

# THU0470 WORK AND PROFESSIONAL RECOGNITION IN FIBROMYALGIA PATIENTS – A NATIONAL FRENCH WEB BASED SURVEY ON SICK LEAVE IN 1870 FIBROMYALGIA FEMALE PATIENTS

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**Background:** Fibromyalgia (FM) induces work limitations with an increase of number of days of sick leave 3 to 4 fold higher (1, 2).

**Objectives:** Our objectives were to analyze work status, to determine risk factors for sick leave and to compare women working to women in sick leave during the past 12 months in a female population with FM.

**Methods:** 1870 female workers suffering from FM were selected from a large internet-based national survey of 4516 responders (Fibromyalgie-SOS Association website in France in 2014). Women having a FIRST score  $\geq 5/6$  were included.

**Results:** 1870 patients participated to the survey: 955 with full time job, 149 with part time job (related to FM status) and 766 on sick leave (7% 1–3 months, 27.3% 3–12 months and 62% >12 months). Fibromyalgia Impact questionnaire (FIQ) score was slightly lower in the 1104 patients currently working compared to the 766 on sick leave (56 versus 58.7), but not clinically different. 64.5% of the population have been on sick leave during the last 12 months (average duration: 37 mean days for full time job and 122 among those with part time job).

Women being in sick leave were older ( $p<0.0001$ ), single ( $p=0.0321$ ), had less financial income ( $p<0.0001$ ), used more antidepressants ( $p=0.0085$ ) and more anti epileptics ( $p=0.0102$ ). Recognition of FM by occupational physicians or social security doctors were lower among the workers ( $p<0.0001$ ).

In the 1104 currently working, more than 33% have never been visiting their occupational physician and 44.2% rarely. They reported no support from these doctors ( $p=0.0011$ ) particularly those having not being on sick leave. Independent criteria of sick leave were transportation time ( $p=0.0131$ ), work difficulties ( $p=0.0031$ ), hinders career progress ( $p=0.0196$ ), sedentary occupation and repetitive work ( $p=0.0195$ ).

**Conclusions:** These data on a large fibromyalgia population shows that clinical status and also professional factors may influence work ability and sick leave.

The work factors include work difficulties, transportation time, sedentary and repetitive occupation. These results should be taken into account by the work professionals in order to facilitate work capacity in FM patients.

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# THU0471 THE EFFECTS OF TAPPING THERAPY ON PAIN, SYMPTOM SEVERITY, DYSFUNCTIONS IN DAILY LIFE, DEPRESSION, AND QUALITY OF LIFE IN PATIENTS WITH FIBROMYALGIA: A RANDOMIZED CONTROLLED TRIAL

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**Background:** Fibromyalgia is a disorder characterized by chronic widespread musculoskeletal pain, often accompanied by fatigue, cognitive disturbance, psychiatric symptoms, and multiple somatic symptoms. Various pharmacological and non-pharmacological therapies have been tried in the management of fibromyalgia. However, unfortunately, management remains a challenge.

**Objectives:** Taping therapy has been shown to be effective for pain relief in various musculoskeletal diseases. However, there was no trial for the patients with fibromyalgia. In this study, we evaluated the effects of taping therapy in patients with fibromyalgia.

**Methods:** This study is a randomized controlled trial with 60 fibromyalgia patients. All patients were satisfied with the 2010 American College of Rheumatology diagnostic criteria for fibromyalgia. Participants were randomized to the Kinesio taping group (n=30) and to the non-elastic paper taping group (n=30) for the control. Taping experiment was performed for three weeks (twice a week) through the one-to-one meeting. Pain, symptom severity, dysfunctions in daily life, depression, and quality of life (QoL) were assessed with the widespread pain index (WPI), severity score (SS), fibromyalgia impact questionnaire (FIQ), Beck depression inventory (BDI), and the EQ-5D INDEX and EQ-5D VAS, respectively.

**Results:** The mean ages of taping group and the control group were 54.3 $\pm$ 12.0 years and 53.2 $\pm$ 12.7 years, respectively, and female patients were 25/30 (83.3%) and 27/30 (90.0%) in both groups, respectively, and there were no differences between two groups in the medication use such as anti-depressants and muscle relaxants. Patients showed significant improvements after Kinesio taping therapy in pain (10.50 $\pm$ 3.98 vs. 5.70 $\pm$ 2.73,  $p<0.001$ ), symptom severity (7.93 $\pm$ 2.24 vs.

