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RELATIONSHIP AND REFLECTIONS ON QUALITY OF LIFE IN THE TREATMENT OF CHRONIC PAIN IN MILITARY POLICE: PATIENT-EXPECTED RESULTS (PRO)

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Abstract: Workers' health problems can impact their performance at work, with depression, arthritis and low back pain being strongly associated with limitations at work. Arthritis and low back pain are health conditions that are among the most common causes of chronic pain. This, in turn, impacts the individual's physical, social and emotional functioning, affecting their performance at work. The results reported by patients, known as PROs (patient-reported outcomes), provide data on the impact of pain and the effects of treatments performed, promoting symptom reduction and better control of physical functioning. The aim of this research is to highlight the importance of chronic pain related to productivity at work and the participation of PROs in improving the health and quality of life of military police officers, civilian employees and dependents. Therefore, the objectives of this study are to describe the chronic pain situation of military police officers, civilian employees and dependents treated at a Military Police Hospital (HPM), to analyze absenteeism due to chronic pain among military police officers, to analyze care for chronic pain at HPM and to describe PRO measures, covering aspects of functionality that can promote quality of life for military police officers. This is an essay based on the author's vast experience as a doctor specializing in Rheumatology and dealing with chronic diseases that cause pain that lasts, causing a chronic pain situation. A total of 641 military police officers were dismissed in the first half of 2023 due to diseases related to chronic pain, of which 551 were men, aged 21 to 62 years, mean 39.7  $\pm$  7.6. A total of 813 medical certificates and 2,588 days of absence were issued, with a predominance of men, 2,160 days away. The most frequent diseases were dorsopathies, arthropathies and soft tissue disorders represented by low back pain, arthralgia and/or arthritis and fibromyalgia.

Regarding medical care, in 2022, 1,020 consultations were carried out in the areas of Orthopedics and Rheumatology, specialties that deal with chronic pain. The most frequent reasons were joint pain, low back pain and cervical pain. 499 military police officers were treated, 370 dependents and 151 civilian employees. With these data, the use of PROs in the context of chronic pain can be a useful tool for diagnosis, monitoring symptoms, therapeutic response or even for scientific research. Several of them are described as measures of physical performance and functioning. Finally, it is recommended that PROs be used in the clinical practice of specialists who treat patients with chronic pain.

**Keywords:** Chronic pain, patient-reported outcome measures, quality of life.

## **INTRODUCTION**

Workers' health problems often imply a reduction in their activities and, consequently, a decrease in productivity at work. It has been widely demonstrated how individuals' health conditions can affect their performance at work. Burton et al. (2004) observed significant associations between medical conditions and impaired work performance. For them, depression, arthritis and low back pain were the health conditions strongly associated with limitations at work, with arthritis and low back pain being associated with physical limitations and all three, especially low back pain, associated with limitations in interpersonal and mental functioning. Arthritis and low back pain are among the most common health conditions that cause chronic pain. Chronic pain impacts all areas of functioning, whether emotional, social or physical. With persistent pain, the consequences include the extent and depth of pain, altering physical functioning, which in turn manifests functional problems in the performance of activities and an

increase in symptoms, whether during or after performing activities. There is a vicious cycle in which chronic pain causes loss of function, which in turn results in functional limitations, causing more pain.

People who live with chronic pain can notice the results of a pain intervention in a significant way. Although pain reduction is the most expected result in the population of patients with chronic pain, addressing physical functioning is extremely important. A real challenge lies in defining the treatment capable of determining the effectiveness and impacting the intervention of physical function. Pain and function go hand in hand in the search for rehabilitation and better living conditions.

The purpose of the therapeutic approach must also be to avoid sequelae and eliminate the possibility of permanent injury, whether mechanical and/or degenerative, such as the total loss of movement of a joint. Mechanical/degenerative injuries are those in which there is proportional or localized wear and tear, related to chronic inflammation, physical trauma or previous injuries in the past.

The damage caused by pain usually causes stagnation, determining functional limitation. Thus, recovering function is a primary goal.

The results reported by patients with chronic pain, the so-called PROs (patient-reported outcomes), evaluate physical functioning based on performance and objective measures of activities. The development and use of valid PROs accelerate therapeutic management while providing data on the impact of pain and the effects of treatments performed, promoting symptom reduction and better control of physical functioning, providing quality of life. Taylor et al. (2016) commented that providing support for the use of these measures encompasses aspects functionality, including participation in activities at work and in social settings.

