The pelvic girdle questionnaire: a condition-specific instrument for assessing activity limitations and symptoms in people with pelvic girdle pain
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Objectives

• Introduce the Pelvic Girdle Questionnaire and explain the process of development

• Discuss psychometric properties used in the development of the Pelvic Girdle Questionnaire

• Discuss the clinical significance and utility in the clinic

• Highlight the limited research available on Pelvic Girdle Pain for pregnant and post-partum women
Background

Growing evidence supports that Pelvic Girdle Pain (PGP) should be a separate subgroup of disorders from Low Back Pain (LBP).

PGP usually arises from pregnancy.

Pain is usually located between the posterior iliac crests and the gluteal fold, specifically in the area of the SI joints.

Outcome Measures

 Outcome measures for LBP are not always the most appropriate for PGP.

There is often a discrepancy between patient scores and patient feedback when using LBP outcome measures for PGP.

There is a need for an outcome measure that is reliable, valid, and responsive to change.
• Previous studies of PGP used questionnaires that were intended for patients with LBP and so may not be appropriate for patients with PGP
• Items on the PGQ are found across LBP questionnaires, but not all of the questions on the PGQ are found on any of the LBP questionnaires

Questionnaires

Purpose

• This study was designed to “develop a condition-specific measure, the Pelvic Girdle Questionnaire (PGQ), for use both during pregnancy and post partum in research in clinical practice.”
Research

- A literature search, including CINAHL and MEDLINE, showed that there was no outcome measure specifically for PGP
- In 2008, pregnant and post partum patients with PGP were invited by the primary author to take part in a focus group
- Items that related specifically to PGP were taken from common outcome measures
- Physical therapists who work with patients with PGP were asked to record activities they considered the most important (i.e. sitting, standing)

The PGQ

- “The PGQ is a condition-specific, patient reported outcome measure designed to access aspects of quality of life for the evaluation of treatment outcomes that are important to patients with PGP”
- It is the first condition-specific measure for PGP
- Its content was based on the information from the focus group as well as input from the participating physical therapists
• Recommended Inclusion Criteria
  ◦ PGP located distal, lateral, or both in relation to the L5-S1 area in the buttocks, in the symphysis, or both, with pain onset during pregnancy or within 3 weeks after delivery

• Diagnostic Criteria:
  ◦ Posterior pelvic pain provocation test
  ◦ Active SLR test
  ◦ Pain provocation of the long dorsal sacroiliac ligament
  ◦ Pain provocation of the symphysis by palpation and by modified Trendelenburg test
Population

- Posterior pelvic pain provocation test or the active SLR test had to be (+)
- And at least 1 of the other 3 had to be (+)

Participant Characteristics

Table 2: Participant Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>First Survey (n=94)</th>
<th>Second Survey (n=67)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;30</td>
<td>14 (15)</td>
<td>13 (17)</td>
</tr>
<tr>
<td>30-37</td>
<td>50 (53)</td>
<td>52 (69)</td>
</tr>
<tr>
<td>≥38</td>
<td>30 (32)</td>
<td>25 (29)</td>
</tr>
<tr>
<td>Education of ≥12 y</td>
<td>82 (87)</td>
<td>75 (88)</td>
</tr>
<tr>
<td>Work status, employed</td>
<td>85 (86)</td>
<td>64 (73)</td>
</tr>
<tr>
<td>Pregnant</td>
<td>52 (55)</td>
<td>45 (69)</td>
</tr>
<tr>
<td>No. of children</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>14 (15)</td>
<td>7 (10)</td>
</tr>
<tr>
<td>1</td>
<td>39 (42)</td>
<td>26 (39)</td>
</tr>
<tr>
<td>2</td>
<td>29 (31)</td>
<td>29 (33)</td>
</tr>
<tr>
<td>≥3</td>
<td>9 (10)</td>
<td>11 (13)</td>
</tr>
<tr>
<td>Did not respond to the item</td>
<td>11 (11)</td>
<td>14 (16)</td>
</tr>
<tr>
<td>Pain-free periods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td>12 (13)</td>
<td>13 (17)</td>
</tr>
<tr>
<td>Sometimes</td>
<td>59 (63)</td>
<td>54 (82)</td>
</tr>
<tr>
<td>Other</td>
<td>25 (26)</td>
<td>17 (26)</td>
</tr>
<tr>
<td>Did not respond to the item</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pain duration, mo, X (SD)</td>
<td>26.8 (52.6)</td>
<td>27.1 (6.1)</td>
</tr>
</tbody>
</table>

* Data are reported as number (percentage) unless otherwise indicated.
Population

