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# PAIN CHARACTERISTICS, COPING STRATEGIES AND ITS RELATION WITH THE QUALITY OF LIFE IN PATIENTS WITH CHRONIC PAIN DISEASES

## CARACTERÍSTICAS DEL DOLOR, ESTRATEGIAS DE AFRONTAMIENTO Y SU RELACIÓN CON LA CALIDAD DE VIDA EN PACIENTES CON ENFERMEDAD CRÓNICA DE COLOR

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### RESUMEN

**OBJETIVO:** determinar la relación existente entre las características del dolor, las estrategias de afrontamiento y la percepción de calidad de vida en pacientes con Artritis Reumatoide (AR), Osteoartritis (OS) y Fibromialgia (FM) a través de un análisis descriptivo-correlacional. **MÉTODO:** fueron encuestados 99 participantes de un centro médico de Bogotá (Colombia) especializado en el manejo de enfermedades reumáticas. Los instrumentos utilizados para medir las variables fueron la Escala Visual Análoga (EVA), el Cuestionario de Dolor de McGill (MPQ - versión larga), el Cuestionario de Estrategias de Afrontamiento (CSQ) y el Cuestionario de Calidad de Vida para pacientes con Artritis Reumatoide (RAQoL). **RESULTADOS:** cuando los pacientes reportan una mayor intensidad en la percepción del dolor y mayor puntaje en las áreas afectivas, sensorial y evaluativa del dolor, fue menor la percepción de la calidad de vida. De acuerdo con las estrategias de afrontamiento más utilizadas por los pacientes, éstas variaron entre los pacientes con AR, OS o FM. Sin embargo, los pensamientos catastróficos fue la estrategia cognitiva de mayor uso entre las tres patologías. **CONCLUSIÓN:** se vislumbra la necesidad de diseñar programas de intervención que ayuden a los pacientes en cambiar o mejorar sus estrategias de afrontamiento, buscando una reducción en la intensidad y valoración del dolor, así como también un impacto positivo en la calidad de vida.

**PALABRAS CLAVE:** Dolor crónico; estrategias de afrontamiento; calidad de vida, enfermedad de dolor crónico.

### ABSTRACT

**OBJECTIVE:** To determine the relationship among pain characteristics, coping strategies, and the perception of quality of life in patients with Rheumatoid Arthritis (RA), Osteoarthritis (OA) and Fibromyalgia (FM) through a descriptive correlational method. **METHOD:** 99 participants from a rheumatic diseases clinic in Bogota (Colombia) were surveyed. Variables were measured with the Visual Analog Scale (VAS), the McGill Pain Questionnaire (MPQ), the Coping Strategies Questionnaire (CSQ), and the Rheumatoid Arthritis Quality of Life Scale (RAQoL). **RESULTS:** The perception of quality of life was lower when patients reported higher intensity in the perception of pain and a higher score in the affective, sensorial, and evaluative domains of pain. Coping strategies varied among patients with RA, OA, and FM; however, catastrophic thinking is the cognitive strategy mostly used among the three pathologies. **CONCLUSION:** Intervention programs that help patients change or improve their coping strategies to reduce the intensity of pain and how it is valued are needed in order to produce a positive impact in the quality of life.

**KEY WORDS:** Chronic pain, coping strategies, quality of life.

## INTRODUCTION

Pain is defined by the International Association for the Study of Pain (IASP) as "an unpleasant sensory and emotional experience related to an actual or potential tissue damage or described in terms of such damage" (IASP, 1979, p.250; cited by Paile, 1997). Chronic pain has physiological, psychological and behavioral effects on the patient and his social context, as well as sensory, affective and cognitive components which generate in the individual escape behaviors, anxiety, depression or other emotional responses associated with the patient's quality of life (Bonica, 1990, Melzack and Wall, 1965).