These are strategies that make a difference in situations of chronic suffering. The perception of PROs allows adjustments that, even if small, can facilitate a better prognosis in those who chronically suffer from pain and are hopeless about a cure or remission. PROs and performance-based measures (climbing stairs, lifting a chair, jumping on one leg) provide important information about the impact of pain, the effects of treatment, and symptom reduction.

Those living with chronic pain can more significantly perceive the results of interventions adopted to minimize pain if they include in their subsequent assessments an analysis of their ability to participate in certain activities. For this purpose, PROs are very useful and allow us to clarify to what extent a given strategy has brought good or bad results to the health of those with chronic pain. Through PROs, it is possible to verify whether the individual is able to return to their activities and how much progress has been made in relation to their initial pain condition.

The aim of this research is to demonstrate the importance of chronic pain related to productivity at work and the participation of PROs in improving the health and quality of life of military personnel, civilian employees, and dependents.

Chronic pain is defined as pain that persists or recurs for more than three months, according to the chronic pain classification developed by the International Association for the Study of Pain (IASP) published by Treede et al. (2019). Fibromyalgia and nonspecific low back pain can be conceived as chronic primary pain, according to Bazzichi et al. (2020), conceptualizing them as persistent pain despite adequate treatment, in the absence of any sign of inflammation.

Turk et al. (2016) reported that, historically, the existence of pain depended on the

relationship between an organic pathology and the pain it caused. Thus, it was expected that the proportion of pain would be greater in the presence of more extensive tissue damage, that is, it was necessary to have an injury in some part of the body to produce pain and the greater the injury, the greater the pain would be. In the absence of a pathology, subjectively reported pain was considered functional or psychogenic. In recent years, it has been defined that pain, whatever its type, represents a biopsychosocial phenomenon and the report of pain is always subjective. There does not necessarily need to be an organic injury for pain to occur. Certain factors - cognitive, behavioral, affective, physical and biomedical - have been listed as essential to the pain process, especially in chronic pain.

Assessing pain represents a critical component of chronic pain conditions and multiple domains need to be addressed, such as intensity, body distribution, perception and temporal characteristics. This assessment elucidates the pathophysiological mechanisms of pain, guiding diagnosis and treatment. Current resources provide several methods for assessing pain mechanisms, allowing for monitoring and guiding treatment options.

According to Fillingim et al. (2016), domains such as psychological functioning, physical functioning, and quality of life are clinically important and must be considered when evaluating patients with chronic pain. These domains have significant effects on the experience of pain, responsiveness, and participation in treatment, and encompass psychosocial and physical factors that must always be considered in the face of a chronic pain condition, such as mood/affect, coping resources, expectations, sleep quality, physical function, and pain-related interference in daily activities.

Regarding sensory and affective qualities, pain is an individual experience and selfreporting is the gold standard for its measurement (FILLINGIM et al., 2016). Pain intensity measures the sensory component. There are several scales to measure this intensity, with the numerical rating scale being the most widely used. In addition to this, other methods can be mentioned, such as the visual analogue scale, categorical scale (mild, moderate or severe), facial scale and verbal descriptor scale. On the other hand, pain severity measures the affective component, that is, how unpleasant the pain is felt. Below are models of pain scales that can also be used as outcome measures.



Figure 1: Visual analogue scale

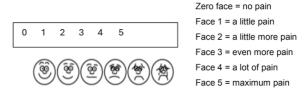


Figure 2: Face scale

Scale of word descriptors:

0 = no pain

1 = mild pain

2 = distressing pain

3 = severe pain

4 = terrible pain

5 =excruciating pain

Temporal characteristics are less frequently assessed. Duration, variability, and pattern may not reflect accuracy, as they may be influenced by patients' cognitive function. However, location and body distribution are important and have implications for diagnostic and therapeutic approaches.

A series of overlapping chronic pain conditions were described by Maixner et al. (2016), which are generally heterogeneous, have pain in common, overlap, and are influenced by biopsychosocial factors. These are: temporomandibular dysfunction, fibromyalgia, irritable bowel syndrome, vulvodynia, myalgic encephalomyelitis/ chronic fatigue syndrome, interstitial cystitis/ painful bladder syndrome, endometriosis, chronic tension-type headache, migraine, and chronic low back pain.

