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## **Women in pain : the course and diagnostics of chronic pelvic pain**

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# Women in PAIN

*Adapted from Pain 2007,132:S117-23*

## **Clinical course of chronic pelvic pain in women**



5

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## **ABSTRACT**

*Aim:* A follow-up study on a cohort of women with chronic pelvic pain (CPP) was conducted, to evaluate the clinical course and to identify factors associated with outcome.

*Method:* Participants were over 18 years of age and had initially visited a multidisciplinary CPP-team of a Gynaecological Department of a University Hospital. The course of chronic pelvic pain was evaluated using the Life Chart Interview (LCI) method. All participants completed questionnaires covering demographic and clinical characteristics, pain (McGill) and psychological distress (SCL-90) at baseline and follow-up. The response rate was 60%. A survival analysis was conducted.

*Results:* After a mean follow-up period of 3.4 years, 18 women (25%) of the study sample (N = 72) reported recovery from pelvic pain (i.e., pelvic pain for less than 3 months per year). Eight of these 18 women (11% of the total sample) reported no pain at all at follow-up. Relapse of symptoms was not encountered. Not any demographic, clinical or pain related variable measured at baseline, nor any intervention between baseline and follow-up, was associated with outcome.

*Conclusions:* Our results indicate that chronic pelvic pain in women in secondary care is a longstanding condition. Further research is recommended to identify risk factors for persistence of symptoms.

## Introduction

Chronic pelvic pain (CPP) in women is commonly described as continuous or intermittent pain in the lower abdomen, lasting for at least 6 months and not exclusively related to menstrual period or sexual intercourse [Williams 2004]. The condition cannot be explained medically. Even when some abnormality is present this may be coincidental rather than causal. Chronic pelvic pain can have a considerable impact in terms of interference with daily life activities and general well being which results in anxiety and depression [Savidge 1998; Grace 2006]. In a community based study in the US among women of reproductive age, a prevalence rate of 14.7% is found [Mathias 1996], and in the UK [Zondervan 2001] and New Zealand [Grace 2004] a rate of 24% and 25.4% is observed while both studies included also mid-cycle pain. In primary care, however, an annual prevalence rate of CPP in women of 3.7% is found, comparable with figures for asthma (3.8%) and back pain (4.1%) [Zondervan 1999a]. Of these women with CPP in primary care only 40% is referred to secondary or tertiary care [Zondervan 1999b]. Therefore gynaecologists, gastroenterologists, surgeons or other medical specialists will be confronted with a highly selected minority of the patient population. Moreover, CPP is a costly condition since it results in frequent use of health care resources and absence from work. About 10 years ago in the US the total annual direct costs for physician visits plus out-of-pocket expenses for CPP were estimated to be US\$ 2.8 billion, but costs of diagnostic procedures or hospitalization were not included. In addition, the total indirect cost of CPP due to time lost from work was estimated at US\$ 555 million [Mathias 1996]. Because the pathogenesis of CPP is poorly understood, often exhaustive diagnostic evaluations by different medical specialists are performed without revealing an obvious cause for the pain. Even more, the range of effective interventions remains limited and recommendations for treatment are based on single studies [Stones 2005].

Despite the high prevalence of CPP, the considerable impact on life, the related health care consumption and social costs, the poor diagnostic results and treatment options, little is published about the clinical course of chronic pelvic pain in women [Lamvu 2006]. Therefore, a follow-up study on women with CPP who had visited a chronic pelvic pain team was conducted at an interval of 1-6 years after initial assessment. The main aim was to obtain information about the clinical course of chronic pelvic pain by interviewing the former patients and exploring changes between baseline and follow-up assessment regarding reported pelvic pain severity and psychological distress. Second, we aimed to identify factors associated with outcome by concentrating on baseline demographic and clinical variables as previously recognized predictors of course and outcome of other chronic (pain) conditions [Janssen 1998; Cairns 2005; Croft 2006].

