How interdisciplinary psychoeducational programs with a psychodrama approach can help the chronic pain treatment compliance

Como programas psicoeducativos interdisciplinares de abordagem psicodramática podem ajudar na adesão ao tratamento para dores crônicas

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ABSTRACT

BACKGROUND AND OBJECTIVES: Psychoeducational programs with a cognitive behavioral approach are pointed out in the literature as effective tools in the management of chronic pain. The objective of this study was to evaluate if a psychodrama approach of the program has similar effects, as well as identifying if there are benefits in developing them at the beginning multidisciplinary treatments to foster the compliance to the proposed treatments.

METHODS: The study was a quasi-experimental one, with a non-probabilistic sample, for convenience. Ninety patients with chronic pain of several etiologies who started treatment in a tertiary hospital in the city of São Paulo in the period from 2015 to 2017, were invited. Among them, 81 concluded one of the 6 programs. Patients were evaluated with several resources before and at the end of the program.

RESULTS: The results obtained are similar to the ones in the literature: reduction of anxious and depressive traits, and intensity of pain; increase in active strategies of confrontation and alteration in the period of the change stage. Moreover, to deal with pain as a chronic process interferes with the patients' identity, which can be observed by the change in the pattern of living with the pain, that can contribute or disturb the compliance to the proposed multidisciplinary treatments.

CONCLUSION: The development of psychoeducational programs with a different approach (Psychodrama) for people who suffer from chronic pain can have beneficial effects, similar to the groups described in the literature.

Keywords: Chronic pain, Health education, Psychodrama

RESUMO

JUSTIFICATIVA E OBJETIVOS: Programas psicoeducativos de abordagem cogntivo comportamental são apontados na literatura como ferramentas eficazes no manejo de dores crônicas. O objetivo deste estudo foi avaliar se o programa sob abordagem psicodramática tem efeitos similares, assim como identificar se há benefícios desenvolvê-los no início dos tratamentos multidisciplinares para a adesão aos tratamentos propostos.

MÉTODOS: Trata-se de um estudo quase-experimental, com amostra não probabilística por conveniência. Foram convocados 90 pacientes com dores crônicas de diversas etiologias que iniciaram tratamento em um hospital terciário da cidade de São Paulo no período de 2015 a 2017, dentre os quais 81 deles concluíram um dos 6 programas. Os pacientes foram avaliados por diversos recursos antes e ao final do programa.

RESULTADOS: Os resultados obtidos são semelhantes aos da literatura: diminuição de traços ansiosos, depressivos e de intensidade de dor; aumento de estratégias de enfrentamento ativas e alteração do estágio de mudança. Além disso, lidar com a dor como um processo crônico interfere na identidade dos pacientes, o que pode ser observado pela mudança do padrão de convívio com a dor, podendo contribuir ou atrapalhar na adesão aos tratamentos multidisciplinares propostos.

CONCLUSÃO: O desenvolvimento de programas psicoeducativos para as pessoas que sofrem com dores crônicas em outras aborgagens (Psicodrama) também podem ter efeitos benéficos semelhantes aos grupos descritos na literatura.

Descritores: Dores crônicas, Educação em saúde, Psicodrama.

INTRODUCTION

In Brazil, epidemiological studies state that about 40 million Brazilians suffer from chronic pain[1]. Therefore, healthcare professionals need proper training to improve the quality of care and to increase the treatment compliance. Spontaneous improvement is not expected in cases of chronic pain, which require some type of intervention[2].

The difficulties in the management or remission of the chronic pain picture made evident to the International Association for the Study of Pain (IASP) the importance of the Centers of Pain to understand and to treat the chronic pain under the biopsychosocial perspective, which requires the establishment of multi and interdisciplinary treatments. Although patients seek such care, they not always seem willing to perform the procedures recom-

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mended by the team, that is, they want the remission of pain, but they expect that the results will come with the ingestion of drugs or clinical procedures and in a short-term[3].