- **Pilot Study**
  - September 2008 Focus group formed
  - Pregnant and postpartum patients with PGP
  - 5 pregnant and 5 postpartum participants
  - PT’s recorded important activities to develop a new measure of content and face validity
First Trial (Fall 2008):
- Postal Questionnaire
- 94 participants (52 pregnant & 42 not)

Second Trial (Spring 2009):
- Postal Questionnaire
- 87 Participants (43 pregnant & 44 not)
- All new besides 13 postpartum participants

Norwegian version of PGQ
Psychometrics

- Rasch model to assess unidimensionality
  - Assesses the construct validity of questionnaire
  - No specific patterns or trends of data were found
  - Chi square of 49.5
  - Bonferroni-adjusted value of p= .0025
- Participant answers used to deem difficulty
  - less difficult=less disability
  - MDC calculated by multiplying the SEM by 2.77
- No participants had extreme scores

Psychometrics

- Person separation reliability (equal to Cronbach alpha) used to determine power
  - 0.8 and 0.9 → scale could discriminate among 2-3 groups
- Participants had difficulty discriminating the 5-point scale, so it was changed to 4-point system
  - Disordered probability curves
- Similar/redundant items excluded: from 40 questions to 20
  - Items assess individually
  - Those with low item-total correlations were excluded
Psychometrics

- Test-retest reliability
  - Assessed with ICC values of .93 for the 20-item activity scale, and .91 for the 5-item symptom subscale
- No ceiling or floor effect found
  - Participants did not report scores outside the scope of measurement
- Content validity
  - Data collected from people with PGP
  - Includes a cluster of items from previously used LBP items
  - Items classified by WHO’s International Classification of Functioning, Disability, and Health

Discussion

- PGQ is a condition-specific, patient-reported outcome measure that assesses aspects of QOL for patients with PGP
- PGQ is reliable and valid and to the knowledge of the researchers is the first condition-specific measure for PGP
- Traditional clinical measures are based on clinical opinions and lack content validity
Discussion

• PT’s commonly treat patients with PGP during pregnancy and postpartum
• Patients typically present with difficulties in the same activities during pregnancy and through the postpartum period
• Patients who are pregnant presented with more severe dysfunction
• Needed an outcome measure that was applicable during both periods to track progress
• PGQ is an appropriate outcome measure for both populations

Relevance

• PGQ comprises both activity and symptom subscale: functional disability, physical symptoms, pain, and sleep
• PGP is not the same condition as LBP therefore, functional disabilities differ between the two
Strengths of the Study

- Data was collected from patients with clinically confirmed PGP
- Collaboration between physical therapists providing health care to women and researchers with experience in patient-reported outcome measures

Clinical Significance

- Simple to administer
  - Takes 3 minutes to administer
  - Feasible for use in clinical practice
- Brief enough to be used along side generic instruments
- Data was collected from patients with clinically confirmed PGP
- PGQ covers both function and pain and would make a great assets in clinics that deal with women’s health
Future Studies

- More information is needed on the longevity of the outcome measure
- Future research in needed to assess the responsiveness to change of the PGQ
- Assess generalizability

European Guidelines for the Diagnosis and Treatment of Pelvic Girdle Pain

Vleeming A, Albert HB, Ostgaard HC, Sturesson B, Stuge B

- This article focused on providing a set of recommendations for guidelines for PGP
- Review of literature revealed a common theme among inspection for pregnant women, including walking, posture, palpation, and pain
- Risk factors are prior history of LBP and pelvic trauma
The Following tests were decided and recommended for a clinical exam of PGP:
- Thigh thrust, Faber’s, palpation of the long dorsal SI joint ligament, and Gaeslen’s Test
  - These tests have a high specificity but low sensitivity, and was recommended to perform all of the tests.
- Also a strong pain history with standing, walking, and/or sitting was noted
- Imaging was not recommended, unless to rule out ankylosing spondylitis

**European Guidelines for the Diagnosis and Treatment of Pelvic Girdle Pain**
Vleeming A, Albert HB, Ostgaard HC, Sturesson B, Stuge B

Cross-sectional study
- Assessed pain location, response to posterior pain provocation test and ASLR, and disability in late pregnancy
- 283 women at 30 weeks gestation
- Disability measured with DRI
- Pain ratings for LBP, PGP and LBP+PGP

**Pelvic girdle pain, clinical tests and disability in late pregnancy.**
Robinson HS, Mengshoel AM, Bjelland EK, Vollestad NK
Women with symphysis pain + bilateral posterior pelvic pain had largest impact with DRI scores
  ◦ However, large variation on DRI scores
LBP had less effect on disability than PGP
Pain location is an important factor in diagnosing and treating PGP v. LBP

Pelvic girdle pain, clinical tests and disability in late pregnancy.
Robinson HS, Mengshoel AM, Bjelland EK, Vollestad NK

References