Supplemental material

Table I: Detailed information about the questionnaires used to measure potential predictors of recurrent secondary healthcare use at 18 months follow-up in a cohort of patients with fibromyalgia.

Predictor	Questionnaire	Scales and scoring
Severity of fibromyalgia	Fibromyalgia Impact Questionnaire (FIQ) Dutch version: Zijlstra TR *et al., Rheumatology* 2007; 46: 131-134.	The FIQ consists of 10 items. The first item contains 11 questions on activities of daily living, the second item is the number of days felt good during the past week, the third item asks for the number of days off work due to fibromyalgia during the past week. Items 4 to 10 assess ability to work, pain, fatigue, morning tiredness, stiffness, anxiety and depressive symptoms. Higher scores on the FIQ represent higher severity/impact of fibromyalgia. Total FIQ score range from 0 to 100.
Anxiety and Depression	Hospital Anxiety and Depression Scale (HADS) Zigmond AS, Snaith RP. *Acta Psychiatr Scand* 1983; 67: 361-70.	The HADS is a 14-item widely used self-report screening instrument to assess levels of anxiety (7 items) and depression (7 items) in an medical out-patients clinic. Items are scored on a 4-point Likert scale from 0 to 3. High scores on the subscales represents higher levels of anxiety or depression. Scores range from 0 to 21 for both subscales.
Illness perceptions (*i.e.*, acute/chronic timeline, cyclical timeline, consequences, personal and treatment control, illness coherence, and emotional representation)	Illness Perception Questionnaire - revised (IPQ-R-FM) Leysen M. *et al., Man Ther* 2015; 20: 10-7.	The IPQ-R-FM is a valid and reliable instrument for measuring illness perceptions in patients with fibromyalgia. The following seven dimensions were included: acute/chronic timeline (perceptions of duration of the illness, 6 items), cyclical timeline (perceptions of a fluctuating or unpredictable course of the illness over time, 4 items), consequences (expected effects and outcome of the illness, 6 items), personal control (belief in personal control over the illness, 6 items), treatment control (belief in cure through treatment, 5 items), illness coherence (beliefs about understanding the illness, 5 items) and emotional representation (perception of negative emotions generated by the illness, 6 items). Items were scored on a 5-point Likert scale from 1 = *strongly disagree* to 5 = *strongly agree*. Higher scores on acute/chronic timeline, cyclical timeline, consequences and emotional representation represent more dysfunctional perceptions of the illness, whereas higher scores on personal control, treatment control and illness coherence represent more functional perceptions of the illness. Scores range from 6 to 30 for acute/chronic timeline, consequences, personal control and emotional representation, 4 to 20 for cyclical timeline, and 5 to 25 for treatment control and illness coherence.
Illness cognitions (*i.e.*, helplessness, acceptance, perceived benefits)	Illness Cognition Questionnaire (ICQ) Evers AW *et al., J Consult Clin Psychol* 2001; 69: 1026-36.	The ICQ is a generic 18-item instrument assessing different ways of cognitively (re)evaluating the inherently aversive character of a chronic disease. It comprises three subscales: helplessness, acceptance and perceived benefits. All scales have 6 items that are scored on a 4-point Likert scale ranging from 1 = *not at all* to 4 = *completely*. Higher scores represent higher levels of illness helplessness, illness acceptance and disease benefits. Scores for the three subscales range from 6 to 24.
Pain coping (*i.e.*, active and passive coping)	Pain Coping Inventory (PCI) Kraaimaat FW *et al., Int J Behav Med* 2003; 10: 343-63.	The PCI is a 33-item questionnaire comprising six scales: pain transformaion (4 items), distraction (5 items), reducing demands (3 items), retreating t(7 items), worrying (9 items), and resting (5 items). All scales are scored on a 4-point Likert scale ranging from 1 = *seldom or never* to 4 = *very often*. The PCI scales can be grouped into active (transformation, distraction, reducing demands) and passive (retreating, worrying, resting) pain-coping dimensions. Higher scores represent higher levels of active or passive pain coping. Raw scores for active pain coping and passive pain coping range from 12 to 48 and from 21 to 84, respectively.
Coping flexibility (*i.e.*, versatility and reflective coping)	Coping Flexibility Questionnaire (COFLEX) Vriezekolk JE *et al., Rheumatol Int* 2012: 32: 2383-91.	The COFLEX is a 13-item questionnaire comprising two subscales: versatility (9 items) and reflective coping (4 items). All scales are scored on a 4-point Likert Scale ranging from 1 = *seldom or never* to 4 = *almost always*. Versatility assesses the ability to flexibly use a variety of coping strategies in accordance with personal goals and changing circumstances. Reflective coping assesses the ability of generating and considering coping options, and appraising the suitability of a coping strategy in a given situation. Higher scores represent higher levels of versatility and reflective coping. Scores for versatility range from 9 to 36, and for reflective coping scale from 4 to 16.

