

## CLINICAL PAPER

# Pelvic girdle pain in three pregnant women choosing chiropractic management: a pilot study using a respondent-generated instrument and chiropractor's assessment tool

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### Abstract

Pelvic girdle pain (PGP), as experienced by pregnant women, is poorly defined and understood. Despite an increasing body of research, there is still little in the literature that is accessible to healthcare practitioners regarding the management and treatment of this condition. There is also a lack of information about the use of specific tools to help define the problem, or to measure the outcomes in pregnant women with PGP. This paper begins the process of exploring the place of chiropractic treatment in the management of PGP experienced by pregnant women by documenting a small pilot study of use of the Chiropractor's Assessment and Treatment Tool (CATT), as used by chiropractors, alongside a validated questionnaire, the Measure Yourself Medical Outcome Profile 2 (MYMOP2), a patient-generated outcome measure. The treatment given by chiropractors and the self-reported outcomes of three women undergoing chiropractic treatment are documented and compared. The results demonstrate that the MYMOP2 and CATT are useful tools for recording both women's experiences of and chiropractors' findings regarding the chiropractic treatment of PGP in pregnant women. The use of the MYMOP2 for specifically recording women's experience of PGP, and relating these findings to the treatment, showed how the application of chiropractic treatment correlated positively with a reduction in MYMOP2 scores, where reduction equates to a patient-perceived improvement.

*Keywords:* chiropractic, pelvic girdle pain, pregnancy, respondent-generated tool.

### Introduction

Pelvic girdle pain (PGP) is now well acknowledged in the literature as a condition that affects many women during their pregnancies (Ostgaard *et al.* 1994; Larsen *et al.* 1999; Albert *et al.* 2002; Wu *et al.* 2004). As many as one in five women experience the symptoms of PGP, but the condition remains poorly defined and understood (Albert *et al.* 2002).

Earlier publications have largely been epidemiological studies of incidence and prevalence

rates, or descriptive reports of women's difficulty in maintaining an active pregnancy free of pain and without limitation of activities of daily living (Ostgaard *et al.* 1991; Fry 1999; Rost *et al.* 2004). Although these studies have brought PGP into the public consciousness and initiated further research – prospective studies are now being undertaken (Bastiaanssen 2005; Gutke *et al.* 2006) – there still remains a lack of available evidence on the treatment of PGP.

A report by the European COST Commission (ECC 2004) contained a systematic review of the available evidence, and recommended that a distinction should be made between pelvic pain

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emanating from the pelvic girdle and low back pain from the lumbar spine. The report suggested that careful diagnosis was needed because the presentations may be similar, but the prognoses for recovery, and for effective treatment, are different (Ostgaard *et al.* 1991; Albert *et al.* 2002). The European COST Commission recommended consistent terminology and underlined the need for evidence-based treatment (ECC 2004). Areas highlighted for further research by the Commission included the examination of different treatment modalities, including manipulation and mobilization, and the evaluation of diagnostic procedures.

There have been two promising recent studies indicating that acupuncture has some efficacy in the treatment of PGP (Elden *et al.* 2005), as does the use of stabilizing exercises in a postpartum group (Stuge *et al.* 2004), but as Bastiaenen *et al.* (2004) noted, professional uncertainty remains about the optimal approach.

Physiotherapists have been at the forefront of the publication of reviews and commentaries on PGP: notably, the work of Deborah Fry and her colleagues in the 1990s, and more recently, Yvonne Coldron's recent review (Fry 1992, 1999; Fry *et al.* 1997; Coldron 2005). Coldron's paper links the functional anatomy and neurophysiology relating to pelvic girdle dysfunction with current management strategies, and provides a timely overview of the present situation. In her conclusions, she notes, 'future clinical research should be aimed at using the collection of symptoms/syndromes as a diagnostic tool and investigating a combination of treatment approaches' (Coldron 2005). The publication of guidance for the management of pregnancy-related PGP by the Association of Chartered Physiotherapists in Women's Health, which is intended to educate both the public and healthcare practitioners, continues to increase awareness and contribute to the management of this condition (ACPWH 2007).

Within the field of chiropractic, there have been few studies on the management and treatment of PGP in pregnancy, with the exception of one case study (Stern *et al.* 1993) and a small retrospective survey (Andrew & Pedersen 2003). There is also little in the literature regarding the use of specific tools to define the problem or to measure the outcome of treatment for women with PGP.

