Interdisciplinary Rehabilitation Chronic Pain Program, Benefits of Working under International Standards, Eight Years Experience in Argentina

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Introduction

Table 1: Study Participant Demographics.

|                | N   | %   |
|----------------|-----|-----|
| Sex            |     |     |
| Male           | 366 | 31.1|
| Female         | 810 | 68.9|
| Pain Diagnosis |     |     |
| Cervical       | 302 | 25.7|
| Lumbar         | 874 | 74.3|
| Mean           |     |     |
| Age (range 18-98 years old) | 55.8 | 0.4 |

Chronic pain is a frequent and costly health problem worldwide, its prevalence is increasing significantly, it is estimated that one in five people suffer from this debilitating chronic condition [1] that if left untreated can lead to emotional and physical complaints [2]. Traditional treatments focus exclusively on reducing pain sensations [3]. The aim of this study is to describe outcomes in patients treated at the Foundation for the Fight against Neurological Diseases in Childhood (FLENI) Interdisciplinary Outpatient Pain Rehabilitation Program (IOPRP) during an eight-year period, while working under international quality standards, accredited by the Commission on Accreditation of Rehabilitation Facilities (CARF).

Materials and Methods

We retrospectively analyzed the medical records of 1176 patients with chronic cervical and low back pain, Table 1, between January 2006 and December 2014. Treatment...
consisted in a 16 session program of five-hour sessions twice a week, as well as home working applying every suggestion of the professional team (neurologists, traumatologist, neurosurgeon, psychologists, nutritionist, occupational therapists, nurse, administratives). Interventions were performed individually and in groups of 6 to 9 patients. All programs treatment included pain medication, physical and occupational therapy, as well as cognitive and behavioral techniques for pain and stress management. Information of each patient’s functional and psychological status was collected through a battery of self-reported questionnaires test, Table 2, at the beginning and again at the end of the program, and at the follow up at three and at twelve months after discharge.

Table 2: Wilcoxon Matched Pairs Test.

| Outcome | Initial | Final | N     | % Variation | p<     |
|---------|---------|-------|-------|-------------|--------|
|         | Mean    | SEM   | Mean  | SEM         |        |
| VAS     | 5.6     | 0.1   | 3.7   | 0.1         | 919    |
| RMT     | 10.6    | 0.2   | 7.5   | 0.2         | 730    |
| ODI     | 29.9    | 0.6   | 20.9  | 0.6         | 743    |
| SF36PF  | 50      | 0.8   | 60.1  | 0.8         | 863    |
| SF36PR  | 19.9    | 1.1   | 47.5  | 1.4         | 864    |
| SF36BP  | 28.2    | 0.6   | 49.9  | 0.7         | 863    |
| SF36GH  | 50      | 0.7   | 60.7  | 0.6         | 864    |
| SF36V   | 38.9    | 0.7   | 53    | 0.6         | 864    |
| SF36SF  | 50.8    | 0.9   | 69.7  | 0.8         | 864    |
| SF36ER  | 43.7    | 1.4   | 66.5  | 1.2         | 864    |
| SF36SMH | 53.8    | 0.7   | 67.3  | 0.6         | 863    |
| SF36 total | 42 | 0.6 | 58.9 | 0.6 | 926 |
| BECK    | 13.8    | 0.3   | 8.1   | 0.2         | 928    |
| BPS     | 6.6     | 0.1   | 5     | 0.1         | 817    |
| HAQ20   | 0.8     | 0     | 0.6   | 0           | 856    |
| ISI     | 11.1    | 0.3   | 7.6   | 0.3         | 513    |

Statistics
Quantitative data was expressed as mean±SEM. Normally distributed data were tested using one way ANOVA, and repeated measures ANOVA to compare beginning and end of the study. For non-normally distributed data, Wilcoxon matched pair test was used to compare variables and Mann-Whitney U test to compare diagnosis and sex. CSS/Statistica package version 7.0 (StatSo, Tulsa, USA) was used in the analyses, and P<0.05 regarded as statistically significant.

Results
During this period of 8 years, 1176 chronic pain patients completed the IOPRP and comprise the sample for which results are presented: (Figure 1-4).

Discussion
According to the International Association for the Study of Pain (IASP), “Pain” is defined as an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage [4]. Chronic pain become a costly health-care problem, not only in terms of work absences and lost productivity but also in terms of medical care expenses [5]. Chronic pain can lead to serious emotional and physical complaints such as depression, sleeping disorders, immune suppression, eating disorders, cognitive impairments and other long-term deleterious effects in life quality [2].
functional, and physical treatments in an integrated format, providing rehabilitation treatment for adults with low back pain, neck pain, musculoskeletal disorders, and other chronic pain conditions. The focal goal of our program is enhance the ability to cope with and manage pain while restoring function and quality of life. Our results showed improved on quality of life outcomes, Figure 4, pain was reduced by 55%, insomnia, Figure 3, by 30% and curiously, depression, which initially was higher in women, improved by the end of the program, to levels similar to those observed in men. The average pain improvement, Figure 1, in this study was within the range of expected 14% to 60% pain improvement reported in the literature [7].

At the end of the program patients expressed satisfaction not only with services offered during treatment, but also with outcomes obtained. Managing to adopt cognitive-behavioural strategies for pain management seems to correlate with reduction in the need for medication, maximizing of function by addressing wellness, and the opportunity to create a healthy lifestyle, and learning to cope with pain as it is to reduce the level of pain, regardless of the degree of pain improvement they experienced.

Limitations
Control group (traditional treatment) was not taken into account on this work and limits the conclusions that can be drawn from the results. During follow-up, response rate at 12 weeks was 43%, but only 10% at one year. This lack of adherence to follow up must be taken into account for further research.

Conclusion
Results indicated not only that application of an IOPRP is feasible in Argentina, but also that results were uniform and sustained throughout the study period. Based on our experience, we encourage other centers to treat chronic pain in an interdisciplinary fashion, following international quality standards.

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