## Methods

### Setting

The gynaecological out-patient clinic of the Leiden University Medical Center provides local secondary and regional tertiary care for women with chronic pelvic pain. All women with CPP, who consult a gynaecologist of the out-patient clinic, are referred to the so-called chronic pelvic pain team (CPP-team). A visit to this team is offered to those women whose pelvic pain is medically unexplained (i.e., no somatic diagnosis found after gynaecological examination, ultrasound investigation or laparoscopy) as well as to all women who are still suffering from pelvic pain despite adequate treatment of their initial diagnoses. Members of the team are the referring gynaecologist, a dietician, physiotherapist and social worker or psychologist. All women are seen once by each team member for history taking and diagnostic examination, if appropriate. The goal of this integrated approach as introduced by Peters [Peters 1991] is to give equal attention to the somatic, psycho-social, dietary and physiotherapeutic aspects of a chronic pelvic pain problem. Before consultation of the team, women are asked to complete baseline questionnaires to summarize medical history and to assess pain and psychological distress. Based on all findings a particular treatment is recommended to each patient.

### Participants

In 2003 all consecutive women were asked to participate in the current follow-up study if they had initially visited the CPP-team between April 1998 and November 2002, were still alive, over 18 years of age and able to speak and write the Dutch language. First a letter with information about the purposes of the study was sent to all women, inviting them to be interviewed about the course of their pelvic pain since their former visit to the CPP-team and to complete follow-up assessment. Those who were not interested could return a form for refusal within 2 weeks. After this period the other women were contacted by telephone by the first author (PW), who informed them again about the goal and practical consequences of the study and asked them to participate. If they consented, an appointment to visit the hospital for a personal interview and completion of questionnaires was scheduled. Travel expenses were compensated. Women were excluded if they were pregnant at the moment of the interview, if their memory was impaired or if they had had a malignancy during the follow-up period.

### Measures

#### *Clinical course of pain*

At the time of the follow-up appointment, the course of the chronic pelvic pain was investigated using the Life Chart Interview (LCI) [Lyketsos 1994]. The LCI is a standardized instrument which is designed to obtain retrospectively information on the course of a particular complaint or psychopathology. The method draws from the literature on autobiographic memory and uses age- and calendar linked landmarks and life change anchors to prime recall. Accuracy of recall seemed to be quite good up to a

6 year period prior to recall, if occurrences of interest were linked to highly salient personal and affectively laden landmarks [Wagenaar 1986; Gladsjo 1992]. A time interval of 1 year turned out to generate data, which were in 75% agreement with a retest 1 week later [Lyketos 1994]. The inter-rater reliability of a similar life chart instrument has shown to be satisfactory ( $\kappa = 0.75$ ) [Hunt 1995]. The interview consists of two sections, the first one in which memory cues and temporal course of socio-demographic data are obtained and the second one in which the course of the psychopathology of interest is ascertained.

To investigate the clinical course of pelvic pain in women since their first visit to the CPP-team, the LCI was modified. Birthdays, deaths, holidays and life change anchors such as change in cohabitation status, residence and occupation were used as memory cues. To assess pelvic pain over a period of just 1 year the question was “During this particular year, did you have had pelvic pain?” with responses on a nine-point scale coded as 1 = yes, during the whole year; 2 = yes, between 6 and 12 months; 3 = yes, about 6 months; 4 = yes, between 3 and 6 months; 5 = about 3 months; 6 = between 1 and 3 months; 7 = yes, between 2 weeks and 1 month; 8 = yes, less than 2 weeks; 9 = no pain at all. Recovery was defined as pelvic pain less than 3 months during a 1 year period (score 6-9). Depending on patients’ history, the interview took 1-3 h because for each year also information about pelvic pain related visits to and kind of diagnostics and treatments by gynaecologist(s) and/or other medical specialist(s), psychologist(s), physiotherapist(s) and alternative care provider(s) and use of pain medication was collected.

### ***Predictors of outcome***

At baseline just before the CPP-team visit and at follow-up before the interview, all participants were asked to complete self-administered written questionnaires covering assessment of pain, psychological distress and sections to address demographic, pain related and clinical variables. Potential factors associated with outcome were retrieved from these data.

### ***Pain***

The McGill Pain Questionnaire Dutch Language Version (MPQ-DLV) [Van der Kloot 1989] was used to assess self-reported pain. As the original MPQ of Melzack [Melzack 1975], the Dutch version has good psychometric properties [Vanderiet 1987; Verkes 1989]. From this questionnaire the “current pain intensity” was used and measured on a horizontal 100 mm visual analogue scale (Mc-Gill VAS) with the endpoints “no pain” on the left side and “worst pain” on the right side. Also “pain quality” was assessed with 20 categories of three or four adjectives describing diverse qualities of pain. The number of indicated words can be summed to obtain the total number of word counts (McGill NWC-T) with a maximum of 20. The rank values of the endorsed words have to be summed to obtain the total pain rating index (McGill PRI-T) with a maximum of 63. Higher values for NWC and PRI are indicating more pain. Because PRI-T is estimated to be the most valid index of change in self-reported pain [Melzack 1975], only this index was used in the final analysis.