Considering that one of the main symptoms of rheumatic diseases is chronic pain, for the present study rheumatoid arthritis, osteoarthritis and fibromyalgia patients were considered. The Rheumatoid Arthritis (RA) is a degenerative, inflammatory and chronic disease, mainly affects the synovial membranes of the diarthrodial joints (Mahler and Fritzler 2010; Oliva-Gutiérrez, Martínez-Godoy, Zapata-Zúñiga and Sánchez-Rodríguez, 2012), which causes pain, swelling, stiffness and deterioration of joints and can lead to severe disability and disfigurement is known to increase the risk of experiencing emotional disturbances (Cohen and Rodriguez, 1995; cited by Kojima et al., 2009); these patients are twice as likely to be depressed as people in the general population (Ang, Choi, Kroenke and Wolfe, 2005; cited by Kojima et al., 2009).

The Osteoarthritis (OA), is the most common form of arthritis and a major cause of pain and disability in older adults (CDC, 2010) and among the top 10 causes of disability worldwide (Murray and Lopez, 1995; cited by Hawker et al., 2011). OA is characterized by chronic joint pain, stiffness, and activity limitations (Felson et al., 2000; cited by Hawker et al., 2011). Depression and depressive symptoms are common

among individuals with OA (Gore, Tai, Sadosky, Leslie, Stacey, 2011; cited by Agarwal and Sambamoorthi, 2015).

Fibromyalgia (FM), a chronic disorder characterized by widespread pain and tenderness with an estimated adult prevalence ranging from 0.5% to 10% worldwide, predominant among women. In addition to chronic widespread musculoskeletal pain, FM patients experience fatigue, sleep disorders, headaches, impaired memory or concentration, mood swings, and stiffness (Humphrey, Arbuckle, Mease, Williams, Samsøe and Gilbert, 2010).

In Patients with a chronic pain disease, according with Peres and Lucchetti (2010), to deal with the suffering, they use strategies to manage their pain and its impact. The coping strategies (CS) for chronic pain may be defined as the thoughts and actions in which people engage in their efforts to manage pain on a daily basis (Zeidner M, Endler, 1996; cited by Peres and Lucchetti, 2010). To assess the way in which patients cope with chronic disease is imperative to evaluate their coping strategies in order to develop an effective intervention towards managing the symptoms of the disease (Rodríguez, 1995).

For Van Damme, Crombez and Eccleston (2008; cited by Peres and Lucchetti, 2010) there two types of coping: a) "active coping" (strategies used to control pain or to function despite pain) versus "passive coping" (withdrawing and surrendering control over pain); b) "approach" (strategies of engaging with pain or its causes) versus "avoidance" (strategies of engaging efforts away from pain). While, Lazarus and Folkman (1984; cited by Peres and Lucchetti, 2010) described a coping strategy based on "problem-focused" (involves efforts to control or change a stressor) and "emotion-focused" coping (involves efforts to manage emotional responses to a stressor).

Some studies with OA patients have shown that, if there are a greater awareness in the number of symptoms attributable to the disease, the chronicity about the impact of itself, the immunity as a causal factor and the beliefs and the presence of negative emotions, these will contribute to the progression of the OA (Bijsterbosch et al., 2009; Barthel, Peniston, Clark, Gold and Altman, 2010).

In patients with chronic pain, coping strategies (positive or negative) will be a decisive factor leading to the improvement of the quality of life of them. In this point, the World Health Organization (WHO, 1994; Guevara, Dominguez, Ortunio, Padron and Cardozo, 2010) defined quality of life as "The perception of the individual over his position in life, in the context of culture and value system in which he lives, and in relation to their goals, expectations, standards and interests".

To Guyatt, Fenny and Patrick (1993; cited by Velarde-Jurado and Avila-Figueroa, 2002) during the last years, health-related QOL has been transformed into an important measure of the impact of health care. Health professionals have accepted that traditional medical variables are insufficient to show an appropriate view of the effect of care and health intervention, joined to the characteristics of health problems and the development of new drugs and technologies. This situation has led to increased interest in the concept and measurement of the QOL in the health field.