All of them have multifactorial causes and diverse clinical manifestations. The most common symptoms are pain, fatigue, sleep disorders, cognitive deficits, physical dysfunctions, and affective disorders such as anxiety, anger, and depression. A single patient may have more than one overlapping condition and increased sensitivity to pain. Genetic factors associated with environmental exposure increase susceptibility to these chronic pain conditions, increasing pain sensitivity and psychological vulnerability.

It is challenging to classify the individual patient and identify an effective treatment. A comprehensive assessment must be performed, characterizing the pain well, in addition to investigating the presence of other related diseases, existing symptoms, and the influence of biopsychosocial factors.

It is also necessary to evaluate outcome measures related to pain intensity, physical functioning, emotional functioning, general improvement, and well-being in order to provide adequate monitoring and adjustments necessary for a good clinical response. Pharmacological treatment and non-pharmacological intervention can produce greater benefits in pain relief and functional status.

Of these chronic pain conditions, fibromyalgia stands out, as it has been observed to be increasingly frequent in the workplace. Williams and Kratz (2016) defined fibromyalgia as a chronic pain condition characterized by chronic widespread pain, fatigue, difficulty sleeping, reduced physical

functioning, mood disturbance, cognitive dysfunction, including memory, concentration, and mental clarity problems. It has a global prevalence of 4.2%, with 2.7% in women and 1.5% in men, with a 3:1 ratio between women and men (WIIIIANS; KRATZ, 2016). Fibromyalgia sufferers report reduced quality of life, reduced functional status, and increased use of health services. PROs are the most appropriate methods for characterizing fibromyalgia, being useful in diagnosis, monitoring symptoms, and therapeutic response. Wolfe et al. (2010) proposed a symptom severity scale that would allow the assessment of the severity of each clinical case and a longitudinal segment of patients, favoring a better perception of the case. They considered the symptoms of fatigue, indisposition upon waking and cognitive deficit and for each of these, the level of severity in the last week would be indicated. This way, they assessed not only the severity but also the extent of the somatic symptoms in general. Bennett et al. (2009) reviewed and validated the Revised Fibromyalgia Impact Questionnaire (FIQR), an instrument that has good psychometric properties, is easy to score and is capable of providing a better assessment of fibromyalgia patients. Three domains are considered - function, general impact and symptoms - in addition to questions about memory, tenderness, balance and environmental sensitivity. Rheumatoid arthritis (RA) has a prevalence of 1% in the general population and can affect the productivity of patients even in the initial phase (ZHANG et al., 2010). It predominates in females, in the age range of 40 to 60 years, causing arthritis of several joints that evolves into physical deformities if not treated in time. Pain and poor physical functioning have been associated with increased sick leave and reduced work productivity. Pain has been highly related to reduced work productivity.

Strand (2022) comments that health-related quality of life in RA patients is low, despite numerous treatment possibilities, resulting in pain, fatigue, lack of sleep, work restrictions, and reduced social participation. PROs are responsible for confirming therapeutic success with a good clinical response, highlighting the significance of the efficacy of certain medications used.

Herman et al. (2022), through a research task force of the National Institute of Health and Life Consortium, proposed that patients with chronic low back pain be stratified by the impact of pain on their lives. Several methods were identified to develop classification schemes and their differences in the impact of pain. However, further studies will be needed to define the stratification.

For Geuskens et al. (2008), workers with inflammatory joint diseases, even in their early stages, have self-reported pain and physical functioning that affect their performance at work, as well as the handling of materials/equipment. Lack of support from colleagues causes greater harm. Early treatment aims to reduce pain and improve physical functioning. Work interventions must be carried out with the aim of reducing the workload and encouraging support from colleagues, adapting the worker to a reality that reconciles their clinical condition with their job.

It is still difficult to measure the losses in work productivity caused by health problems, especially chronic pain. The SF-36 (Short Form Health Survey) and the WPAI-GH (Work Productivity and Activity Impairment – General Health) are instruments that help measure the effects of general health and its repercussions on work (CICONELLI et al., 2006). The SF-36 is a thirty-six-item patient-reported health survey that assesses the domains of general health perception, physical functioning, functional limitation,

emotional health limitation, bodily pain, vitality, and social functioning. The WPAI-GH measures the effects of general health and specific symptoms on productivity at and outside of work. Ciconelli et al. (2006) validated a Portuguese version of the WPAI-GH to measure the impact of health problems on productivity among Brazilian workers.

