INTERDISCIPLINARY EVALUATION ARGENTINE PAIN CENTER

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Summary
In this research we describe the population and interdisciplinary assessment of chronic pain patients who were assisted at the Fleni Pain Center (Centro Integral de Dolor de Fleni - CIDFE), first Spanish-speaking center accredited by CARF. 525 patients with chronic pain were evaluated between January 2004 and December 2005, out of which 194 met the inclusion criteria: 129 women (66.49%) and 65 men (33.5%). We could observe a 2-1 prevalence in women, mostly related to spine diseases (79%), personality disorders (75%), depression (64%), anxiety (59.5%), and overweight disorders (61%). With a low back pain disability degree of 36.5% (ODI), a moderate to severe difficulty to perform ADL (HAQ-20) and causing a decrease in the global quality of life of 68.6% (SF36). Most of our patients (79%) were active (working), only 6 on leave of absence, and 63% afforded the treatment payment by themselves. Our work confirms the multidimensional commitment caused by chronic pain in the quality of their life. The interdisciplinary assessment reveals the complexity of chronic pain. The analysis of the different factors involved in chronic pain allows us to design an interdisciplinary pain program focused on common objectives.

Introduction
Pain is a frequent symptom of the human being, which produces suffering, disability and a decrease in the quality of life \cite{15, 13, 27, 26}. 
It has a high incidence in the general population (53.7%)\textsuperscript{3, 26, 51}. one out of five people suffers from chronic pain \textsuperscript{9, 16} causing serious economic losses to society due to the high level of consumption of sanitary resources and labor absenteeism \textsuperscript{26, 34, 36, 40}.

In patients with chronic pain, independently from the etiology, pain is the main symptom which makes the patient look for medical attention \textsuperscript{28, 18, 24, 34}, being one of the most common reasons for consultation in medical practice \textsuperscript{28, 26, 34}.

The Fleni’s Pain Center (Centro Integral de Dolor) has developed an interdisciplinary assessment to evaluate the different aspects involved in chronic pain.

The aim of this work is to describe the population and assessment methodology used in patients with chronic pain assisted in the Fleni Pain Center.

**Material and Methods**

Between January 2004 and December 2005, we analyzed the chronic pain population treated at the Fleni Pain Center located in Escobar, Buenos Aires Argentina (CIDFE) that met the inclusion criteria described in table 1.

The interdisciplinary assessment begins once the CIDFE physician diagnoses a chronic pain syndrome. The doctor explains to the patient the characteristics of chronic pain and the need to make an interdisciplinary evaluation, scopes, duration, costs and inclusion criteria considered at the feedback interview (within 2 weeks after the ID assessment) with the CIDFE physician who requested it.

The doctor gives the patient the interdisciplinary assessment questionnaires, explains the informed consent and the need to have the patient’s signature in order to proceed with the assessment.

He prepares a summary of the clinical record for the CIDFE assessment team. A professional of each area of the CIDFE has an individualized interview with the patient.
evaluated, where they review the set of questionnaires completed by the patient in order to measure significant parameters that permits the analysis and the referral to the most convenient program.

**Instruments used**

- SCID II Personality Disorders Questionnaire ¹⁹
- BECK Depression Inventory (BDI) ⁷, ¹², ⁵⁴
- Quality of life - SF36 ¹, ², ⁶, ¹¹, ³⁷, ⁵²
- STAI Anxiety Questionnaire ³⁹, ⁴⁷, ⁴⁸
- Visual Analogue Scale (VAS) level of pain ¹⁰, ⁴²
- Oswestry Disability Index (ODI) low back pain disability ²⁰, ³¹, ⁴¹, ⁴³, ⁴⁴
- Physical dysfunction for activities of daily living (ADL) HAQ ²⁰, ¹⁴, ¹⁷, ²³
- Body Mass Index (BMI) ²¹, ³², ³⁸

**Results**

525 patients were evaluated, out of which 194 met the inclusion criteria: 129 women (66.49%) and 65 men (33.5%). The average age was 51.5 years old (18-85), 79% were active (working) and 21% retired. 6 patients (4%) were on leave of absence. 37% received the treatment under some kind of medical insurance, and 63% afforded the treatment payment by themselves.