Chronic pain diseases generate an impact that significantly affects the individual physically, mentally and socially which consequently is revealed in the health-related QoL (HRQoL). It is imperative to deepen and to perform longitudinal studies on this kind of diseases and on factors that promote HRQoL. Among the most important factors that have been found are to have a strong sense of coherence, to feel rested after sleeping, to be able to work, to being

younger or middle-aged and to have a good sleep pattern (Arvidsson Arvidsson, Fridlun, and Bergman, 2011).

The psychological adaptation to chronic illness has been a major focus on cardiovascular disease, cancer, multiple sclerosis and rheumatoid diseases. Stanton et al., (2007, cited by Kiebles, Betania, and Keefer, 2010), identifying five indicators of adaptation to chronic illness: the control of disease associated with adapting tasks, the preservation of functional status, the absence of psychological distress, low negative affect and the preservation of quality of life.

In a study developed by Nicassio, Wallston, Callahan, Herbert and Pincus (1985, cited by Buffington et al, 2002), they found in patients with RA higher scores in low self-esteem, low internal locus of control, high levels of anxiety, depression and impaired daily activities. In patients with OA, Kee (2003), indicates that the degree of control to manage chronic pain is critical for the functional independence of patients.

In FM patients, the disease represents a negative impact on the QoL in socioeconomic terms, sleep problems and physical limitations (Nampiarapampil et al, 2004; Pagano et al, 2004; cited by Amaro, Martin Soler and Granados, 2006). Similarly, the FM can cause permanent damage to both physical and psychological function, such damage is assessed by the ability to produce disqualifications and will be important factors to take into account the repercussions and impact of disease when compared with other rheumatic diseases (Soucase, Monsalve, Soriano, y de Andrés, 2004).

Given that RA, OA and FM as chronic diseases causes in patients a high degree of disability by overusing joints, chronic pain and impaired mood. In this sense, Health and Medical Psychology has an interest in the identification of psychosocial factors

associated with the disease, in order to develop intervention strategies to improve the individual's QoL from a multidimensional perspective.

The objective of the present study was to determine the relation among pain characteristics, coping strategies (CS) and perception of quality of life (QoL) in a group of patients diagnosed with RA, FM and OA.

## METHOD

### Study type

Is a descriptive-correlational study.

### Participants

99 patients who were treated at a specialized medical center (RA: 53; OA: 31; FM: 15). All participants met the inclusion criteria (ages ranged from 18 to 85 years, who had been previously diagnosed with RA, OA and FM and who had experienced chronic pain for more than 6 months), and the exclusion criteria (patients with presence of another rheumatic disease or with a psychiatric diagnosis or cognitive impairments).

### Instruments

To measure the study variables the following instruments were used:

1. The Visual Analogue Scale (VAS), which provides information about pain intensity, from 0 (no pain) to 10 (maximum pain intensity).
2. The McGill Pain Questionnaire (MPQ) long version, which assesses the quantitative and qualitative pain dimensions (sensory, affective, evaluative); including items such as localization, characteristics, temporal properties and pain intensity. Validated in Colombia by Bejarano, Osorio-Noriega, Rodríguez and Berrío (1985).
3. The Coping Strategies Questionnaire (CSQ), developed by Rosenstiel and

Keefe (1983) and validated in Colombia by Aguirre, Barros and Berrío (1995).

4. The Rheumatoid Arthritis Quality of Life Questionnaire (RAQoL), is specific for patients with RA, developed by De Jong, Van Der Heijde, McKenna and Whalley (1997), and validated in Colombian by Orozco et al., (2006).

### Procedure

For the purpose of the study, a specialized chronic pain medical center was contacted and it was requested a permission to allow the researchers to apply the four instruments. The study proposal was approved by the Technical and Ethical Committee of the medical center.

The methodology for making measurements in each patient was as follows: As soon as the rheumatologist had finished his medical consultation with the patients, who has met the inclusion and exclusion criteria, were taken to a consulting room and informed about the support that the health centre was providing to the research.