When pain persists despite the therapeutical efforts, the healthcare professionals share the feeling of frustration with the family and the patient, especially because they are not able to anticipate the cure[3]. The attention should focus on helping to adjust to the resulting disability and drug adverse effects. Moreover, the irregular use or the abuse of drugs can decrease the production of endorphins (pain blockers), consequently increasing the perception of pain[4]. In this sense, give more information to the patient about his/her clinical conditions is a fundamental tool for the effectiveness of the treatment proposed by the interdisciplinary team.

There are psychoeducational programs for different chronic conditions, including arthritis, asthma, diabetes, and hypertension[5-7], and they are a useful therapeutical tool since the participants are encouraged to use their coping resources to change the way they deal with their condition and therefore, to improve their physical and mental health[8]. Usually, this type of program has a cognitive-behavioral approach. The main objectives are to help patients to better understand pain and its interactions with thoughts, feelings, behaviors and the environment; change dysfunctional beliefs, exaggerated expectations and strengthen coping skills; move the patient's focus away from pain and encouraging the focus on improving their physical and cognitive skills, reducing the reliance on the improper/excessive use of drugs[5-7,9-12].

Several studies showed that psychoeducational programs can lead to satisfactory results in the control of chronic pain. Among the benefits are: 1) reduction of patients' anxiety and depression; 2) decrease in the intensity of pain and its expression; 3) reduction of catastrophic thoughts; 4) changes in the stage of change, resulting in more active atittudes[5,6,9,12-18]. One of the studies highlighted that patients with high scores for anxiety were less prone to benefit from psychoeducation[13].

The results showed that the psychoeducational programs are offered as a last resource in the treatment of the pain after all the medical interventions have been tested[12], and not as a possible way to help to improve compliance to the treatment proposed. Treatment compliance means the patient's attitude and behavior to correctly follow the directions about the drugs, changes in lifestyle, or recommendations about preventive measures[19]. The fact that the patient realizes that it is necessary to change his/her lifestyle to face or to manage pain does not mean that he/she is prepared or willing to do so[20].

It is necessary to mobilize each one's motivation to make changes in their daily activities. Also, the demand must come from a need of the patient, which consequently interferes with the stage of change and the level of compliance[21].

The psychoeducational program deals with issues raised by the group, in addition to the program content. Thus, the patients' narratives become elements of great importance for valuing the subjectivity of the group members, making possible to debate and make reflections regarding each other's challenges and strengths, making them aware of the meaning of pain, individually, and encouraging the attitude to change. Within this perspective, it is necessary to identify how much the patient feels that his/her identity was harmed by pain, observing the behavior pattern with the symptom and the expectation about the treatment that can be translated by the stages of change[19].

The objective of this study was to evaluate the effect of the interdisciplinary psychoeducational program under the psychodrama approach in the control of chronic pain and compliance to the treatment proposed by the multidisciplinary team in a pain care center, at the beginning of the treatment.

METHODS

A quasi-experimental study, that is, the results were compared with the same subjects before and after the treatment. Ninety patients who have started treatment in the Group of Pain of a tertiary hospital of the city of São Paulo between 2015 and 2017 were invited by telephone. The sample was by convenience and not probabilistic. Among the 90 participants invited, 81 finished the program. Only 9 participants did not complete the groups due to personal reasons (financial problems, family illness, move from the city, and return to work in the period of the program). Six psychoeducational programs were conducted. Each group had approximately 10 to 15 adult patients with chronic pain of different etiologies. The only exclusion criteria were the presence of cognitive impairment that prevented the subject from assimilating new knowledge or with a disablement in the communication capacity. All patients who participated in this study signed the Free and Informed Consent Form (FICT).