Therefore, the aim of the present study was to record signs and symptoms using two tools. The Chiropractor's Assessment and Treatment Tool

(CATT; see 'Appendix 1') has been developed by audit and consultation for use by chiropractors to record the presenting signs of PGP and the treatment given. This is used in conjunction with the Measure Your Own Medical Outcome Profile 2 (MYMOP2; see 'Appendix 2'), a self-generated patient outcome measure completed by the participating women with PGP as they access chiropractic care (Paterson 1996). Both these tools are explained in more detail in the 'Instruments' section of 'Subjects and methods' below. These tools are used within a clinical chiropractic setting and as part of an ongoing PhD research study.

The pilot study reported within the present paper specifically focuses on the response described using these two tools. Although many women are treated by chiropractors during their pregnancies, there is little documented evidence as to why women seek chiropractic care, or regarding the progression and outcome of their experience. The present study charts the course women take through their chiropractic care, and importantly, it begins the process of documenting how chiropractors treat pregnant women with PGP.

## **Subjects and methods**

### *Aim of the study*

This pilot study aimed to assess the usefulness of a validated patient-generated questionnaire (MYMOP2), and a non-validated chiropractic assessment and treatment tool (CATT) in recording three women's experiences of chiropractic care when managing the condition known as PGP in pregnancy.

### *Ethical consideration*

The study was approved by the Ethics Committee of the University of the West of England, Bristol, UK. An information sheet and explanatory letter outlining the study were sent out prior to the initial consultation. These informed potential participants of their right not to be included in the study, and stated that this decision would not affect their treatment; that complete confidentiality was assured; and that they had a right to withdraw from the study at any time, without any alteration in care or treatment to themselves. It was not anticipated that any distress would be caused by entering this study, requiring information given voluntarily by the participant (patient-generated), and an assessment, recorded by the chiropractor, that



would not differ from usual chiropractic procedures. Informed consent was obtained before each participant was enrolled in the study.

### *Setting*

The study took place in a private chiropractic clinic in Bristol, UK. For the purposes of this pilot, the first author (C.G.A.) treated the three women recruited into the study, and collected and analysed the data. Pregnant women over the age of 18 years, with a good understanding of written and spoken English, who were not receiving any treatment apart from routine antenatal care, and who had no known complications of their current pregnancy, were invited to enter the study.

### *Participants*

The pilot sample comprised the first three pregnant women who phoned the clinic for an appointment after the start date of the study. They were informed of the study by phone and asked if they would consent to information being sent to them with the usual pre-visit brochure/clinic details. Immediately prior to their chiropractic appointment at the clinic, they were given the opportunity to ask questions, and then, having met the inclusion criteria and with consent obtained, were enrolled into the study. All three women consented and took part in the study.

### *Chiropractic technique*

Chiropractic is a system of healthcare that uses manual techniques to enable adjustments to be made to the musculoskeletal system with the aim of restoration of normal function. Many differing techniques are used by chiropractors.

During pregnancy, an especially light technique is appropriate, since the body is adapting to the hormonal changes and relaxation of the ligamentous system in preparation for childbirth.

Sacro-occipital technique (SOT), which was used by the chiropractors in this study, is a form of chiropractic that incorporates the body's weight and gravity to assist in the adjustments required to effect change. As a part of the treatment, pieces of equipment known as 'blocks' or 'wedges' are often placed at strategic positional points beneath the pelvis and hips, depending on the indicators. These indicators, or diagnostic clinical findings, provide specific information for the chiropractor to enable the administration of treatment that is appropriate

for each individual. The weight of the individual's body assists in the adjustment to the pelvis in an extremely gentle way, whilst facilitating the restoration of normal body mechanics. These techniques are used in conjunction with other manoeuvres involving the soft-tissue structures.

The terminology in the present paper that refers to 'blocking' and 'categories' (e.g. category 1 or category 2 blocking) relates to a specific treatment technique using gravitational adjustment to the pelvis. Further information on SOT, including a description of the arm fossae test, is available online at <[www.sotoeurope.org](http://www.sotoeurope.org)> and <[www.sorsi.com](http://www.sorsi.com)>.

### *Instruments*

#### *Chiropractor's Assessment and Treatment Tool.*

The CATT (see 'Appendix 1') is a newly constructed tool. It was developed during the present study using a patient audit technique, piloted with the help of chiropractors, and then adapted and refined. The reason for using a tool such as this is to be able to demonstrate and document consistency of approach during examination and treatment, and also to show how treatment may change over time.

The first author (C.G.A.) used the principles of SOT when developing the assessment indicators and treatment techniques that form a significant part of this tool (DeJarnette 1984). Currently, there is no tool that measures chiropractic assessment and treatment in the care of women during pregnancy.