### *Psychological distress*

The total score of the Symptom Checklist-90 (SCL-90) [Derogatis 1977; Dutch adaptation Ettema 2003] was used to assess psychological distress (range 90-450).

### *Demographic, pain related and clinical variables*

A questionnaire was designed to cover (1) demographic characteristics as age, education level, employment status (also social security and disability insurance benefit) and cohabitation status with a partner, (2) pain related issues such as the duration of pelvic pain complaint, the number of pain free days per month and medication use because of pain and (3) clinical variables addressing the number of gynaecological diagnostic procedures and surgical interventions, the number of consultations and treatments by other medical specialist(s), psychologist(s), physiotherapist(s) and alternative care provider(s) before the visit to the CPP-team. From medical records information was retrieved about the referral source (gynaecologist and other medical specialist or general practitioner), medical history and a sexual abuse history, systematically addressed and documented by the gynaecologist.

### **Ethical aspects**

This follow-up study of a cohort of women with chronic pelvic pain was approved by the Institutional Review Board of the Leiden University Medical Center and all participants provided written informed consent.

### **Statistical analysis**

Descriptive statistics were calculated for all variables. Differences in baseline and follow-up measurements were examined by using a Chi-squared ( $\chi^2$ ), McNemar test and Student's *t*-test. If appropriate, datasets were transformed to get a normal distribution or non-parametric statistics were used.

To investigate the clinical course of pelvic pain a survival analysis was conducted by using the number of months with pelvic pain at a time interval of 1 year, as obtained from the LCI. The cumulative probability of recovery was estimated with the Kaplan-Meier method. This technique describes all respondents over time, either to the event of interest (recovery from pain) or until they are lost to follow-up (censoring). Construct validity of the LCI was checked by evaluating whether outcome was related with changes in pain intensity, pain quality and changes in psychological distress. Therefore, standardized residual gain scores were calculated by removing from the follow-up and hence from the gain the portion that could have been predicted linearly from the baseline scores. This was done by regressing the follow-up scores on the baseline scores for all participants. The standardized residual is the residual divided by the sample standard deviation of the residuals. The standardized residuals have a mean of 0 and a standard deviation of 1. Differences in residual gain scores between being recovered or not were calculated with Student's *t*-test.

To identify factors associated with outcome survival curves for cohorts selected from relevant baseline demographic and clinical variables were plotted. With log-rank tests it was explored whether differences in survival curves were significant. By Cox' proportional hazards model (backward stepwise), the independent effect of these various variables was estimated.

The Statistical Package for Social Sciences (SPSS), version 11.0 for Windows, was used for all analyses. The statistical significance (two sided) was set at  $p < .05$ .

## Results

### Participants

One hundred and thirty-nine women were eligible to participate in the study. Based on the exclusion criteria, 6 women (4.3%) had to be withdrawn from further analyses, while 12 women (8.6%) were unable to be contacted. Baseline demographic and clinical variables of these 18 women did not differ significantly from the results of the remaining sample. Seventy-two women (60%) were willing to be interviewed, of whom three did not complete baseline assessment and two others did not fill out follow-up assessment. Baseline characteristics of the 72 participants and of those 49 women, who refused to be interviewed, are shown in Tables 1 and 2.

**Table 1** Demographic and clinical variables of 121 women with Chronic Pelvic Pain at their initial visit to a Chronic Pelvic Pain team

	Study sample		Refusers		<i>p</i>	<i>d</i>
	N	Mean (SD)	N	Mean (SD)		
Age (years)	72	39.1 (9.7)	49	37.8 (9.8)	0.476	.13
	N	N (%)	N	N (%)	OR	95%CI
Living with partner (yes)	69	57 (83)	46	34 (74)	0.596	0.241-1.476
Parity (yes)	68	49 (72)	46	26 (56)	0.504	0.229-1.108
Level of education low <sup>a</sup> (yes)	67	39 (58)	46	33 (72)	0.549	0.245-1.277
Paid employment (yes)	69	41 (59)	45	31 (69)	0.661	0.299-1.462
Disability insurance benefit (yes)	69	13 (19)	45	8 (18)	1.074	0.406-2.843
Sexual abuse history (yes)	70	20 (29)	46	15 (32)	1.207	0.530-2.746
Referral by specialist (yes)	72	62 (86)	46	40 (87)	1.075	0.362-3.190
Gynaecological surgery (yes)	69	63 (92)	46	34 (74)	0.315	0.113-0.874
Other medical specialist(s) (yes)	69	46 (67)	46	22 (49)	0.458	0.213-0.985
Psychological care (yes)	69	7 (10)	46	9 (19)	2.154	0.740-6.271
Physiotherapeutic care (yes)	69	23 (33)	46	10 (22)	0.556	0.235-1.314
Alternative care (yes)	69	18 (26)	46	10 (21)	0.787	0.325-1.903