Each program was developed in the closed model, a mixed structure that alternates the presentation of determined themes and activities during one session. The program offered to patients consisted of 12 sessions of 90 minutes each in which two of the meetings were used for the application of the instruments, one at the beginning and another at the program closing. The themes worked during the program were standardized and based on the clinical experience with the patients of this pain clinic, with the adaptation of the Pain Management Programme of The Walton Centre Hospital (Liverpool, UK). The themes addressed were: presentation of the objectives of the group, survey of expectations and warm-up activity; presentation of the Gate Control Theory; the importance of the diagnosis and the role of the drugs; the importance of physical activities and body care; how a healthy diet can help in the treatment; the role of the stress and the benefits of relaxation; how to deal with feelings and emotions; sources of motivation for treatment compliance; life project and closing/celebration. The debates were conducted by different professionals in the healthcare area (doctors, physiotherapist, nutritionist, and psychologist) depending on the theme addressed. There was always a coordinator, in this case, a psychologist, who attended all the sessions of the group and was responsible for developing the experiences and debriefing and closing of the meeting.

During the meetings, the patients received the educational material about the themes discussed in the group and were stimulated to perform the tasks at home to facilitate the debate and the learning of strategies that could promote changes in their lifestyle.

The data collection was in two stages: one before the beginning of the psychoeducational program and the other at the conclusion. The information was collected by other psychologists who did not coordinate the groups.

This study used the following criteria to evaluate the effectiveness of the program with the psychodrama approach: change in the intensity of pain, mood alterations, change in the pattern of pain experience and stage of change, analysis of the answers about how the program changed the patient's understanding of the pain, coping and treatment compliance. The reason for the selection of the majority of these indicators was that the results could be compared with the effects of studies about psychoeducational programs presented in the literature using the cognitive-behavioral approach.

The numeric pain rating scale (NPRS) was used to assess the intensity of pain[22], in which the professional asks the patient the score that he/she attributes to his/her pain, from zero to 10, where "zero" means no pain, and "10" an unbearable pain.

As for the mood, the Hospital Anxiety and Depression Scale (HADS) was used[2]. This scale has 14 questions, seven for depressive traits and seven for anxious traits. It does not provide a psychiatric diagnosis, but its findings suggest investigations of depression or anxiety picture[23]. The cut-off points for the Brazilian population are 8 and 9 for anxiety and depression, respectively[23].

The Portrait of Pain, a projective resource, was used to identify the pattern of living with pain and the stage of change, and the expectations with the treatment[3]. The objective of the Portrait is to identify the patient's perception of his/her pain and the associated suffering. The subject is asked to imagine that the pain has a form and, after that, the patient tries to draw it in a sheet of paper. Then, there is an inquiry elaborated with seven questions to broaden the understanding of the pain suffering. Through the analysis of the drawing and the inquiry, it is possible to identify in which pattern of living with pain the patient is (chaotic, dependence, disgust or integration). The stages of change (pre-contemplation, contemplation, preparation, action, maintenance, relapse or discredit) are also evidenced by the analysis of the following questions of the inquiry: Is there somebody or something that can reduce your pain? And you, can you do something?

Finally, the Final Evaluation Questionnaire of the Psychoeducational Program was used to evaluate how much the patient has learned about his/her problem and if there was a change in the commitment with the treatment proposed by the healthcare team. This questionnaire was developed by the team and assesses the changes after the program in the following aspects of the patient's life: self-care, self-esteem, daily life, leisure, the role of emotions, interpersonal relationships, work and expectation about the treatment and the team.

This study was approved by the Ethics Committee of the institution under opinion number 80953917.1.0000.5482.

Statistical analysis

The data were input and analyzed in the SPSS (Statistical Package the Social Sciences). Initially, we performed a descriptive analysis of all variables of the study. The results were presented in tables of frequencies of the qualitative variables. Estimates of the central trend and dispersion measures were made regarding the quantitative variables. To compare the quantitative variables after checking the non-normality, we used Kolmogorov-Smirnov non-parametric test.