An aim of the pilot study was to assess the usefulness of this currently non-validated chiropractic assessment and treatment tool (CATT) alongside the use of the MYMOP2, an existing validated tool in order to see if there was any correlation between the two measures prior to use within the main study. At present, the CATT is not weighted, and the information obtained was provided by descriptive commentary on the findings, which were documented as a change in indicators during assessment and the difference in treatment given at each chiropractic consultation.

#### *Measure Yourself Medical Outcome Profile 2.*

The MYMOP2 ('Appendix 2') is a patient-generated outcome measure. It is a validated self-completed questionnaire used by the patient to present their own symptoms relevant to their own condition (Paterson 1996). Thus, participants are able to create their own hierarchy of symptoms, rather than choosing from a given generic list. This has the virtue of allowing the



participant to determine what they consider to be most important, rather than having to select from a non-individualized list, or from symptoms chosen by health professionals or researchers. Therefore, it aims to measure outcomes from the point of view of the recipient of care rather than the carer. As Paterson (2002) explained, 'here the patient is no longer an object, being observed or tested from outside, but is subject and is a partner in measurement'.

One of the reasons for choosing to employ the MYMOP2 in the present study was that it was considered to be friendly to the user, requiring a relatively short amount of time to understand and complete at each visit. This brevity of documentation also left ample time for the primary purpose of each visit: consultation. The original MYMOP2 has been partially adapted for the present study with the permission of the author (C. Paterson, personal communication, 2005).

The final question on the original MYMOP2 asks whether any medication is being received and, if so, to state how much is being taken each day. Since women generally avoid medication during pregnancy, it was felt appropriate to expand this question to include any other treatment, therapy or exercise. This was in keeping with the individualized and holistic approach that the MYMOP2 uses in order to discover each person's own relevant symptoms. For further information on the MYMOP2, updated versions and details are available on the following website: <[www.hsrc.ac.uk/mymop](http://www.hsrc.ac.uk/mymop)>.

### **Procedure**

The procedure was as follows:

- (1) Three pregnant women were recruited from clinical practice to participate in the study.
- (2) Informed consent was obtained from the subjects.
- (3) The MYMOP2 was completed at the initial consultation by each participant.
- (4) The CATT was completed at the initial consultation by the chiropractor.
- (5) Each participant received treatment and was given a plan of care.
- (6) Self-completed diaries\* were given to each participant for home use.

\*During the main research for the first author's (C.G.A.) PhD, pre- and post-birth interviews (audiotaped with permission and transcribed), and self-completed diaries were also used as means of data collection. These were employed within the pilot study, but are not reported in the present paper. The reason for this combined approach was to provide further qualitative data to add richness and depth

- (7) A date for an antenatal interview was arranged.
- (8) Follow-up visits took place as required, and the MYMOP2 and CATT were completed at each visit.
- (9) An antenatal interview was conducted at each participant's chosen setting, i.e. home or chiropractic clinic.
- (10) Follow-up visits took place as required, and the MYMOP2 and CATT were completed at each visit.
- (11) A post-birth interview was conducted and the diaries were collected.
- (12) Follow-up treatment took place as required.

### **Results**

Three women with PGP entered the pilot study (Table 1). All subjects have been given pseudonyms.

#### *Participant 1 (Ruth)*

*Measure Yourself Medical Outcome Profile 2 score.* The significant symptoms that were noted on Ruth's first visit (see Fig. 1) were pain at the top of thighs and headache. Activity restriction was recorded as 'difficulty' when she climbed stairs. General well-being was also scored at each session from the initial visit onwards. A new symptom, burning pain over the pubic bone, was recorded on her third visit. Four treatments were given during the antenatal period, and the fifth and final treatment occurred 5 weeks postnatally.

The MYMOP2 line chart (Fig. 1) shows Ruth's progress over time, with each treatment episode being scored between 0 and 6 for each symptom, for the activity restriction and for general well-being: (0) as good as it can be; and (6) as bad as it can be.

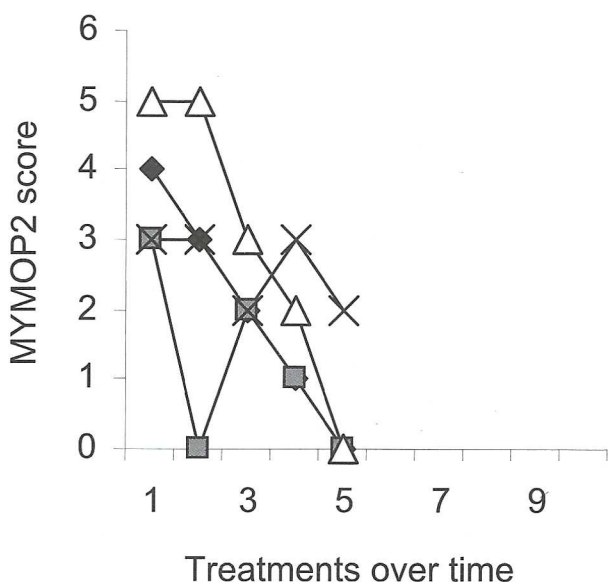
The MYMOP2 enables a profile score to be charted (Fig. 2 and Table 2), which is the mean score of all symptoms, activity restriction and general well-being, which are recorded at each visit. These scores range from the initial score at first treatment (T1) to the final treatment (T5),