<sup>a</sup> level of education low: primary school, special education, lower secondary education (vocational and general); high: upper secondary vocational education, higher professional education, pre-university, university.  $d < .15$ : negligible effect.

**Table 2** Pain characteristics, McGill and SCL-90 scores of 121 women with Chronic Pelvic Pain at their initial visit to a Chronic Pelvic Pain team

	Study sample		Refusers		p	d
	N	Mean (SD)	N	Mean (SD)		
Duration of complaint (years)	72	5.7 (6.0)	49	7.7 (10.1)	0.783	.25
McGill VAS (mm) (0-100)	67	50.1 (25.9)	41	48.2 (25.2)	0.717	.07
McGill PRI -T (max: 63)	68	18.8 (8.8)	46	19.6 (9.4)	0.628	.09
SCL-90 (90-450)	68	135.9 (36.4)	46	149.9 (51.4)	0.164	.33
	N	N (%)	N	N (%)	OR	95%CI
Painfree days/months (yes)	69	21 (30)	46	15 (33)	1.106	0.496-2.466
Pain medication (yes)	69	50 (74)	46	37 (79)	1.562	0.635-3.842

McGill VAS, McGill Visual Analogue Scale; McGill PRI-T, McGill Pain Rating Index-Total score; SCL-90, Symptom Checklist-90; SD, Standard Deviation;  $d < .15$ : negligible effect;  $.15 \leq d < .40$ : small effect.

All demographic and clinical variables of the final study sample did not differ significantly from the results of the refusers, except for two items. In the participants, sample a significantly larger percentage of the women than in the refusers' sample reported visits to other medical specialists and gynaecological surgical interventions before attending the chronic pelvic pain team. The variety of interventions, performed by gynaecologist, general surgeon or urologist as retrieved from patients' records, is illustrated in Table 3. One woman could have had more than 1 operation. However, it was not always clear whether all surgical interventions in a woman's history were performed because of the chronic pelvic pain complaint. Only 4 women (5.7%) in the study sample and 8 women (17.0%) in the refusers' sample did not have any surgical intervention before their initial CPP-team visit. No abnormality had been identified in 36 (50%) women of the study sample and in 25 (50%) women of the refusers' sample. In both samples in about 2/3 of the remaining cases adhesions were observed and in about 1/3 endometriosis was found. In only a minority of cases other diagnoses such as myoma uteri, ovarian cyst or IBS were reported.

### Clinical course of chronic pelvic pain

Survival analysis showed that 18 women (25%) recovered during follow-up, as they reported pelvic pain for less than 3 months per year. Follow-up time varied between 1 and 6 years ( $M = 3.42$ ,  $SD = 1.23$ ). After recovery, relapse of symptoms was not encountered. Of those women who recovered, 50% recovered within the first 2 years and 75% within 3 years. Eight of these 18 women (11% of the total sample) reported full recovery (no pain at all) at the end of the follow-up period. For 54 women (75%) follow-up ended before recovery (censored cases). As all cases with a follow-up longer than 4 years were censored cases, cumulative survival at 6 years could not be calculated, but was 0.7, indicating that after 6 years follow-up 70% of all women had not reached recovery. During the interview

**Table 3** Number of surgical interventions in 121 women with Chronic Pelvic Pain prior to their initial visit to a Chronic Pelvic Pain team

	Study sample N (%)	Refusers N (%)
None	4 (5.7)	8 (17)
Appendectomy	19 (27)	12 (26)
Laparoscopy diagnostic	59 (84)	32 (68)
Laparoscopy adhesiolysis	18 (26)	10 (21)
Laparoscopy (cystectomy, adnexectomy)	17 (24)	9 (19)
Hysterectomy	25 (36)	11 (23)
Laparotomy (+ adhesiolysis)	47 (67)	18 (38)
Hysteroscopy, D&C	25 (36)	17 (36)
Urethrotomy	6 (8)	3 (6)
Other	9 (12)	8 (17)
Total <sup>a</sup>	225 (321)	111 (236)

<sup>a</sup> For most women more than 1 surgical intervention was documented in their medical record.

no woman reported a malignancy or any newly diagnosed physical illness, related to the complaint of pelvic pain.