Physical functioning outcome measures focus on performance and objective activity These provide data on the measures. impact of pain and the effects of treatment, promote symptom reduction and better functional control, allowing for the necessary adjustments to therapeutic management and patient follow-up, aiming at well-being and quality of life (TAYLOR et al., 2016). These measures provide an assessment of significant aspects of the patient's life, including the ability to perform daily activities, such as household chores, walking exercises, work self-care, strength, activities, endurance and flexibility. It is important to address the environment and context of each individual. Each patient has their own presentation and physical performance is a constant challenge. Attention must be payed to existing difficulties and barriers, such as having to go up and down stairs, living with climate change, having accessibility at home or on the streets, adapting to or working around the difficulties and limitations encountered.

Poor physical functioning causes an inability to participate or prevents interpersonal relationships. In turn, impaired social functioning is reflected in poor physical functioning and contributes to reduced function. For individuals living with pain and functional disability, emotional support has an impact on social support in such a way that these individuals feel more stimulated. On the contrary, instrumental support, that is, performing certain actions for those affected by chronic pain, discourages them

and promotes helplessness. Baptista et al. (2019) described the effects of common health conditions associated with absenteeism and presenteeism in a population sample of workers in Brazil, a cross-sectional study with 1,737 employees over 18 years of age. Sometimes, the individual is present at work, but is unable to function due to their illness. This is called presenteeism. Absenteeism occurs due to absence from work. In this study, 12.8% of cases of absenteeism and 14.3% of presenteeism were observed. Participation in activities in work and social environments, inside and outside the home, family and leisure activities are important for physical functioning. Whether it is absenteeism or interruptions at work, arriving or leaving early, these must always be observed and validated for possible changes or adjustments that may make a difference in the individual's performance.

Pain can interfere with physical performance and task execution, and therefore may interfere with work activities. Work, in turn, may have an impact on pain. Addressing this two-way street is extremely valuable for good performance/functioning. Work being the cause and effect of pain. Pain being the cause and effect of loss of work. Implementing measures in the work environment, such as accommodations and adaptations to reduce pain and improve physical functioning, will provide sick individuals with good results in the exercise of their functions at work.

Psychosocial factors, such as depression, mood, attention, attitudes and beliefs, can influence physical functioning. Fear related to pain or fear of injury or wounds can influence physical activity. Therefore, a psychosocial approach is recommended when assessing physical functioning.

Contextual factors that define individual ability must also be considered. The individual adapting to their pain condition or accepting

help from others, practicing certain actions such as walking, always being in movement and arriving at work on time are examples of interesting strategies that provide full physical functioning. Attention must be payed to the physical capacity to maintain functioning, the pressures encountered in the environment and the ability to cope or adapt, providing true meaning in the daily lives of those who suffer from chronic pain.

### **METHODOLOGY**

The scientific work proposed here is an academic essay. It is a research resulting from a bibliographic study of the existing literature that deals with the topic, since printed and electronic publications such as texts, books and academic works were used. The method used was deductive, which, according to Gil (2009, p.9 apud CERQUEIRA et al., 2013, p.33), "is the method that starts from the general and then descends to the particular". It is also a descriptive research, since, according to Sampieri, Collado and Lucio (2006 apud CERQUEIRA et al., 2013, p.37), "the researcher's objective is to describe situations, events and deeds".

A cross-sectional research was chosen, according to Cerqueira et al. (2013, p. 38), in which "data are collected at a single moment, with the objective of describing and analyzing their incidence and interrelationship at a given moment".