to the material collected by the MYMOP2 and CATT. This additional material allowed a triangulation of data and added an extra source of verification to the measurements obtained using the objective tools (i.e. the MYMOP2 and CATT). A full account of all the qualitative data collected is outside the scope of the present paper, but will be presented at a future date.



**Table 1.** Demographics of participants: (PGP) pelvic girdle pain; (SP) symphysis pubis; (SIJ) sacroiliac joint; and (LBP) low back pain

Variable	Participant		
	(1) Ruth	(2) Ellen	(3) Martha
Age (years)	33	32	34
Occupation	Part-time (clerical)	Full-time (professional)	Part-time (professional)
Pregnancy	Second	First	Fourth
Number of live children	1	0	1
Previous PGP	No	No	Yes
Gestation time (weeks):			
at first experience of PGP	20	32	12
at first presentation to chiropractor	29	36	30
Presenting symptoms	Pain in both buttocks; 'clicking' noise in pelvis when climbing stairs; headache	Pain in SP, buttocks, radiating anteriorly; pelvis sounds 'creaky'; pain at night in pelvis	Pain in SIJ and SP; LBP
Level of activity	Walking, with other child	Gym (used to play volleyball)	Walking, with other child (international gymnast until aged 15 years)

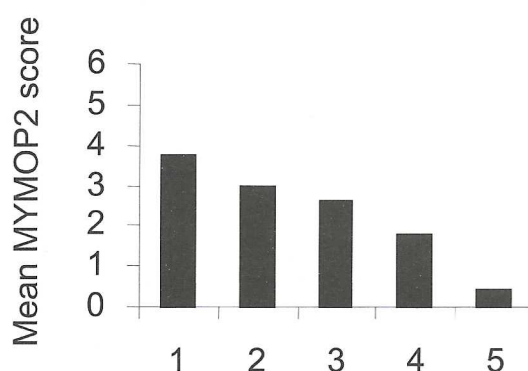


**Figure 1.** Measure Yourself Medical Outcome Profile 2 (MYMOP2) score for participant 1: (◆) pain at the top of the thighs; (■) headache; (△) difficulty climbing stairs; and (×) general well-being.

5 weeks postpartum: (0) as good as it can be; and (6) as bad as it can be.

*Chiropractor's Assessment and Treatment Tool.* At the first visit, following the case history, physical examination and treatment, the CATT was completed by the chiropractor. This process was repeated at each visit (see 'Appendix 1').

The initial assessment of Ruth showed that her gait was compromised, the symphysis pubis was tender on palpation, the right psoas and piriformis muscles were hypertonic, there was restriction of movement on internal rotation of



**Figure 2.** Mean Measure Yourself Medical Outcome Profile 2 (MYMOP2) profile score for participant 1.

**Table 2.** Mean Measure Yourself Medical Outcome Profile 2 (MYMOP2) score by treatment number for participant 1

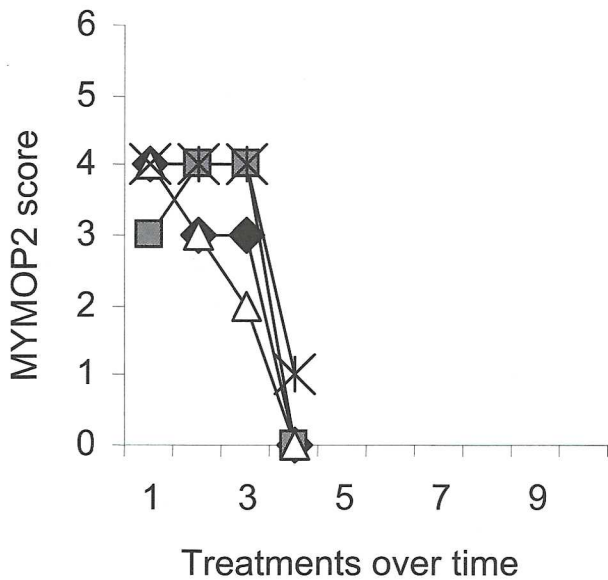
Variable	Treatment number				
	1	2	3	4	5*
Mean MYMOP2 score	3.75	3.0	2.6	1.8	0.4

\*Treatment number 5 was postpartum.

the right hip, and there was rotation of the pelvis with a right posteriorly rotated ilium and corresponding left anteriorly rotated ilium. The arm fossae test was positive, indicating an unstable pelvis (category II in SOT listing). This supported a diagnosis of pelvic instability with myofascial dysfunction noted by aberrant performance of the major pelvic, abdominal and hip rotator muscles.