The validity of the outcome as reported during the interview was reflected in significantly lower residual gain scores for pain intensity (McGill VAS  $t(64) = -4.596, p < .001, d = 1.35$ ), pain quality (McGill PRI-T  $t(65) = -4.953, p < .001, d = 1.42$ ) as well as psychological distress (SCL-90  $t(61) = -2.319, p = .024, d = 0.69$ ) in women who had recovered. The indices for the effect size ( $d$ ) indicated that the effect sizes of the differences found between women who had recovered and women who had not recovered, were estimated to be medium to large [Cohen 1988]. In addition, as illustrated in Table 4, the difference for pain intensity scores between baseline and follow-up assessment was found to be significant. A 2 x 2 repeated analysis of variance indicated that this difference was explained by being recovered ( $F(1, 63) = 9.360, p < .01$ ).

### Predictors of outcome

Self-reported pain intensity, pain quality, psychological distress, nor pain related variables like the duration of pain and medication use, nor any of the baseline demographic or clinical variables, nor a sexual abuse history, were related to recovery from pelvic pain. Furthermore, a multiple regression analysis indicated that pain intensity at follow-up was only significantly related with being recovered (yes or no) ( $F(9, 51) = 2.553, p < .05$ ), even after adjustment for age, sexual abuse history, living together with a partner, being employed, duration of pain complaint, medication use, baseline pain intensity and psychological distress. In addition, with Chi-squared ( $\chi^2$ ) tests no association was found between recovery and clinical variables as reported by the participants for the period between baseline and follow-up (i.e., number of gynaecological diagnostic procedures

**Table 4** Pain characteristics, McGill and SCL-90 scores at baseline and follow-up for 69 women with Chronic Pelvic Pain

	Baseline Mean (SD)	Follow-up Mean (SD)	<i>p</i>	<i>d</i>
McGill VAS (mm)	49.4 (25.5)	37.5 (28.6)	0.014	.44
McGill PRI – T (0-63)	19.0 (8.9)	18.4 (12.9)	0.686	.05
SCL-90 (90-450)	138.2 (37.1)	141.7 (39.1)	0.399	.09
	N (%)	N (%)	OR	95%CI
Pain medication (yes)	50 (72)	42 (61)	7.000	2.083-23.522
Pain free days/month (yes)	21 (30)	35 (52)	3.500	1.077-11.371

McGill VAS, McGill Visual Analogue Scale; McGill PRI – T, McGill Pain Rating Index-Total score; SCL-90, Symptom Checklist-90; SD, Standard deviation; *d* < .15: negligible effect; *d* ≥ .40, < .75: medium effect.

and surgical interventions, the number of consultations and treatments by other medical specialist(s), psychologist(s), physiotherapist(s) and alternative care provider(s)). Based on these analyses we did not observe any intervention that could have effected improvement in those who recovered.

## Discussion

After a mean follow-up period of 3.4 years, we observed that 25% of a cohort of 72 women with chronic pelvic pain, who initially visited a multidisciplinary CPP-team, had recovered from chronic pelvic pain i.e., reported pelvic pain for less than 3 months per year in a standardized interview. Only 11% of these women experienced no pain at all at follow-up. No relapse of pelvic pain was encountered. Furthermore, recovery from chronic pelvic pain was not associated with any demographic, clinical, or pain related variable measured at baseline.

