# Helplessness Scheme in a Patient with Chronic Pain and Depressive Symptoms<sup>1</sup>

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Abstract. Fibromyalgia is characterized by a chronic widespread pain usually associated with functional disability and depressive disorders. For its impact, this painful syndrome can activate and/or boost the feeling of helplessness and worthlessness that can contribute to the onset of depressive symptoms schemes. This paper analyzes the pain management process by identifying disability beliefs and mood changes in a patient with chronic pain and depressive symptoms. For such a purpose, the strategies and techniques used in a therapeutic process conducted in thirteen sessions were described, having as foundation the Cognitive Therapy. Moreover, we present the Cognitive Conceptualization regarding the helplessness scheme of the patient. Although Laura has not shown significant changes in the perception of pain, depressive symptoms had an important decrease, enabling the acquisition of more practical behaviors towards pain management, asking for help and avoiding physical exertion.

Keywords: Helplessness; perception of pain; depression.

## Esquema de Desamparo em Paciente com Dor Crônica e Sintomas Depressivos

Resumo. A fibromialgia caracteriza-se por dor generalizada e crônica, de modo geral, associada à incapacidade funcional e quadros depressivos. Por suas repercussões, esta síndrome dolorosa pode ativar e/ou potencializar esquemas de desamparo e desvalor, o que por sua vez pode contribuir para o surgimento de sintomas depressivos. Neste artigo, analisa-se o processo de manejo da dor por meio da identificação de crenças de incapacidade e da alteração de humor numa paciente com dor crônica e sintomas depressivos. Para tanto, são descritas as estratégias e técnicas utilizadas em seu processo terapêutico, realizado em 13 sessões, que teve como embasamento a terapia cognitiva. Além disto, apresenta-se a conceituação cognitiva referente ao esquema de desamparo da paciente. Embora Laura não tenha apresentado mudanças significativas na percepção álgica, os sintomas depressivos tiveram uma remissão importante, o que contribuiu para aquisição de comportamentos mais funcionais para manejo da dor, como solicitar ajuda e evitar o esforço físico. Palabras-chave: Desamparo; percepção de dor; depressão.

# Esquema de Abandono en Pacientes con Dolor Crónico y los Síntomas Depressivos

Resumen. La fibromialgia se caracteriza por el dolor crónico generalizado y, a menudo, está asociada con la discapacidad funcional y los trastornos depresivos. Por sus repercusiones, esta síndrome dolorosa puede activar y/o potenciar los esquemas de abandono y la falta de valor, lo que, a su vez, puede contribuir a la aparición de los síntomas depresivos. En este artículo fue analizado el proceso de tratamiento del dolor mediante la identificación de las creencias de la discapacidad y del cambio del estado de ánimo en una paciente con dolor crónico y con síntomas depresivos. Para ello, son descriptas las estrategias y las técnicas que se utilizan en su proceso terapéutico, llevado a cabo en trece sesiones, que tuvo como

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base la Terapia Cognitiva. Además, se presenta la Conceptualización Cognitiva que se refiere al esquema de abandono del paciente. Aunque Laura no ha presentado cambios significativos en la percepción del dolor, los síntomas depresivos tuvieron una disminución importante, lo que ha ayudado a adquirir comportamientos más funcionales para el manejo del dolor, como solicitar ayuda y evitar el ejercicio físico.

Palabras clave: Abandono; percepción del dolor; depresión.

Fibromyalgia is characterized by a widespread chronic pain that migrates through several points in the body, especially in the neck, back, shoulders and pelvic waist. The subjects that suffer from it also present fatigue, sleeping disorders, headaches, morning stiffness, dyspnea, memory and concentration issues, anxiety, mood changes and depression, which may lead to functional disability (Rafael & Madel, 2012).

Rabelo and Cardoso (2007) draw attention to the fact that psychological factors are responsible for a subjective perception and assessment of the situation, in such a way that functional limitations are managed more by beliefs in the disability than by the physical disability itself.

From this perspective, depression is the most frequent case in patients with chronic pain, and may influence the intensity of the pain (Garbi, 2013). However, it is not possible to distinguish the former from the latter, because at the same time depression can be a comorbidity of chronic pain, depressive symptoms can intensify the perception of pain, thus developing a cyclic relationship.

