

A pragmatic service evaluation of the implementation of the Florence (FLO) telehealth system in the early pulmonary rehabilitation (EPR) management of people with Chronic Obstructive Pulmonary Disease (COPD) following acute exacerbation.

Cath O'Connor, Jayne Stocks Sheffield Teaching Hospitals NHS Foundation Trust; Katie Biggs University of Sheffield; Karen Moore Simple Telehealth

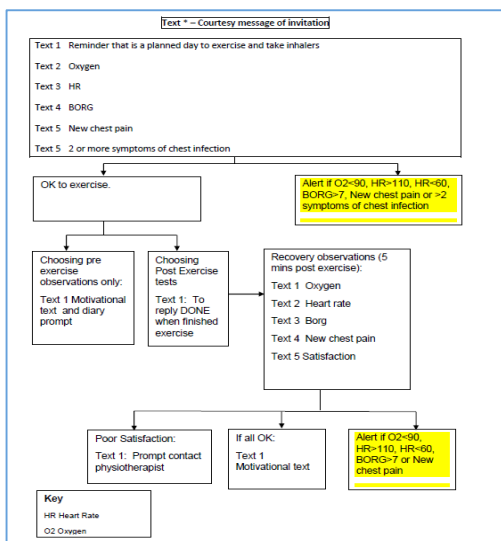
Introduction: NICE guidelines recommend early PR for people following AECOPD. Potential problems highlighted have been associated with adherence and safety. FLO Simple Telehealth has the potential to address these problems.

Aim: To conduct a comprehensive pragmatic service evaluation assessing the feasibility of implementation of FLO telehealth within EPR following acute exacerbation of COPD (AECOPD).

Methods: Semi-structured interviews were conducted and the CRQ, GAD-7 and PHQ-9 questionnaires were administered prior to and following FLO telehealth to support EPR. Qualitative data analysis involved the use of the COM-B theoretical framework and NVivo Software.

Results: Six participants were interviewed at baseline. Three participants commenced and completed EPR and were interviewed at follow up. Interview data demonstrated that FLO was acceptable prior to and following EPR in a small number of participants. Questionnaire response was poor prohibiting triangulation of data.

Conclusions: FLO was found to be feasible in clinical practice and acceptable to service users. Strengths of the evaluation included the identification of factors to improve the implementation of FLO within EPR. Limitations were predominantly associated with small sample size and questionnaire response rate. Further evaluation of the clinical and cost effectiveness of FLO for supported EPR and self-management is warranted.



Hi it's Flo. Before you exercise its time to take some readings. First, I need your resting oxygen level. Please reply with OX and then your reading e.g. OX 94

FLO Prompt Sheet

Thank you for taking part in the Flo service. Here are some tips on using the system. Make sure that you have been sitting down for at least 5 minutes before entering your oxygen and heart rate otherwise this might not give Flo the true picture. To make things easier when texting you might want to write your levels down in your booklet first.

Before Exercise

Question 1 - Your oxygen levels.
Reply OX and then your reading. For example if your oxygen reading is 94% then you would reply OX 94

Question 2 - Your heart rate
Reply HR and then your reading. For example if your heart rate was 88 you would reply HR 88.

Question 3 - Your breathlessness score
Reply Borg and then your score. For example Borg 3.

Question 4 - New chest pain.
Reply Pain 1 if you DO have any new chest pain.
Reply Pain 2 if you DO NOT have any new chest pain.

Question 5 - Symptoms of chest infection
Reply #1 if you DO have 2 or more of the following: worsening breathlessness or cough or increased, stickier or darker sputum.
Reply #2 if you DO NOT have 2 or more of the above symptoms.

After Exercise Text DONE.

Reinforcement:

"It (FLO) makes me do it, because I know I have to send in the values following exercise."

Emotion/ Reassurance:

"I would want to make sure that I'm at a certain level before I push myself a bit otherwise it could be dangerous couldn't it".

"I mean if it was coming in under 92 then that (FLO) would be doing its job, wouldn't it because that would trigger alarm bells".

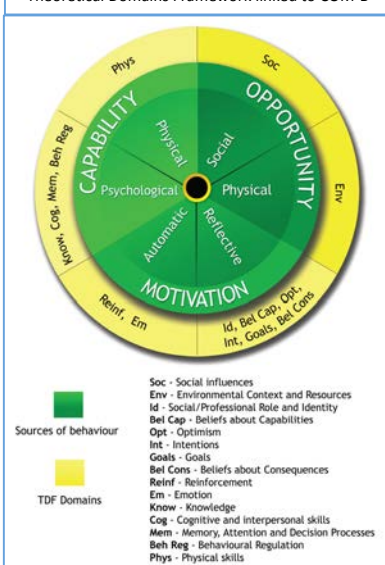
Acceptability:

"Oh she's lovely! I can't wait for her ringing me up in a morning! (laughter)".

"Yeah that's good that. It encourages you a bit more doesn't it".

Observation	Before Exercise	After Exercise	Comment
Oxygen	Ox	Ox	
Heart Rate	Hr	Hr	
Breathlessness	Borg 0 Nothing at all 0.5 Very, very slight 1 Very slight 2 Slight 3 Moderate 4 Somewhat severe 5 Severe 6 7 Very severe 8 9 10 Very, very severe (maximal)	Borg 0 Nothing at all 0.5 Very, very slight 1 Very slight 2 Slight 3 Moderate 4 Somewhat severe 5 Severe 6 7 Very severe 8 9 10 Very, very severe (maximal)	
Chest pain	Pain 1 New chest pain Pain 2 No new chest pain	#1 New chest pain #2 No new chest pain	
Symptoms of chest infection: 2 or more of worsening breathlessness or cough or increased, stickier or darker sputum	#1 Yes do have 2 or more symptoms #2 No do not have 2 or more symptoms	XXXXXXXXX	
How well did you do?	XXXXXXXXX	#1 Better than expected #2 As expected #3 Worse than expected	

Theoretical Domains Framework linked to COM-B



For more information email: cath.o'connor@nhs.net