Predictor	Questionnaire	Scales and scoring
Invalidation by the family	Illness Invalidation Inventory (3*I). Kool MB *et al., Ann Rheum Dis* 2010; 69: 1990-95.	The experience of invalidation by the family was assessed with the 8-item family scale of the Illness Invalidation Inventory (3*I) (36). The 3*I measures the occurrence of invalidation by five different sources (spouse, family, medical professionals, work environment, and social services). The family scale comprises 2 subscales: discounting (5 items) and lack of understanding (3 items). Items are scored on a 5-point Likert scale ranging from 1= *never* to 5 = *very often*. Higher scores on the subscales reflect higher invalidation, as experienced by the participant. Scores for discounting range from 5 to 25 and for lack of understanding from 3 to 15.
Spousal responses to pain behaviours and well behaviors	Spouse Response Inventory (SRI). Schwartz L *et al., J Pain* 2005; 6: 243-52.	The SRI assesses spousal responses to patient pain and well behaviour. Responses to patient pain behaviour can be divided into two subscales: solicitous responses to pain behaviour (19 items) and negative response to pain behaviour (7 items). Responses to patients well behaviours can also be divided into two subscales: facilitative responses to well behaviour (7 items) and negative responses to well behaviour (6 items). Higher scores on facilitative responses to well behaviour reflect more positive responses to patient well behaviour, and higher scores on negative responses to well behaviour reflect more negative responses to patient well behaviour. Items are scored on a 5-point Likert Scale ranging from 0 = *never* to 4 = *always*. Scores for solicitous responses to pain behaviour scale range from 0 to 76, for negative response to pain behaviour from 0 to 28. Scores for facilitative responses to well behaviour range from 0 to 28, for negative response to well behaviour from 0 to 24. Note: In this study, a non-validated Dutch version of the SRI was used.
Solicitous, punishing and distracting spousal responses to pain behaviour	WHY-MPI Dutch version: Lousberg R *et al., Behav Res Ther* 1999; 37: 167-82.	To assess perceived solicitous, punishing and distracting responses by the partner, the 14-item 'Significant Other Response Scale' of the West Haven-Yale Multidimensional Pain Inventory (WHYMPI) was used. Items are scored on a 7-point scale ranging from 0 = *never* to 6 = *very often*. The responses are coded as either punishing (*e.g.*, "express irritation at me", 4 items), solicitous (*e.g.*, "takes over my jobs or duties", 6 items), or distracting (*e.g.*, "encourages me to work on a hobby", 4 items). Higher scores on the subscales reflect patients experiencing more solicitous, distracting or punishing spousal responses to their pain behaviour. Scores for the punishing responses range from 0 to 24, for solicitous responses from 0 to 36, and for distracting responses from 0 to 24.

Table II: Univariate analyses of potential predictors of recurrent secondary healthcare use

	Odds Ratio	95% CI	*p*
Sociodemographic variables			
Age	1.01	[0.99 – 1.04]	.29
Gender	1.28	[0.33 – 4.93]	.72
Education level	0.90	[0.62 – 1.31]	.59
Paid employment	0.89	[0.50 – 1.59]	.70
Disease-related variables			
Comorbidity*	2.60	[1.33 – 5.10]	<.01
Severity of fibromyalgia*	1.02	[1.00 – 1.04]	.04
Mood			
Anxiety*	1.06	[0.99 – 1.14]	.09
Depression*	1.10	[1.02 – 1.19]	.02
Cognitive-behavioural variables			
Illness perceptions			
Acute/chronic timeline			
Cyclical timeline	1.03	[0.94 – 1.12]	.52
Consequences*	1.08	[1.01 – 1.16]	.02
Personal control*	0.91	[0.83 – 0.99]	.03
Treatment control	0.96	[0.87 – 1.06]	.44
Illness coherence	0.97	[0.90 – 1.04]	.37
Emotional representations	1.01	[0.95 – 1.07]	.72
Cognitions			
Helplessness*	1.08	[1.00 – 1.17]	.05
Acceptance	0.96	[0.89 – 1.03]	.28
Perceived benefits	1.00	[0.93 – 1.07]	.96
Pain coping			
Active coping*	0.84	[0.71 – 1.00]	.05
Passive coping	1.01	[0.90 – 1.13]	.86
Coping			
Versatility	0.99	[0.94 – 1.05]	.84
Reflective coping	1.01	[0.91 – 1.13]	.84
Social variables			
Illness invalidation			
Discounting of family	1.01	[0.95 – 1.08]	.66
Lack of understanding of family	1.07	[0.95 – 1.19]	.27
Spouse responses to well behaviors			
Facilitative responses	0.99	[0.94 – 1.04]	.72
Negative responses	1.03	[0.97 – 1.09]	.33
Spouse responses to pain behaviors			
Solicitous responses	0.99	[0.97 – 1.02]	.51
Negative responses	1.02	[0.95 – 1.09]	.55
Spouse responses to pain behaviors			
Punishing responses	1.03	[0.96 – 1.10]	.48
Solicitous responses	1.01	[0.97 – 1.05]	.69
Distracting responses	0.96	[0.99 – 1.04]	.29

*Predictors included in multivariable model according to the Akaike information criterion ($p<.157$).