The Health Department (DS) of the Military Police of the State of Bahia (PMBA) has, in its structure for the assistance service, the Military Police Hospital (HPM), the Rehabilitation and Psychology Center (CRP) and the Basic Medical Care Center (CAMB). Among other coordinations, there is also the Center of State Military Health Boards (CJMES). The CAMB is responsible for occupational health and medical care in the basic care units, in other PMBA units. The

HPM and the CRP provide medical care, psychological and physiotherapy services to military police officers, civilian employees and dependents. They have an outpatient network with several specialties, providing services in medical consultations, carrying out some complementary exams, psychotherapy, physical rehabilitation, osteopathy, global postural reeducation, gait testing, among others. Many police officers have health insurance and seek their own care networks. Demand at HPM has increased, especially in the specialties of Neurology, Orthopedics and Rheumatology, with many consultations involving pain complaints. At CRP, there is a very high demand for pain management, more commonly understood as analgesic physiotherapy. Therefore, several patients with chronic pain are monitored, whether they are military police officers, civil servants or dependents. There is a great concern in aborting the health condition that keeps the employee away from work or that causes a reduction in their performance, however, it is understood that if their dependent has a health problem that causes chronic suffering, it can consequently destabilize the employee emotionally, who will have reduced work performance. Therefore, we cover the care of legally recognized dependents, whether they are parents, spouse or children as legally described. Although the Neurology specialty also deals with chronic pain, which would include migraines, we did not include data from this specialty because at the HPM other causes were more prevalent in neurological care, such as cerebrovascular disorders, dementia, Parkinson's disease and peripheral neuropathies.

Since 2014, the PMBA has had the Medical Certificate System (SISAT), which records medical certificates for police officers whose absence is no longer than fifteen days. Absences for longer periods are approved by

means of an in-person medical examination or an inspection report for those police officers who, due to illness, cannot travel to be examined.

The disease groups were grouped according to the International Classification of Diseases (ICD-10), 10th revision of the International Statistical Classification of Diseases. Chapter XIII corresponds to group M, diseases of the musculoskeletal system and connective tissue.

A large part of the knowledge discussed here is the result of the experience gained by this essayist throughout his professional career. This approach by the essayist to the researched theme allowed reflections on the object studied in an intrinsic way. Based on her experience as a specialist in the area of Rheumatology, in which various rheumatological diseases are causes of chronic pain, and observing the impact of pain on people's lives over the years of clinical practice, the author believes that through this research she can contribute to the military police community and the academic world.

### **RESULTS**

# ABSENTEEISM AND INTERRUPTIONS AT WORK

In the first half of 2023, based on data from SISAT, 641 police officers were removed from service with group M diseases, of which 551 were men. Ages ranged from 21 to 62 years, with an average of  $39.7 \pm 7.6$ . There were 813 medical certificates and 2,588 days of absence. Men had a total of 2,160 days of absence, while women had 428 days of absence. The age group with the most medical certificates was between 40 and 49 years for both sexes.

The most affected diseases were those grouped into other dorsopathies, other joint disorders and other soft tissue disorders. Other dorsopathies included low back pain and discopathies. Other joint disorders

included arthralgia and arthritis. Other soft tissue disorders included fibromyalgia.

In women, joint disorders were the most frequent, including in the 40-49 age group. We also found 22 cases of inflammatory polyarthropathies in the same age group of 40-49 years, not distinguished by ICD. In the 50-59 age group, dorsopathy was more common than joint disorders in women. In men, dorsopathies predominated. We found 23 men with inflammatory polyarthropathies and 10 with spondyloarthropathies, including spondyloarthritis, 14 of them in the 30-39 age group, 9 in the 40-49 age group, 8 spondyloarthropathies in the 30-39 age group and 2 in the 50-59 age group. It was not possible to identify which spondyloarthropathies were present, as there was no distinction of ICD in SISAT, only the general ICD, without due specification.

Regarding absences longer than fifteen days approved by the CJMES, 2,281 cases of illnesses with ICD M were reported in the first half of 2023, with 2,011 police officers fit for bureaucratic service, 264 removed from service and six police officers deemed temporarily unfit.

### CHRONIC PAIN CARE AND PRO

In 2022, 1,020 medical appointments were performed at HPM, in the areas of Orthopedics and Rheumatology, which are medical specialties that deal with patients with chronic pain. Of these 1,020 appointments, 703 were women. 499 military police officers were treated, 370 dependents and 151 civilian employees. The most frequent causes of illness were joint pain, low back pain and neck pain.

Although it is not the objective of this study, just for illustration purposes, the SF-36 was applied to four military police patients, all of whom were treated at the HPM outpatient clinic with a diagnosis of fibromyalgia, three of whom had rheumatoid arthritis and one

had systemic lupus erythematosus. It was observed that the responses to the work-related items, corresponding to questions 4, 5 and 8, were similar in all patients, showing that, in some way, work was interfered with, either by physical or mental health or by the presence of pain.