After the researcher's presentation, to each patient was given an informed consent in which they found all the information about the study, they read it and signed it. The authors, along with the patients filled out the questionnaires. VAS and MPQ questionnaires were the first applied, this in order to know the intensity and characteristics of pain presented by the patient at the time of measurement. Following for the CSQ, this one allows to know the coping strategies most used by patients, and the RAQoL allowed to know the perception of the patient's quality of life. All the questionnaires were applied in 45 minutes for each patient.

The data were analyzed using Spearman correlation coefficient analysis through SPSS statistics program.

## RESULTS

The results obtained in the present study are presented in two parts. In the first part, the sociodemographic characteristics are described, and in the second part the Spearman correlation coefficient analysis is presented.

The sample consisted of 99 persons, 92.9% women and 7.1% men. The mean age for women was 54 years and for men over 45 years. The patients revealed a great proportion of women diagnosed with rheumatic diseases, being attuned with the epidemiological tendency ratio of 6:1. The sample was 53 patients with AR, 31 patients with OA and 15 with FM.

According with the marital status, 46 % were married, 22% single, 15% widow-er. In regards to the educational level, 33% finished high school, and the remaining percentage is distributed between primary and university degrees. According to the

occupation, 43% were engaged in household activities, and 35% were employees.

On the second part, a Spearman correlation coefficient analysis was performed among the pain intensity (VAS), the dimensions of pain (MPQ), the coping strategies (CSQ) and the perception of quality of life (RAQoL). The analysis was performed by taking a 5% margin of error. According to the analysis,

Table 1 presents the significant correlations between pain intensity (VAS) and pain characteristics (MPQ) within the three diseases. In this point, a significant correlation indicates a direct relationship between pain severity and dimensions of the painful experience in the sensory dimension, affective-motivational and cognitive-evaluative, mainly in patients with FM. In RA patients, no correlation was found.

TABLE 1.  
Significant correlations between VAS and MPQ.

		McGill Pain Questionnaire Total	Sensory	Affective	Evaluative
Visual Analogue Scale	Arthritis Osteoarthritis Fibromyalgia	0,84*	0,64*	0,42* 0,55*	0,40* 0,54*

Note: \*p < 0,05

According to the correlations established between the current VAS and RAQoL total index, Table 2 shows the correlation established for the three pathologies. A low correlation was found in patients with RA (0.30), instead, a significant correlation was found in patients with OA (0.64) and FM (0.63), this indicates that there is a relationship between the intensity of pain and QoL perception. For the RAQoL sub-

scales, only three of them were directly correlated with RA, which are physical ability (0,33); mood (0.42) and physical contact (0.31), this might indicate that to a greater pain intensity, lower perception in the QoL in the subscales, especially in the mood. In patients with OA and FM were no found significant correlations with the subscales of RAQoL.



TABLE 2.  
Significant correlations between VAS and RAQoL.

		RAQoL Total	Physical ability	Mood	Physical contact
Visual Analogue Scale	Arthritis	0,30*	0,33*	0,41*	0,31*
	Osteoarthritis	0,64*			
	Fibromyalgia	0,63*			

Note: \*p < 0,05

The correlations between the VAS and CSQ (Table 3), indicates that significant correlations were found with catastrophic thinking (0.34) and ignoring the pain (-0.28) in patients with AR, this indicates the higher pain intensity, there is a less use of the CS

ignoring the pain. In patients with OA a significant correlation was found in catastrophic thinking (0.50), so, to a higher pain intensity higher presence of negative thought. For FM patients, no significant correlations were found.

TABLE 3.  
Significant correlations between VAS and CSQ.