RESULTS

Among the 81 participants considering the sociodemographic data, 64.2% were women, and 35.84% were men, and the average age was 51.11±14.89 years. The minimum level of schooling found was the functional illiteracy and the maximum level was complete higher education. Regarding the marital state, 59.3% of the patients were married, or in a domestic partnership, 18.5% were single, 14.8% separated or divorced and 7.4% widowers.

The sample presented an average time of pain of 82.02±91.21 months. The diagnosis was distributed as follows, 50% lower back pain, 26.3% neuropathic pain, 16.3% myofascial pain syndrome, 3.8% cervicogenic headache and 3.8% fibromyalgia.

To facilitate the presentation of the results, the data of each instrument was compared considering patients' results before and after the conclusion of the psychoeducational program.

Taking into account the scores that patients have attributed to their pain in the NPRS, the initial average was 7.17±1.60, and at the end of the program, it was 3.55±1.91, a statistically significant difference (p<0.001).

In HADS, it was observed that at the beginning, 56.2% of the patients had a score for anxiety and 48.3% for depression. At the conclusion of the program, there was a reduction in the *scores* to 29.4% for anxiety and 23.4% for depression. Before the beginning of the program, 34 patients had a score for anxiety and depression, and at the completion, this number dropped to 13. The decrease in the anxiety score was statistically significant, and for depression, although it has also decreased, there was no statistical relevance.

As for the alteration of the stage of change before and after the completion of the psychoeducational program, at the beginning, 76.5% of the patients were in the pre-contemplation stage, whereas at the end of the program, 65% were in the contemplation stage, 31.3% in preparation and 3.8% in the action stage. Only 5 participants remained in the same stage until the com-

Table 1. Descriptive statistics of the scores of intensity of pain, anxiety and depression before and after the program

Variables	Before the program (n=81)		After the program (n=81)		p value
	Average±SD	Median (min-max)	Average±SD	Median (min-max)	
Intensity of pain (0-10)	7.12 (1.60)	7 (3-10)	3.55 (1.91)	4 (0-8)	p<0.000
Anxiety (0-21)	9.84 (4.80)	10 (0-21)	5.38 (5.05)	5 (0-20)	p<0.000
Depression (0-20)	7.52 (4.68)	8 (0-19)	4.68 (4.38)	4 90-20)	p=0.085

Table 2. Alterations in the stage of change

Contemplation		Final stage		
		Preparation	Action	
Stage initial	Pre-contemplation	58.0%	17.8%	0%
	contemplation	6.2%	13.6%	2.5%
	preparation	0%	0%	1.2%

Table 3. Changes in the pattern of living with pain

Chaotic		Final pattern			
		Dependence	Disgust	Integration	
Pattern initial	Chaotic	0%	21%	7.4%	1.2%
	Dependence	1.2%	18.5%	17.3%	16%
	Disgust	0%	11.1%	3.7%	1.2%

Table 4. Evaluation of the patients of the psychoeducational program about the multidisciplinary treatment

	Before the program	After the program
I realize that I can contribute to my treatment	18.9%	85.2%
I have expectations to improve	69.4%	97.3%
I understand the importance of the medication and I take it with regularity	40.0%	79.2%
I feel that it is possible to discuss with the team when I don't notice any improvement	20.1%	77.5%
I have a good relationship with the healthcare team	58.6%	89.4%
I trust the healthcare team	76.5%	90.3%
I understand my diagnosis	15.4%	75.8%

pletion of the program, that is, 6.2% remained in the contemplation. The changes along the program can be better visualized in table 2.

Concerning the patterns of living with pain, it can be said that at the beginning of the program, 30.9% were in the chaotic pattern, 53.1% in the dependence and 16% in the disgust pattern. Now, at the completion of the program, the number of participants in the disgust pattern increase, 28.8%, and 18.8% reached the integration pattern. Of all the patients, 15 remained in the dependence and 3 in the disgust pattern. Table 3 shows these changes in more detail.

