APPENDIX:

1. GENERAL ASSESSMENT SHEET
2. DATA COLLECTION
3. OUTCOME MEASURES
   a. McGill Pain Questionnaire
   b. Anterior knee pain Scale
   c. WOMAC

APPENDIX – I
GENERAL ASSESSMENT SHEET

DEMOGRAPHIC DETAILS:
Name:________________________ Age/Sex:________
Address:________________________ Contact no:
BMI:________________________

HISTORY TAKING:
Age: 20-40 years
Only Females
1st episode of knee pain
Gradual onset and duration of signs and symptoms greater than 4 weeks
History consistent with PFPS like Retro patellar knee pain during at least two of the following activities: ascending/descending stairs, hopping/jogging, prolonged sitting with flexed knees, kneeling, and squatting
Participation in any sport activity for the duration of 6 weeks→1 year

ON OBSERVATION:
Body built: On basis of BMI
Posture: Sitting:

Supine:
Standing:
ON PALPATION:
Swelling:
Tenderness: Pain on palpation of medial or lateral patellar facets
Patellar mal-alignment:
Patellar tilting:

ON EXAMINATION:
Pain assessment:
Site: Side:
Duration: Behavior of pain:
VAS Scale: /10
Type of pain:
Aggravating factor:
Reliving factor:
Pain on resisted isometric extension of knee:
Clarke’s sign:

APPENDIX – II
DATA COLLECTION

6.1. STRAIGHT LEG RAISE TEST

<table>
<thead>
<tr>
<th>No:</th>
<th>Positive</th>
<th>Negative</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLR (Basic)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SLR2</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>SLR3</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>SLR4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cross (Well Leg)SLR5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 6.2. CRAIG'S TEST

<table>
<thead>
<tr>
<th>No:</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trial-1</td>
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<tr>
<td>Trial-2</td>
<td></td>
</tr>
<tr>
<td>Trial-3</td>
<td></td>
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<tr>
<td>Average</td>
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</tbody>
</table>

### 6.3. Q-ANGLE: (Female: 18 )

<table>
<thead>
<tr>
<th>No:</th>
<th>Value</th>
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<tbody>
<tr>
<td>Trial-1</td>
<td></td>
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<tr>
<td>Trial-2</td>
<td></td>
</tr>
<tr>
<td>Trial-3</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td></td>
</tr>
</tbody>
</table>

### 6.4. LATERAL STEP DOWN TEST

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Interpretation</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arm Strategy</td>
<td>Removal of hand from waist</td>
<td>/1</td>
</tr>
<tr>
<td>Trunk Alignment</td>
<td>Leaning in any direction</td>
<td>/1</td>
</tr>
<tr>
<td>Pelvic Plane</td>
<td>Loss of horizontal plane</td>
<td>/1</td>
</tr>
<tr>
<td>Knee Position</td>
<td>Tibial Tuberosity medial to second toe</td>
<td>/1</td>
</tr>
<tr>
<td>Knee Position</td>
<td>Tibial Tuberosity medial to medial border of foot</td>
<td>/2</td>
</tr>
<tr>
<td>-----------------------</td>
<td>--------------------------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Steady Stance</td>
<td>Patient stepped onto non-tested limb, or foot wavered from side to side</td>
<td>/1</td>
</tr>
</tbody>
</table>

**NAVICULAR DROP TEST:** (Normal Value: 6-8mm)

<table>
<thead>
<tr>
<th>No:</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trial 1</td>
<td></td>
</tr>
<tr>
<td>Trial 2</td>
<td></td>
</tr>
<tr>
<td>Trial 3</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX 3

Outcome Measures (phase 2)

A. McGill Pain Questionnaire

The McGill Pain Questionnaire

Overview: The McGill Pain Questionnaire can be used to evaluate a person experiencing significant pain. It can be used to monitor the pain over time and to determine the effectiveness of any intervention. It was developed at by Dr. Melzack at McGill University in Montreal Canada and has been translated into several languages.

Sections:

(1) What Does Your Pain Feel Like?

(2) How Does Your Pain Change with Time?

(3) How Strong is Your Pain? (This is the portion only was selected for the study)

How Strong is Your Pain?

Statement: People agree that the following 5 words (mild discomforting distressing horrible excruciating) represent pain of increasing intensity. To answer each question below writes the number of the most appropriate word in the space beside the question.

Question Response

Points

Which word describes your pain right now?

Mild1

Discomforting2

Distressing3
Horrible4
Excruciating5

Which word describes it at its worst?
Mild1
Discomforting2
Distressing3
Horrible4
Excruciating5

Which word describes it when it is least?
Mild1
Discomforting2
Distressing3
Horrible4
Excruciating5

Which word describes the worst toothache you ever had?
Mild1
Discomforting2
Distressing3
Horrible4
Excruciating5

Which word describes the worst headache you ever had?
Mild

Discomforting

Distressing

Horrible

Excruciating

Which word describes the worst stomach-ache you ever had?

Mild

Discomforting

Distressing

Horrible

Excruciating

Interpretation:

• minimum pain score: 6

• maximum pain score: 30

• The higher the pain score the greater the pain.

