## eAppendix 2.

Delphi Survey: Questionnaire 2

1. The following features have been suggested as important in describing Pilates exercise as it relates to people with chronic low back pain (CLBP). Using the scale provided, please rate your level of agreement as to the importance of these features.

	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
Body awareness						
Breathing						
Cognitive-behavioral therapy						
Concentration						
Control						
Coordination						
Core stability						
Direction preference						
Education						
Endurance						
Flexibility						
Flow						
Goal oriented						
Graded						
Holistic						
Individualized						
Low impact						
Mind-body connection						
Muscle balance						
Movement control						
Posture						
Precision						
Proprioception						
Relaxation						
Self-paced						
Supervised						
Strength						
Structured						

# 2. Please list any additional features that you feel are important when describing Pilates exercise in relation to people with CLBP.

(Continued)

### eAppendix 2.

Continued

3. The following components have been suggested as important to include in Pilates exercise programs for people with CLBP. Using the scale provided, please rate your level of agreement as to the importance of these components.

	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
Education regarding Pilates techinque						
Warm-up exercises						
Cool-down exercises						
Minimum of 5 different Pilates exercises						
Maximum of 10 different Pilates exercises						
Rest periods between exercises						
Stretching exercises						
Therapist feedback on client technique						
Reassessment by therapist						
Prescription of home exercises						
Functional integration of exercises						

- 4. Please list any additional components that you feel are important to include in Pilates exercise programs for people with CLBP.
- 5. The following factors have been suggested as important to consider when designing an individual exercise program for a person with CLBP. Please rate your level of agreement as to the importance of these factors.

	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
Body awareness						
Cardiovascular fitness						
Chronicity of symptoms						
Client availability						
Client goals						
Client commitment level						
Flexibility						
Functional limitations						
Intensity of pain						
Irritability						
Movement control						
Muscle strength						
Pathology						
Posture						
Psychosocial factors						
Previous Pilates experience						

(Continued)

#### eAppendix 2.

Continued

- 6. Please list any additional factors you feel are important to consider when designing an individual exercise program for a person with CLBP.
- 7. Please select the ideal length of Pilates exercise sessions for the majority of people with CLBP.

<30 min	
30 min	
45 min	
60 min	
>60 min	

- 8. Please select the ideal frequency of supervised Pilates exercise sessions for the majority of people with CLBP. 5 sessions/week
  - 4 sessions/week
  - 3 sessions/week
  - 2 sessions/week

 $\square$ 

- 1 session/week
- 9. Please select the ideal duration of a Pilates exercise program for the majority of people with CLBP.

$\leq 4 \text{ wk}$	
4 wk	
6 wk	
8 wk	
12 wk	
6 mo	
12 mo	
>12 mo	

10. The following rationales have been suggested to underpin recommendations for Pilates exercise parameters (eg, session length, frequency, and duration) for people with CLBP. Please rate your level of agreement as to the accuracy of these rationales.

	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
Enhance client self-management						
Ensure client remembers exercises						
Ensure client uses correct technique						
Ensure relearning of motor patterns						
Ensure strength changes occur						
Ensure treatment effectiveness						
Prevent recurrence of pain or injury						

#### eAppendix 2.

Continued

- 11. Please list any additional rationale you would suggest to underlie recommendations for Pilates exercise parameters for people with CLBP.
- 12. Please select the ideal level of supervision of Pilates exercise for the majority of people with CLBP.
  - 1 client to 1 physical therapist2 clients to 1 physical therapist3 clients to 1 physical therapist4 clients to 1 physical therapist5 clients to 1 physical therapist>5 clients to 1 physical therapist
- 13. The following rationales have been suggested to underpin level of supervision required for people with CLBP undertaking Pilates exercise.

	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
Enable individual prescription of exercises						
Enable timely progression of exercises						
Encourage self-management and self-monitoring						
Ensure correct technique is used						
Prevent pain and injury						

14. Please list any additional rationale that underpins level of supervision required for people with CLBP undertaking Pilates exercise.

15. The following equipment has been suggested as important for people with CLBP undertaking Pilates exercise. Using the scale provided, please rate your level of agreement as to the importance of these features.

	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
Balance disk						
Fit balls						
Foam rollers						
Hand weights						
Ladder Barrel						
Magic Circle						
Mirror						
Pressure biofeedback pillow						
Prop balls						
Raised bench/step						
Real-time ultrasound						
Reformer						
Step Barrel/spine corrector						

(Continued)

# eAppendix 2.

Continued

	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
Resistance bands						
Trapeze table						
Vibration machine						
Wunda chair						

16. Please list any additional equipment you feel are important for people with CLBP undertaking Pilates exercise.

17. The following rationales have been suggested to underpin use of Pilates equipment in people with CLBP.

	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
Able to grade exercises according to ability						
Adjust level of resistance						
Enable progression of exercises						
Increase exercise variation						
Increase proprioceptive feedback						

18. Please list any additional rationale underpinning the use of Pilates equipment in people with CLBP.

19. The following principles have been suggested as important to consider when prescribing Pilates exercise for people with CLBP. Rate your level of agreement as to the importance of these principles.

	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
Conduct an initial physical therapy assessment						
Consider client directional bias						
Consider client irritability						
Consider client pathology						
Educate regarding the purpose of Pilates exercise						
Ensure exercises do not cause or increase pain						
Gradually increase difficulty of exercises						
Monitor the quality of exercise technique						
Prescribe functionally relevant exercises						
Provide individualized exercises according to needs and ability						
Regularly reassess symptoms and functional outcomes						
Supervise exercise sessions						
Start in neutral spine position						
Teach traditional Pilates principles						
Use specialized Pilates equipment						

#### eAppendix 2.

Continued

- 20. Please list any other principles you feel are important to consider when prescribing Pilates exercise for people with CLBP.
- 21. The following rationales were suggested to underpin the principles of Pilates exercise prescription in people with CLBP. Please rate your level of agreement as to the importance of each rationale.

	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
Correct maladaptive movement patterns						
Decrease fear of movement						
Encourage appropriate muscle activation						
Ensure exercises are progressive						
Ensure movement is controlled						
Ensure treatment outcomes are reached						
Improve functional ability						
Improve posture and alignment						
Prevent aggravation of symptoms						

- 22. Please list any other rationale for prescription of Pilates exercise in people with CLBP.
- 23. The following ideas for progression of Pilates exercise have been suggested for people with CLBP. Rate your level of agreement as to the accuracy of these ideas.

	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
Increase in exercise load or resistance						
Increase in exercise repetitions						
Increase in exercise duration						
Increase in exercise complexity						
Movement outside of directional preference						
Incorporation of segmental spinal movement						
Addition of limb movement with activation of stabilizing muscles of the lumbar spine						
Coordination of breathing and core stability muscle activation						
Functional integration of exercise principles						

### 24. Please list any additional ideas for progression of Pilates exercises that you feel are relevant for people with CLBP.