According to the cognitive model of depression, the content of the cognitions of depressive subjects is considered as dysfunctional, reflecting attributions and perceptions exaggeratedly negative about themselves, the world and their future, the three pillars of the so-called cognitive triad (Beck & Alford, 2011). In this model, a hopelessness scheme can be activated in situations in which one's ability is tested, or in which a given condition may happen to compromise the individual's autonomy and functional ability, as it is the case of the experience of chronic pain.

The next section will present the analysis of a psychotherapeutic process conducted at the *Ambulatório de Atenção Psicológica a Pessoas com Condições Crônicas* [Ambulatory for Psychologic Assistance to People with Chronic Conditions] of the Federal University of Recôncavo da Bahia (APC/UFRB). The specific objectives are to describe the main strategies and techniques used for the expansibility of cognitions, aiming at pain management and mood improvement, in addition to present the Cognitive Conceptualization referring to the patient's helplessness scheme.

#### Laura's Case

Laura (fictitious name), 59 years old, divorced, complete high school, came to the APC with several complaints, mainly about chronic pains associated with fibromyalgia, diagnosed about three years ago – herniated disc and espondiloarthrosis. The chronic condition was the main source of concern and one of the causes of her "sadness in life", as severe pain impaired the performance of her work-related activities, generating functional disability and causing conflicts with coworkers and her boss.

When she sought therapy, she was being followed up by an orthopedist and practiced Pilates, which, according to her, was more efficient than the drug for pain relief itself. She reported changes in her sleeping pattern, constant fatigue, trouble concentrating and memory loss. Regarding mood, Laura informed that "she has always been kind of a sad person", but that the feeling became worse after the fibromyalgia. Social contacts, in turn, were restricted to moments with her children and with church and work friends. Going to the church, a place she used to attend frequently when not at home or at work, was the only pleasant activity she used to do.

Her story of life is marked by adverse events and multiple losses. At the age of four, her mother died, and Laura was given to her father and an aunt, whom, according to her, raised her in a very harsh way and with little affection. She felt "stuck", because she was only allowed to go to the school or to her aunt's business, who also solved all of her problems. Moreover, she repeatedly heard from the latter and from one of her siblings that she "was disabled", "slow", "could not make things right!"

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When she turned eighteen, she left her aunt's house, even against the latter's will, in order to be able to have autonomy to take care of herself. She married an alcoholic and very aggressive man, with whom she had two kids and whom she divorced after 10 years. Later, she went to live with another partner, with whom she had a good relationship; however, he died of cancer approximately four years ago. Since then, Laura has not had a romantic relationship.

As for her Self-concept, Laura proved somebody who is more concerned about other people than about herself, thus regarding herself as a very altruist person. In this way, from a young age, she has played the role of caretaker, first to her father, who died when she was 23, to her aunt, to a cousin, to her second partner, as well as to several close people with some type of chronic condition. Finally, she defined herself as somebody that did not like to ask for the help of other people, doing so only when she had no physical or cognitive condition to perform the intended task.

#### Laura's depressive symptoms

Among affective symptoms, sadness, intense crying, guilt feeling, shame, anger and anxiety stood out. Motivational ones included loss of positive motivations, increased avoidance desires and increased dependence. About cognitive symptoms, it was possible to identify indecision and self-criticism, besides concentration and memory issues. Behavioral symptoms comprehended passiveness, avoidance and inertia. Physiological symptoms included difficulty to sleep and constant fatigue, which could also be derived from fibromyalgia.

According to the model proposed by the Cognitive Therapy (Beck & Alford, 2011), depressed people tend to see themselves in a self-critical and disvalued manner, face the world as a threatening place and usually focus on negative aspects of the experience; they also anticipate that future events will end up negatively (hopelessness). Following these patterns of thought, Laura regarded herself as incapable and inadequate, fearful and insecure to deal with ordinary things; the future was seen under a pessimistic view: "I won't change and nothing I can do will solve my situation".

One of the main cognitive distortions (Leahy, 2006) identified was overgeneralization, because she turned her attention to the few situations in which she failed, applying to them a global pattern and believing that she was incapable in most of the situations. She disregarded occurrences that evidenced her ability, which characterized another distortion, the negative filter, and attributed to herself the blame for negative events, which is called personalization. Laura also tended to make unfair comparisons, as she compared herself to other people that did not have the symptoms of fibromyalgia, such as chronic pain as well as concentration and memory issues, to say that she was incapable of performing certain activities, reporting being envious of these people.