Treatment comprised a release of the right psoas and piriformis muscles, a myofascial





**Figure 3.** Measure Yourself Medical Outcome Profile 2 (MYMOP2) score for participant 2: (◆) symphysis pubis pain; (■) sacroiliac joint pain; (△) difficulty standing on one leg; (×) general well-being; and (✱) clicking over pelvis.

release technique to the right hip muscles and ligaments, and category II SOT pelvic blocking to correct the unstable pelvic alignment. The advice that was given consisted of encouragement of the use of supportive footwear and a gymball for core stabilizing exercises, and tips regarding adaptations to Ruth's lifestyle. By the second visit, the subject was wearing training shoes to support her feet, using the gymball for exercise and engaging in stabilizing exercises that she continued to do throughout her pregnancy.

Also by the second visit, there was a marked positive improvement in gait, but otherwise, the assessment showed the same myofascial and osseous dysfunction. On the third visit, a reduction of hypertonic musculature was noted, but the pelvis still required stabilizing. By the fourth visit, the pelvis had stabilized and no blocking (adjustment to the pelvis) was required. The next assessment and treatment was at 5 weeks postpartum; at this time, the pelvis was still stable and did not require treatment.

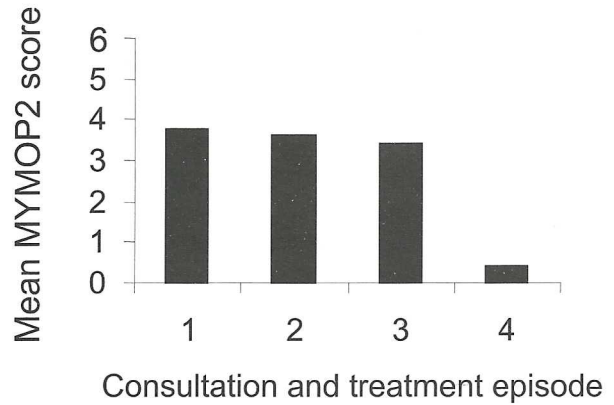
**Participant 2 (Ellen)**

*Measure Yourself Medical Outcome Profile 2 score.* Ellen's completion of the MYMOP2 (Fig. 3) showed that two symptoms were important to her: pain at the symphysis pubis and pain at the sacroiliac joints. Activity restriction was recorded as difficulty standing on one leg. General well-being was also scored. A new symptom, described as a clicking noise over the pelvis, was recorded on the second visit. Three

**Table 3.** Mean Measure Yourself Medical Outcome Profile 2 (MYMOP2) score by treatment number for participant 2

Variable	Treatment number			
	1	2	3	4*
Mean MYMOP2 score	3.75	3.6	3.4	0.4

\*Treatment number 4 was postpartum.



**Figure 4.** Mean measure Yourself Medical Outcome Profile 2 (MYMOP2) profile score for participant 2.

treatments were given during the antenatal period, and the fourth and final treatment occurred 5 weeks postnatally.

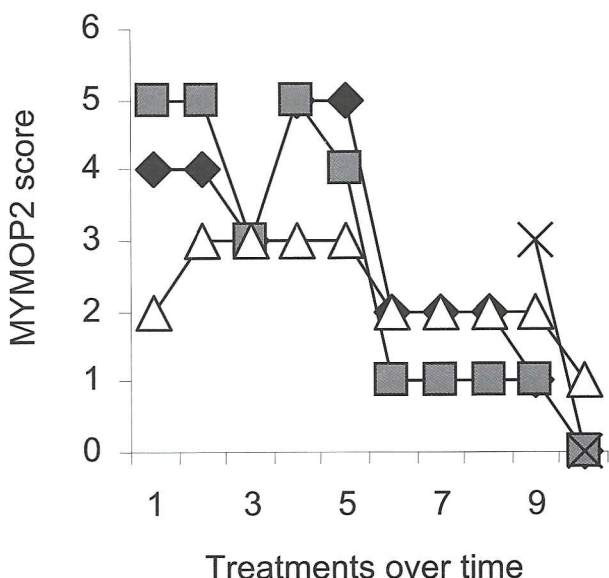
The MYMOP2 line chart (Fig. 3) shows the progress over time, with each treatment episode having a score between 0 and 6 for each symptom, for the activity restriction and for general well-being (scoring as above).