In the assessment of the final questionnaire of the psychoeducational program, it was identified that at the beginning of the program, 81.7% used passive strategies (waiting for the divine power to improve, from invasive interventions performed by doctors, or waiting for miracle drugs with short-term effect). At the end of the program, 75.4% started to use more active strategies (physical exercises, meditation, and changes in lifestyle and pace).

Table 4 presents other aspects that changed, according to the final questionnaire of the psychoeducational program, regarding the understanding of the proposed treatment and the confidence in the competence of the healthcare team.

DISCUSSION

This purpose of this study was to identify the effects of the development of a psychoeducational group under the psychodrama approach and to compare the results based on other studies in the national and international literature that refer the effects of psychological interventions based on the Cognitive Behavioral Therapy.

It was observed that the results obtained in this study are very similar to those found in the literature since there was a decrease in the anxiety and depressive traits of patients and the intensity of the reported pain, as well as an increase in the active coping strategies and alterations in the stage of change.

Unlike other studies[13], it has not been identified that patients with a higher anxiety trait were less likely to benefit from the intervention since, in our results, patients with anxiety symptoms were able to benefit from the psychoeducational program, significantly reducing the anxiety score. Still, about mood, several studies[5,14] reported statistically significant reductions both in the anxiety and depressive symptoms, whereas in the present study, no statistically relevant reduction was not found in the depression traits.

The variation in the intensity of pain before and after the intervention of the psychoeducational program was of 3.57. This reduction in intensity is considered relevant, both clinically and statistically, because the reduction of 1.4 points in the score is already considered significant[17].

One may say that the use of psychoeducational interventions is mentioned in many studies[6,15] as the responsible for the increase in the perception of pain control and active coping responses, as well as denote better understanding about the multiple aspects of pain, which has also been observed in our

study. It is worth mentioning that after one year, 45% of the patients in the group were discharged, 55% had their returns reduced from about six to two/three per year, and only 5% had no changes in these parameters.

Regarding the stages of change[18,19] it was noticed that at the beginning the patients were more pre-contemplative, that is, they did not recognize that changes in their behavior could help in the management of pain and they did not recognize the importance of the instructions of other healthcare professionals, especially the physiotherapist or psychologist, prevailing a passive attitude in relation to any treatment proposed, and all efforts were directed towards the search of cure. Along the program, patients started to realize that they could benefit from the learning of coping strategies to manage pain, and they started to think about the possibility of changing their behavior as they became more active and feeling more responsible in the process of pain control.

Overall, the results showed that the program helped patients to acquire better strategies to manage the chronic pain, reducing their suffering and the impact on their daily life, making them more active in relation to the proposed treatment.

As regards to the extent that pain may have harmed the patients' identity, within the psychodrama approach, it can be noticed that most were in chaotic and dependency pattern, showing that living with chronic pain interfered in the patients' identity and impaired the roles they played in their daily life. Although many patients have changed the pattern of living with pain (77.7%), one can say that of the 22.3% who remained in the same pattern, most were in the dependence pattern, showing how difficult it was to break the role of victim of pain. Within the psychological perception, one can say that this is not a simple change because it involves helping participants to identify the possible benefits or secondary gains with the role of a sick person that does not depend just on providing more information about pain or stimulate the motivation to change, but it also implies the existence of other emotional conflicts that may be interfering or being hushed up by the complaint of pain.

In this study, it is important to consider the generality of the results since the sample for convenience, although representing patients with chronic pain of different etiologies, was composed of patients attending the outpatient pain clinic of a public hospital in the city of São Paulo, Brazil, and that may not necessarily characterize the population with chronic pain in general.

CONCLUSION

The development of psychoeducational programs with a different approach (Psychodrama) for people who suffer from chronic pain can have beneficial effects, similar to the groups described in the literature.

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