		Catastrophizing	Ignoring the pain
Visual Analogue Scale	Arthritis	0,379*	-0,279*
	Osteoarthritis	0,495*	
	Fibromyalgia		

Note: \*p < 0,05

Table 4 shows significant correlations between the MPQ total index and the RAQoL total index for the three diseases, indicating that to a higher perception of pain, the more negative perception of QoL. There were significant correlations established between the total index MPQ and the three sub-scales RAQoL, allowing to established

that to a higher perception of pain, the more negative perception of QoL in the subscales of physical ability (RA patients), self Careful and physical contact (OA patients). On the other hand, patients with FM do not reveal any correlations with the dimensions nor the areas of the MPQ.

TABLE 4.  
Significant correlations between MPQ and the RAQoL.

MPQ		Total	Physical Ability	Self-care	Physical contact
Total Index	Arthritis	0,40*	0,30*	0,42*	0,36*
	Osteoarthritis	0,50*			
	Fibromyalgia	0,55*			
Sensory	Arthritis	0,45*			
	Osteoarthritis				
	Fibromyalgia				
Affective	Arthritis	0,55*			0,36*
	Osteoarthritis				
	Fibromyalgia				
Evaluative	Arthritis	0,43*	0,41*	0,44*	0,37*
	Osteoarthritis	0,51*			
	Fibromyalgia	0,55*			

Note: \*p < 0,05

Analyzing the correlations between MPQ total and CSQ, the results showed a significant correlation with Coping Strategy catastrophic thinking and higher pain

perception in RA and OA patients. Regarding FM no significant correlation was found (Table 5).

TABLE 5.  
Significant correlations between MPQ and CSQ.

MPQ		Catastro-phizing	Self-directions	Pain Reinterpretation	Hope	Distracting behaviours
Total Index	Arthritis	0.47*				
	Osteoarthritis	0.48*				
	Fibromyalgia					
Sensory	Arthritis					
	Osteoarthritis		0.33*	0.34*		
	Fibromyalgia	0.60*				
Affective	Arthritis					
	Osteoarthritis	0.34			-0.31*	
	Fibromyalgia	0.66*			0.37*	- 0.43*
Evaluative	Arthritis					
	Osteoarthritis	0.43*				-0.31*
	Fibromyalgia					

Note: \*p < 0,05

As shown in Table 5, positive and significant correlations were found between the dimensions of MPQ and the coping strategies. In the sensory dimension, in RA patients a significant correlation was found with the strategies of self-instruction and reinterpretation of pain, meanwhile in OA patients, the correlation was with catastrophic thinking. In the sensory dimension the correlations were significant with self-instruction strategies, reinterpretation of pain and catastrophic thinking in RA and OA, this indicates that to a higher nociception, higher it could be the use of these three coping strategies.

In the affective dimension, in RA patients, there was a significant correlation with

catastrophic thinking and an inverse correlation with hope coping strategy, indicating that to a higher perception of pain, higher it could be the presence of negative thoughts and less use of hope coping strategy. In regards with OA patients, there correlations indicate that to higher perception of pain higher it could be the use of negative thoughts and hope; and less use distracting behaviors. For the evaluative dimension, the correlations indicate for RA patients that to a higher perception of pain, higher is the use of negative thoughts and less use distracting behaviors. In OA and FM patients there were no correlations found (Table 5).



TABLE 6.  
Significant correlations between the CSQ and RAQoL.

RAQoL		Catastro-phizing	Faith and prayers	Self-directions	Distracting behaviours
Total	Arthritis	0.598*	0.281*		-0.350*
	Osteoarthritis	0.577*			
	Fibromyalgia				-0.647
Physical Ability	Arthritis	0.478*			-0.507*
	Osteoarthritis			-0.374*	
	Fibromyalgia				
Self-care	Arthritis	0.452*			-0.481*
	Osteoarthritis				
	Fibromyalgia				
Mood	Arthritis	0.341*			-0.416*
	Osteoarthritis				
	Fibromyalgia				
Physical contact	Arthritis	0.323*			-0.544*
	Osteoarthritis				
	Fibromyalgia				

Note: \*p < 0,05

According to the RAQoL total index and the coping strategies (Table 6), there were a positive correlation between catastrophic thinking, prayers and faith in RA patients; and an inverse correlation with the coping strategy distracting behaviours in RA and FM patients. These correlations indicate that to a more negative perception of the QoL, the use of negative thoughts and prayers and faith will increase and it will be a less use of the distracting behaviors. In OA patients, there was a significant correlation with catastrophic thinking, indicating that to a higher negative perception of QoL, the higher use of negative thoughts as a coping strategy.