5.27 $\pm$ 1.98,  $p<0.001$ ), dysfunction in daily life (65.03 $\pm$ 18.75 vs. 43.25 $\pm$ 18.87,  $p<0.001$ ), depression (18.17 $\pm$ 8.55 vs. 13.00 $\pm$ 6.75,  $p<0.001$ ) and QoL (EQ-5D INDEX, 9.10 $\pm$ 1.54 vs. 7.67 $\pm$ 1.40,  $p<0.001$ ; EQ-5D VAS, 38.33 $\pm$ 24.65 vs. 56.67 $\pm$ 27.93,  $p<0.001$ ), respectively. In the control group, however, the significant improvement was detected only in pain (10.53 $\pm$ 3.87 vs. 9.27 $\pm$ 3.57,  $p=0.012$ ). The changes before and after treatment in the Kinesio taping group revealed significant differences from those in the control group: pain ( $p<0.001$ ), symptom severity ( $p<0.001$ ), dysfunction in daily life ( $p<0.001$ ), depression ( $p=0.001$ ) and QoL ( $p<0.001$  and  $p<0.001$ ), respectively. There was no serious adverse event.

**Conclusions:** This study shows that Kinesio taping therapy has effects on pain, symptom severity, dysfunctions in daily life, depression, and quality of life in the patient with fibromyalgia. Taping therapy could be a useful non-pharmacological management modality for the fibromyalgia patient.

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# THU0472 FAST3 (FIBROMYALGIA ASSESSMENT SCREENING TEST): A COMPOSITE INDEX BASED ON MDHAQ PROVIDES CLUES TO THE PRESENCE OF SECONDARY FIBROMYALGIA IN PATIENTS WITH A PRIMARY DIAGNOSIS OF RHEUMATOID ARTHRITIS AT HIGHER LEVELS THAN IDENTIFIED IN THE MEDICAL RECORD: A CROSS SECTIONAL STUDY FROM ROUTINE CARE

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**Background:** Secondary fibromyalgia (FM) is reported in 17% of RA patients<sup>1</sup>, but may be under-recognized in patients with classical RA findings. A FAST3 (fibromyalgia assessment screening test) index based on 3 MDHAQ (Multidimensional Health Assessment Questionnaire) scores gives similar results to ACR fibromyalgia criteria based on a widespread pain questionnaire<sup>2</sup>, to assist in recognizing patients with secondary FM<sup>3</sup>.

**Objectives:** To study patients with a primary diagnosis of RA seen in routine care for the proportion identified as having secondary FM according to a physician diagnosis in the medical record versus a FAST3 Index of MDHAQ scores.

**Methods:** All patients complete an MDHAQ/RAPID3 at all visits in the waiting area in routine care. The MDHAQ includes 0–10 scores for physical function, pain, and patient global estimate, compiled into RAPID3, as well as a 0–48 RADAI self-report score of painful joints, and 0–60 symptom checklist. FAST3 has been developed previously as the 0–3 sum of 1 point each for 3 MDHAQ scores: pain VAS  $\geq 6$ , RADAI  $\geq 16$ , and symptom checklist  $\geq 16$ .<sup>3</sup> FAST3 scores of  $\geq 2/3$  had >80% agreement with ACR FM criteria based on a widespread pain questionnaire<sup>2</sup> to identify secondary FM.<sup>3</sup> A random visit for each patient with a primary diagnosis of RA with complete data was studied. The number with a diagnosis of secondary FM in the medical record was compared to the number with FAST3 scores of 0, 1, 2, 3, and with each of the 3 FAST3 components. Receiver-operating characteristic (ROC) curves were generated to estimate sensitivity and specificity for each cut-point of the FAST3 score, using a diagnosis of secondary FM by the physician as the external criterion.

**Results:** 287 patients with RA were studied, of whom 10 (3.3%) had a diagnosis of secondary FM by the physician in the medical record and 61 (22%) had FAST3 scores of 2 or 3 (Table), including 6 of 10 identified as having FM in the medical record. Overall, FAST3 was 0 in 161 RA patients (56%), 1 in 59 (20.6%), 2 in 46 (16%), and 3 in 21 (7.3%) (Table). Overall, 55 additional RA patients were identified by FAST3 versus the medical record as having possible secondary FM. The ROC area was 0.73 (95% CI, 0.57–0.89) (data not shown).

Table 1. FAST3 (fibromyalgia assessment screening tool) Index and 3 individual components according to diagnosis of fibromyalgia by rheumatologist in medical record

	Clinical FM-No	Clinical FM-Yes	Total
Total	277	10	
FAST (fibromyalgia assessment screening tool) Index			
0	159 (57%)	2 (20%)	161
1	57 (21%)	2 (20%)	59
2	42 (15%)	4 (40%)	46
3	19 (7%)	2 (20%)	21
Individual component measures			
Pain >6	92 (33%)	7 (70%)	99
Pain <6	185 (67%)	3 (30%)	188
RADAI >16	68 (25%)	6 (60%)	74
RADAI <16	209 (75%)	4 (40%)	213
Symptom checklist >16	38 (14%)	3 (30%)	41
Symptom checklist <16	239 (86%)	7 (70%)	246

**Conclusions:** The same MDHAQ used to score RAPID3 may also provide a FAST3 score as a screening tool for secondary FM in RA (and other) patients (including primary FM). Secondary FM may be under-diagnosed by clinicians in routine care. Further validation of FAST3 in other settings is needed.

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