As regards pathologies, most of them were related to chronic low back pain (65%), neck pain (14%) and headache (3%). The rest of the patients (18%) received other diagnoses (arthrosis, arthritis, fibromyalgia, etc.). Figure 1.

**VAS level of pain**
The average level of pain reported by patients in the VAS was 5.75 mm.

**SCID II Personality Disorders Questionnaire**

In figure 2, we observe the distribution of personality disorders according to SCID II. 24.8% revealed no personality traits, 35.6 % showed one disorder, and 39.45% showed more than one.

**BECK Depression Inventory**

64% of patients assessed presented depressive disorder criteria. From this percentage, 32% had mild depressive disorder symptoms, 23% moderate and 10% severe symptoms.

**Quality of life - SF36**

Figure 3 shows the quality of life percentage of the evaluated chronic pain patients. General average: 42.39%

**STAI Anxiety Questionnaire**

41% revealed no anxiety traits

30.5% state anxiety

29% trait anxiety

**ODI low back pain disability**

Low back pain disability degree: 36.5%

**Physical dysfunction for activities of daily living (ADL) HAQ 20**

Considering 40 patients analyzed, results are:

43% mild to moderate difficulty to perform ADL

52% moderate to severe difficulty to perform ADL

5% severe difficulty to serious disability

**Body Mass Index - BMI**
Normal weight 39%
Overweight 41%
Obesity 20%

**Discussion**

Pain is an unpleasant subjective experience \(^9, 35, 51\) which not only modifies and decreases the quality of life of the person suffering it \(^9\), but also affects his/her social, work, familiar and economic environment \(^26\).

Chronic pain may be produced or caused by the continuous stimulation of nociceptors in the injury area (e.g. secondary chronic pain to osteoarthrosis) \(^34\). In other cases chronic pain persists after the healing of the injury or sometimes \(\ldots\) without being able to identify tissue damages or related injury antecedents \(^10\).

Many chronic pain patients suffer from syndromes for which there is no confirmed laboratory serological data, and which are diagnosed according to the clinic they show. Within these chronic pain syndromes we can find: chronic low back pain, headache, myofascial pain, fibromyalgia, neuropathic pain, phantom limb pain and central pain. Knowledge of the physiopathology of most of these disorders is limited \(^27, 10\).

Pain of musculoskeletal origin is one of the main representatives of chronic pain (neck pain, low back pain, chronic joint pain and diffuse muscular pain). \(^18, 3, 34\)

Medical consultation for chronic pain is related to different factors such as intensity and perception of pain, depressive symptoms, socio-economic level, race and age. \(^26, 3\)

Chronic pain partially responds to treatments commonly used; its approach requires interdisciplinary teams composed of neurologists, anesthesiologists, traumatologists, psychologists, psychiatrists, kinesiologists, nutritionists, occupational therapists, nurses and social workers specialized in pain management. \(^5, 9, 33, 42, 50\)
In this first work we examined the population with chronic pain derived for treatment at the Fleni Pain Center (CIDFE) located in Escobar, first Spanish-speaking center accredited by CARF.

As this center is unique due to its characteristics, results do not represent the population with chronic pain in Argentina.

Our patients show different pathologies, where chronic pain in a common factor (Figure 1)

Chronic pain was evaluated in its different dimensions: functional, social behavior and psychological.

We used the Visual Analogue Scale (VAS) to register the pain level informed by patients because it is commonly used nowadays, easy to implement and clearly understandable by all patients. This scale can measure the Intensity of Pain in a 0-10 range (0-100 millimeters), where values at the right mean “the maximum imaginable level of pain” and values at the left mean “absence of pain”.

The SCID II was chosen to assess personality aspects: it is a questionnaire useful to evaluate personality disorders. It is based on DSM-IV Axis II criteria, and widely validated and used.

The different personality disorders (avoidant, paranoid, obsessive-compulsive, schizotypal, schizoid, depressive, histrionic, narcissistic, borderline and antisocial) can be assessed with this set of questions, where the patient and a relative answer yes or no to the set of questions about personality traits the patient had before the pain diagnosis.