So far, only one other study [Lamvu 2006] has evaluated prospectively the clinical course of chronic pelvic pain in women at a 1 year follow-up period. In this study the outcome regarding self-reported pain was assessed for 370 women with CPP, who initially visited a CPP specialty clinic. The most common diagnoses included irritable bowel syndrome, adhesions, pelvic floor musculoskeletal disorders and endometriosis. At baseline and follow-up women had to complete self-administered written questionnaires. Improvement was observed in 46% of the women i.e., for 45 women (12%) the self-reported pain improved, whereas for 124 women (34%) their pain has been resolved. Improvement in self-reported pain was defined as a change in pain level from severe to moderate or mild or from moderate to mild depending from a change in categories of grouped sensory and affective components of McGill Pain Questionnaire pain scores. Comparing these results with our

findings, we observed a substantial lower percentage of recovery from pelvic pain. This discrepancy could well be explained by differences in definition of improvement, composition of the study sample, kind of pain measurement used and total time of follow-up. For instance, in our study improvement was defined as recovery from pelvic pain (i.e., less than 3 months pain per year), the LCI interview was used to assess not only the extent but also the speed of recovery. Furthermore, our study sample consisted of women with medically unexplained pelvic pain complaints.

Our findings could also be compared with recovery from pelvic pain in patients with CPP, allocated to a no treatment arm in randomized controlled trials (RCTs). Starting from the 14 RCTs for treating pelvic pain in women as included in a review of the Cochrane Collaboration [Stones 2005], the amount of recovery in the subjective report of pain, indicated by patients with CPP in the control condition, was observed to vary considerably ranging from 6% to 53% after a follow-up period from 2 weeks to 13 months. In our study with similar sample characteristics regarding age of participants, duration of pelvic pain and research setting, a comparable recovery rate of 25% was found whereas our follow-up period with a mean duration of 3.4 years was much longer.

Regarding factors associated with outcome, Lamvu and colleagues [Lamvu 2006] observed that improvement in pain was not related with any demographic nor clinical characteristic measured at baseline or kind of treatment women received. Our findings were in line with the results of this study. Recovery from pelvic pain was not associated with any of the baseline characteristics. Also in studies on the course of other chronic conditions as irritable bowel syndrome [Janssen 1998] and chronic fatigue syndrome [Cairns 2005], a similar result has been observed.

Our study has several strengths. First, we gathered information from a considerable number of women with chronic pelvic pain about the clinical course of their pelvic pain with a maximum follow-up period of 6 years. Second, the Life Chart Interview method was used as a standardized and reliable method by which information about the course of pelvic pain was gathered and the degree of recovery was examined in a time perspective. The construct validity of this method in our study was supported by the fact that patients who recovered, as indicated during the interview, had significantly lower residual gain scores for pain measures and psychological distress, than patients who had not recovered. Also pain intensity at follow-up could only be explained by being recovered, even after adjustment for various baseline characteristics. Finally, we used a clear definition of chronic pelvic pain and validated instruments to measure pain intensity, pain quality and psychological distress as recommended in chronic (pelvic) pain research [MacLean 2001; Williams 2004].

However, interpretation of our findings could be limited by the potential for non-participation bias. Our response rate was relatively high (60%) in comparison with 38% in the prospective 1 year follow-up study of Lamvu [Lamvu 2006]. Other follow-up studies after

laparoscopy among women with CPP showed response rates varying from 39% [Richter 1998] to 52% [Cox 2007]. As those women, who were not willing to participate in the follow-up study, did not differ significantly from the women of the study sample on most variables, we may conclude that our study results were not directly biased by response selection. In addition, still it is important to realize that the results of our study cannot be generalized to all women with chronic pelvic pain as this study was conducted in a secondary referral center, resulting in a study sample from a highly selected population.

From a clinical point of view our study has important implications. Knowledge about the clinical course of CPP will facilitate the interpretation of effectiveness of different interventions [Janssen 1998; Croft 2006]. Also, medical interventions should be guided by reliable information on clinical course and prognosis [Croft 2006]. Future studies are needed to replicate our findings and to identify risk factors for the persistence of chronic pelvic pain in women. These data could create an increased understanding of the condition and could give an impulse to generate new treatment modalities [Cairns 2005].

Moreover, based on findings in other chronic (pain) conditions [Turk 2004; Cairns 2005; Lamé 2005], new studies on the course of CPP in women have to be considered and focused on patient's beliefs and attributions about their illness. Consistently, a worse prognosis seems to be associated with patient's belief in a physical cause of their symptoms and having little perceived control over their symptoms.

In conclusion, our study results showed that chronic pelvic pain in women in secondary care is a longstanding condition, because a quarter of the study participants recovered and reported less than 3 months pain per year after a mean follow-up period of 3.4 years. Only 11% of these women experienced no pain at all at follow-up. No baseline variable was associated with recovery. Future research is urgently needed to get more insight in the clinical course of chronic pelvic pain in women and to identify predictors for chronicity.

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