References:


B. Anterior knee pain scale

Name: ___________________________ Date: ___________________________
Age: ___________________________
Knee: L/R
Duration of symptoms: ________ Years ________ Months

For each question, circle the latest choice (letter) which corresponds to your knee symptoms.

1. Limp
   (a) None (5)
   (b) Slight or periodical (3)
   (c) Constant (0)

2. Support
   (a) Full support without pain (5)
   (b) Painful (3)
   (c) Weight bearing impossible (0)

3. Walking
   (a) Unlimited (5)
   (b) More than 2 km (3)
   (c) 1-2 km (2)
   (d) Unable (0)

4. Stairs
   (a) No difficulty (10)
   (b) Slight pain when descending (8)
   (c) Pain both when descending and ascending (5)
   (d) Unable (0)

5. Squatting
   (a) No difficulty (5)
   (b) Repeated squatting painful (4)
   (c) Painful each time (3)
   (d) Possible with partial weight bearing (2)
   (e) Unable (0)

6. Running
   (a) No difficulty (10)
   (b) Pain after more than 2 km (8)
   (c) Slight pain from start (6)
   (d) Severe pain (3)
   (c) Unable (0)

7. Jumping
   (a) No difficulty (10)
   (b) Slight Difficulty (7)
   (c) Constant pain (2)
   (d) Unable (0)

8. Prolongsitting with the knees flexed
   (a) No difficulty (10)
   (b) Pain after exercise (8)
   (c) Constant pain (6)
   (d) Pain forces to extend knees temporarily (4)
   (e) Unable (0)

9. Pain
   (a) None (10)
   (b) Slight and occasional (8)
   (c) Interferes with sleep (6)
   (d) Occasionally severe (3)
   (e) Constant and severe (0)

10. Swelling
    (a) None (10)
    (b) After severe exertion (8)
    (c) After daily activities (6)
    (d) Every evening (4)
    (e) Constant (0)

11. Abnormal painful kneecap (patellar) movements (subluxations)
    (a) None (10)
    (b) Occasionally in sports activities (6)
    (c) Occasionally in daily activities (4)
    (d) At least one documented dislocation (2)
    (e) More than two dislocations (0)

12. A trophy of thigh
    (a) None (5)
    (b) Slight (3)
    (c) Severe (0)

13. Flexion deficiency
    (a) None (5)
    (b) Slight (3)
    (c) Severe (0)
C. WOMAC Scale

1. The following questions concern the amount of pain you are currently experiencing in your knees. For each situation, please enter the amount of pain you have experienced in the past 48 hours.

<table>
<thead>
<tr>
<th>Activity</th>
<th>None</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
<th>Extreme</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Walking on a flat surface</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Going up or down stairs</td>
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<td></td>
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<tr>
<td>C. At night while in bed</td>
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<tr>
<td>D. Sitting or lying</td>
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<tr>
<td>E. Standing upright</td>
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</tbody>
</table>

2. Please describe the level of pain you have experienced in the past 48 hours for each one of your knees.

<table>
<thead>
<tr>
<th>Activity</th>
<th>None</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
<th>Extreme</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Right Knee</td>
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<tr>
<td>B. Left Knee</td>
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</tbody>
</table>

3. How severe is your stiffness after first awakening in the morning?

<table>
<thead>
<tr>
<th></th>
<th>None</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
<th>Extreme</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

4. How severe is your stiffness after sitting, lying, or resting later in the bed?

<table>
<thead>
<tr>
<th></th>
<th>None</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
<th>Extreme</th>
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<tbody>
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</table>

5. The following questions concern your physical function. By this we mean your ability to move to look after yourself. For each of the following activities, please indicate the degree of difficulty you have experienced in the past 48 hours in your knees.

<table>
<thead>
<tr>
<th>Activity</th>
<th>None</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
<th>Extreme</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Walking on a flat surface</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Going up or down stairs</td>
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<tr>
<td>C. At night while in bed</td>
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<tr>
<td>D. Sitting or lying</td>
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</tr>
<tr>
<td>E. Standing upright</td>
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</tbody>
</table>
What degree of difficulty do you have with:

<table>
<thead>
<tr>
<th>Activity</th>
<th>None</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
<th>Extreme</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Descending (going down) stairs</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>B. Ascending (going up) stairs</td>
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<tr>
<td>C. Rising from sitting</td>
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<tr>
<td>D. Standing</td>
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<tr>
<td>E. Banding to floor</td>
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<tr>
<td>F. Walking on a flat surface</td>
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<tr>
<td>G. Getting in/out of car</td>
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<tr>
<td>H. Going shopping</td>
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</tr>
<tr>
<td>I. Putting on socks/stockings</td>
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<td></td>
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</tr>
<tr>
<td>J. Rising from bed</td>
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<tr>
<td>K. Taking off socks/stockings</td>
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<tr>
<td>L. Lying in bed</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>M. Getting on/out of bath</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>N. Sitting</td>
<td></td>
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<tr>
<td>O. Getting on/off toilet</td>
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<tr>
<td>P. Heavy domestic duties(moving the lawn, lifting heavy grocery bags)</td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Q. Light domestic duties(such as tidying a room, dusting, cooking)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>