# **DISCUSSION**

Among our police officers, the most frequent causes of absences were low back pain, arthritis and fibromyalgia, which are consistent with the most common causes of chronic pain, according to data in the literature (Tables 1 and 2).

It is interesting to note that in women, joint disorders were the most frequent, including in the age group of 40 to 49 years, coinciding with the epidemiology of RA, which predominates in women between the fifth and sixth decades of life. Cases of inflammatory polyarthropathies were found in the same age group of 40 to 49 years, not distinguished by ICD, in which we can again include RA and other causes of arthritis. Dorsopathy was the most frequent joint disorder in women between 50 and 59 years. In this age group, other diagnostic possibilities coexist, such as osteoarthritis and osteoporosis, both of which cause back pain. In men, back pain predominated at all ages, reminding us of mechanical low back pain due to inadequate posture, strenuous physical activity or trauma. We also highlight inflammatory low back pain caused by spondyloarthritis, more frequent in men between 20 and 40 years of age, seen in our study population, data that are close to those described in the literature. Since there was no distinction of ICD in SISAT with the appropriate specification, we were unable to identify which spondyloarthritis was present, radiographic, non-radiographic, psoriatic arthropathy or enteroarthropathies.

Counting days off	Women			Total	
Disease grouping	20 - 29 a	30 - 39 a	40 - 49 a	50 - 59 a	
Infectious arthropathies			1		1
Deforming dorsopathies		2			2
Other dorsopathies	10	28	59	55	152
Other joint disorders	14	20	88	40	162
Other soft tissue disorders		17	45	8	70
Inflammatory polyarthropathies	1		22		23
Synovial and tendon disorders		4	8	1	13
Muscle disorders		3	2		5
Grand total	25	74	225	104	428

Table 1: Removal of women with ICD M by SISAT in the 1st half of 2023 Source: data collected from SISAT by the author.

Counting days off	Men		Total			
Disease grouping	20 - 29 a	30 - 39 a	40 - 49 a	50 - 59 a	>60 a	
Infectious arthropathies		4				4
Arthrosis	2	11	28	5		46
Chondropathies		5	3			8
Deforming dorsopathies			3	3		6
Spondyloarthropathies		8		2		10
Systemic lupus erythematosus					3	3
Other dorsopathies	64	450	541	128	14	1.197
Other joint disorders	39	203	241	80	15	578
Other soft tissue disorders	3	42	76	33		154
Polyarteritis nodosa and related conditions				2		2
Inflammatory polyarthropathies		14	9			23
Bone density and structure disorders			10			10
Synovial and tendon disorders		41	30	12		83
Muscle disorders		12	22	2		36
Grand total	108	790	963	267	32	2.160

Table 2: Exclusion of men with CID M by SISAT in the 1st half of 2023

Source: data collected from SISAT by the author.

4. During the last 4 weeks, have you had any of the following problems in your work or daily activities as a result of your physical health?					
How long in the last four weeks?	Always	Most of the time	Some time	Little time	Never
a. The person has decreased the time spent working or other activities	1	2	3	4	5
b. Did the person do less than they wanted to?	1	2	3	4	5
c. The person felt limited in the type of work or other activities		2	3	4	5
d. The person had difficulty doing your job or other activities (e.g., it took more effort)	1	2	3	4	5

Table 3: SF Question 4 - 36

Source: data collected by the author.

5. During the past 4 weeks, have you had any of the following problems with your work or daily activities because of
any emotional problems (such as feeling depressed or anxious)?

How long in the last four weeks?		Most of the time	Some time	Little time	Never
a. It was decreased time spent working or other activities	1	2	3	4	5
b. Did the person do less than they wanted to?		2	3	4	5
c. The person performed his work or other activities less carefully than usual		2	3	4	5

Table 4: SF Question 5 - 36

Source: data collected by the author.

8. During the past 4 we	eks, how has pain i	interfered with your norm housework)?	nal work (both work	outside the home and
Absolutely nothing	A little	Moderately	A lot	Immense
1	2	3	4	5

Table 5: SF Question 8 - 36

Source: data collected by the author.

