**Supplement 1**

*Outline of the intervention*

<table>
<thead>
<tr>
<th>Booklet</th>
<th>Content</th>
<th>Exercises</th>
</tr>
</thead>
</table>
| 1  
‘Anxiety and PH’ | - Introduction to CBT model  
- Introduction to the intervention  
- Normalise difficulties with anxiety through case studies  
- Psychoeducation on psychosocial impact of PH, anxiety (panic, fear, stress and worry) and anxiety in PH  
- Highlight the importance of coping strategies | - Explore and identify common symptoms of anxiety  
- Complete the four-areas model – develop a mini-formulation of difficulties  
- Slow breathing exercise |
| 2  
‘What keeps anxiety going’ | - Psychoeducation on anxiety – focusing on avoidance, reassurance seeking, safety behaviours, symptoms and unhelpful thoughts about health – all specific to experiences of PH | - Explore and recognise maintenance cycles  
- Develop a here and now formulation of difficulties recognising triggers, reactions, unhelpful coping strategies and short- and long-term consequences  
- Two mindfulness exercises – focusing on bodily symptoms and everyday events |
| 3  
‘The power of thoughts’ | - Psychoeducation on cognitive biases grounded in the four-factor model: predicting the future, mind reading, over-generalisation, all-or-nothing thinking and self-criticism  
- Challenging unhelpful thoughts – evidence for and against  
- Normalise difficulties with anxiety through case studies  
- Develop techniques to help manage worry | - Recognise unhelpful thinking biases  
- Thought challenging  
- Worry tree  
- Worry delay  
- Thought monitoring exercise |
| 4  
‘The power’ | - Psychoeducation on graded exposure to manage anxiety; pacing, and boom and bust cycle to manage pain and fatigue | - Development of anxiety hierarchy  
- Development of pacing hierarchy |
of your actions’  
- Psychoeducation on other factors affecting anxiety: routine, diet, sleep, social support, keeping physically active and confidence/assurance  
- Relapse prevention reviewing what participants have learnt, skills they have developed, and identifying and managing setbacks  
- Signpost to other services for mental health and PH-related problems  
- Create a plan to cope with setbacks  
- Progressive muscle relaxation exercise

CBT = Cognitive Behavioural Therapy; PH = Pulmonary Hypertension