Still according to Beck and Alford (2011), depressive symptoms have a reciprocal relationship, feed each other and are reflected on the psychic organization of the patient. In this sense, it was possible to observe that in some of the situations reported by Laura, anxiety resulting from automatic negative thoughts (ANTs) relative to the helplessness scheme affected her attention and memory, decreasing motivation and increasing the desire to avoid the aversive situation. Likewise, in a positive way, the improvement of one of the symptoms can reflect on the other ones, as it happened in Laura's case, who, after having sadness decreased, also presented improved motivation and self-criticism.

## The therapeutic process

The therapeutic process sought to be active, educative and structured, according to what is preconized by the Cognitive Therapy. Special attention was given to confidence, cooperation and rapport principles, being the latter a crucial ingredient to treat depressed patients, considering that, by recognizing interest and acceptance from the therapist, the patient feels a greater freedom of communication (Beck & Alford, 2011). A total of 13 sessions were performed in the course of this article, making use of several techniques chosen according to the goals of each session and to the objectives of the therapy.

#### Assessment of mood and pain

Weekly, the patient attributed a 0-10 score to each one of the emotions experienced during the week before the session (fear, anger, sadness, joy, envy, satisfaction, guilt, shame and anxiety). For the assessment of pain, the Visual Numeric Scale (VNS) was used, a one-dimensional scale that measures the intensity of the pain-related experience and that consists of a straight line, numbered from 0 to 10, in which one end contains the expression absence of pain, and the other one worst pain ever (Oliveira, 2012).

After new sessions, a graphic representation was constructed in order to verify the course of two emotions that were meaningful to Laura: sadness and joy. When presented with the graph, Laura was instructed to analyze what happened to her mood during the therapeutic process, which allows observing that joy had had an expressive elevation, stabilizing throughout the sessions, whereas sadness had had an important decrease up to the moment of the construction of the graph (Figure 1). After visualizing the improvement in her self-reported mood, the patient verbalized her satisfaction in knowing that her sadness had decreased and finished saying that indeed she was feeling emotionally better, although the pain still annoyed her.

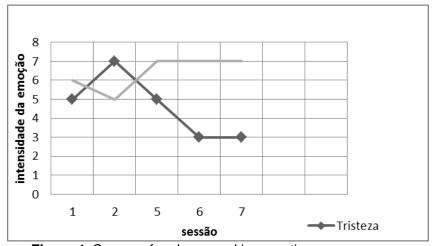


Figure 1: Course of sadness and joy emotions

#### Identification of Automatic Negative Thoughts (ANTs)

The beginning of the therapy had as objective to educate the patient on the cognitive model (psychoeducation), having sadness as focus, due to the frequency and intensity at which this emotion presented itself. Then, it moved on to the identification and registration of current negative thoughts that contributed to keeping the feeling of sadness, as well as possible problematic behaviors of Laura.

Through this technique, it was possible to comprehend that repetitive thoughts regarding the disability were associated with depressive symptoms. It is also possible to identify one of the main compensatory strategies of Laura, which was that of failing to ask for help to do some activities, even when she lacked physical conditions to perform them.

#### Reattribution and Socratic Questioning

In situations in which Laura mistakenly attributed to herself the blame for an adverse event, the Reattribution technique was used, which, according to Beck (1997), does not consist of absolving the patient from all responsibility, but of identifying the diversity of factors that may have contributed to the event. Reattribution was checked by means of the Socratic Questioning, through which evidences against and in favor of the belief that Laura was to be blamed for the event were listed, giving focus to other aspects and people that could have also been held accountable. In this way, Laura, who initially attributed 50% to the power of the "I'm guilty" thought, and 70% to the sadness resulting from this thought, attributed 10% and 40%, respectively, after the Socratic Questioning.

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### Decision making

In this period, Laura had anxiety related to work-related activities, being indecisive about her retirement due to possible financial losses. The Decision making technique recommended by Beck and Alford (2011) was used, especially with regard to depressed patients, whose ability to make decisions has been hindered. To do so, the advantages and disadvantages of each option were written, and this was used as a guide for the patient to have a higher probability of making the right decision. After underlining the most important items of each option and analyzing this guide, the patient came to the conclusion that the best alternative at that moment would be retirement, whose only disadvantage would be a small reduction in the monthly income. On the other hand, the advantages were more numerous, ranging from a greater availability of time to do things that interested her to the possibility of reducing her pain.