In Argentina, the cultural adaptation was carried out by the Argentine Oncological Foundation FUNDONAR La Plata (Bs.As.)
The SF 36 was chosen as a scale to assess the quality of life, because it is widely used and validated \(^1,^2,^6,^11,^37\). It is a quality of life survey developed from a large set of questionnaires used in the Medical Outcomes Study -MOS-. This test detects changes in the “quality of life” of people, both positive and negative health status. The content of the items is focused on the functional status and emotional well-being. Its application field comprises general population and patients, and it is used in descriptive and evaluation studies.

The psychological assessment was complemented with the Beck Depression Inventory \(^7\), which evaluates depression symptoms. It takes into account physiological, cognitive and behavioral aspects of depression (mood, depressive ideation, loss of interest/energy, sleep, appetite and sex life) \(^1,^7,^12,^54\). And also with the STAI Anxiety Questionnaire, because it is easy to be answered by the patients, providing a unique final figure. It distinguishes the trait anxiety from the state anxiety of the patient when being evaluated, and differentiates the final score according to the gender. \(^39,^47,^48\)

Physical evaluation was complemented with the Oswestry Disability Index \(^20,^44,^41\) and the HAQ-20 (The Health Assessment Questionnaire) \(^14,^17,^23\) since they consider the spine as central axis of the body (directly or indirectly involved with any movement).

The Oswestry Disability Index (ODI) is a questionnaire that evaluates the Low Back Pain Disability Degree in patients with low back pain of any origin. It assesses 10 domains that separately measure intensity of pain, personal care, lifting, walking, sitting, standing, traveling, sleeping, sex life and social life. Many studies have proved its validity, reliability and adequate correlation with other clinical parameters. \(^20,^31,^41,^43,^44\).

HAQ-20 is an instrument that evaluates physical dysfunction for activities of daily living (ADL). It contains 8 categories: dressing and grooming, arising, eating, walking,
hygiene, reaching, gripping and other activities. Besides, it describes if any help from other people or use of adaptation devices are regularly needed for carrying them out.

Final score goes from 0 to 3:

Score up to 1: mild to moderate difficulty to perform ADL
Score up to 2: moderate to severe difficulty to perform ADL
Score up to 3: severe difficulty to serious disability to perform ADL

It was used in populations with rheumatoid arthritis and other rheumatic pathologies, osteoarthritis, lupus, psoriatic arthritis, ankylosing spondylitis, fibromyalgia. It was used in populations with rheumatoid arthritis and other rheumatic pathologies, osteoarthritis, lupus, psoriatic arthritis, ankylosing spondylitis, fibromyalgia. 1, 17

Out of the population analyzed, we found a 2:1 prevalence of chronic pain in women, with an average age of 49 years old. Most of our patients (79%) were working at that time and afforded the treatment by themselves (63%). Only 21% were retired, 37% received the treatment under some kind of medical insurance and 4% were on leave of absence. This contracts with other publications were the patients perform de treatment under any kind of works compensation or medical insurance 15, 22, 26, 34, 36. We believe this difference has to do with the type of population treated at the CIDFE and the size of the sample. We found that the average pain informed by patients was 5.75 mm in the Visual Analogue Scale (VAS).

76% of the patients showed one or more personality disorders, being the most frequent one the obsessive-compulsive disorder (59.7%)

When analyzing the population with chronic low back pain (62%), 48.9% showed obsessive personality traits; 23.4% narcissistic traits, and 17% borderline. The avoidant, depressive and passive/aggressive traits were present in 10.6% of the patients. 12.7% were reported to have paranoid traits, 4.2% schizoid and histrionic and
8.5% schizotypal. None of the patients of the sample revealed dependent or antisocial personality characteristics. The most frequently associated personality traits were those corresponding to narcissistic and borderline personalities, followed by the narcissistic-borderline-obsessive/compulsive association.

Personality disorders observed in this research were only used to portray the population.