The MYMOP2 profile score (Fig. 4 and Table 3) shows the mean score of all symptoms, activity restriction and general well-being, which are recorded at each visit, and ranges from the initial score at first treatment (T1) to the final treatment (T4) 5 weeks postpartum (scoring as above).

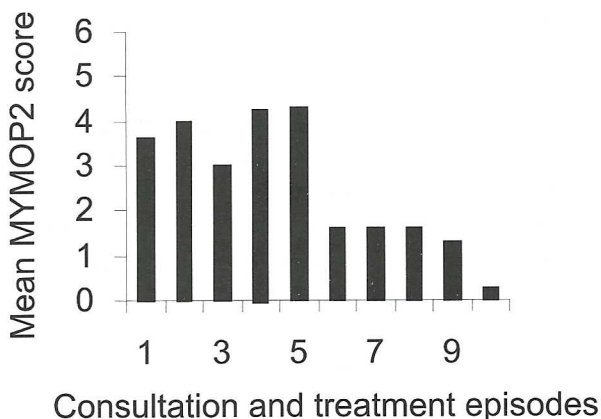
*Chiropractor's Assessment and Treatment Tool.* The initial assessment showed that the symphysis pubis was tender on palpation, the right psoas muscle was hypertonic and the arm fossae test was positive, indicating an unstable pelvis (category II in SOT listing).

Treatment comprised a release of the right psoas muscle, an indirect adjustment to the symphysis pubis and category II SOT pelvic blocking to correct the unstable pelvic alignment. Advice was given on the use of supportive footwear, gymball, the undertaking of core stabilizing exercises and lifestyle adaptations. A diagnosis of pelvic instability with myofascial dysfunction was made, as with participant 1.





**Figure 5.** Measure Yourself Medical Outcome Profile 2 (MYMOP2) score for participant 3: (◆) pelvic pain over symphysis pubis; (■) difficulty walking; (△) general well-being; and (×) night pain over pelvis.



**Figure 6.** Mean measure Yourself Medical Outcome Profile 2 (MYMOP2) profile score for participant 3.

However, treatment was required at each visit, and the chiropractor worked on the same osseous and myofascial dysfunction until the post-birth assessment, when the pelvis was stable and specific pelvic treatment was no longer required. The MYMOP2 scores decreased more slowly than for participant 1 until the post-birth score (see Fig. 4).

**Participant 3 (Martha)**

*Measure Yourself Medical Outcome Profile 2 score.* At her first chiropractic consultation, Martha completed the MYMOP2 (see Fig. 5), noting one symptom of importance to her: pelvic pain at the symphysis pubis. Activity restriction was recorded as difficulty walking. General well-being was also scored. A new symptom, night pain in the pelvis, was recorded on the ninth visit. Nine treatments were given during the antenatal period, and the tenth and final treatment occurred 5 weeks postnatally.

The MYMOP2 line chart (Fig. 5) shows the progress over time, with each treatment episode having a score between 0 and 6 for each symptom, for the activity restriction and for general well-being (scoring as above).

Profile scores (Fig. 6 and Table 4) show the mean of all symptoms recorded at each treatment, and range from the initial score at first treatment (T1) to the final treatment (T10) 5 weeks postpartum (scoring as above).

*Chiropractor’s Assessment and Treatment Tool.*

The initial assessment showed that the left psoas muscle was hypertonic, the symphysis pubis was tender on palpation, there was a left posterior sacrum on palpation and the arm fossae test was positive, indicating an unstable pelvis (category II in SOT listing).

Treatment comprised a release of the left psoas muscle, an indirect adjustment to the symphysis pubis, an adjustment to the left posterior sacrum and category II SOT pelvic blocking to correct the unstable pelvic alignment. Advice was given regarding the use of supportive footwear, the use of a gymball, the undertaking of core stabilizing exercises and lifestyle adaptations. A diagnosis of pelvic instability was made.