#### Developing assertiveness

In different sessions, Laura claimed that she felt resented at close people as they did not recognize her limitations and did not seem willing to help her. However, it was observed that the patient not always reported her pain, her difficulty to perform a task or asked for help, which prevented other people from knowing what she wanted. As an exercise, we suggested that Laura expressed more her desires and tried to ask for help whenever she needed. In later sessions, Laura said that she had tried to be more assertive, expressing her desires and asking for the help of family members and coworkers when necessary. She reported having sought for the resolution of some pending issues with relatives at whom she was feeling resented.

#### Pie chart – Real vs ideal life

Two pie charts were designed, one representing the real distribution of different areas of Laura's life, and another representing the ideal distribution, so that Laura identified whether there was need for making changes in those areas and for creating further strategies for her to approach the ideal graph. One of the findings of the patient was that the work dimension occupied the largest space in her real graph, not only regarding the time spent, but also regarding the physical exhaustion that it caused. In this way, Laura came to the conclusion that in the ideal graph work should occupy minimum space, and that other dimensions such as leisure, health and spiritual aspects should be more important.

When this graph was built, some changes were already being made by the patient, like the attempt to retire and the greater engagement with pleasant activities.

#### Cognitive conceptualization

Sessions nine, ten and eleven were intended to the joint construction of the Cognitive Conceptualization that was already being developed since the first contacts with the patient. According to Neufeld and Cavenage (2010), this moment is of crucial importance because it gives the therapist the possibility "to test, in each case, whether the hypotheses considered make sense to that specific client" (p. 16). In this way, in order to confirm the initial hypothesis of a hopelessness scheme, the Cognitive Conceptualization diagram was filled out in a collaborative way along with the patient.

According to Mendes (1999), the Maladaptive Initial Schemes proposed by Young can be subdivided into domains, including the Impaired autonomy and performance, in which the individual is not able to develop a sense of confidence and to establish the world by himself or herself, which may have been derived from harsh or overprotective families that, in an attempt to protect the child, end up not reassuring his or her autonomy, The schemes involved herein are dependence/incompetence, vulnerability, entanglement/underdeveloped self and failure.

The joint construction of the Cognitive Conceptualization diagram enabled the confirmation of the initial hypothesis of a primary hopelessness scheme that fits the abovementioned domain. From the beginning, this hopelessness scheme reflected on many situations brought by the patient, in which ANTs like "I'm incapable", "I'm getting incapable", "I wasn't capable", "I won't make it", or "I can't do that" were recurrent.

In addition to the situations related to functional disability derived from chronic pain, Laura reported situations in which the perception of disability was not related to the pain. For instance, moments when she needed to go to the bank to withdraw some money but did not do so, avoiding or asking for the help of other people. This happened because whenever she arrived at the bank with this purpose, she had the "I won't make it" ANT, which caused her to feel very anxious and afraid of failing. This data supports the hypothesis of an initial hopelessness scheme prior to the patient's chronic condition, leading to the belief that the possibility of functional disability imposed by the disease operated as a stressing event that activated disability beliefs relative to that scheme.

To deal with the core belief, Laura developed compensatory strategies to avoid the performance of the activity that made her feel incapable. As reported by the patient herself, avoidance gave her the sensation of decreased anxiety, at least for that moment, but on the other hand it contributed to its maintenance, since it would not allow Laura to test her belief.

Another compensatory strategy identified was that of seeking the other's acknowledgement, exemplified by the speech "seeing that my job is acknowledged gets me happy because it makes me feel I'm capable". Laura also developed two compensatory strategies referring to the need for "asking for help". The first strategy was that of not asking for help in situations in which she was faced with a functional disability. For example, when she needs to do house chores or work-related activities that require some type of physical exertion, she does not ask for help and performs the tasks in spite of the pain. The investigation with the patient led to the assumption that maintains this behavior: "if I ask for help, people will think I'm incapable". In this way, because of this assumption, Laura tended to perform excessive physical exertion, which proved to be a strategy.