SF-36 values found in chronic low back pain were similar to those found by other studies.\textsuperscript{25, 29, 30}

Our research confirms the multidimensional commitment caused by chronic pain in the patients’ quality of life \textsuperscript{46, 22}. This decrease in the quality of life of patients with chronic pain (we observed a general average of 42.39\% in the SF36) is equal or worse than the one showed by patients with severe cardiopulmonary diseases or major depression.\textsuperscript{1, 4, 49, 52, 53}

Levels of depression observed are similar to other studies reporting 50\% of significant depression levels in patients suffering from chronic pain \textsuperscript{17, 29, 45, 46}.

59.28\% revealed anxiety traits or disorders.

Low back pain disability was 40\% according to the Oswestry (ODI) analysis, in agreement with other studies \textsuperscript{20, 43, 31}, and activities of daily living (ADL) presented a 57\% moderate to severe difficulty.

Chronic pain is also related to overweight, because it contributes to the decrease of the functional status and quality of life \textsuperscript{21, 32, 38}. In our sample, 61\% of the patients showed overweight or obesity problems.

\textbf{Conclusions}
We could observe a 2-1 prevalence of chronic pain in women, mostly related to spine diseases (79%), personality disorders (75%), depression (64%), anxiety (59.5%), and overweight disorders (61%). With a low back pain disability degree of 36.5% (ODI), a moderate to severe difficulty to perform activities of daily living -ADL- (HAQ-20) and causing a decrease in the global quality of life of 68.6% (SF36).

Most of our patients (79%) were active at that time (working), only 6 on leave of absence, and 63% afforded the treatment by themselves.

Our research confirms the multidimensional commitment caused by chronic pain in the patients’ quality of life.

Interdisciplinary assessment proves the complexity of chronic pain.

The analysis of the different factors involved in chronic pain allows us to design an interdisciplinary treatment program focused on common objectives.

The Fleni Pain Center (CIDFE) is devoted to the diagnosis and treatment of patients with chronic pain. Its objectives are pain relief, functionality increase and improvement of the quality of life.

**Bibliography**


17. Citera G.; Arriola M. ; Maldonado-Cocco J.A ; Rosemffet M. ; Sanchez M.; Goñi M.A ; Spindler A M.; Lucero E.; Berman A.: "Validation and cross-cultural adaptation of an Argentine Spanish version of the Health Assessment Questionnaire Disability Index”. J. Clin Rheumatol 2004; 10:110-115


Figures:

Figure 1

Neck pain 14%

Headache 3%

Others 18%

Chronic Low Back Pain 65%

Figure 2
Table 1: Inclusion criteria

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<tr>
<td>1</td>
<td>Patients over 21 years old with chronic pain</td>
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<tr>
<td>2</td>
<td>Pain refractory to conventional treatments (physical therapy, medication)</td>
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<tr>
<td>3</td>
<td>Sign the informed consent</td>
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<tr>
<td>4</td>
<td>Should not present psychiatric diagnoses of psychosis or serious personality disorders</td>
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<td>5</td>
<td>Should not reveal psychiatric pathologies implying a risk to themselves or to others</td>
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<td>6</td>
<td>Accept being admitted during the time proposed</td>
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<td>7</td>
<td>Show cognitive capacity, so as to take advantage of the components of the program</td>
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<td>8</td>
<td>Accept the change of medication (analgesics, narcotics, muscle relaxants, etc.) if this is deemed necessary to achieve a better response to the treatment</td>
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<tr>
<td>9</td>
<td>Complete studies and consultations needed for the diagnosis of the pathology affecting each patient (laboratory, CT, MRI, EMG.)</td>
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<td>10</td>
<td>Be clinically stable</td>
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<td>11</td>
<td>Should have not failed in previous interdisciplinary treatments</td>
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<td>12</td>
<td>Should not be facing a labor lawsuit due to circumstances related to pain</td>
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<tr>
<td>13</td>
<td>Should not be under the effects of substance abuse (alcohol, drugs) when undertaking the program.</td>
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<tr>
<td>14</td>
<td>Be able to afford the program (by themselves, medical or state insurance.)</td>
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Figure 1: Pathologies distribution

Figure 2: Personality disorders distribution

Figure 3: Quality of life according to SF36: note the variation in the different domains.