During the next four treatments, there was little response to the signs or symptoms. It was noted that there was less muscular myofascial involvement compared with the other two participants. On the fifth visit, because of the lack of response, the treatment was changed to

**Table 4.** Mean Measure Yourself Medical Outcome Profile 2 (MYMOP2) score by treatment number for participant 3

Variable	Treatment number									
	1	2	3	4	5	6	7	8	9	10*
Mean MYMOP2 score	3.6	4.0	3.0	4.3	4.3	1.6	1.6	1.6	1.3	0.25

\*Treatment number 10 was postpartum.



incorporate a category I blocking of the pelvis, thereby treating the hypomobile sacroiliac joint. This coincided with a marked reduction in the MYMOP2 profile score for the next four treatments prior to the birth and also on scoring the postpartum consultation.

## Discussion

In the present pilot study, three cases illustrated differing responses to treatment and demonstrated the ability of the MYMOP2 to describe these changes. The signs and symptoms for the participants were consistent with the literature and previously documented reports of the symptoms of PGP (Fry 1999; Wu *et al.* 2004). Diagnosis was confirmed by clinical chiropractic examination.

Similar symptoms were noted by each participant, with pain at the symphysis pubis or the top of the thighs experienced by all three subjects. The MYMOP2 scores showed a reduction, i.e. a patient-perceived improvement, in all three participants' discomfort over the course of their treatment. The third participant, Martha, experienced a delayed response to treatment, initially deteriorating until the type of treatment was altered. There was a corresponding increase (worsening) in the MYMOP2 scores for the first half of all of Martha's treatments, and then a reduction (improvement) in MYMOP2 scores on the sixth and subsequent treatments. This coincided with the changes recorded by the chiropractic findings, which were documented using the assessment and treatment tool (CATT).

The difference in both the MYMOP2 scores and CATT findings shown by participant 3, compared with the other two participants, and the resultant change with an alteration in treatment, demonstrates the usefulness of the tools used within the present pilot study. It appeared that, when correctly treated, pregnant women with PGP responded to chiropractic care as described by a reduction in their MYMOP2 scores and CATT indicators. It also demonstrated the need to treat the patient with chiropractic therapy that is appropriate in order to evaluate clinical and patient reported outcomes, and to initiate a change in treatment protocol when indicated.

However, there were many confounding variables within the present study. These included, *inter alia*, the psychosocial factors, such as: appreciation of consultation; being given time, a diagnosis and hope of recovery; the practitioner's belief in and enthusiasm for the benefits of

treatment; and the nature of the paid consultation, accompanied by the patient's wish to believe and improve. These may be summarized as the placebo factor.

Other factors may include 'treatment' that is not directly chiropractic, but comes as part of the package, including advice on lifestyle modification, initiation of exercise and postural changes.

There are many factors that need to be considered when looking at the effective treatment of PGP in pregnancy. By focusing on the physical signs (CATT) and self-reported symptoms (MYMOP2), some aspects have been addressed within the present study. By combining these findings with the interviews and diaries, the opportunity to explore in more depth the 'lived experience' of PGP will be possible. This will take place during the current main study, which is ongoing.

It is acknowledged that the role of being both the practitioner and researcher is complex and subject to bias since it challenges both the belief systems and the integrity of the individual researcher (Lewith 2004). Confounding factors may include patient-practitioner interaction, practitioner and patient belief in the treatment, and the contribution that these may make to the overall effectiveness. It has been suggested by White (2003) that referral for treatment by other healthcare practitioners may contribute to the representation of the already 'convinced individual'.

## Conclusion

These three cases represent a pilot study and no firm conclusions can be drawn from the present findings. However, inferences were made that could both encourage and provide a starting point for the further research that is now needed.

The present pilot study demonstrated that the tools used, i.e. the MYMOP2 and CATT, showed a consistency of response in recording and evaluating both women's experiences and chiropractors' findings during the chiropractic treatment of PGP in pregnant women.

The use of the MYMOP2 for specifically recording women's experience of PGP, and the relationship of these findings to the treatment, showed how the application of chiropractic treatment correlated positively with the MYMOP2 scoring. In other words, when the treatment showed some efficacy, the MYMOP2 score reduced.



## Acknowledgements

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**Appendix 1**

Chiropractor's Assessment and Treatment Tool (CATT)

Name of participant:..... Date.....

Chiropractor:.....

Comments:.....

.....

.....

Examination (please circle or tick)

<b>Gait</b>	Normal	Compromised	Very compromised
<b>Posture</b>	Straight	Antalgic list	
<b>Postural analysis</b>	A-P sway	Lateral sway	No sway
<b>Ribheads</b>	Normal	Unilateral movement	Fixed

<b>Leg length</b>	Even	Right short leg	Left short leg
<b>Iliofemoral test</b>	Normal	Right restricted	Left restricted
<b>Psoas test</b>	Normal	Right hypertonic	Left hypertonic
<b>Symphysis pubis</b>	Normal	Adductor test weak	Tender on palpation
<b>Round ligaments</b>	Normal	Right hypertonic	Left hypertonic
<b>Arm fossa test</b>	Negative	Positive	

<b>Sacrum - heel test</b>	Normal	Right posterior	Left posterior
<b>Gluteal fibres</b>	Negative	Positive	
<b>Piriformis</b>	Normal	Right tender	Left tender
<b>Cervical indicators/L5</b>	Negative	Positive	
<b>Trapezius fibres</b>	Negative	Positive	
<b>Occipital fibres</b>	Negative	Positive	

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continued overleaf...