The correlations between the RAQoL subscales and the CSQ, Table 6 shows a significant correlation between the physical ability sub-scale and catastrophic thinking and a significant inverse correlation with distracting behaviors in RA patients; indicating that to a more negative perception in the physical ability (QoL), the use of negative thoughts increases and less use of distracting behaviors. Between the physical ability (QoL) and self-instruction (CSQ),

there was a significant inverse correlation, in this case, to a more negative perception in the physical ability, the use of self instructions decreases for dealing with pain. As for FM patients, no correlations between physical ability and a coping strategy were found.

In RA patients, the correlations between self-care, physical contact and mood sub-scale (QoL) and the coping strategies, shows that to a more negative perception of self-care, physical contact and mood, the use of negative thoughts increases and the use of distracting behaviors decreases (Table 6).

## DISCUSSION

The results achieved in the first part shows most of the patients are characterized by women (93%), with an average age of 54 years, those in which rheumatoid diseases occur most often, the differences in the percentages of the diseases matched with those found in an epidemiological study conducted by Caballero (2004), where RA patients were the higher percentage. In FM

patients, Ubago, Ruiz Bermejo, Olry of Labry and Plazaola (2005) reported that it is women who most frequently occurring rheumatic diseases.

For the second part of the analysis, regarding the results acquired between the QoL and pain characteristics (intensity and dimensions), significant positive correlations for the three pathologies were found, suggesting that at higher pain intensity higher scores on the VAS and MPQ total index, thus, the QoL perception is more negative. This is consistent with the postulation made by Bonica (1990), who considers that pain is able to produce a continuous and unbearable suffering, with negative implications in QoL perception. For Ballina (2002), RA involves a major change in patients QoL, due to a worse fit in all dimensions, unlike the general population and other patients with more serious diseases.

In OA patients the results are similar to those found in Jakobsson and Hallberg (2006); Kee and Epps (2001; cited by Kee, 2003) studies, where a high degree of pain and functional limitations presented at any given time, make this group of patients faced to demand support in their daily live activities to avoid pain, which affects their QoL significantly. Moreover, the strong association observed between the pain and the functionality suggested by the study of Barthel, Peniston, Clark, Gold, and Altman (2010), produces an important role in the somatic treatment for the enhancement of hand OA patients who suffer mild or moderate radiographic severity.

Regarding FM patients and the relation between pain characteristics and QoL, the results revealed that to higher intensity and higher perception of pain in the affective-motivational and evaluative-cognitive dimension, patients have a more negative perception of the QoL. In a study by Johnson, Zautra, and Davis (2006), in a group of women with FM, the results of

multilevel analyzes revealed that patients who experience uncertainty about their disease will experience the effects of chronic pain as it is revealed for FM patients. In other studies it has been found that FM has a negative impact on the QoL of people who suffer from socio-economically, sleep problems and physical limitations (Nampiarapampil and Shmerling, 2004; Pagano, Matsutani, Ferreira, Marques and Pereira, 2004, cited by Amaro, Martin Soler and Granados, 2006).

In this sense, Caballero (2001), found that patients with FM have a high perception of nonconformity, and consider their functions and health are low, they also presents fatigue and alterations in their ability to memorize or concentrate and often have other stress-related diseases such as migraine and irritable bowel adversely impacting their QoL.

Furthermore, significant correlations between pain intensity and the QoL (Table 5) were found just with three sub-scales of the RAQoL for RA patients. This may be explained because the instrument is specific for RA patients, although in the study by Orozco et al., (2006) found a positive correlation with other rheumatic diseases, and the instrument might be used to measure the QoL in OA and FM. The instrument only allows significant correlations with the total index of the RAQoL, showing that the instrument does not differentiate in relationship to the sub-scales among other diseases characterized by chronic pain different than RA.