The second strategy was asking for help with the aim of doing activities that require some degree of cognitive effort, as when Laura's boss asked for her to fill out some documents. In that situation, the patient's hopelessness scheme was activated, leading to the "I can't do this" thought. This ANT, in turn, triggered anxiety and fear of failing, which compromised her attention and hindered her concentration on the task at hand. In this way, Laura asked for help even before trying to do the activity and thus avoided to confirm whether she would be able to perform it or not. This behavior could also be related to the tendency to ask for help in depressed patients.

As we were identifying ANTs and making questions, we came up with the hypothesis that increase in the perception of pain was also a compensatory strategy, considering that it often occurred when depressive symptoms resulting from the disability belief were in evidence. In this case, having a contact with the belief seemed to be more aversive than the pain itself, causing Laura to shift her focus away from the belief, which, consequently, increased the perception of pain. This assumption was later confirmed by the patient, who reported preferring to feel the pain derived from physical exertion over thinking she was unable to perform the intended task.

Thus, the reported strategies reflected intermediary beliefs developed by Laura, such as "If I avoid the situation, I won't fail"; "If I ask for help, it'll show I'm incapable"; "If my job is acknowledged, this shows that I am able"; "I should do some activities even if I have no functional conditions to do so because I don't want to feel incapable".

It is possible that this scheme has been influenced by the harsh manner she was raised and by not having had many opportunities to develop her sense of autonomy. When she left home, she felt hopeless and unable to perform some ordinary activities without somebody else's help, having a big trouble looking for a job and solving practical problems like going to the bank. In addition, she heard from people who meant a lot to her that she was incapable, which may also have contributed to the development of this scheme.

Besides the hopelessness scheme, Laura developed an inadequacy scheme, which seemed to be associated, as her ANTs about inadequacy were related to the fear of being judged as incapable by other people. This caused Laura to avoid exposure to activities often necessary, such as withdrawing money or buying something at a store. Laura ended up reinforcing even more her helplessness scheme and saw herself as inadequate/different.

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#### Starting cognitive restructuration

After the confirmation of the initial hypothesis by the patient, the advantages and disadvantages of continuing with the "I'm incapable" belief were listed as well. The next sections were dedicated to the substitution of the old belief for a more functional, and all the same realistic, one. In a collaborative manner, it was defined that the new belief would be "I'm incapable of many things, but I also have some limitations like everyone else".

Then, some evidences that could support the new belief were listed, for instance: "Although I have some difficulties with Pilates, I perform many moves that other students younger than me can't"; "I have creativity and skills for handicraft". In addition, evidences that supported the old belief started to be identified, in a search for alternative explanations, that is, restructuring the evidences: "I can't make a lot of physical exertion, BUT this is a limitation imposed by fibromyalgia and does not mean I'm incapable in everything or as a person".

Because the therapeutic process has not promoted so far changes in the intensity of the pain applied to the Chronic Pain Self-efficacy Scale (CPSS), which measures the perception of self-efficacy and the disability to deal with the consequences of pain in patients with chronic pain (Salvetti & Pimenta, 2005). Laura obtained a score of 54, in a scale of 30 to 300, therefore, it is considered that her belief is low, which might relate to her perception of pain and to depressive symptoms. The low self-efficacy belief for chronic pain in addition to the fact that Laura does not take her medication regularly but only when the pain becomes intense may have contributed to the lack of important changes about the intensity of the pain.

#### **Final Considerations**

The results obtained in this therapeutic intervention indicated that although improvement in the mood has not had a direct impact on the perception of pain, the relief of depressive symptoms could have an influence on the relationship that the patient had with her painful experience, since she acquired more functional behaviors for handling the pain, such as asking for help and avoiding physical exertion. It is possible that some aspects like the low self-efficacy belief for chronic pain, the fact that Laura does not take her medication regularly but only when the pain became intense, and that quitting Pilates classes due to logistic problems may have hindered the obtainment of better results. Moreover, the number of sessions may have been insufficient for a more precise observation and analysis of the evolution of the patient's situation.

Furthermore, it is important to develop additional investigations about the sense of self-efficacy of the patient, since this belief influences the perception of pain, and depression. Likewise, the continuation of the cognitive restructuration of the process, through a change in the helplessness scheme, can promote better results concerning both depressive symptoms and perception of pain.

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