointments were made to achieve 1613 attendances (69%). The overall attendance rate at group sessions during winter was 64% compared to 74% during summer. Non-parametric testing of the data revealed the seasonal difference to be statistically significant ($p < 0.05$). Attendance rates show weak, positive correlation with maximum and minimum temperatures ($r = +0.51$, $+0.44$ respectively) and sunlight hours ($r = +0.55$), and weak negative correlation with amount of rainfall ($r = -0.33$).

Conclusion Attendance rates were significantly worse during winter compared to summer. This needs to be taken into account when planning PR services and in local efforts to maximise patient participation. The weak correlation between attendance and specific weather indicators suggests that weather conditions may contribute to this pattern. Confounding patient factors such as illness exacerbation and environmental issues such as transport need to be further evaluated in the context of seasonality to better understand this relationship.

Abstract P50 Table 1

Facilitators	Constraints
Group providing social destinationSupportive environment	Group social activity displacing exercise activity
Group creating a shared sense of belonging and acceptance enhanced by common goals, same condition and shared characteristics	Personal outlook and life events inhibiting motivation and ability to exercise
Mentors adoption of counsellor/support role	Exercise programme: Lack of intensity
Staff generating trust through caring attitude and expertise	Self-directed, no external motivation
Pre-conditioned to exercisePersonally motivated	Limited exercise equipment
Fostered through attendance at PACE rehabilitation programme	Fortnightly sessions
	Group vs individual
	Sacrificing own needs for group cohesion

Results There were 91 potential recruits who completed rehabilitation (13 didn’t meet criteria, six became unwell). 37 refused to participate, citing reasons such as poor health, no difficulty in exercising or problems travelling to the centre. Of the 35 that agreed to participate, the attendance rate at exercise was 70%, and 30 completed the 6-month programme. In this group Shuttle Walking Test distances were maintained at 6 months (mean 313.2 m post-rehabilitation compared with 317.8 m at 6 months, $p = NS$), and Chronic Respiratory Disease Questionnaire scores were also maintained. Qualitative analysis supported the concept of peer volunteers, while many individuals wanted flexibility and access to a range of activity programmes.

Conclusions This study suggests that maintenance programmes need to be individually tailored rather than prescriptive, in order to maximise uptake and meet the challenges posed by exacerbations. The role of peer volunteers in promoting activity is supported by the qualitative analysis, while exercise classes may help those who wish to attend.

P50 FACILITATION OF CONTINUED EXERCISE VIA PATIENT VOLUNTEERS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD) FOLLOWING A PULMONARY REHABILITATION PROGRAMME: A FEASIBILITY STUDY

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Introduction After pulmonary rehabilitation activity levels gradually decline, on average, back to baseline over 12–18 months. The NHS has highlighted the value of peer support for patients with chronic disease, but this has not been fully evaluated in patients with COPD. Therefore we designed an observational study with the aim of exploring and assessing an exercise maintenance programme with peer volunteer support over a 6-month period, in order to inform a future large-scale study.

Methods Patients were recruited from a 7-week outpatient community pulmonary rehabilitation programme. Six peer volunteers with COPD were trained and allocated up to six patients each. A fortnightly exercise maintenance programme was set up in one locality led by a physiotherapist & assistant. This was supported by a programme of home-based exercise, goal setting and feedback on activity levels. Peer volunteers met with their groups each month to encourage individual activity. The primary outcomes were participation levels and attendance rates; secondary outcomes were activity levels and health status. Qualitative interviews demonstrated the individual variance in exercise habits and motivations see Abstract P50 Table 1.

P51 GROUP-BASED PULMONARY REHABILITATION DELIVERED TO THE HOME VIA THE INTERNET—A FEASIBILITY STUDY

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Background Many patients cannot attend group-based pulmonary rehabilitation programmes due to remoteness from the clinic or transport problems. We describe a feasibility study of a novel method of delivering a programme via internet-based videoconferencing.

Methods We re-boxed a mini PC in a simple case with a single large on/off button, which was connected to each patient’s home television and wired to the Internet, together with a web cam, speakerphone, and, where appropriate, a wireless pulse oximeter. The physiotherapist delivered the programme from a central location equipped with a desktop PC connected to the internet; web cam; speakerphone and 40-in. video screen. When patients turned on their mini PC and TV and switched to the video channel, they automatically joined the class. All patients and the physiotherapist were visible and audible on all TV screens, to create a group spirit. A supporting screen was added to the physiotherapist’s set-up to display patient names, exercise duration (30–60 s), pulse oximeter readings, and an exercise timer. A desktop video conferencing service was employed. A standard pulmonary rehabilitation exercise programme was delivered