It is worth noting that in military police service, police officers may spend a lot of time sitting in their patrol car, many do not correct their posture, are required to wear a vest, a belt, carry weapons, especially when fighting or chasing criminals, and remain standing for a long time or walking on steep terrain. All of these conditions are potential causes of pain that, if not treated in a timely manner, can become chronic, and are therefore strong reasons for absenteeism. It is no wonder that, among men, back problems were the main causes of absence from work.

The most frequently found causes of illness were joint pain, lower back pain and neck pain, once again, lower back and joint pain coincide with data from the literature as the most frequent causes of chronic pain. The possibility of applying questionnaires, whether the SF-36 or others available in the literature, such as the FIQR, repeatedly as consultations are carried out, facilitates the observation of each clinical condition, its progress or stagnation, that is, a way of measuring the results of how patients are progressing in their treatments. If the conduct is assertive, the results will be more promising. With these results in hand, it will also be possible to note at what point

it is limiting the patient the most and make the necessary adjustments to achieve more appropriate responses, trying to reconcile work with the pertinent chronic condition.

Therefore, the use of PROs in the context of chronic pain can be useful in several ways, whether in diagnosis, in monitoring symptoms and therapeutic response, in phenotyping/characterization or for scientific research. PRO measures for physical functioning will be described below, which assist both in diagnosis and in monitoring that includes functionality and quality of life.

Measures of functioning/physical activity related to pain: Pain Disability Questionnaire (ANAGNOSTIS et al., 2004); Chronic Pain Self-Efficacy Scale (ANDERSON et al., 1995); Pain Disability Index (POLLARD, 1984); Daily Activities Diary for Patients with Chronic Pain (FOLLICK et al., 1984).

General measures of physical performance: SF-36 (WARE et al., 1992); Motor Fitness Scale (KINUGASA; NAGASAKI, 1988); Physical Activity Questionnaire (LIU et al., 2001); Work Limitation Questionnaire (LERNER et al., 2001).

Disease-specific measures of physical/ functional activity: Fibromyalgia Impact Questionnaire (BURCKHARDT 1991); Health Assessment Questionnaire (FRIES et al., 1992); DAS 28 [(disease activity score), (PREVOO et al, 1995)] and SDAI [(simple disease activity index), (SMOLEN et al, 2003)]. Short Form Musculoskeletal Function Assessment **Questionnaire** (SWIONTKOWSKI et al., 1999); Modified Health Assessment Questionnaire (MHAQ) (PINCUS et al., 2005); Musculoskeletal Functional Limitation Index (KATZ et al., 2009).

Mobility or activity measures: 6-Minute Walk Test (BALKE, 1963).

General measures of physical functioning: stair climbing test (CIBULKA et al., 2009); chair rise test (BOHANNON, 2006); one-legged hop (LOGERSTEDT et al., 2012); standing stork (PATRICK et al., 2011).

### FINAL CONSIDERATIONS

A considerable number of absences and visits for reasons that can cause chronic pain were observed in the population of patients treated at the PMBA DS.

By correlating the PROs with the chronic pain situation of military police officers, civil servants and dependents, in the various health conditions affected, it will be possible to offer better follow-up to patients, paying attention to the necessary corrections, adjustments and adaptations that are appropriate for each case, aborting or, at least, minimizing the pain, while providing an improvement in performance and general well-being, for the benefit of quality of life.

It is recommended that some of these measures be used in the clinical practice of specialists who deal with chronic pain at the HPM to obtain better results when monitoring their patients, consequently improving their quality of life and improving their performance at work.

### LIST OF ACRONYMS

AR	Rheumatoid arthritis
CAMB	Basic Medical Care Center
CEGESP	Specialization Course in Strategic Security Management
CJMES	State Military Health Boards Center
CID	International Classification of Diseases
CRP	Rehabilitation and Psychology Center
DS	Department of Health
FDA	Food and Drug Administration
FIQR	Revised Fibromyalgia Impact /questionnaire
HPM	Military Police Hospital
IASP	International Association for the Study of Pain
MHAQ	Modified Health Assessment Questionnaire
OE	Strategic Objective
PMBA	Military Police of the State of Bahia
PRO	Patient-Reported Outcomes
SF-36	Short Form Health Survey
SISAT	Medical Certificate System
WPAI-GH	Work Productivity and Activity Impairment

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