...continued from previous page

**CATT**

Treatment (please circle or tick)

<b>Psoas</b>		Right released	Left released	Bilateral release
<b>Diaphragm</b>		Right released	Left released	Bilateral release
<b>Iliofemoral</b>		Right released	Left released	Bilateral release
<b>Round ligament</b>		Right released	Left released	Bilateral release
<b>Symphysis pubis</b>		Adjusted, direct	Adjusted, indirect	
<b>Sacrum</b>		Right posterior	Left posterior	
<b>Lumbar</b>	L5	L4	L3	L2
<b>Piriformis</b>		Right released	Left released	Bilateral release
<b>SOTO</b>		Right	Left	Bilateral
<b>Sacro-tuberous ligament</b>		Right	Left	Bilateral
<b>Thoracics</b>		Osseous adjustment	Activator	Mobilisation
<b>Cervicals</b>	Platysma	Stairstep adjustment	Osseous adjustment	Activator
<b>Blocking</b>	SB	Cat 1	Cat 2	Cat 3
<b>Cranials/ Intra oral</b>	Basic 1	Basic 2	Basic 3	Pterygoids
<b>Advice</b>	exercise	gymball	footwear	Other, please comment

**Comments:**.....  
 .....  
 .....  
 .....  
 .....  
 .....

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**Appendix 2**

MYMOP2

Full name ..... Date of birth .....

Address and postcode.....

Today's date ..... Practitioner seen .....

Choose one or two symptoms (physical or mental) which bother you the most. Write them on the lines. Now consider how bad each symptom is, over the last week, and score it by circling your chosen number.

SYMPTOM 1: ..... 0 1 2 3 4 5 6  
 ..... As good as it could be ..... As bad as it could be

SYMPTOM 2: ..... 0 1 2 3 4 5 6  
 ..... As good as it could be ..... As bad as it could be

Now choose one activity (physical, social or mental) that is important to you, and that your problem makes difficult or prevents you doing. Score how bad it has been in the last week.

ACTIVITY: ..... 0 1 2 3 4 5 6  
 ..... As good as it could be ..... As bad as it could be

Lastly how would you rate your general feeling of wellbeing during the last week?

0 1 2 3 4 5 6  
 As good as it could be As bad as it could be

How long have you had Symptom 1, either all the time or on and off? Please circle:

0 - 4 weeks    4 - 12 weeks    3 months - 1 year    1 - 5 years    over 5 years

Are you receiving any other medication, treatment, therapy or exercise FOR THIS PROBLEM? Please circle:

YES/NO

IF YES:

1. Please write in name of the medication, treatment, therapy or exercise and how often it is taken.

.....

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**MYMOP2 Follow up**

Full name ..... Today's date .....

Please circle the number to show how severe your problem has been IN THE LAST WEEK.

This should be YOUR opinion, no-one else's!

SYMPTOM 1: ..... 0 1 2 3 4 5 6  
 ..... As good as it ..... As bad as it  
 ..... could be ..... could be

SYMPTOM 2: ..... 0 1 2 3 4 5 6  
 ..... As good as it ..... As bad as it  
 ..... could be ..... could be

ACTIVITY: ..... 0 1 2 3 4 5 6  
 ..... As good as it ..... As bad as it  
 ..... could be ..... could be

WELLBEING: 0 1 2 3 4 5 6  
 How would you rate As good as it As bad as it  
 your general feeling could be could be  
 of wellbeing?

If an important new symptom has appeared please describe it and mark how bad it is below.

Otherwise do not use this line.

SYMPTOM 3: ..... 0 1 2 3 4 5 6  
 ..... As good as it ..... As bad as it  
 ..... could be ..... could be

The treatment you are receiving may not be the only thing affecting your problem. If there is anything else that you think is important, such as changes you have made yourself, or other things happening in your life, please write it here (write overleaf if you need more space):

Are you receiving other medication, treatment, therapy or exercise FOR THIS PROBLEM? Please circle:

YES/NO

**IF YES:**

Please write in name of the medication, treatment, therapy or exercise and how much a day / week.

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