In relation with Coping strategies (CSQ) and pain characteristics, the results demonstrated that RA and OA patients who presents a higher intensity of pain used catastrophic thinking as coping strategy. These results suggest that the relationship between inadequate coping styles and personality characteristics with depression may lead the patients to make use of negative emotional responses as a way to

cope with their diseases. The latter validates the stated in some studies where the presence of a significant relationship between high levels of stress and coping strategies predict poor adaptation (Persson and Sahlberg, 2002; cited by Gaviria et al., 2006).

Diseases such as RA can lead a person to alter his self-perception, to interfere with his autonomous development, to produce the loss of his independence, to modify his self-image experiencing helplessness and hopelessness feelings accompanied by negative feelings such as depression and anxiety as well as pain and functional disability affecting the patients QoL (Parmelee, Harralson y Smith 2003; Gempp, Avendaño and Munoz, 2004, cited by Vinaccia et al, 2005). In FM patients the empirical evidence found is focused mainly on the coping strategy of catastrophic thinking, increasing the perceived pain, depression, thoughts of worthlessness and failure (Soucase, Monsalve, Soriano, y de Andrés, 2004; Barragán and Almanza-Rodríguez, 2013).

In regards to others coping strategies assessed by the CSQ such as self-instructions, reinterpreting pain, ignoring the pain and cognitive distractions, no relationship with QoL in patients with RA, OA and FM was found; however, these CS are utilized for some of the patients, which may be explained by the individual's educational level, or the activities carried out every day.

According with the coping strategies that present a significant correlation in this study, for Soriano and Monsalve (2002), the most effective strategy in chronic pain are those that eliminate the patient's attention and focus on pain. The concentration in some activity such as relaxation decreases the activity of the sympathetic nervous system; also it tends to reduce the use of catastrophic thinking and avoidance.

In the same way, faith and prayers in patients with RA, which may indicate that these patients use to cope with their pain, believing they are protected and can receive help from God found they believe, but this result differs from that proposed by Nicholas Wilson and Goyen (1992; cited by Soriano and Monsalve, 2002), who found an inverse relationship between the use of passive strategies (prayer, hope, wishful thinking), the which it has been associated with an increase in pain, depression, impotence and worse psychological adjustment.

## CONCLUSIONS

With the results of this study and the empirical and theoretical contributions of others studies, the following question arise: are these strategies relevant to one or all chronic pain diseases? According to the results achieved and taking into account the theoretical contribution provides for this study, it is imperative to to develop two main points; in one hand, develop exploratory/descriptive and correlations researches, using instruments to measure the variables required without these discriminate a disease, for example, in this study to measure the coping strategies was used CSQ, but to make general assessments about health and pain, the Health Questionnaire (SF-36), could be use.

In the other hand, to help patients with chronic pain diseases, it is important design, develop and implement a program of psychological intervention, complementary to the patient's medical treatment by using different techniques such as psycho-education, relaxation, problem solving, stress management and cognitive-behaviour therapy, aimed to modify lifestyles and especially negative thoughts experienced by these patients, that can lead them to perceive a worse QoL.

According to OA and FM patients, there are no empirical studies that support the use of catastrophic thoughts as a coping

strategy; thus, it is recommended to expand research in order to study the type of coping strategies used by these patients and their relationship to the QoL on one side, and the use of such coping strategies in relation to pain intensity on the other.

It is also recommended for future studies in patients with diseases characterized by chronic pain, to carry out a medication record that patients must take to follow a medical treatment, if they have changed the medication, the dose among others, this with the purpose to determine whether changes that occur in the disease, especially if the pain report increases or decreases it could be explain for the medication or other factors such as alternative therapies or use of suitable coping strategies, that are helping the patient to have a better psychological adjustment.

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